Technical Legality: Law, Technology and Science Fiction

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Abstract

This thesis concerns the intersections of law and technology, referred to here as ‘technical legality’. It argues that reflection on technical legality reveals the mythic of modernity. The starting point for the argument is that the orthodox framing of technology by law – the ‘law and technology enterprise’ – does not comprehend its own speculative jurisdiction – that is, it fails to realise its oracle orientation towards imagining the future. In this science fiction as the modern West’s mythform, as the repository for projections of technological futures, is recognised as both the law and technology enterprise’s wellspring and cipher.

What is offered in this thesis is a more thorough exploration of technical legality through taking science fiction seriously. This seriousness results in two implications for the understanding of technical legality. The first implication is that the anxieties and fantasies that animate the calling forth of law by technology become clearer. Science fiction operates as a window into the cultural milieu that frames law-making moments. In locating law-making events – specifically the making of the *Prohibition of Human Cloning Act 2002* (Cth) and the *Motor Car Act 1909* (Vic) – with the clone ‘canon’ in science fiction (specifically *Star Trek: Nemesis* (2002)) and H.G. Wells’ scientific romances, what is offered is a much richer understanding of how the cultural framing of technology becomes law than that provided by the ‘pragmatic’ positivism of the law and technology enterprise.

The second implication arises from the excess that appears at the margins of the richer analyses. Exploring technical legality through science fiction does not remain within the epistemological frame. Each of the analyses gestures towards something essential about technical legality. The law and technology enterprise is grounded on the modern myth, which is also the myth of modernity –
Frankenstein. It tells a story of monstrous technology, vulnerable humanity and saving law. The analyses of the Prohibition of Human Cloning Act 2002 (Cth) and the Motor Car Act 1909 (Vic) show that this narrative is terrorised, that the saving law turns out to be the monster in disguise; that the law called forth by technology is in itself technological. In extended readings of two critically acclaimed science fictions, Frank Herbert’s Dune cycle (1965–83) and the recent television series Battlestar Galactica (2003–10), the essential commitments of technological law are exposed. Dune as technical legality makes clear that technological law is truly monstrous, for behind its positivism and sovereignty its essence is with the alchemy of death and time. Battlestar Galactica as technical legality reduces further the alchemical properties of technical law. Battlestar Galactica moves the metaphysical highlight to the essence of technology and very nearly ends with Heidegger’s demise of Being in ‘Enframing’: monstrous technology and monstrous law reveal a humanity that cannot be saved. However, at the very moment of this fall, Battlestar Galactica collapses the metaphysical frame, affirming technological Being-in-the-world over empty ordering, life over death.

This free responsibility to becoming that emerges from Battlestar Galactica reunites technical legality with the mythic of modernity. The modern denial of myth, which allowed Frankenstein to narrate technical legality, has been challenged. Free responsibility to becoming means a confidence with myths; it clears the way for the telling of new stories about law and technology.
Declaration of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

__________________________________________________________________________
Kieran Tranter

11 May 2010
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1
Technical Legality

No technology without rules, without signatures, without bureaucracies and stamps. Law itself is no different from the world of technologies: it is the set of the modest technologies of writing, registering, verifying, authenticating that make it possible to line up people and statements. It is a world of flexible technologies coming to the aid of even more flexible technologies of interest in order to allow slightly more solid technologies to harden a bit.

— Bruno Latour, Aramis or The Love of Technology, 1996

1. Technical Legality and the Mythic of Modernity
This thesis argues that technical legality exposes the mythic of modernity. This statement requires elaboration of ‘technical legality’ and ‘mythic of modernity’. ‘Technical legality’ is a purposely minted neologism to cover the interface of law and technology. Law and technology interface constantly and at multiple sites, from the obvious of the law confronting an emergent technology in the legislative moment, to lawyers excessively worrying and writing about law in technological futures, to the less obvious of the lawyer’s daily task of operating within an environment of ‘flexible technologies’ of communication and information, to the dark secret whispered by contemporary jurisprudence that law’s modern essence is technology. However, the totality of these

2 See, for example, Bennett Moses (2007).
3 See, for example, Beebe (1999).
4 See, for example, Vismann (2008).
5 See, for example, Wolcher (2004).
interfaces has been under-appreciated by law. The occupying paradigm of ‘law and technology’ has been the legislative moment encased by a voluminous secondary literature ‘practically’ speculating on law ‘catching up’ with technology. Technical legality is used in this thesis to signify the totality of the law technology interface in distinction to the limited vista and, as will be seen, limited disciplinary frame of ‘law and technology.’

‘Mythic of modernity’ seems more problematic. Myth suggests the primitive and the irrational. For Bronislaw Malinowski:

Myth is not a savage speculation about the origins of things born out of a philosophic interest. Neither is it the result of the contemplation of nature – a sort of symbolical representation of its laws. It is the historical statement of one of those events which once and for all vouch for the truth of a certain form of magic.7

Stated as such, talk of the mythic of modernity appears a contradiction. Modernity, the triumphant of reason, has been defined as the negation of myths.8 Bruno Latour emphasised that to talk of modernity is to postulate a ‘rupture’ in time and a staging of a ‘contest’ between the ‘Ancients’ and the ‘Moderns’, where the myth-bound Ancients are vanquished to history by the rational Moderns.9 The claim that technical legality exposes the mythic of modernity seems particularly outlandish given that the narrative of rupture between myth and reason is specifically re-enacted in the established articulations of both technology and law as modern phenomena.

6 Drahos (1985).
7 Malinowski (1954), pp 83–84; see also Watts (1954), pp 6–17.
Technology, the orthodox story goes, occupies the pinnacle of modernity. Technology is considered the material manifestation of science, of reason applied both to itself and to a de-mythised ‘nature’. Technology is human knowing and making in a world stripped of meaning and reduced to facts and resources.\(^\text{10}\) This denial of the mythic can be glimpsed in Martin Heidegger in ‘The Question of Technology’ (1953). While famously declaring ‘the essence of modern technology … is nothing technological’, he located technology as the occupation of Being by way of ordering beings as ‘standing-reserve’.\(^\text{11}\) Technology, in this reading, is the ultimate anti-myth. It represents human reason actively making the world into something else, unconstrained by the past, or by gods or tradition.

Modern law, Max Weber lectured, was to be considered the endpoint of a process of increased rationalisation in the practical and normative regulation of human conduct. Weber’s four epochs of legality saw myth and irrationality, violence and charisma gradually giving way to positivism, codification and abstract authority.\(^\text{12}\) In parallel with the orthodox account of technology, Weber’s foundational account of modern law involved a rupture from a myth-drenched past.\(^\text{13}\)

This narrative of the rupture of modernity from myth, embodied by technology and modern law, has been challenged. In ‘Magic, Science and Religion’ (1954), Malinowski began the critical project of seeing through science’s myth-less rationalism by conceiving science as having a social function that involves the mythic work of

\(^{10}\) Feenberg (2002), pp 6–7.  
^{12}\) Weber (1968), p 848.  
^{13}\) Murphy (1991), p 198.
describing and confronting the unknown with a yearning for security and control.\textsuperscript{14} For Peter Fitzpatrick, the line that modern law has no myth is itself myth.\textsuperscript{15} In \textit{The Mythology of Modern Law} (1992), he argues that modern law has its origins and consolidation in myth – specifically Western myths involving progress, nature and race.\textsuperscript{16} Through this critical reimagining, modernity has been conceived not so much as the absence of myth, but as a meta-myth that the moderns have no myth. If modernity was meant to be the break from myth, then Latour’s reply was ‘we have never been modern’.\textsuperscript{17}

The phrase ‘modernity has no myths’ is the label that adorns the trapdoor on the modern stage behind which the mythic apparatus of modernity can be glimpsed. However, venturing through this portal – down the rabbit hole – is dangerous. Latour’s argument was that the ‘Modern Constitution’ had been constructed through erasure – denial of the complexities that did not fit modernity’s neat categories.\textsuperscript{18} To open the trapdoor of modernity’s myths means meeting these erased complexities and coming face to face with modernity’s illicit offspring; literally, the warning accompanying the label ‘modernity has no myths’ is ‘here be monsters’.\textsuperscript{19}

The pre-eminent monster of modernity, the original monster whose shadow engulfs the braying crowd, is well known. Indeed, its name is eponymous – monster, precisely \textit{the} monster – first given form by Mary Shelley in \textit{Frankenstein: Or the Modern Prometheus} (1818).\textsuperscript{20} The formal elements of \textit{Frankenstein} are well known: scientist

\begin{flushleft}
\textsuperscript{14} Malinowski (1954), p 86; Sobchack (1997), p 63.  
\textsuperscript{15} Fitzpatrick (1992), pp 1–2.  
\textsuperscript{16} Fitzpatrick (1992), pp 44–145.  
\textsuperscript{17} Latour (1993), p 46.  
\textsuperscript{19} Latour (1993), p 47.  
\textsuperscript{20} Shelley (1965).
\end{flushleft}
creates monster and immediately rejects monster, \(^{21}\) monster learns about humanity and its own monstrousness, \(^{22}\) monster becomes pathological, \(^{23}\) climaxing with monster destroying scientist. \(^{24}\) This familiarity has allowed critics to argue that *Frankenstein* is mythic rather than textual, \(^{25}\) suggesting that reception of this modern novel erases the supposed rupture between the oral and the written, myth and modernity. Compounding this is what has been called the ‘Frankenstein archive’. \(^{26}\) The 1818 text has formed the fountainhead for an immense catalogue of popular cultural material that has invoked, recycled, parodied and extrapolated from Shelley’s text. \(^{27}\) It is also this archive that has allowed *Frankenstein* to be regarded as a myth, manifesting differently in different articulations, yet still possessing a stable symbolic content. \(^{28}\)

However, *Frankenstein* is not just a problematic modern myth; it is the myth of modernity. \(^{29}\) It is common ground among literary, cultural and technologies studies that the ‘Frankenstein myth’ enacts the quintessential modern relationship of humans and technology. \(^{30}\) In this common reading, *Frankenstein* provides what amounts to a series of interlinked characterisations and associations concerning scientists, technology and society. Victor Frankenstein, the protagonist, becomes the epitome of the rational scientist too preoccupied with his techniques to consider the wider context of his

\(^{21}\) Shelley (1965), pp 56–58.
\(^{22}\) Shelley (1965), pp 98–129.
\(^{23}\) Shelley (1965), pp 136–190
\(^{24}\) Shelley (1965), pp 205–211.
\(^{26}\) See generally Glut (1984) compiling a variety of works derived from the story of Frankenstein, including novels, translations, adaptations, series, stage plays, films, and musical recordings.
\(^{27}\) Forry (1990); Glut (2002); Picart (2003).
\(^{28}\) Ong (1982), p 12.
\(^{29}\) Baldick (1987), p 5.
creating. As a metaphor for technology, the monster is ambiguous. It has the potential for good: rescuing a child, not stealing from the De Lacey’s meagre stores, appreciating classical literature and history such as Goethe, Plutarch and Milton. It also has the potential for evil: murdering Frankenstein’s young brother William, framing Justine for that murder, and murdering Henry Clerval as well as Frankenstein’s bride Elizabeth. The monster is a thing to be both pitied and feared, and in most commentaries Victor, with his acontextual rationalism, bourgeois irresponsibility and petty revulsion, is revealed as the true monster. The monster’s ‘thing-ness’, its status as external to humanity, is repeatedly emphasised through its exclusion from human society and its desire for a mate of its own kind. In this, the monster animates an amoral and non-human conceptualisation of technology. *Frankenstein* also shows the vulnerability of human society to the revolutionary, and often bloody, product of science. The scientist concocts in his private rooms, while society remains passive and impotent against the depravity of his monstrous creation.

*Frankenstein* is therefore a modern myth, not just because of its cultural archive, but for its articulation of anxieties about technology – indeed, it is the myth of modernity. It speaks to modernity’s doubts, the ghosts and fears that haunt reason’s making of the

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31 Winner (1977), p 313.
33 Shelley (1965), p 134.
34 Shelley (1965), p 106.
37 Shelley (1965), p 136.
38 Shelley (1965), p 137.
40 Shelley (1965), p 186.
41 For example see Milner’s description of Frankenstein’s ‘bad faith’ in reneging on his promise to build a companion for his creation. Milner (1996), p 155.
42 Shelley (1965), pp 128–131 (rejected by the De Lacey’s), p 135 (shot by the father of the child the monster rescued).
43 Shelley (1965), p 137.
world.44 To return to technical legality, *Frankenstein* appears to inhabit the ‘technical’ but not the ‘legality’. Absent from Shelley’s text is any institutional counterforce; there are no Inquisition, Royal Society or ethics committees to control the scientist and creation. As William P. MacNeil has acknowledged, there is law work occurring throughout the text. There is excessive talk of crime and murders and guilt,45 and some obvious institutional legal moments; the trial of Justine for the murder of the child William, Frankenstein’s subjection to Irish legal process47 and Frankenstein’s ‘confession’ to the Genevan magistrate.48 However, Shelley presents an impotent law: Justine’s trial is a farce, Ireland frees Frankenstein without asking harder questions and the Genevan magistrate reluctantly agrees to hunt the monster with the caveat that it will be ‘impracticable’.49 Faced with the monster’s campaign of terror, law does not respond, and the monster and creator are left to chase on the northern ice, alone.50 However, through negation law becomes included. Shelley’s core elements – irresponsible scientist, ambiguous monster and vulnerable society – call out for a hero to thwart Frankenstein and control the monster in society’s name. A continuing feature of the Frankenstein archive has been the provision of this heroic supplement through policeman, ‘good’ scientists, monster hunters, super heroes and/or enraged townsfolk.51 In this, the Frankenstein myth provides the basic representations of technology, scientists and society

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46 Shelley (1965), pp 78–85.
49 Shelley (1965), p 190.
50 Huet (1993), pp 143–144.
that ground desire for the heroic supplement on which the routine and frequently heard claim that a saving law must ‘catch up’ with technology has been made.\textsuperscript{52}

So the claim that modernity is beyond myth hides the continuation of myth, and \textit{Frankenstein} – with its popular archive of mythic material concerning reason, technology, law and anxiety – lurks as the primary myth of modernity. As such, \textit{Frankenstein} suggests the treatment of technical legality in this thesis: that technical legality must be considered, and already is considered, within the mythic field nurtured by science fiction.\textsuperscript{53} Having journeyed through modernity and myth to \textit{Frankenstein}, the vista that opens is to state in more detail the thesis’ argument and motifs.

\textbf{Argument and Motifs}

To return to the beginning, this thesis argues that technical legality exposes the mythic of modernity. Like the Saturn IV rocket that launched the Apollo capsule on its journey to the Moon, this argument has three stages.

The first stage – ‘Law of Technology’ (Chapters 2 and 3) – addresses the now of technical legality. It is argued that consideration of the relations between law and technology is occupied by a specific framework, the ‘law and technology enterprise’, which conceptualises technology as problematic, requiring public policy decisions concerning the effects and implications of technology; these decisions are then implemented through positive law. This framework, with its veneer claims to be practical, dominates consideration of the relations between law and technology. However, as critical accounts of modernity and myths suggest, the appearance of the

\textsuperscript{52} One of the clearest critiques of the phrase ‘law must catch-up with technology’ was Drahos (1985). See also Shapiro (1999). Another often cited imagery has been ‘Law marching with medicine but in the rear and limping a little’: Windeyer \textit{J Mount Isa Mines Ltd v Pusey} (1970) 125 CLR 383 at 395 see Cowen (1985); Bennett Moses (2005), p 516.

\textsuperscript{53} The relationship between \textit{Frankenstein} and science fiction as a genre is considered in Chapter 3.
mythic is immediate in this seemingly modern project, for the law and technology enterprise’s basic elements enact the *Frankenstein* myth. Further, the mythic appears not just in the elemental form of the law and technology enterprise, but infuses the very substance of the literature produced. The legal imagining of technological futures of promises and perils – the speculative jurisdiction that calls forth scholarship founded on the law and technology enterprise – has its wellspring in the ‘mythform’ of the modern West: science fiction. This stage concludes with a call to take science fiction seriously within two registers – the epistemological and the ontological – in thinking about technical legality.

The second stage, ‘Law and Technology Cultures’ (Chapters 4 and 5) addresses technical legality through a taking seriously of science fiction’s epistemological register of knowing technological futures. Two studies are presented focusing on Australian law-making in response to emergent technology. The first argues that the *Prohibition of Human Cloning Act 2002* (Cth) only makes sense as a legal intervention nurtured and sustained by science fiction’s clone canon. Through what can be regarded as unexpected silences and excesses, the Commonwealth Parliament legislated against a hysterical vision of the clone. This placing of law-making within a cultural context given form by science fiction is then replicated through looking at the gestation of what became the *Motor Car Act 1909* (Vic). It is argued that the pro-motorist regime established by the Act only makes sense within a culture of ‘progressive modernism’ given form by H.G. Wells’ late nineteenth century ‘scientific romances’. However, a suggestion raised by the making of the clone law and revealed more deeply in consideration of the *Motor Car Act 1909* (Vic) was a return of technology. The spectre of the technical was present
in both the way these Acts were made and their very substance. This return of the monster is the fuse that ignites the third stage.

The third stage, ‘Technologies of Law’ (Chapters 6, 7 and 8), considers technical legality through taking science fiction’s ontological register seriously. Frank Herbert’s Dune cycle (1965–85)\(^{54}\) is read as technical legality to reveal the essential commitments behind the technical production of law in technology’s wake. Through Dune, the innocent plans of the law and technology enterprisers for positive law to ensure the future become revealed as emanating from the alchemy of death and time. This bloody existence of bare life in history becomes both clarified and contested in reading the SciFi Channel’s recent award-winning *Battlestar Galactica* (2003–10)\(^{55}\) as technical legality. *Battlestar Galactica* brings Being to a precipitous fall, exposing the occupation of Being by technology. However, it then collapses the metaphysical frame. In this complicated movement, it bequeaths to technical legality technological Being-in-the-world, union with the monster, as a challenge to the primacy of Frankenstein. The conclusion is not just the revelation of the mythic of modernity, but an embrace of the mythical of technical legality.

At this stage, two motifs recurring through the argument require elaboration. The first is ‘monster’. Shelley’s Frankenstein describes the monster thus:

> How can I describe my emotions at this catastrophe, or how delineate the wretch whom with such infinite pains and care I had endeavoured to form?


His limbs were in proportion, and I had selected his features as beautiful. Beautiful! Great God! His yellow skin scarcely covered the work of muscles and arteries beneath; his hair was of a lustrous black and flowing; his teeth of a pearly whiteness; but these luxuriances only formed a more horrid contrast with his watery eyes, that seemed almost of the same colour as the dun-white sockets in which they were set, his shrivelled complexion and straight black lips.\(^56\)

Shelley’s monster is a parody of a human, something rendered more obvious in the Frankenstein archive with the stock twentieth century image of the monster – established by the actors Boris Karloff and Glen Strange – tall, flat-topped, neck electrodes and cragged face.\(^57\) The monster’s physical appearance, in both Frankenstein and the archive, emphasises its manufactured-ness, facilitating the monster’s primary role in the Frankenstein myth as representing technology as something not human and capable of monstrous actions.

However, the monster as partly anthropomorphised technology opens to an alternative imagining. The monster has been rehabilitated in the work of Donna Haraway and Latour to be not the demonic being of technology, but a celebratory figure of what N. Katherine Hayles has termed the ‘posthuman’.\(^58\) In this alternative literature, the monster becomes the symbol for hybrids that ‘be’ in the contemporary West: the cyborg and the trickster.\(^59\) In this sense, the monster is not the destroyer of a passive society but

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\(^{56}\) Shelley (1965), p 56.
\(^{58}\) Hayles (1999).
\(^{59}\) See Haraway (1985); Penley and Ross (1990), p 9; Latour (1993), p 47.
an agent that creates the world. In merging the monster and trickster, the monster’s 
mythic credentials are confirmed. Joseph Campbell writes:

This ambiguous, curiously fascinating figure of the trickster appears to have 
been the chief mythological character of the palaeolithic world of story. A 
fool, and a cruel lecherous cheat, an epitome of the principle of disorder, he is 
nevertheless the cultural bringer also.60

As trickster, the monster as technology is not the danger to human society of the 
Frankenstein myth, but the creator and innovator of social relations.

Having recourse to Campbell emphasises the second motif, that of the journey or 
quest. In *A Hero with a Thousand Faces* (1949), Campbell attempts to dissect the totality 
of human myth to identify a common structure for ‘hero’ tales.61 His resulting description 
of the monomyth emphasised questing, particularly the necessity for the hero to journey 
beyond the physical realm to the metaphysical, so as to return changed.62 The monomyth 
has particular significance for science fiction studies, with critics like David E. Palumbo 
producing an opus of work elaborating that much science fiction – George Lucas’s *Star 
Wars* franchise (1977–2005)63 being an obvious example64 – has been grounded on the 
monomyth.65 The essential arc of the monomyth of journey to the beyond can also be 
glimpsed within the argument of this thesis. Technical legality is examined as a journey,

60  Campbell (1959), p 273.
61  Campbell (1968).
62  Campbell (1968), p 30.
63  Lucas, *Star Wars: A New Hope* Star Wars (Twentieth Century Fox, 25 May 1977); Kershner, *The 
Empire Strikes Back: Star Wars* (Twentieth Century Fox, 21 May 1980); Marquand, *The Return of 
the Jedi: Star Wars* (Twentieth Century Fox, 25 May 1983); Lucas, *Phantom Menace: Star Wars* 
(Twentieth Century Fox, 19 May 1999); Lucas, *Attack of the Clones: Star Wars* (Twentieth 
Century Fox, 16 May 2002); Lucas, *Revenge of the Sith: Star Wars* (Twentieth Century Fox, 
19 May 2005).
64  Tiffin (1999); Mackay (1999); Lawrence (2006).
beginning with its current occupation by the law and technology enterprise and then moving beyond this comfortable valley to the neighbouring lands of historical cultural analysis to explain and know laws called forth by specific technologies. However, this familiar questing then crosses over from the epistemological to ontological register, from knowing to being, raising the stakes and also the rewards of the quest, which are then returned to inform technical legality. Emphasising the thesis as quest opens the need to summarise the chapters in more detail.

**Chapter Summaries**

Chapter 2, ‘The Law and Technology Enterprise’, argues that technical legality has been occupied by the law and technology enterprise. This means that law talk about technology has been limited. Through a detailed examination of the legal literatures that were responses to three ‘technological events’ – Sputnik (1957), Louise Brown (1978) and virtual-worlds (2004–08) – it is argued that a common narrative frames their legal reception. All three were considered harbingers of problematic technological futures. They were perceived as potentially promising benefits as well as threatening harms, and this future uncertainty required law in the present to ensure benefits and regulate harms. The goal of the law and technology enterprise is positive law doing public policy work. This chapter goes on to argue that grounding the law and technology enterprise, and tying its key components together, is the Frankenstein myth. Its story of problematic technology, future and positive law emanates from the Frankenstein *mise-en-scène* of the threatening monster, vulnerable society and saving law.

Chapter 3, ‘The Speculative Jurisdiction and Mythform’, builds upon the analysis of the three law and technology enterprise literatures from Chapter 2. It is argued that
speculation about technological futures has been driving the governing pretensions of these literatures. Further, it is argued that the origin of this ‘speculative jurisdiction’ is science fiction. The traces of science fiction texts in the three sample literatures are canvassed, opening to a broader argument examining science fiction as Western mythform. It is suggested, through discussion of critical accounts of science fiction, that science fiction as mythform has two registers. The first concerns knowing the externalities of technological future, speculating on future technologies, societies, politics and worlds. This epistemological register is supplemented by a more essential mythic role, an ontological register open to mediation on being in these futures. The conclusion is a suggestion that technical legality should take seriously the law and technology enterprise’s speculative jurisdiction through a more sustained engagement with science fiction as mythform in both the epistemological and ontological registers.

Chapter 4, ‘Clone Hysteria and Star Trek: Nemesis’, takes science fiction seriously as mythform in its epistemological register to examine a recent case study of law-making in response to emerging technology in which the speculative jurisdiction was at one level obvious. It argues that the public account of cloning that began with the announcement of Dolly the Sheep in February 1997 and ending with the Prohibition of Human Cloning Act 2002 (Cth) reveals ‘clone hysteria’ – a monstrous fear of human cloning. The human clone, newspapers, government reports and parliamentarians declared, must be stopped. However, there was no examination of the evils of cloning beyond referencing the ‘clone canon’ in science fiction. Taking this referencing as encouragement, this chapter examines clone hysteria through the last cinema adventure of
the *Star Trek Next Generation* crew, *Star Trek: Nemesis* (2002),\(^{66}\) which can be read as a summary of the clone canon. It is argued that the horrors that the Act prohibited in 2002 were made explicit in the film. In particular, two basic narratives concerning the wrongness of clones are articulated: the clone as double and the clone as artefact. Driving these anxieties is a fundamental concern with essence. What is shown through the reuniting of the *Prohibition of Human Cloning Act 2002* (Cth) and its speculative jurisdiction is a far richer account of technical legality than the nomology offered by the Australian scholarship welded to the law and technology enterprise frame. Further, while the film’s attempt to tell a counter-narrative involving acceptance, difference and life history is only partially successful, the analysis opens to glimpses of another monster: law as technology in the shadows.

Chapter 5, ‘Motor Cars and Progressive Modernism’, continues within science fiction’s epistemological register, but moves the thesis away from the obvious meeting of technology, law and science fiction, and also away from a seemingly monolithic public reaction against a technology. It considers the making of one of the first Australian laws regulating the motor vehicle, the *Motor Car Act 1909* (Vic). At one level, the arrival of motor vehicle on the roads of Victoria during the pioneering period of motoring (1897–1914) was greeted with anxieties about death and ‘ends’ similar to those that framed the public reception of Dolly the Sheep. However, the called for law did not correspond to the public anxieties. Instead of restrictions, the Act established a regulatory scheme of registries, licensing and policing that was pro-motorist. This dislocation between the Act and the popular mood cannot immediately be explained by purely political influences such as the availability of UK templates or lobbying by the Automobile Club of Victoria

(ACV). Instead, H.G. Wells’ ‘scientific romances’ of the late nineteenth century can be identified as the mythform that tied together future and reason in a way that drove the Act. This ‘progressive modernism’ allowed the motor vehicle to be conceived as offering the potential for a better future; however, this was not inevitable. It mandated rational action in the present if this future was to come about – there was legislating for the future. Further, the form of the *Motor Car Act 1909 (Vic)* was also influenced by progressive modernism: in providing a regime for executive regulation, the most modern and rational instruments were deployed to secure the desirable future. This reveals what was suggested in Chapter 4: that the law called forth by technology is modern law – that is, law as technology. A fundamental irony is exposed in the Frankenstein myth: the monster is truly a trickster, for it seems that the saving law returns as the monster.

Chapter 6, ‘Dune as Technical Legality’, presents an extended analysis of Frank Herbert’s *Dune* cycle as technical legality. The register has changed. The epistemological analysis ends in what seemed to be a black hole with all as technology. This begs the question of what it might mean for law as technology, and represents a movement to the ontological register. In this chapter, it is argued that the received secondary literature on *Dune* as involving a triumph of chaos over rationality in public activities – religion, politics and ecology – concluding with the message of self-care and Zen calm in coping with an uncertain universe, sells Herbert’s imagining short. Instead, through reading *Dune* as a story of tyrants and leviathan sandworms, the public re-emerges. *Dune*, it is revealed, is an account of the metaphysics of sovereignty and positive law. It is argued that the themes of the *Dune* secondary literature can be rewoven into a critical elaboration of Hobbes’ ‘mortal God’, which exposes the essential commitments of sovereignty and
its technical law. These commitments are death and time. Located in its origin with the bloody alchemy of modernity, the true monstrousness of the law as technology is revealed – the consumption of bare life in history. This brutal realisation seems to end with Carl Schmitt’s representative sovereign deciding to make the world.

Chapter 7, ‘Battlestar Galactica as Technical Legality’, continues the ontological examination of technical legality through a detailed analysis of \textit{Battlestar Galactica}. Where Chapter 6 interrogated the metaphysics of law as technology, this chapter grapples directly with the ontology of technology. Like Chapter 6, which moved from the public to the personal and back to the public, this chapter opens with the deciding sovereign of Schmitt and moves to the personal. However, \textit{Battlestar Galactica} does not return to the public. The personal turns out to be technical. Unlike \textit{Star Trek: Nemesis}, in \textit{Battlestar Galactica} the distinction between essence and artefact has been completely blurred. Here, \textit{Battlestar Galactica} seemingly performs the ‘end’ of Western metaphysics in the occupation of Being by Enframing. However, in this very defeat lies redemption. \textit{Battlestar Galactica} in its apocalyptic sensibilities gestures elsewhere, indicating that living remains after the end. As technical legality, \textit{Battlestar Galactica}’s lasting message is that technology collapses the received Western metaphysics, but Being continues as technological Being-in-the-world, exposing free responsibility to becoming. This chapter ends with this express preference for Haraway over Heidegger and a call for an essential confidence with myth.

Chapter 8, ‘Sojourn’s Ends’, concludes the thesis. It returns to the triad of monster, modernity and myth that opened this introduction. In reviving the stages of this journey, it will be shown that technological Being-in-the-world not only gifts a direct
engagement with science fiction as mythform for technical legality, but also reveals the
myth of modernity – not the Frankenstein myth, but the persistence of myth. The over-
arching narrative of technical legality confirms the suspicion that modernity was not
about the negation of myth; rather, in removing myth from the sacred, modernity released
myth into the profane. Technical legality exposes the mythic of modernity and opens the
free space of destining for responsibility to becoming.

2. Science Fiction as Law and Culture

Before this argument can begin, two preliminary checks are required. The first is a direct
discussion of where this thesis fits within law. At a simple level, this thesis develops out
of the body of scholarship that has been termed ‘law and literature’. However, what
occurs in this thesis is far removed from the humble literary origins of law and literature.
More precisely, this thesis can be located in the monstrous mutations of law and literature
to law and culture. The second involves locating law in science fiction, and examining
the limited scholarship within law and culture concerned with science fiction.

From Law and Literature to Law and Culture

Law and literature began as a modest project using literature and literary studies to
respond to two lines of inquiry: ‘law in literature’ and ‘law as literature’.67 Law in
literature asked questions about the representation of lawyers within literature. Its scope
was limited, with cautious findings about lawyers in the text, and any claims concerning
wider cultural impact or parallels that could legitimately have been drawn between the
text and the real of lawyering were narrowly made. In this early research, the distinction

67 The phrases ‘law in literature’ and ‘law as literature’ are from Weisberg (1988), p 1. They have
been widely adopted – see, for example, Caudill (2003), p 3.
between fictional law and real law was maintained. The second line of inquiry, law as literature, ran in several directions. Richard A. Posner urged lawyers to read good literature to help with their writing and structuring arguments.68 James Boyd White sketched legal education as a task fruitfully undertaken through literature, and conceived the lawyer as a ‘special sort’ of writer.69 Peter Goodrich opened to the English legal academy the use of literary methods to examine legal texts as literature70 and Ronald Dworkin famously asked jurisprudence to consider judicial decision-making as akin to writing a chain novel.71 The governing motif was analogy. Literature and law were considered parallel tasks concerned with representing, and more specifically writing, and the lawyer and legal theorist could profit from the explicit consideration of law as analogy of literature.

By the late 1980s, two linked innovations entered into the field of law and literature. The first was recognition that popular media, not just novels, contained worthwhile material for legal analysis.72 Films and television shows like NBC’s *L.A. Law* (1986–94)73 came to be seen as offering insights into law and lawyers to supplement the received literary canon. Talk of a sub-field of ‘law and film’ began.74 Further, this extension of the analytical scope to visual media was accompanied by the second innovation: greater confidence regarding the breadth of conclusions that could be made.

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71  Dworkin (1982).
73  See, for example, Rosen (1989); Gillers (1989).
from this material. Analysis of populist and contemporary cultural texts allowed for conclusions about law and lawyers within popular culture. Scholarship began to be liberated from the distinction between fiction and fact that circumscribed the findings of law in literature. This concern with the knowledge, images and conceptions of law belonging to mass popular culture possessed a jurisprudential pedigree. H.L.A. Hart opened the theory of law to concerns with the mechanisms through which a population ‘accepts’ a legal system. Through bringing cultural studies to law and literature, law and film – or law and popular culture – began to find cultural solutions to the ‘sociological’ the ‘law in everyday life’ question that Hart’s positivism prevented him from answering.

From the mid-1990s through to the present, law and literature as law and popular culture expanded. However, much of this expansion remained concerned with the law in literature question of lawyers in various media texts. A development of the law in literature scope was an expansion of seeing not just lawyers and the legal process, but legal content animated within popular culture. What increasingly emerged was a method of reading law within a specific historical and cultural milieu. In this analysis, literature and law became to be regarded as cultural resources for making sense of historical events. For example, Richard Weisberg attempted to make sense of the

75 Dunlop (1991), p 68.
78 On the development of law and culture from the emergence of cultural studies, see Sarat et al (2005), p 3.
81 MacNeil ‘maps’ many of the key scholars during this period. See MacNeil (2007), pp 6–8.
83 For example Christine A. Corcos (1997b) examined Ghostbusters (1984) (Reitman, Ghostbusters, (Columbia Pictures, 1984)) as informing the popular attitudes to environmental regulation.
complicity of the Vichy lawyers with the Holocaust through reading Kafka’s *The Trial* (1935)\(^{84}\) as symptomatic of a European legality capable of rendering the grotesque mundane.\(^{85}\) Kieran Dolin examined the literature and law surrounding the turn of the twentieth century as revealing a tension between the triumphs and growing anxieties within modernity.\(^{86}\) At its best, this analysis organised detailed archival material (correspondences, letters, reports), legal sources (cases, legislation, parliamentary debates) and popular material (newspapers, novels, poems, films, television) to explain, illuminate and ultimately tell a story about the cultural context of complex happenings.\(^{87}\) However, the jurisprudential potential of law and culture remained under-explored. The North American law as literature increasingly circled around important, yet narrow concerns, of literature ennobling a republican ideal that could sustain professional legal life\(^{88}\), while the law and popular culture literature tended to merge with cultural studies. In so doing, law become another artefact through which to understand the cultural world.\(^{89}\) The guiding motifs of this research became understanding, explaining and making sense.\(^{90}\)

A recent – mutant – strain of law and popular culture has been the embrace of the legal of popular culture, without the empirical tendency of the cultural studies-informed law and popular culture, by Australian cultural legal theorist William MacNeil.\(^{91}\) Drawing upon feminist and psychoanalytical incursions into law and literature,\(^{92}\) he has

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\(^{84}\) Kafka (1999).
\(^{86}\) Dolin (1999), pp 43–44.
\(^{88}\) Weisberg (1988), pp 8–18.
\(^{90}\) Reichman (2008), pp 493–494.
\(^{91}\) See Tranter (2007).
\(^{92}\) See Young (1997); Sherwin (2000).
presented a radical series of analyses of populist cultural texts. MacNeil’s revolution has occurred on two fronts. First, his material ranges beyond the court-room crime genre still beloved by law and popular culture to embrace seemingly non-legal texts such as *Harry Potter and the Goblet of Fire* (2000), Joss Weldon’s *Buffy the Vampire Slayer* (1997–2003), *Fight Club* (1999), the *Lord of the Rings* film trilogy (2001, 2002, 2003) and *Minority Report* (2002). Further, unlike the law and popular culture’s residual preference for a single text, MacNeil is concerned with – to draw upon a term from Frankenstein studies – the ‘archive’ surrounding these stories. The books, the films, cultural spin-offs and the secondary literature by fans and critics are woven into his analysis. MacNeil’s second front is a direct reaction to the cultural studies turn in law and popular culture. His governing frame is the theory of law. MacNeil aims to reinvigorate jurisprudence as a discipline through reading popular cultural texts jurisprudentially.

The claim is not just that popular cultural texts present analogies of jurisprudential concepts – for example, authority, justice, rules, rights, subject, sovereign and decision – but that they energise, animate and critique these pure forms.

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In *Lex Populi* (2007), MacNeil presents a blueprint for reading popular culture jurisprudentially. His method involves three layers. The first is to embrace the incredulity of the jurisprudential content of the subject text. For example:

Where is the law in *Fight Club*? ‘Beaten to a pulp’ might be the wry retort of some critical legal wag. For Fincher’s film goes out of its way to stress its *lawlessness*. Certainly the film complies quite a rap sheet of summary and indictable offences worthy of any convicted felon: from jaywalking to grand larceny. However, these criminal transgressions occur within, and issue from a context that is recognizable as *lawful(l)*, meaning law saturated. That context is established in what I take to be the film’s paradigmatic scene … when Tyler Durden … proclaims for the first time to the punch-hungry men assembled there, ‘The first rule of fight club is – you do not talk about fight club.’

Having voiced and replied to the obvious objection, MacNeil moves to the second layer of presenting a reading of the text, drawing from either established secondary literature or an obvious theoretical companion. For example, in *Fight Club* ‘the legal lynchpin of Tyler’s “declaration of fights,”’ his core nomological element is none other than the sine qua non of positivism: namely, *the rule.* This allows MacNeil to consider *Fight Club* in association with Hart’s *Concept of Law* (1961), facilitating a reading of *Fight Club* that animates central precepts of Hartian jurisprudence. However, this animation goes

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beyond analogy. MacNeil shows that in breathing bloody life into Hart’s careful and restrained text, *Fight Club* exposes a critical, and fatal, gap in Hart’s conceptualisations:

[S]ince the usual positivist mark of such validity – physical violence or sanction – has been dissolved by Hart into an inner compulsion to be obeyed… this dissolution has the effect of rendering *all* obligation-imposing rules – morals and otherwise – potentially, law.104

In using a cultural text to animate, and in animating rendering a theory of law, MacNeil suggests that the text presents more. From this intermediate reading, what is then revealed is a third, essential, reading that subsumes the previous two. MacNeil suggests *Fight Club*’s twist that Tyler and Jack are one, that the fight scenes are self-abuse, mirrors Hart’s recognition in the postscript to the second edition of the *Concept of Law* (1994), where he dealt a ‘near-fatal blow’105 to his rule of recognition in acknowledging the link that internal acceptance allows the illicit incursion of morality into his supposed positivist framework.106 *Fight Club* goes further than Hart: it makes the necessary statement of the need for violence to safeguard ‘some inner space free’,107 space where the legal subject can have ‘the mental distance necessary for an inner dissensus, for an internal point of view that is thoroughly reflective and truly critical’.108 MacNeil presents popular culture texts as jurisprudence, as sophisticated contributions to the theory of law that circulate and ‘recall jurisprudence to life’.109

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reading popular culture jurisprudentially is that the reading does not impose jurisprudence, but rather it is excavated, exposed and revealed.\textsuperscript{110}

It can be shown that law and literature have given form to quite different projects. Law \textit{in} literature can be seen to have morphed to law and popular culture, begetterng a style of analysis informed by cultural studies and concerned with law as a cultural text to be used in conjunction with other cultural texts to explain historical moments. Law \textit{as} literature cross-fertilised by law and popular culture has returned to jurisprudence through MacNeil’s work. For convenience, both methods can be located under the label ‘law and culture’. This thesis performs both. The second stage, ‘Law and Technology Cultures’ (Chapters 4 and 5), which addresses technical legality through taking science fiction’s epistemological register of knowing technological futures seriously, draws upon the law and popular culture’s cultural studies-informed method of making sense of a specific historical moment (the making of a law in response to an emergent technology) as a cultural happening. The third stage, ‘Technologies of Law’ (Chapters 6, 7 and 8), which considers technical legality through taking science fiction’s ontological register seriously, draws upon MacNeil’s method of reading jurisprudentially to reveal technical legality’s essential commitments.

Having established the pedigree for the analysis that follows within the mutating of law and literature to law and culture, a final check needs to be undertaken; this relates to the laws of science fiction.

\textsuperscript{110} Reichman (2008), pp 495–496.
The Laws of Science Fiction

There has yet to be a study of the law in science fiction. Indeed, within science fiction law plays a very distant part. Lawyer protagonists are few – as Paul R. Joseph has suggested, ‘Buck Zeal: Space Lawyer’ has yet to grace cable television, the paperback shelves or the multiplexes. The best known of science fiction’s lawyers, ‘Jubal Harshaw LL.B, M.D., Sc.D.’, from Robert A. Heinlein’s Stranger in a Strange Land (1961), is less lawyer and more Heinlein’s ego ideal, allowing his opinions to be writ large in the text. More promising is Frederik Pohl’s and C.M. Kornbluth’s Gladiator-at-Law (1955), which opens with a fabulous scene of mechanised justice – ‘The jury box hummed and twinkled’ – and the persistence of the elitism in legal culture:

He hadn’t inherited one of the great hereditary corporation law practices and he never would. Even grinding through Harvard Law School can’t get you conveniently reborn into the Root, or Lincoln or Dulles, or Choate families. Not for [Charles Mundin, the protagonist] the great reorganizations, receiverships, and debenture issues. Not for [him] the golden showers that fell when you pleaded before human judges and human juries.

After this promising opening, Gladiator-at-Law then settles into a similar dystopian narratives of social decay and corporate excess to Pohl’s and Kornbluth’s more

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111 This is implicit in Bruce L. Rockwood’s introduction to the first (of two) journal symposiums dedicated to law and science fiction, where he writes that such a project has ‘limitless potential.’ Rockwood (1999), p 272.
112 Per Schelde suggests that the two dominate personas in science fiction film are the scientist and the ‘everyman’ – ‘lawyers’ does not make it to the list. See Schedle (1993), pp 27-37.
114 Heinlein (1978), p 75.
celebrated Space Merchants (1952). However, both Heinlein’s Harshaw and Pohl’s and Kornbluth’s Mundin do suggest a baseline representation of the lawyer in science fiction. Both Harshaw and Mundin do little obvious law work – courtroom scenes, counselling clients in offices and drafting documents are rare. Instead, these fictional lawyers are politically savvy realists, organising, working connections and politicking behind the scenes. Lawyers, this casting suggests, are masters of human nature: they know the social, they know people, and they get things done. This representation of lawyer as political operator can be seen in other ‘Golden Age’ North American science fictions. One of Isaac Asimov’s early Robot stories, ‘Evidence’ (1946) features a lawyer-cum-politician. A more contemporary descendent of the lawyer/politician/master of human nature is the kleptomaniac Romo Lampkin (Mark Sheppard), introduced in season three of Battlestar Galactica. Lampkin, who goes on to become President in the season four finale, lies and manipulates, but gets the various legal and political jobs assigned to him done.

One of the reasons for this image of lawyers in science fiction is that it merges with two far more common images of legal actors within the genre. Ever since Asimov

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122 Young, The Son also Rises: Battlestar Galactica (Sci Fi Channel/ NBC Universal, 11 March 2007).
123 Rymer, Daybreak Part II: Battlestar Galactica, (Sci Fi Channel/ NBC Universal, 20 March 2009). Successfully defends Baltar (Rymer, Crossroads Part II: Battlestar Galactica (Sci Fi Channel/NBC Universal, 25 March 2007)); Tasked with finding a emergency replacement President (Hardy, Sine Qua Non: Battlestar Galactica (Sci Fi Channel/ NBC Universal, 27 May 2008)); Appointed to represent Adama by the mutineers (Rose, Blood on the Scales: Battlestar Galactica, (Sci Fi Channel/ NBC Universal, 6 February 2009)).
mixed his robots with the detective novel to create *Caves of Steal* (1953)\(^{125}\) and the *Naked Sun* (1957),\(^{126}\) science fiction has given birth to a range of universe-weary, cynical, flawed but skilled space/robot/time detectives, crystallised in the popular consciousness with Philip K. Dick’s short stories\(^{127}\) and especially Harrison Ford as Dick’s Deckard in Ridley Scott’s *Blade Runner* (1982).\(^{128}\) In this fusion literature, the predominately ‘lawman’ has access across the futuristic social spaces, but especially inner knowledge of the outcasts and the underclasses.\(^{129}\) In these zones, the science fiction detective engages with the other more common legal actor, the outlaw. Science fiction, particularly space opera,\(^{130}\) loves the outlaw. From Asimov’s ‘Foundation’ series, where rogue traders ship technological contraband to regressing planets,\(^{131}\) to Harrison Ford (again) as Han Solo in the *Star Wars* franchise, to Roj Blake (Gareth Thomas) in Terry Nation’s *Blake Seven* (1978–81),\(^{132}\) to Malcolm Reynolds (Nathan Fillion) in Joss Weldon’s *Firefly* (2002),\(^{133}\) there can be glimpsed a repetitive narrative of heroic resistance against an ‘evil empire’. Yet it is interesting that the law against which space opera’s heroes are rendered outlaw has rarely been represented.

This absence of law continues into another legal zone that sometimes appears in science fiction: the courtroom. When disgraced President Gaius Baltar (James Callis) is

\(^{125}\) Asimov (1983).

\(^{126}\) Asimov (1960).


\(^{128}\) Scott, *Blade Runner* (Warner Bros, 16 December 1982).

\(^{129}\) See Desser (1999), pp 92–95.

\(^{130}\) ‘Space Opera’ is defined and discussed in more detail in Chapter 3.

\(^{131}\) Asimov (1995).


\(^{133}\) Firefly had a brief run of thirteen episodes before it was cancelled (Spaning Whedon, *Serenity: Firefly* (Fox, 20 December 2002 2002) to Whedon, *Objects in Space: Firefly* (Fox, 13 December 2002)). The cancellation arose from animosity between Whedon and Fox, part of which stemmed from Fox’s decision not to show the episodes in narrative order. As such, episode 1 was not the first screened, nor episode 13 the last. See DeCandido (2004). See also Whedon’s follow-up film Whedon, *Serenity* ( Universal Pictures, 30 September 2005).
represented by Romo Lampkin in *Battlestar Galactica*, what he is charged with and under what law remain vague. Similarly, in *Star Trek: The Next Generation*, when Data (Brent Spiner) is the subject of a Star Fleet JAG hearing to determine whether he could be disassembled, argument and submissions revolve around ethical conjuncture about souls and the person/property distinction rather than the citing of ‘hard law’. To continue the television emphasis, both times The Doctor from BBC’s *Doctor Who* is brought to account for his actions by his species (before they were killed off in the Time War that separated the ‘classic’ Dr Who from ‘contemporary’ series), the images were of crime and punishment rather than indictments, procedure and alleged transgression of specific provisions. This might not be a fault solely of science fiction’s imagining of court-room drama; as law and literature has discerned, court-room dramas tend to focus on the emotions of witness testimony and the play of advocates in cross-examination, rather than audience alienating pages on precedent, or screen time on procedural argument. This absence of law in science fiction was seemingly enacted upon by Frank Herbert in his little-known ConSenticiency series, which featured the ‘Bureau of Sabotage’ (BuSab), the constitutional function of which was to inhibit the workings of

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139 The ConSenticiency series spanned the 1964 short story in *Galaxy Science Fiction*, ‘The Tactful Saboteur’ (Herbert 1985b, pp 159–190) and the novels *Whipping Star* (Herbert 1970) and *The Dosadi Experiment* (Herbert 1977b).
planetary and galactic government, thus saving ‘sentiency’ from the oppression of hyper-legality.\textsuperscript{140}

Herbert’s BuSab, while presenting a surface, structural hostility to law, betrays a deeper legality that at times can be glimpsed within science fiction. Herbert’s anxiety about hyper-legality mirrors Lon L. Fuller’s mid-twentieth century reaction against rapidly changing law,\textsuperscript{141} and as a consequence of this return of law, Herbert’s chief protagonist ‘\textit{saboteur extraordinary}’ Jorj X. McKie is presented as a lawyer, the only human who has mastered the complex legality of the froglike alien species the Gowachin.\textsuperscript{142} Herbert’s suggestion of jurisprudence has earlier echoes. Yevgeny Zamyatin’s \textit{We} (1921)\textsuperscript{143} has not only been recognised by critics as forging some of the familiar tropes of dystopian science fiction,\textsuperscript{144} but offers a critique of liberal rights.\textsuperscript{145} This talk of law in science fiction leads to the two best-known of science fiction’s laws,

\begin{itemize}
\item \textsuperscript{140} Herbert (1977a), p 6.
\item \textsuperscript{141} Fuller (1969), pp 50–51.
\item \textsuperscript{142} William F. Touponce has suggested that \textit{The Dosadi Experiment} is ‘a satire on legalism’ but suggests it is a failure as he perceives Herbert having to ‘make up’ a new exception in Gowachin law to get McKie out of trouble. Touponce (1988), pp 116–117.
\item \textsuperscript{143} Zamyatin (1972).
\item \textsuperscript{144} ‘Dystopian’ science fiction is defined and discussed in more detail in Chapter 3. On Zamyatin’s influence on George Orwell, see Roberts (2005), p 167.
\item \textsuperscript{145} Zamyatin (1972), pp 101–102: ‘Suffering punishment is my right in relation to the One State and I will not yield that right. We, the numbers of our State, must not give up that right – the only, and therefore the most precious, right that we possess … My thoughts tick quietly, with metallic clarity. An unseen areo carries me off into the blue heights of my beloved abstractions. And there, in the purest, most rarefied air, I see my idea of “right” burst with the snap of a pneumatic tire. And I see clearly that it is merely a throwback to one of the absurd prejudices of the ancients – their notion of “rights” … Well, then, suppose a drop of acid is applied to the idea of “rights.” Even among the ancients, the most mature among them knew that the source of right in might, that right is a function of power. And so, we have the scales: on one side, a gram, on the other a ton; on one side “I,” on the other “We” the One State. Is it not clear, then, that to assume that the “I” can have some “rights” in relation to the State is exactly like assuming that a gram can balance the scale against the ton? Hence, the division: rights to the ton, duties to the gram. And the natural path from nonentity to greatness is to forget that you are a gram and feel yourself instead a millionth of a ton.’
\end{itemize}
Asimov’s ‘Three Laws of Robotics’ and the *Star Trek* franchise’s ‘Prime Directive’. Both appear and disappear within their respective texts. Asimov’s laws are static, hardwired into the ‘positronic brain’, and the action in the short stories and the detective novels comes from the ambiguity of application. Consequently, the profession called forth by Asimov’s ‘roboticus lex’ is not the positronic lawyer, but the robopsychologist, suggesting that the laws are immutable and the only opportunity for professional – indeed clinical – intervention involves understanding the manifestations of pathology to avoid dangerous situational exposure. For Dr Asimov, one-time Assistant Professor in Chemistry at Columbia, the laws of robotics seem more akin to ‘laws of nature’ than ‘law properly called’. The Star Fleet’s Prime Directive has a more substantial jurisprudential aura. There has emerged a small legal literature concerned with law in *Star Trek*, and specifically the contradictory articulations and functions of the Prime Directive throughout the franchise. The Directive emerges from these discussions as a

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148 Asimov (1967), p 1: ‘A robot may not injure a human being or through in-action allow a human being to come to harm. A robot must obey the orders given it by human beings except when such orders would conflict with the First Law. A robot must protect its own existence as long as such protection does not conflict with the First and Second Law.’
150 Asimov (1979), p 641.
152 Joseph and Carton (1992); Scharf and Roberts (1994); Wingfield (2001); Chaires and Chilton (2003); Peltz (2003).
Captain’s fiat, a way of rationalising chosen actions against what manifests as a fairly vague standard of non-interference, ‘unless …’.

This small literature on law in Star Trek turns out to be the largest body of law and culture material on science fiction. There is no sustained monograph, and the only collection of essays is the four paper symposium in Legal Studies Forum from 1999, and a 2007 seven-paper special issue of Law, Culture and the Humanities. Within the literature as it is, the focus is predominately the law in science fiction. Paul Joseph’s and Sharon Carton’s popularly received analysis pieces together the ‘domestic’ Law of the Federation from Star Trek: The Next Generation episodes, while Michael P. Scharf’s and Lawrence D. Robert’s follow-on article concerns the Federation’s ‘international law’. These articles map how law operates within the Star Trek universe, with only modest findings concerning how this reflects back on 1990s United States law and culture. This law in literature focus was repeated by Walter A. Effross who undertook a detailed cataloguing of the image of lawyer to come from the core texts of cyberpunk. There are some contributions that do utilise a science fiction text to draw broader law and popular culture conclusions. In a short book chapter, Joseph, drawing on his earlier mapping project, sketches how a variety of science fictions, particularly the Star Trek franchise, could illuminate substantive issues facing North American law and lawyers. More specifically, Christine Alice Corcos has produced catalogues of science fiction texts concerned with cloning and imprisonment as contributions to the legal debates

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156 Scharf and Roberts (1994).
surrounding human cloning and contemporary surveillance and penal technology.\textsuperscript{159} Kieran Tranter has examined science fiction in the 1940s as providing the cultural background informing the development of international space law.\textsuperscript{160} Juliet Rogers considers \textit{The Matrix} (1999)\textsuperscript{161} and \textit{The Matrix Reloaded}\textsuperscript{162} as exposing the cultural legality behind the Iraqi war.\textsuperscript{163} This law and popular culture engagement with science fiction has official backing. In his foundational account of law and popular culture,\textsuperscript{164} Lawrence Friedman suggests that science fiction’s aliens and alien invasion narratives provide a window into political and legal controversies surrounding both immigration and race.\textsuperscript{165}

Following the republican emphasis in the law as literature scholarship, Anna Lorien Nelson and John S. Nelson examine feminist science fiction, and particularly Ursula Le Guin’s \textit{Left Hand of Darkness} (1969),\textsuperscript{166} to ‘suggest that post-modern institutions have no need to embrace the modern pathos of bureaucracy’.\textsuperscript{167} The two papers that expressly engage with Asimov’s laws of robotics take the analysis in a further jurisprudential direction. Both Timothy D. Peters and Sage Leslie-McCarthy consider Asimov’s robot stories within a jurisprudential frame, rather than a substantive popular culture one.\textsuperscript{168} This reading science fiction jurisprudentially appears to be an Australian

\begin{itemize}
\item \textsuperscript{159} Corcos et al (1999, 1997a).
\item \textsuperscript{160} Tranter (2002).
\item \textsuperscript{161} Wachowski and Wachowski, \textit{The Matrix} (Warner Bros, 31 March 1999).
\item \textsuperscript{162} Wachowski and Wachowski, \textit{The Matrix Reloaded} (Warner Bros, 31 March 2003).
\item \textsuperscript{163} Rogers (2007).
\item \textsuperscript{164} See Carrillo (2007), p 11.
\item \textsuperscript{165} Friedmann (1989), pp 1590–1591.
\item \textsuperscript{166} Le Guin (1973).
\item \textsuperscript{168} Peters (2008); Leslie-McCarthy (2007).
\end{itemize}
phenomenon directly facilitated by MacNeil.\textsuperscript{169} As a consequence, a small group of Australia-based scholars have published research that has read specific science fiction texts jurisprudentially: Kristy Duncanson exposes the continuing legal order of \textit{The Matrix},\textsuperscript{170} Mark Rosenthal examines the images of violence in Paul Verhoeven’s \textit{Starship Troopers} (1997)\textsuperscript{171} and Peter J. Hutchings considers the fate of the legal subject post 9/11 through revisiting \textit{Blade Runner}.\textsuperscript{172}

This survey has revealed a very limited engagement with science fiction by law and culture. Arguably, the lack of law and lawyers has placed science fiction outside the purview of law and culture scholars. Also, possibly the mass, juvenile and down-market status of much science fiction\textsuperscript{173} has excluded it from serious engagement by legal scholars. Law and literature/law and culture has long expressed insecurity about its place in the legal academy,\textsuperscript{174} and turning analysis to science fiction could be seen as an exercise in double marginalisation. However, while not much science fiction has appeared in law and culture, that does not mean science fiction is absent from legal scholarship. Indeed, the opposite is true. Legal discourse has, and does, engage with science fiction texts, images, narratives and tropes. The catalyst that facilitates this engagement has been technology. For example, in 1976, Laurence H. Tribe – one of the founders of thinking about law and technology as a general category\textsuperscript{175} – considered the future of law and technology with a focus on technologically mediated lives of ‘Clones,

\textsuperscript{169} MacNeil was the primary editor of the 2007 special issue ‘Galactic Jurisprudence’ in \textit{Law, Culture and the Humanities}. Peters and Leslie-McCarthy were mentored by MacNeil.
\textsuperscript{170} Duncanson (2001).
\textsuperscript{171} Verhoeven, \textit{Starship Troopers} (TriStar Pictures, 7 November 1997); Rosenthal (2001).
\textsuperscript{172} Hutchings (2007).
\textsuperscript{173} Broderick (1995), pp 8–11.
\textsuperscript{174} Sarat et al (2005), p 4. See Anthony Chase, who places this concern within post-war contempt for commoditised mass culture by the intellectual left: Chase (1986), pp 539–540.
\textsuperscript{175} See Chapter 2 on Tribe’s impact of law and technology.
Cyborgs and Chimeras.176 Another, more recent, example is Susan W. Brennen’s science fiction-derived vision of future humanity of intimate association of humans and communication technologies, of virtual work and sentient non-biological entities in her opening to Law in an Era of ‘Smart’ Technology (2007).177 This discovery of science fiction in legal discourse, beyond law and culture, means the preliminary checks have been completed, and almost without notice this thesis’s journey has begun. Not with a shuddering roar but, like many quests, with a gentle step. Recourse to Tribe and Brennen, to law and technology, suggests it is time to introduce the occupation of technical legality by the law and technology enterprise.

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Stage I: The Law of Technology
2

The Law and Technology Enterprise

The dazzling advances of scientists and technologists seem to have gone beyond the comprehension of ordinary people … Scientific and technological discoveries tumble out of the minds of these modern wizards. Slow-moving legal institutions find it hard to catch up. Occasionally the law is called on to provide a response. Instruments such as the Australian Law Reform Commission are sometimes called into activity to help parliament cope with the pressures of change. These are not issues confined to scientists and the medical profession. They present the problems of adapting democratic institutions developed in the age of the longbow and the horse-drawn cart to the world of interplanetary flight, computations and bio-technology.


This chapter argues that technical legality has been occupied by the ‘law and technology enterprise’. This argument is presented in three sections. The first section establishes that lawyers, mirroring popular culture in the West, have increasingly become concerned with technology, and that this concern can be seen in a growth of scholarship and more avenues for disseminating scholarship on law and technology. The second section argues that this scholarship is structured by ‘the law and technology enterprise’, a set of

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1 Kirby (1983b), pp 236–237.
foundational commitments concerning technology, law and future. This is established through a detailed examination of the legal literatures that have emerged in response to satellites, in vitro fertilisation (IVF) and ‘virtual-worlds’ over the last 50 years. It will be shown that these literatures share a common structure, the elements of which are: a problematic technology representing the future; existing law considered inadequate; the need for new law; and the lawyers’ task being to describe, analogise and apply policy. The third section argues that the law and technology enterprise occupies technical legality.

1. Lawyers on Technology

Lawyers, it seems, have a long history of writing about law and technologies. Reflecting the attitudes that David Nye identified as informing the industrialisation of the United States from 1850 to 1900, the inaugural issue of the *Yale Law Journal* (1891–92) contained an article by Harry G. Day that congratulated United States courts for getting it right by not awarding damages to property owners whose street outlook has been changed by the construction of electric tramways. Day’s lodestar was ‘progress’:

> Rapid transit in particular is as indispensable to their [American cities’] progress as light, sewerage and water, and a system which is clean, quiet, cheap, easily controlled and occupying as little space as possible is universally demanded.

The appearance of motor vehicles inspired Xenophon P. Huddy – also in the *Yale Law Journal* – to examine automobiles and the existing road rules in 1905. He concluded that,

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2 See Nye (1997).
3 Day (1892).
4 Day (1892), p 267.
‘the automobile [is] one of the least dangerous of conveyances if properly driven’, and maintained it not require specific restrictive regulation.\(^5\) The nascent aviation industry prior to 1918 generated legal scholarship concerned with the sovereignty of airspace,\(^6\) liability arising from aeroplanes\(^7\) and the aeronautical laws of war.\(^8\) Similarly, the commercialisation of radio in the 1920s called into being legal writing on radio and the law of war,\(^9\) ownership of radio waves\(^10\) and broadcasting regulation.\(^11\)

These discrete literatures provide evidence for a historical claim that lawyers have identified and written about the legal challenge of emerging technologies. These were isolated incidents. The law reviews were not inundated with lawyers writing about technology. However, Barton Beebe has observed that contemporary lawyers seem to write excessively about technology.\(^12\) The table in Appendix 1 shows there are at least 92 specialist law journals dedicated to law and technology (JOLTs, or Journals of Law and Technology) and also journals focused on the law of specific technologies (JOLSTs).\(^13\)

The existence of these journals discloses an active research community publishing on technical legality. Furthermore, many general law journals print articles on technical legality. For example, a brief survey of the contents of leading law reviews in the United States, United Kingdom and Australia discloses lawyers writing about technology.

Volume 121 of the *Harvard Law Review* (2007–08) includes a note concerning

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5. Huddy (1905), p 86. Huddy’s argument echoed the contemporaneous arguments of the Automobile Club of Victoria which are set out in Chapter 5.
6. Baldwin (1910a); Kuhn (1910); Sperl (1911); Valentine (1912); Myers (1912); Leech (1912); Blewett (1913).
7. Baldwin (1910b); *Aviation and the Law* (1918).
10. Zollmann (1926); Rowley (1927); Taugher (1928).
11. Davis (1927).
13. I would like to take credit for the acronym JOLT but cannot. It seems to be emerging as common parlance within the United States student-run law and technology journals. See [http://jolt.law.harvard.edu](http://jolt.law.harvard.edu), accessed 26 November 2008.

It is possible to argue that the incidence of legal scholarship on technology is increasing. Table 1 shows that, of the total of 92 JOLTs and JOLSTs, 51 (55%) were established after 1994 and, of a total of 40 JOLTs, 32 (80%) were established after 1994, providing greater opportunities for lawyers to publish on technology. Tempering this argument is the fact that law reviews have proliferated over the last twenty years, with the entry into the legal publishing market of new law schools publishing journals as a way of establishing and developing research credibility, and the reduction of production costs allowing the publishing of more focused, specialised journals. It seems that concerns in the late 1990s with the decline of the law review as a forum for the dissemination of legal research in the digital age have been misplaced. While this general expansion of law reviews could explain the increase of JOLTs and JOLSTs, it does not explain why the

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14 Regulating Eugenics (2008)
17 De Schutter and Ringelheim (2008).
topic of law and technology (as opposed to self-reflective scholarship on legal scholarship, for example)\textsuperscript{21} has specifically been an area of expansion. A parallel explanation could be found in the ‘corporatist’\textsuperscript{22} turn within law schools, which now put increased pressure on legal academics to publish.\textsuperscript{23} However, because the simple fact that there are more legal academics doing more writing with more opportunity to publish does not explain why legal writing on technology has increased.

Lawyers are writing more about technology because ‘technology’ has become a site of conscious popular concern in the West. The field of technology studies (itself a product of this concern)\textsuperscript{24} has identified that ‘technology’ entered public discourse in the Anglo-American West during the 1950s surrounded by a complex of narratives relating to progress and also destruction.\textsuperscript{25} Three elements of this public reckoning with technology can be identified. The first is that ‘technology’ emerged as a term and category for the material manifestation of applied scientific knowledge.\textsuperscript{26} Technology was in the world as a concept that was tied to material objects, but also encompassed the human networks that surrounded and gave life to the thing.\textsuperscript{27} Second, technology was problematic.\textsuperscript{28} It was viewed as good as the celebration of material prosperity of an

\begin{itemize}
\item \textsuperscript{21} That is not to say that there has been no scholarship on this topic in Australia. See Ramsay and Stapledon (1997); Smyth (1999b, 1999a, 2002); Stone (2002); Kirby (2002).
\item \textsuperscript{22} Thornton (2004), pp 18–19; James (2004), p 592.
\item \textsuperscript{23} Gava (1999), p 599; Gava (2002), pp 572–574.
\item \textsuperscript{24} Feenberg (1999), p 6.
\item \textsuperscript{25} At one level, the Anglo-American West was catching up with the philosophical and political assessment of technology that characterised Weimar thought. This Germanic origin for technological anxiety in the philosophical and political realms is explored in more detail in Chapter 6 when considering Carl Schmitt’s critique of Thomas Hobbes and then is the central focus of Chapter 7 in the consideration of Martin Heidegger’s ontology of technology. On the Weimar impact on technology studies, see Feenberg (2005).
\item \textsuperscript{26} Leo Marx argues that ‘technology’ in its contemporary sense only began to enter United States public discourse after 1918. He warns scholars of attempting to reify ‘technology’ and push it back in history. Marx (1997), pp 967, 981–984.
\item \textsuperscript{27} Mazur (2004), pp 10–21.
\item \textsuperscript{28} Winner (1997).
\end{itemize}
emerging suburbia of domestic appliances;\textsuperscript{29} however, it was also bad in terms of the fallout blowing from Hiroshima and Nagasaki,\textsuperscript{30} which eventually registered in the popular cultural souring of technology, beginning with the counterculture of the late 1960s.\textsuperscript{31} The third was change. The general category of technology was needed as the machines were, to borrow from Bob Dylan, ‘a-changin’\textsuperscript{32} – seemingly evolving independently of human agency.\textsuperscript{33} These features framed the emerging public discussion about technology: technology was newsworthy and any announcement of a new technology – a breakthrough, a crisis event – would see the generation of public discussion, in the form of media reports, opinion pieces, feature articles, statements by political and cultural leaders, new journals, television documentaries and films, grounded on these three features.\textsuperscript{34} Lewis Mumford, one of the founders of technology studies articulated the genesis of this concern:

\begin{quote}
… ungoverned creativity in science and invention has reinforced unconscious demonic drives that have placed our whole civilisation in a state of perilous unbalance: all the more because we have cast away at this critical moment, as an affront to our rationality, man’s earliest forms of moral discipline and self-control.\textsuperscript{35}
\end{quote}

In Chapter 1, this narrative complex of modernity and myth, demons and peril was located in the Frankenstein myth: this modern and rational world that claimed to have moved beyond tradition and myth had paradoxically unleashed demons. Further, in

\textsuperscript{29} Henthorn (1997); Rothschild (1983); Bose et al (1984).
\textsuperscript{31} Roszak (1968), Mazur (1981), p 99.
\textsuperscript{32} Dylan, ‘The Times They Are a-Changin’, \textit{The Times They Are a-Changin’} (Columbia, 13 January 1964).
\textsuperscript{33} Rieger (2003).
\textsuperscript{34} Hilgartner (1990); Horning (1992); Horning Priest (1994, 1993); Conrad (1997).
\textsuperscript{35} Mumford (1966), p 57–58.
Mumford the Frankenstein archive’s supplement is directly stated. This monstrous threat required willed order and control. This is exactly Francis Fukuyama’s much more recent argument. For Fukuyama, the possible monsters that might be spawned by biotechnology in ‘our posthuman future’ demand law to prohibit and regulate them, to ensure that such demons remain fictions.\textsuperscript{36} It was here in this need to leash the demon and save civilisation that lawyers found a role.

2. Fifty Years of the Law and Technology Enterprise

In the following, I argue that the law and technology enterprise parallels this identified public concern with technology, a concern that has become increasingly more noticeable since the 1950s with a succession of crisis events framed as involving ‘technology’ as ‘problematic’ and ‘changing’. It will be shown how three specific crisis events – Sputnik (1957), Louise Brown (1978) and virtual real estate in Second Life (2006) – generated legal scholarship. What is shown is that the three literatures share a common structure, in which the crisis event was captured within a net of positive law doing public policy work. The elements of this structure – problematic technology, inadequate existing law and the call for new law – encased in a voluminous scholarship of description and analogy; comprises the ‘law and technology enterprise’.

\textit{Sputnik}

The legal scholarship that followed the launch of Sputnik I by the Soviet Union on 4 October 1957 can be read as providing an early articulation of the elements of the law and technology enterprise. Lawyers responding to Sputnik saw through the rather modest

\textsuperscript{36} Fukuyama (2002), pp 197–194.
satellite to focus on a general concern with future space technology that had both positive and negative potential. This claim of founding status to the Sputnik literature – or, more precisely, ‘first-generation space law scholarship’, is made in preference to the literature that surrounded that other post-war technological crisis: nuclear armaments. The legal literature on the bomb had a deadly serious tone; there was no need for the devastating potential of that technology to be anticipated – it had been demonstrated. The whimsical theme within first-generation space law scholarship was absent.

In first-generation space law scholarship, Sputnik circulates as anticipation of space technology and anticipation of space law. It was not so much that the Soviet Union launched a satellite, but resounding within Sputnik’s radio beeps were the challenge and promise of a new world for lawyers. This had several facets. The first was excited anticipation about the feats and technologies to come: ‘It daily grows more certain that the space rocket, like the horse, the automobile, and the airplane before it, has come to stay.’ Eugène Pépin argued that ‘other satellites will be launched in the more or less near future’. Myres S. McDougal and Leon Lipson believed that in 1958 it was:

…not too early to contemplate the use of unmanned orbital satellites for radio and television relays, for photographic observation of the weather, and for photographic reconnaissance of events on the earth’s surface; rocket landings on the moon; the landing of scientific instruments on the moon in working condition; manned flight in an orbital satellite that can return its human passengers alive to the earth; manned flight to the vicinity of the moon and

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37 See, for example, Newman (1947); Bathurst (1947); Haydock Jr (1948); Shils (1948).
38 Wurfel (1959), p 270. See also Lyons (1961), p 279: ‘but man has not yet, unless unreported, ventured into space. The time cannot be far distant, nevertheless, when efforts will be made to launch a manned satellite.’
back; and the use of outer space for the part of the trajectory of peaceful missiles delivering (say) mail or cargo between distant points on earth.\textsuperscript{40}

In their 1959 text, Philip C. Jessup and Howard J. Taubenfeld thought that ‘man may reach the moon by 1963 or 1966 and might even send an eight man rocket to Mars by 1970 or 1980’.\textsuperscript{41} Further along this technological future, lawyers were perceiving leaps in rocket technology – ‘thermodynamic nuclear rockets, electrical ion rockets and the ultimate, the photon rocket’\textsuperscript{42} – allowing ‘satellite platforms … exploration teams will land on the Moon or on a planet’\textsuperscript{43} and the use of satellites to control weather as a weapon.\textsuperscript{44} Even more speculatively was:

the acquisition of economic resources now know or unknown, such as solar energy, new forms of radiation, and ultimately mineral or other resources that are present, and may conceivably become available, on the moon, or other celestial bodies; and finally, discussed with all casualness of a confident scientific era, the encounter with sentient or intelligent beings on other planets.\textsuperscript{45}

Sputnik signified this technological future; however, this signification was coloured by danger. This was the second representation of Sputnik in first-generation space law scholarship. Stephen Gorove saw Sputnik as ‘bondless aspirations, infinite promise, and challenge-ridden perspectives, represent[ing] a panoramic phase with hardly

\textsuperscript{40} McDougal and Lipson (1958), pp 408–409.
\textsuperscript{41} Jessup and Taubenfeld (1959), p 200.
\textsuperscript{42} Haley (1958a), p 269.
\textsuperscript{44} Gorove (1958), p 307.
\textsuperscript{45} McDougal and Lipson (1958), pp 408–409, referring specifically to the pre-Sputnik anticipation of Andrew G. Haley. See Haley (1956b, 1956a).
a parallel in our history’. John C. Cooper worried that scientific ‘progress [may] have loosed forces which, uncontrolled, may well destroy the civilisation which has created them’. Sputnik’s Cold War parentage and its nuclear sibling were never far from the surface. Sputnik represented the promise of a space-faring future, but also a possibility for earth bound destruction: ‘Will it prove a boon to humanity, or are we getting nearer to the day of destruction?’ For lawyers, Sputnik was problematic technology. This reveals the third representation of Sputnik as the need for law. Andrew G. Haley, General Counsel of the American Rocket Society and Chairman of the International Affairs Committee of the International Astronautical Federation, believed:

Never before in the history of mankind has the necessity arisen so quickly to state legal parameters in connection with a vast new area of social change. The legal problems presented by the advent of space flight have been climacteric and technology has far outstripped the formulation of legal rules. The gap has widened to the point that the peace of the world is dependent upon our ability to contain the remarkable and precipitous advance of the science of technology of space flight within an effective system of laws.

Haley was not alone. Seymour W. Wurfel suggested that ‘an effective space jurisprudence may just possibly save the earth from destruction, conserve the solar system in its present form, and make the universe a bit safer’. Gorove believed that at

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46 Gorove (1958), p 305.
47 Cooper (1958b), p 218.
49 Anfuso (1959), p 1.
50 Haley (1958a), p 262.
51 Wurfel (1959), p 287.
the ‘dawn of the Cosmic Age … technological progress poses a serious threat if the respective legal problems are not settled beforehand’. 52

So in Sputnik, first-generation space law scholars saw visions of a problematic technological future that needed law today. This put into circulation a series of images and phrases that went on to become established components of the law and technology enterprise’s lexicon: technology had ‘outstripped’ law; 53 technology had created a legal ‘vacuum’; 54 lawyers should ‘speculate’ 55 on issues that can be ‘anticipated’; 56 and the proper reception of Sputnik was within the legal ‘imagination’. 57 After triggering legal imaginings of space future that needed law, Sputnik orbited out of first-generation space law scholarship. Replacing it in the focus of the legal telescope was a more geostationary concern: the making of positive law. Sputnik explained why the lawyers were writing, but having justified the project, it was replaced by more orthodox discussions concerning the making of law.

Sputnik called for law. This was revealed through three approaches in first-generation space law scholarship. The first was analysis showing that satellites were outside of legal regimes. It was a common claim that the then existing international law did not define the upper limit of sovereign territory. 58 ‘Rockets’ and ‘satellites’, it was noted, were not classified as aircraft in the Annexes to the Chicago Convention on

52 Gorove (1958), p 308.
55 Hogan (1957), p 348
International Civil Aviation of 1944. Rhetorical questions were asked about whether Sputnik interfered with sovereign airspace, and generally answered in the negative. The second approach involved an imaginative cataloguing of further gaps that space law must fill. These included liability for damage on earth from space borne debris, an international system for registering launches and inspections of launch sites, regulation of radio frequencies broadcasted to satellites prohibiting the orbital placement of nuclear armaments, ‘road rules’ for an anticipated cluttered orbit, property law for celestial real estate and whether ‘the concept of the “Reasonable Spaceman” will be applied to cases of negligence in the law of Space-Torts’. Kenneth B. Keating, Republican Congressman and a member of the House Select Committee on Astronautics and Space Exploration, suggested that:

Lawyers have their work cut out for them. They must begin to think now of a space navigation code, a space radio communication code and even a space rescue code. It may be that in our lifetime, we will be drafting agreements governing the carriage of goods and passengers in space … Specific attention

60 Cooper (1958a), pp 88–89; Haley (1958b) pp 8–14.
63 McDougal (1957), p 77; McDougal and Lipson (1958), p 430.
64 Haley (1959a)
67 Hogan (1957), p 348.
68 Hogan (1957), p 348.
should be given to establishing law school courses devoted to these legal questions.\textsuperscript{69}

The third approach, for which the other two were preparatory, was the outlining of the process for making space law. There was near-uniform agreement among space lawyers that the forum for space law was international law: ‘lawyers are of the opinion that a worldwide agreement – a truly worldwide one – is necessary’.\textsuperscript{70} However, there was dispute about whether such an agreement should provide a comprehensive legislative framework dealing with all the anticipated issues or a more narrow focus on the immediate issues surrounding the limit of sovereignty with the more speculative issues to be addressed when, and if, they become urgent.\textsuperscript{71} McDougal and Lipson favoured the incremental strategy and argued against a ‘mechanical translation’ of existing legal concepts to space in the absence of how space exploration and exploitation would proceed:\textsuperscript{72}

The conquest of space has barely begun. Yet the law of space, instead of lagging behind the astronauts as some lawyers fear, is threatening to outfly the attraction of the earth’s gravity. Before legal speculation reaches escape velocity, we should perhaps remind ourselves of the specific problems that may confront us soon, the earthly origin of much of our law, and the earthly ways in which for some time we shall have to continue to think about law in outer space.\textsuperscript{73}

\textsuperscript{69} Keating (1958), p 191.
\textsuperscript{71} This division was observed in the Staff Report of the United States Select Committee on Astronautics and Space Exploration, Feldman and Sheldon II (1958), p 5.
\textsuperscript{72} McDougal and Lipson (1958), p 420. This was also the position of Gorove (1958), p 309.
\textsuperscript{73} McDougal and Lipson (1958), p 407.
Wurfel articulated the alternative argument that a future-focused comprehensive space law was needed to legalise space exploitation in advance:

Suppose that the first ‘soft’ landing on the moon proves it to be made not of green cheese, but of pure platinum and radium in alternative layers. Suppose that space travel discloses that meteor particles provide a sure cure for cancer. Once consumer demand for space products exists, whether engendered by the free enterprise system or for the good of the commune, it will be too late to sit down and work out a dispassionate property law for space.\(^74\)

Unifying both incremental and comprehensive approaches to positing space law was a belief in the rule of law in outer space. Emphasis was given to the fact that space technology demanded international cooperation, and in that cooperation there lay the possibility for lasting peace.\(^75\) Haley argued that:

… space flight is likely to contribute indirectly more to material and spiritual improvements in living standards all over the planet than any single economic or social measure. It brings this about simply by creating gradually a more intense feeling of belonging to the same planetary community.\(^76\)

President Eisenhower’s several public endorsements of outer space for peace were cited with approval.\(^77\) Western lawyers included the opinion of Soviet jurists in their analysis,\(^78\) and the 1959 Space Law Symposium prepared by the Special Committee on Space and Astronautics of the US Senate contained translated papers by Soviet lawyers

\(^{74}\) Wurfel (1959), p 286. See also Jenks (1956).
\(^{76}\) Haley (1959b), p 440.
\(^{78}\) McHahon (1962), pp 345–348; Crane (1962).
Sergei Krylov and G. Zadorozhnyi.\textsuperscript{79} This linking of space, the rule of international law and peace was challenged by a hawkish minority who saw in the Soviet Union an enemy that was lawless in its actions. According to Rear Admiral Chester Ward, Judge Advocate General of the United States Navy:

\begin{quote}
\ldots can peace be enforced through law, regardless of the communists determination to conquer the world, or else do the leaders of International Communism do desire peace? \ldots Failure to face this fundamental fact of twentieth century life on planet Earth can distort space law from a sensible source of hope for a far future in space, to a series of psychological and military traps to divert, anesthetize, and ultimately destroy the forces of freedom in this world.\textsuperscript{80}
\end{quote}

While Ward, as a Cold War warrior, explains his hostility to space law, his opposition disclosed a lasting feature of the law and technology enterprise: that there was always a small minority challenging the mainstream call for law on what amounted to a different assessment of the technology involved. Ward did not share the common assumption that Sputnik heralded a problematic technological future that needed law to ensure peace. Instead, he saw in space technology a highly advantageous field for United States superiority that should be militarised to defeat global communism.\textsuperscript{81}

Ward’s minority perspective also throws into relief a characteristic of first-generation space law scholarship that was commented on by its predominately military critics – that it was a verbose and wordy literature: ‘the pages of law reviews and political journals have been drenched with writings,’ expressed Lieutenant Colonel Hal H.

\begin{flushright}
\textsuperscript{79} Kislov and Krylov (1959); Zadorozhnyi (1959).
\textsuperscript{80} Ward (1959), p 12.
\textsuperscript{81} Ward (1959), pp 21–27.
\end{flushright}
Indeed, as early as 1956 John C. Hogan published the first space law bibliography, taking up eight pages in the *Journal of Air Law and Commerce*. Hogan’s second iteration, published in 1958, had grown to 54 pages of the *St Louis University Law Journal*. By 1962, there were several textbooks on space law, including McDougal, Lasswell and Vlasic’s 1103 page (excluding appendixes) opus, *Law and Public Order in Space*.

First-generation space law scholarship provided the foundation for the analysis that followed in later generations of space law. Each subsequent event – Yuri Gagarin’s flight, the race to the moon and the United States landing, commercial communication satellites, the first launch of the space shuttle to much more recently SpaceShipOne and space tourism – were used by lawyers to write about the need for law. Further, the enacting of this called for law – whether national law like the *National Aeronautics and Space Act (1958)* that established NASA, or the hoped-for international legal regime that eventually comprised the Outer Space Treaty of 1967, the Rescue Agreement of 1968, the Liability Convention of 1972 and the Registration Convention of 1976 –

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83 Hogan (1956).
84 Hogan (1958).
85 For example Jessup and Taubenfeld (1959).
87 Gagarin: Lipson (1961); Delascio (1961); Johnson (1963); Moon (McDougal et al (1963); Cooper (1966); commercial communication satellites: Chayes and Chazen (1970); Busak (1973); Rankin III (1974); Space Shuttle: Mossinghoff and Sloup (1978); Wolcott (1980); Gorove (1979); SpaceShipOne and space tourism: Freeland (2005); Parsons (2006); Adolph (2006).
88 Public Law #85-568, 72 Stat., 426.
90 Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, opened for signature 22 April 1968, 672 UNTS 119 (entered into force 3 December 1968).
provided further opportunities for scholarly inspection.\textsuperscript{93} This subsequent literature built upon the positive foundations, expressed in first-generation space law scholarship, that law is a way of achieving public policy goals (peace, non-militarisation, fair frameworks for future exploitation) and the purpose of legal writing was to facilitate this function through exposing the gaps within existing regimes, describing new laws and assessing the effectiveness of new laws according to public policy goals. This positivism of space law scholarship rarely went unchallenged. The military opponents questioned the need for law to restrict militarisation because they believed that future victory over the communists lay in space war. They did not question the more fundamental assumption that law, if appropriate, should be made. In this, George S. Robinson was a lone voice in his opposition to the positivism of international space law and space law scholarship:

\begin{quote}
Jurisprudentially inclined minds should be ripe for the opportunity, not simply to extend the usual anthropocentric legal positivism into the arena of man-in-space, but to grasp the significance of viewing and evaluating the social relationships of man in a totally controlled environment.\textsuperscript{94}
\end{quote}

Robinson’s law and [cybernetic]society re-conceptualising found little support.\textsuperscript{95} It stands as testimony to what space law scholarship was not: it was not a literature that engaged with technical legality and questioned modern law in technology’s light. Indeed, outside of moments of imaginative conjuncture concerning futures, its description and analysis

\textsuperscript{92} \textit{Convention on Registration of Objects Launched into Outer Space}, opened for signature 12 November 1974, 1023 UNTS 15 (entered into force 15 September 1976).

\textsuperscript{93} NASA: Teller (1958); Dembling (1959); Outer Space Treaty: Vlasic (1967); Gorove (1969); Adams (1968); Rescue Agreement: Hall (1969); Clute (1970); Gorove (1971); Liability Convention: Foster (1972); Smirnoff (1973)); Registration Convention (Martin (1980).

\textsuperscript{94} Robinson (1972), p 292.

\textsuperscript{95} Robinson is only cited by one other author, and then for a ‘blackletter’ proposition regarding contracts made between orbiting astronauts and earth based parties. See March (1983), p 229.
could hardly be called imaginative. It was a practical project concerned with making laws
to regulate.

In summary, first-generation space law scholarship arose as a legal reaction to
Sputnik I that took the satellite as a harbinger of an emerging problematic technology that
needed law. This was a literature where technology called forth law, and the law that was
called was positive law. After all, there was a lawless cosmos to be juridified. This
foundation gave two characteristics to space law scholarship. The first was that lawyers
wrote to show how existing law ‘failed’ to adequately address the challenge of space
technology. The second was description. The lawyer’s role was to describe laws; either
existing laws to highlight inadequacies or new laws. Lawyers (again and again, as the
volume of space law scholarship attests) confidentially assumed the practical role of
describing and assessing the adequacy of posited law within an over-arching public
policy framework of desirable and undesirable technological futures. It is these features
of first-generation space law scholarship – problematic technology calling forth positive
law to secure desirable futures encased in a voluminous legal literature of describing and
gap finding – that are replicated in other legal literatures surrounding subsequent

technologies.

**In Vitro Fertilisation**

The announcement by Patrick Steptoe and Robert Edwards in the Letters to the Editor
pages of the *Lancet* of the birth of the first in vitro fertilisation (IVF) child, Louise
Brown, on 25 July 1978\(^{96}\) was immediately regarded by lawyers as a crisis event. The
media images of the newborn were received by lawyers as the next step towards the

problematic future of artificial human reproduction. It was a future that needed law and needed lawyers to voluminously describe and identify gaps in the existing law. In the ‘IVF and law scholarship’ the positivism that had sustained first-generation space law became more obvious. The link between rule of law and peace, which for positivists has been an illicit source of values within their supposedly formal conception of law, meant that early space lawyers (except from the military) tended to agree on the public policy aims of international space law. With IVF, the public policy values to be secured by law were more contested. In this context, lawyers cited the ‘ethical issues’, but focused more on identification of gaps and the abstract call for law.

The reception of IVF by legal scholarship was not accompanied by the lyrical descriptions of new horizons that greeted Sputnik. Lawyers acknowledged that Louise Brown’s birth was a major ‘media event’ in 1978; however, in their own writing IVF was received as another development within what was called the ‘New Biology’. As such, IVF was located as the next step in a continuum of ‘artificial human reproduction’, which began with artificial insemination (AI), then recombinant DNA (rDNA), then IVF, embryo transfer (ET) and surrogate motherhood, and would end with cloning and ectogenesis. Indeed, IVF was already allocated into this future history by

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97 This comment gestures towards H.L.A. Hart’s ‘basic truisms’ of human existence that ‘arguably’ provide the foundations for the minimum content of natural law: Hart (1961), pp 189–195. The law as the remedy to war has its clear origins in the forging of positivism in the social-contract thought of the seventeenth century, especially Thomas Hobbes. This relationship between law, war and the ‘sovereign’s peace’ is examined in significant detail in Chapter 6.


99 Smith (1976), p 698.

100 Clapshaw (1980–83); Steeves (1979).

lawyers in the early 1970s.\textsuperscript{102} In 1974, Mary Anne Oakley located IVF in a technological future that involved AI (present), IVF (near future) and cloning (more distant).\textsuperscript{103} In these early writings, IVF was anticipated as a further, and troublesome, step towards a problematic future of artificial human reproduction.

As a consequence, IVF in the law scholarship was considered more of a peril than a promise. Paula Diane Turner in 1981 asked, with the ‘dangers of toxic pesticides and air pollution, and with so many other technological developments visibly damaging the quality of life, how is society to react to scientific manipulation of man’s inner nature?’\textsuperscript{104} David G. Dickman in 1985 suggested that the ‘clinical application of IVF opens up a Pandora’s Box of problems’.\textsuperscript{105} This registering of IVF as predominately a ‘peril’\textsuperscript{106} occurred even when acknowledging its promise in addressing infertility:

\begin{quote}
Although IVF offers hope to infertile couples, it presents significant hazards.

Because IVF is still experimental, most of the conceptuses fertilized \textit{in vitro} will not survive to term. Those who do reach full term may face abnormally high risk of being born with severe defects.\textsuperscript{107}
\end{quote}

IVF as peril opened the way for the call for law. The law was ‘outpaced’.\textsuperscript{108} In 1979, Sharon M. Steeves predicated that: ‘Our existing legal framework may be inadequate to protect either society or the individual from the consequences of artificial

\begin{flushleft}
\textsuperscript{102} Green (1973), pp 562–563; see also Munson (1975), p 136; Smith (1976), p 711.
\textsuperscript{104} Turner (1981), p 459.
\textsuperscript{105} Dickman (1985), p 826.
\textsuperscript{106} Davies placed IVF into the same category of concern as nuclear technology, Davies (1984), p 374.
\textsuperscript{107} Cohen (1979), p 320. Another technique of turning the promise into a peril was to invoke the spectre of the commercialisation of children in the suggestion: ‘Baby-making by noncoital means has become a booming business’. See Hollinger (1986), p 870.
\textsuperscript{108} Venturatos Lorio (1984), p 1641.
\end{flushleft}
reproductive technology.' 109 Sarah A.L. Humphreys argued that the ‘the strides being made in these areas have not been accompanied by similar advances in the law to deal with the unique legal situations these processes [rDNA, cloning, IVF and ET] may produce’. 110 Bernard M. Dickens wrote that the ‘biomedical realities of in vitro fertilization and embryo transfer show the extent of legal lag in Canada’. 111 Indeed, most IVF and law scholars were of the opinion that ‘no direct legal regulation has yet been imposed on IVF’. 112

In making this assessment, lawyers did have to describe the existing law that concerned IVF. Del Zio v Manhattan’s Columbia Presbyterian Medical Center 113 arose from a compensation claim made when an IVF program was terminated. Del Zio was considered inadequate by IVF and law scholarship as the judgment only related to damages arising from the trauma to Mrs Del Zio of having the program cancelled. 114 The later decision of Smith v Hartigan 115 similarly was described as not providing a determinative decision on the legalities of IVF. 116 Further, the ‘soft-law’ in the United States that was directed to regulating IVF research – namely the 1976 moratorium and the revised 1979 guidelines imposed by the federal Department of Health, Education and Welfare (HEW) – were described. 117 However, this description usually focused on the

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110 Humphreys (1979), p 430.
113 No 74-3588 (S.D.N.Y., filed Apr 12, 1978).
limits of the guidelines to research funded by HEW.\textsuperscript{118} The conclusion of these surveys was that the existing law was regarded as inadequate. This justified the demand that IVF be ‘properly controlled’\textsuperscript{119} through the making of tailor-made law in the present:

…the question whether science is moving beyond our social and political ability to deal with the fruits and consequences of its discoveries is highly relevant. Since technology tends to develop a momentum of its own, then early legal regulation is necessary so that society is not presented with one technological \textit{fait accompli} after another.\textsuperscript{120}

In 1981, not long after the birth of Australia’s first IVF baby, Candice Reed, Justice Michael Kirby – then Chairman of the Australian Law Reform Commission – wrote:

Statute law and common law are silent on the profound questions raised by this new technology. Should we tolerate such a silence, allowing scientists and technologists to take society where they will, with no prior opportunity for us as a nation, indeed as a species, to consider the implications and to lay down the acceptable rules within which these developments will occur?\textsuperscript{121}

In short, the IVF and law scholarship established that IVF was a peril that needed law.

In common with the first-generation space law scholarship, the IVF and law scholarship had an imaginative dimension. Having identified gaps and called for law, the lawyers saw it as their role to consider the implications of IVF. In this, the lawyers were

\begin{footnotes}
\item[118] For example, see Katz (1979), p 360; Venturatos Lorio (1984), p 1667; McCartan (1986), p 699.
\item[119] Oakley (1974), p 386
\item[120] Davies (1984), p 354.
\end{footnotes}
called upon to ‘of necessity be speculative’. They were encouraged to ‘brainstorm’ and be ‘creative’. It was suggested that the ‘prescience of the law in the area of IVF will preclude abuses of this novel technology’ and ‘a concerted effort should be made to regulate the foreseeable problems generated by currently available procedures’.

Having established IVF as a problem that called for law today, the IVF and law scholarship turned to the speculative task of identifying the ‘range of possible legal problems’.

These were confidently foreseen. In this, the continuum of artificial human reproduction suggested that the known problems with AI would be replicated with IVF. By 1978, there was a dedicated literature considering law and AI that stretched back to the 1940s. This literature established that artificial human reproduction threw up three sets of issues: the first concerning the legitimacy of artificially conceived children; the second on medical liability; and the third a quaint (at least to twenty-first century sensibilities) discussions of whether AI amounted to adultery at common law. Louise Brown represented an opportunity to revisit these concerns. This return had two

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122 Mahlon Blow (1982), p 169
125 McCartan (1986), p 727.
126 Steeves (1979), p 1077.
manifestations. The first manifestation was that IVF and law scholarship focused on the question of legitimacy of IVF children,\(^{131}\) medical liability arising from harm to the children or women\(^{132}\) and, to a lesser extent, adultery.\(^{133}\) As it was believed that ‘Legal clarification of AI [wa]s a necessary prerequisite for regulating IVF and embryo transplanting’,\(^{134}\) most papers had a dedicated section, usually towards the beginning, reviewing the legal response to AI.\(^{135}\)

This did not exhaust the legal imagination. Reflection on the possible legal dilemmas of IVF threw up a series of more novel concerns. In order for Louise Brown to be conceived in a test tube, viable ovum had to be extracted from Lesley Brown, and ET was needed to place the embryo into her womb. In this, IVF also made possible ovum donation, gamete and embryo freezing, and gestational surrogacy (that is, where the birth mother would have no genetic relationship to the child). While sperm donation and the spectre of ‘sperm banks’ was a feature in the earlier AI and law scholarship, it was discussed in legitimacy terms of ensuring that the male donor’s identity be kept confidential and that no legal relationship be imposed between the donor and biological


\(^{133}\) Venturatos Lorio (1982), pp 987–988.

\(^{134}\) Oakley (1974), pp 390–391; see also Smith (1976), p 715.

children. The possibility of ovum donation raised more fundamental questions about law’s role in maintaining concepts such as ‘motherhood’ and ‘family’ in a situation where they no longer seemed as ‘natural’ as before. The possibility of gamete and embryo freezing gave rise to two imagined concerns. The first was with the rights of children to be – a concern that became topical with the 1984 ‘orphaning’ of two frozen embryos due to the death of their ‘parents’ in an aeroplane accident. The second, related to the destruction of surplus embryos, was analysed as analogous to the laws and ethics surrounding abortion. Further, gestational surrogacy opened the way for questions on the proper regulation of the ‘womb market’, an area of inquiry that was later to be occupied by Richard A. Posner and his critics.

At this point, a difference can be seen between the IVF and law scholarship and first-generation space law scholarship. Sputnik registered in international law; Louise Brown in domestic law. This domestic location created opportunities for lawyers, as specific literatures were called for, analysing specific technologies according to laws of specific jurisdictions. It also opened the way for comparative literatures comparing

136 For example, see Verkauf (1966), pp 304–306; De Stoop (1976), pp 303–304. The issue of incest arising through the wide spread use of AI by donor from confidential sperm banks was discussed by some writers (e.g. Smith, 1968, p 133) The fact that the pre-1978 writers on AI and law were male might explain the framing of this issue in terms of ensuring that sperm donors remain separate, autonomous and not responsible for offspring.


jurisdictional responses.143 In the IVF and law scholarship, while the speculative task of predicting the legal implications of IVF was common, the analysis of that impact needed to be repeated for each jurisdiction. Therefore, United States scholars also considered IVF in relation to the Constitution and whether the right of privacy – particularly as it was explained in Roe v Wade144 – suggested a ‘right of reproductive freedom’ that might limit federal and state regulative powers.145 This mingling of IVF with rights was not prominent in the Canadian and Australian scholarship, where competency to regulate was assumed, and the constitutional issue, when it was addressed, was concerned which tier in the federal structure had legislative authority.146 In unitary jurisdictions such as the United Kingdom, Northern Ireland, New Zealand and France, executive and legislative authority was a non-issue and the specific IVF literature was limited to the established artificial human reproduction concerns of legitimacy, liability and adultery, together with discussion of the most appropriate regulative agency and model.147

It is at this point, after establishing an absence of law within national jurisdictions to deal with ‘specific legal problems raised by existing or possible reproductive technology’,148 that the positivism of the IVF and law scholarship becomes evident. It might be expected that all this talk of needed law would ground specific proposals.

143 For examples of IVF and law literature that presented a comparative analysis, see Scott (1984), p 413; Litterio (1986).
144 Roe v Wade 410 US 113 (1973).
Instead, there was a desire to make law but a reluctance to state the values that such law should posses. The called for law was, in the main, empty. The sign of this absence was the phrase ‘ethical issues’.

Most IVF and law scholarship had a section titled ‘Ethical Issues’. In that section, the lawyer surveyed the competing positions on IVF. What was remarkable was that this survey remained only a mapping of the ethical landscape. It usually made mention of Leon Kass’s project of establishing ‘bioethics’ as a brake on biomedical research, and particular mention was made of his 1971 article decrying IVF as unethical. Similarly, the Catholic position – especially Pope Pius XII’s 1956 decree condemning artificial human reproduction – was documented. Parallel with these were statements by IVF pioneers, like Robert Edwards or Alan Trounson, on the positive application of IVF technology. The lawyer wrote in order to appear even-handed to these competing positions: ‘Some even suggested that such research be monitored or possibly even banned. Others greeted the successful birth as a humanitarian milestone that could open the way to childbirth for many women previously unable to conceive.’

Indeed, the imagery of the hand was prominent. The cataloguing of different positions was often smoothed over with phrases such as ‘on the other hand’. Lawyers noted that positions regarding the ethics of IVF depended on the ‘legal and moral definitions of

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154 For example, Mahlon Blow (1982), p 169; Venturatos Lorio (1982), p 979.
156 Cohen (1979), p 324.
humanity, life and person’, 157 and the answering of questions like ‘Is sterility an illness?’ 158 and ‘When is the origins of human life?’ 159 However, these were not questions that the IVF and law scholarship answered. In this, it played a curious role. It established a problematic technology – indeed, the existence of competing positions was cited as evidence of its vexed nature 160 – and from this problematic technology it called for law and then speculated on the problems that law might regulate. But at the critical moment of considering the substance of this called for law – on whether IVF should be banned, when embryos acquire legal personality, whether IVF should be limited to de jure married couples, whether frozen embryos should be destroyed – it fell mostly silent. The only area where lawyers were confident to posit the substance of law was in regard to the inheritance rights of AI and IVF children where it was agreed that equality demanded legislation to declare such children legitimate. 161

This aversion to values is what is to be expected of positivist legal scholarship in which the law is regarded as a tool to secure policy goals, but the lawyer remains aloof as to the value of those goals. 162 As was glimpsed in the first-generation space law, the only direction for legal writing, once problem, gaps and speculation were catalogued, was a description of law-making and a description of made law. This meant that, as IVF became more widespread over the early 1980s, lawyers could only turn to descriptions of the emerging law-making processes and laws within the national jurisdictions. The UK

161 Two writers go so far as to print the text of their suggested legislation: see Frey (1982), pp 334–341; Crabtree (1983), p 925.
Warnock Inquiry and subsequent report\(^{163}\) was widely covered.\(^{164}\) Indeed, even in United States literature, Warnock – as a documentation of the ‘ethical issues’ – became the standard reference for the vexed and difficult nature of IVF.\(^{165}\) In Australia, the various jurisdictional inquiries and reports were described,\(^{166}\) with particular emphasis given to the Waller Reports in Victoria\(^{167}\) and the subsequent \textit{Status of Children (Amendment) Act 1984 (Vic)} and \textit{Infertility (Medical Procedures) Act 1984 (Vic)}.\(^{168}\)

Most contributors to the IVF and law scholarship were unreflective about this ‘end’ to their scholarship, with the exception of Justice Michael Kirby. As Chairman of the Australian Law Reform Commission, Kirby occupied a privileged position in relation to the legal response to IVF. For Kirby, IVF was not a challenge to law or ethics, but rather a challenge to the ‘health of our democratic institutions’.\(^{169}\) He regarded IVF as:

\begin{quote}
… not a matter for doctors and scientists only, or for lawyers alone …

Neither legal imperialism nor medical paternalism, nor even scientific inevitability should carry the day. Where issues of life and death are involved, we must seek out an informed community consensus.\(^{170}\)
\end{quote}

It is Kirby who expressly draws a political justification for the positivism that framed the IVF and law scholarship. He cites the Hart/Delvin debate – ‘it seems to me that the old

\begin{itemize}
\item Warnock (1984).
\item See, for example, Annas and Ellis (1985), p 147; Robertson (1986), pp 967–1032.
\item ‘Australian Inquiries into Legal Aspects of In Vitro Fertilisation’ (1982); Drahos (1985), p 283; Family Law Council (1985), pp 18–24, 124–125.
\item Waller (1983, 1984).
\item Kirby (1983a), p 10.
\item Kirby (1981), p 2.
\end{itemize}
debate is now relevant to the pressing issues of bioethics'\textsuperscript{171} – and declares Hart’s preference for plastic law that is not beholden to morality the winner.\textsuperscript{172} This affirmation of posited law was justified by an over-arching commitment to a liberal democratic framework for law-making procedure. Kirby celebrated that the various Australian law reform commissions inquiring and reporting on medico-legal dilemmas were considered world leading.\textsuperscript{173} He described the institutional process of law reform commission inquiries $\rightarrow$ reports $\rightarrow$ law-making $\rightarrow$ law as a worthy ‘technique of law development’\textsuperscript{174}:

\begin{quote}
... with its procedures for interdisciplinary consultation, public hearings, discussion on the media and widespread community involvement, [the law reform commission] provides legislators with a well fashioned instrument by which to tackle the ‘too hard basket’ of legal change.\textsuperscript{175}
\end{quote}

There are two things worth noting in Kirby’s position. The first was the technological metaphors – ‘technique’ and ‘procedures’. The second was Kirby’s implicit account of law as the handmaiden to policy, which is properly to be decided elsewhere.

In summary, the IVF and law scholarship followed commitments that were laid down in first-generation space law scholarship: problematic technology, call for law, speculation of future legal problems, emphasis of gaps in existing law, and description of emerging laws and law-making processes. Further, like the Sputnik-era literature, the IVF

\begin{footnotes}
\item[171] Kirby (1983a), p 5.
\item[172] Kirby (1983a), p 10.
\item[173] Citing Harvard (1983), p 165. It was argued that the United States should follow the United Kingdom and Australia in having commissions to investigate and recommend the regulation of IVF. See McCartan (1986), p 726.
\item[175] Kirby (1982), p 14.
\end{footnotes}
and law scholarship was accompanied by bibliographies\textsuperscript{176} and comments regarding bulk.\textsuperscript{177} It also shared a very small minority literature that questioned the orthodox narrative. Anita C. Porte, like the military critics of first-generation space law scholarship, argued against the need for legislation, based on an assumption that IVF was not problematic and it was best left to the market (and contract, consumer and medical negligence laws) to allow choice.\textsuperscript{178} However, Porte was not anti-law. She merely believed existing private law was adequate.

Through the IVF and law scholarship, some features of the law and technology enterprise that were only traces in the earlier Sputnik scholarship can be seen more clearly. The most prominent is the positivist frame – the aversion to values and the emphasis on gaps, description and law-making. The second is the inclusion of an ‘Overview of the Technology’ section in which the lawyer, with a degree or otherwise of comprehension, summarises the technical dimensions of AI, IVF and ET.\textsuperscript{179} The third is the emergence of law student authors. There were law student contributors to first-generation space law;\textsuperscript{180} however, by 1978–86 the number of student contributors seemed to be increasing.\textsuperscript{181} Read together, first-generation space law scholarship and IVF and law scholarship reveal the key characteristics of law and technology enterprise. Problematic technology grounded analysis concerned with speculation about future use,

\textsuperscript{176} For example McNabb (1984).
\textsuperscript{177} Annas and Elias (1983), p 207; Drahos (1985), p 270.
\textsuperscript{178} Porte (1979), p 87.
\textsuperscript{180} See, for example, Cerny (1958); Bookout (1960).
\textsuperscript{181} See, for example, Cohen (1979); Dickman (1985). This increase in student authorship between 1950 and 1980 was a pattern identified by Stadler in her analysis of the \textit{Harvard Law Review} from 1946 to 2003. See Stadler (2006).
identification of gaps and the call for law, leading to descriptions of law-making and of laws as made, all against a positive backdrop of the lawyer (or law student) agnostic to the competing value positions, and concerned with the ‘practical’ task of implementing public policy that has been decided elsewhere.

**Virtual Worlds**

Online virtual gaming environments, or ‘virtual-worlds’, became a subject of popular concern in 2006. This was the year that *BusinessWeek* in the United States ran a cover story featuring Anshe Chung, an avatar from Linden Lab’s *Second Life* who had successfully speculated on virtual property, and in the process made a ‘real-world’ income for her ‘player’, Ailin Graef. As with Sputnik and Louise Brown, the media attention quickly translated into copy in law journals, and lawyers – in what will be called the ‘virtual-worlds and law’ scholarship – compounded reports on virtual real estate with other reports concerning virtual theft and fraud, virtual sexual abuse,  

182 Humphreys (1979).
183 There are multiple terms to cover these environments. ‘Virtual-worlds’ is the most common in the legal literature. Edward Castronova objects to the use of ‘virtual’, as it conjures unhelpful imaginary of full-body immersion ‘virtual reality’ as it was anticipated in the 1990s. Instead, Castronova advocates for the term ‘synthetic worlds’: Castronova (2006), pp 9–22. A more technical description from computer gaming is MMORPG (Massively Multiplayer Online Role-Playing Games), reflecting their genealogy in paper and dice role-playing games, like Dungeons and Dragons (D&D) and the first-generation, text-based online translations of D&D, MUDs (Multi-User Dungeon): see Dovey and Kennedy (2006), p 95; Taylor (2006), pp 21–29).
184 The term for the non-virtual-world is contested; however, the consensus in the legal and sociological literatures appears to be ‘real-world’. See Boellstorff (2008), pp 20–21.
185 Again, the term for the human who controls the avatar is contested with no clear consensus of ‘user’, ‘resident’ or ‘player’. While Boellstorf, as a virtual anthropologist, prefers the term ‘resident’, which merges human and avatar identity, this chapter will use the term ‘player’ to keep the real-world human separate from the virtual existence. See Boellstorff (2008), p 22.
186 ‘My Second Life’ (2006); see also Meadows (2008), p 64.
virtual financial collapses\textsuperscript{190} and reports of real-world concerns of addiction,\textsuperscript{191} money laundering\textsuperscript{192} and murders arising from virtual-world disputes\textsuperscript{193} to suggest a crisis event that needed law. Virtual-worlds and law scholarship manifested the same basic structure as first-generation space law scholarship, and the IVF and law scholarship. Lawyers established that virtual-worlds heralded a problematic technological future that was inadequately regulated by existing law. As in the earlier literatures, law was perceived as needing to catch up. This call for law was, again, founded on speculation and descriptions of technologies, law and law-making, encased in a voluminous scholarship involving significant amounts of student authorship. While lawyers were bolder in the virtual-worlds and law scholarship when it came to espousing and adopting diverse policy positions, the underlying positive frame of instrumental law remained.

For lawyers, virtual-worlds were problematic because the boundaries between the ‘game’ and the real-world were permeable. This permeability was mapped in several directions. First, the ‘cross-border problem’\textsuperscript{194} – the connection between the real economy and the virtual economy – was noted.\textsuperscript{195} The primary representation of this was the formal exchange mechanism available for converting real-world currency into L$ (Linden dollars, the currency in \textit{Second Life}) and L$ into real-world currency.\textsuperscript{196} The secondary representation was the existence of virtual property and player accounts for

\begin{flushright}
\textsuperscript{191} Lastowka (2008), p 907; Rosette (2008), pp 293–294.
\textsuperscript{192} Abrahams (2007b), p 299; Rosette (2008), pp 290–293.
\textsuperscript{194} Jankowich (2005), pp 184–186.
\end{flushright}
sale on eBay,\textsuperscript{197} and the citing of Edward Castronova’s foundational 2001 study on the virtual and real economics of Sony’s \textit{EverQuest}.\textsuperscript{198} Virtual-worlds had become a ‘multi-billion dollar economy’,\textsuperscript{199} and it was commonly noted that in 2007 many transnational corporations had acquired a virtual presence.\textsuperscript{200} The second permeability related to the real property–virtual property relationship. Linden Lab’s declaration that players possessed ‘rights’ in objects that the player created within \textit{Second Life} was documented,\textsuperscript{201} and questions were being asked about protecting that property from real or virtual appropriation, as well as the question of appropriation of real-world intellectual property within virtual-worlds.\textsuperscript{202} The third issue related to the crossover between virtual behaviour and real-world crimes, particularly theft\textsuperscript{203} and child pornography.\textsuperscript{204} The fourth was the practice of ‘gold farming’ in Mexican and Chinese sweatshops, where lowly paid workers toiled online to amass virtual property which their employers sold for real-world currency.\textsuperscript{205} However, balancing these concerns were more optimistic assessments. Jerry Kang, writing in the \textit{Harvard Law Review} in 2000, saw in the emergence of avatars the possibility for ‘cyber-passing’:\textsuperscript{206} the potential for players to

\begin{flushleft}
\textsuperscript{197} Lastowka and Hunter (2004), p 38; Schwarz and Bullis (2005), p 16; Saunders (2007), p 229.
\textsuperscript{199} Abrahams (2007b), p 295; Kane and Duranske (2008), p 10.
\textsuperscript{200} Chin (2007), p 1314; Kane and Duranske (2008), p 10.
\textsuperscript{202} Dougherty and Lastowka (2008); Lastowka (2008); Kane and Duranske (2008), p 1.
\textsuperscript{203} For example, see Saunders (2007), pp 234–240; Arias (2008), p 1304. These accounts drew upon the 2005 study by Chen et al documenting Taiwanese police investigations of virtual-world theft. See Chen et al (2005), pp 249–258.
\textsuperscript{204} Keupink (2007), p 167; Meek-Prieto (2008), p 89.
\end{flushleft}
experience living as a different gender or race and the hope that such experiences could facilitate greater empathy and understanding.\textsuperscript{207} Notwithstanding Kang’s early optimism, however, the balance of the virtual-worlds and law scholarship framed virtual-worlds as problematic.

Parallel to the documenting of these concerns was legal analysis that current real-world law did not adequately regulate the virtual-world–real-world nexus. This task of examining the law was framed and rendered urgent by a belief that virtual-worlds were the future. Bettina M. Chin elaborated this vision:

With the world paying close attention to the technological advancements in Internet usage and the opportunities that virtual worlds can offer, the law must do the same in order to protect the livelihood of Second Life residents. As more users participate and find innovative ways to make full use of the virtual platforms, Second Life will eventually evolve from a digital medium of social interaction to an actual, organic culture.\textsuperscript{208}

This inevitable framing of virtual-worlds as destiny was repeated: ‘Data indicate that virtual environments of all types, not just Second Life, will continue to play an increasing role in modern society and more and more users join and bring increasing amounts of capital into the online world.’\textsuperscript{209} For some lawyers, virtual-worlds were to become increasingly used in the future as an escape from the problems of the real-world:

The real world is increasingly expensive, crowded, and legislated. The only place where many people can experience personal freedom is in the virtual

\textsuperscript{207} Kang (2000), p 1181.
\textsuperscript{208} Chin (2007), pp 1315–1316.
\textsuperscript{209} Mack (2008), pp 755–756; see also Jacob Rogers (2007), p 411.
world, where they can manifest their fantasies and explore the wide-open expanses that were once commonly available in the real-world.\textsuperscript{210}

Often the inevitability of a virtual future was associated with technological speculation:

Bearing in mind the commercial applications [of virtual-worlds] and the astounding and rapid uptake of technologies such as Google Earth, it is not out of the question that these technologies may fuse, and produce some kind of hybrid; a place where one wanders the globe through an avatar, walking into clothes stores in Paris or Rome, chatting to the assistant, and trying on virtual clothes (‘I’ll take two: a real one for me and a virtual one for my avatar’).\textsuperscript{211}

Lawyers were convinced that virtual-worlds would get more realistic,\textsuperscript{212} and that motion sensor technology would eventually develop and merge with high-resolution and complex virtual-worlds to deliver the dream of virtual reality.\textsuperscript{213} Woodrow Barfield foresaw the ‘intelligent avatar’ that would ‘create works independent of human input’.\textsuperscript{214} More immediately, lawyers anticipated the development of the ‘universal avatar’\textsuperscript{215} and portable virtual property\textsuperscript{216} that would allow avatars to move between worlds and retain their virtual possessions. Other lawyers saw virtual-worlds as the future for legal

\textsuperscript{210} Kayser (2006), p 62.
\textsuperscript{211} Holdaway (2007), pp 6–7.
\textsuperscript{212} Lin (2008), pp 86–88.
\textsuperscript{213} Meek-Prieto (2008), pp 95–97.
\textsuperscript{214} Barfield (2006), pp 653, 662.
\textsuperscript{215} Meek-Prieto (2008), p 97.
\textsuperscript{216} Fairfield (2005), p 1059; Kane and Duranske (2008), p 14.
education\textsuperscript{217} or as a simulation environment for assessing of legal, political and economic responses to normative structures.\textsuperscript{218}

Having framed virtual-worlds as harbingers of a virtual future, the virtual-worlds and law scholarship saw law as an inevitable aspect of this future: ‘As governments and other real-world agencies and regulators become cognizant of the personal risks involved, notably fraud and money laundering, they are certain to step in.’\textsuperscript{219} F. Gregory Lastowka and Dan Hunter, in an extensively cited 2004 article,\textsuperscript{220} wrote: ‘In the far future, as the world’s communities increasingly begin to operate through avatar agents in persistent virtual communities, courts will surely need to recognize cyborg rights in some form or another.’\textsuperscript{221} As human occupation of virtual-worlds increased, so would real law’s engagement: ‘In those increasingly common instances where a player utilizes the virtual-world as his primary means of income, a court may strike terms directly impinging the player’s ability to earn a living.’\textsuperscript{222} David R. Johnson wrote: ‘If the affordance of online games … enable[s] us to create new kinds of organizations, then we’ll face the question [of] whether and to what degree to grant these organizations legal personhood.’\textsuperscript{223} Further, because the ‘traditional problems of human nature and conflict persist’,\textsuperscript{224} there
would be the need for law to resolve disputes: ‘Criminal sanctions imposed offline for … in-world conduct are not outside of the realm of possibilities.’ A cohort of lawyers anticipated the inevitability of taxation on virtual transactions and property. Jack M. Balkin, in another widely cited piece from 2004, was particularly insistent on the inevitability of real law in virtual-worlds: ‘As people spend more and more time in virtual worlds, and as their senses of self become increasing bound up with them, these sorts of arguments [assault, theft, defamation] may become more plausible.’ However, this speculation was not limited to real law; lawyers also were dreaming of the need for in-game virtual law. Virtual-worlds were like a ‘new state’:

Websites and other prior technologies of cyberspace served as remarkable tools for communication, but they did not build truly independent and self-governing communities. By contrast, avatar existence and avatar community only occurs within virtual worlds, making the emergence of virtual law within those worlds much more likely.

So the virtual-worlds and law scholarship saw a problematic technology that was anticipated to be increasingly important in the future, and as such would inevitably involve law – both real-world law and virtual law. This call for laws grounded analysis of the inadequacies of the existing law. As with the Sputnik and IVF literatures, this analysis

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1993”, and the politicians and legislators in the United States have already taken sharp notice of this particular metaverse.’ See Chin (2007), p 1348.


228 Balkin (2004b), p 2068. See also: ‘One might see the day when a platform owner is losing money, and the players petition a bankruptcy court to take over the game and keep it going, so that the players’ virtual property interests will not be destroyed.’ Balkin (2004b), p 2071.

229 Davis (2007), p 199.

was a hybrid of speculation and description. Its speculative basis was acknowledged
directly: articles were described as ‘thought experiment[s]’\(^{231}\) and as involving
‘hypotheticals’.\(^\text{232}\) This description ran in two directions: first, controversies involving
virtual-worlds were described; and second, the inadequacies of law in addressing the
controversies were canvassed. The controversies and inadequacies can be grouped under
three headings: ‘property’, ‘contract’ and ‘wrongs’.

Lawyers were particularly concerned with the fate of property in virtual-worlds,
and several controversies were described that demonstrated the problem of virtual
property. The 2006 bank scam within CCP’s *EVE Online*, where a player established an
in-game bank and then ‘vanished’ with billions in virtual currency, was used to show the
failure of both real law and the game owners to protect virtual property.\(^\text{233}\) Sony’s
attempts to stop sale of *EverQuest* items, which were defeated by the threats of a class
action by players,\(^\text{234}\) along with the inconclusive litigation concerning gold farming (the
aborted Blacksnow Interactive litigation\(^\text{235}\) and the class action *Antonio Hernandez and
others v Internet Gaming Entertainment*)\(^\text{236}\) were evidence of the uncertainty surrounding
‘ownership’ of virtual property and also the difficulty of getting virtual property into real-
world courts.\(^\text{237}\) *Bragg v Linden Research Inc*,\(^\text{238}\) litigation arising from a decision by
Linden Labs to exclude Bragg from *Second Life* because of improper virtual real estate

\(^{231}\) Chen (2006), p 1061.

\(^{232}\) Saunders (2007), p 188.


\(^{236}\) Case No 07-21403-Civ-Cohn/Snow (S.D. Fla Ahug 29, 2007)

\(^{237}\) Lawrence (2008), p 530

\(^{238}\) 487 F. Supp. 2d 593 (E.D. Pa. 2007)(No. 06-04925).
transactions, was regularly described.\textsuperscript{239} However, its resolution in an out-of-court settlement, the restoration of Bragg’s \textit{Second Life} account and only an advisory opinion on the non-enforcement of the arbitration provision in Linden Lab’s End User Licence Agreement (EULA) meant that it was considered unclear authority concerning ownership of virtual property and the respective rights of players and game owners in real-world law.\textsuperscript{240} Similarly, \textit{Marvel Enterprises Inc v NCSoft},\textsuperscript{241} litigation concerning the alleged infringement of Marvel’s intellectual property in caped crusaders by the Korean production house NCSoft, makers of the superhero virtual-world \textit{City of Heroes}, was described. However, like Bragg, \textit{Marvel Enterprises} was settled out of court and was cited as evidence of the difficulty of arguing virtual infringement of real-world intellectual property.\textsuperscript{242}

The inconclusiveness of existing case law to point to how controversies involving virtual property should be resolved allowed virtual-worlds and law scholarship to speculate and analogue. Indeed, the bulk of virtual-worlds and law scholarship comprised an assessment of how existing real law regimes might respond to virtual property controversies. Like the IVF and law scholarship, this assessment was one to be made according to the real laws of specific jurisdictions. The ground for this analysis – and one that was rarely acknowledged – was that in virtual-worlds, ‘[p]rivate property is defaulted’:\textsuperscript{243}


\textsuperscript{241} US District Court No 04 CV 9253 Unreported (10 Nov 2004).


\textsuperscript{243} Lastowka and Hunter (2004), p 30.
Perhaps the most striking feature of the property system of the virtual-worlds is how closely they mirror the real world, or at least the subset known as the Western capitalist economy. No virtual-world, not even a community-conscience, social MUD like *LambdaMoo*, has an entirely communal property system.\footnote{244 Lastowka and Hunter (2004), p 30.}

Even in virtual-worlds inspired by fantasy or science fiction, the ‘transfer of virtual chattels occurs in very familiar ways’.\footnote{245 Lastowka and Hunter (2004), p 32.} Lawyers found this parallel reassuring, and a regularly repeated exercise was to assess virtual property according to Lockean and Hegelian theories of property to demonstrate the philosophical rightness\footnote{246 Indeed, Jankowich argued that without virtual property rights, players in virtual-worlds are ‘serfs’. Jankowich (2005), p 216.} of the emergence of private virtual property.\footnote{247 This analysis was first undertaken in detail by Lastowka and Hunter (2004), pp 44–51 and Fairfield (2005), pp 1093–1095, and repeated in less detail by some of the student authors Westbrook (2006), pp 791–801; Sheldon (2007), pp 758–760; Horowitz (2007), pp 450–458; Reuveni (2007), pp 277–280; Caramore (2008), pp 11–14.}

Having established a conceptual similarity between virtual and real-world property, the analysis morphed into speculative analogies on dealing with the in-game appropriation of virtual property and the appropriation of real-world property in game.

The controversy of in-game appropriation of virtual property was assessed according to a diverse array of laws. Daniela Rosette, taking as her case study the *EVE Online* bank scam, concluded that the existence of the ‘poker’ defences in United States fraud law – that courts deferred to the rules of the game – meant that fraud law would not protect virtual property from appropriation.\footnote{248 Rosette (2008), pp 289–290; see also White (2008), pp 239–240; Arias (2008), pp 1318–1327; Kerr (2008), p 420.} Other writers noted that in 2007 a scam involving unauthorised access to player accounts and the selling of virtual furniture...
(which could only be purchased with real-world money) in Sulake’s Habbo Hotel was prosecuted as fraud in Holland.\textsuperscript{249} Susan W. Brenner, after an exhaustive survey of applicable United States property crime laws, suggested that ‘we could extrapolate the principles of criminal liability to encompass the conduct that inflicts … “virtual harms”. The real issue is whether we \textit{should} do so.’\textsuperscript{250} Moving on to torts, United States lawyers argued that domestic tort law as it related to chattels was inconclusive concerning virtual infringements,\textsuperscript{251} and were divided on whether the federal \textit{Computer Fraud and Abuse Act} (1986)\textsuperscript{252} would allow standing and a remedy to a player deprived of virtual property.\textsuperscript{253} In Australia and New Zealand, it was argued that intellectual property regimes would have difficulty with virtual property.\textsuperscript{254} These antipodean conclusions mirrored the finding concerning United States intellectual property law – which, on balance, would not protect virtual property.\textsuperscript{255}

Similar conclusions were reached concerning the appropriating of real-world property in game. In Australia, Lucy Davis concluded that:

\begin{quote}
It is uncertain whether the Australian law relating to trade marks would assist either a physical world trade mark owner preventing misuse in Second Life or
\end{quote}


\textsuperscript{250} Brenner (2008), p 75.

\textsuperscript{251} Arias (2008), pp 1337–1338

\textsuperscript{252} 18 U.S.C. § 1030.

\textsuperscript{253} Lawrence (2008), pp 532–541.


a Second Life owner taking action against misappropriation in Second Life, in another virtual world, or the real world.256

This conclusion mirrored United States analysis. In the United States, it was argued that use of trademarks in virtual-worlds would be a technical breach;257 however, the defences available to players,258 and pragmatic constraints relating to proof, would render virtual breach of trademarks unenforceable in real-world courts. The perceived failure of real law to adequately respond to virtual property stimulated Dan E. Lawrence to argue that contract law should be explored in the context of virtual property controversies.259 Again, this analysis was contested. Andrew Jankowich argued that virtual property could not be considered ‘goods’ or virtual sales considered ‘sales’ under the Uniform Commercial Code.260 The conclusion from these analyses was that virtual property remained under-regulated by real-world law. A constant consideration in these analyses was the rights and obligations as set out in the EULA.

The Ludlow controversy and Bragg circulate in the virtual-worlds and law scholarship as representing the ‘godlike’261 powers of game owners vis-à-vis players as established by EULAs.262 In the Ludlow controversy, Peter Ludlow established within Electronic Arts’ Sims Online a virtual newspaper, the Alphaville Herald. Within that forum, he ‘published’ a report on children controlling avatars engaging in sex talk with adults for in-world currency. In response, Electronic Arts terminated his account.263 For virtual-world lawyers, the EULA represented what amounted to existing legal regulation

256  Davis (2007), p 199.
257  Dougherty and Lastowka (2008), pp 778–798.
263  For a detailed account from Ludlow’s perspective, see Ludlow and Wallace (2007), pp 145–162.
of virtual-worlds and that regulation was massively balanced in-favour of the game owner.\textsuperscript{264} Several studies described in detail the EULA for various worlds, and the common conclusion was the finding that: ‘With unlimited discretion found in the EULA signed by all virtual-world inhabitants, the game [owner] wields extreme power over virtual-world inhabitants.’\textsuperscript{265} The game owner could terminate a player’s account, as happened in Ludlow and Bragg, without compensation,\textsuperscript{266} and further, the game owner had the right to turn off, or massively change, the world.\textsuperscript{267} Even Linden Lab’s declaration of players’ intellectual property was not sustained in an analysis of the Second Life EULA, as Linden Lab – in reserving its godlike powers over Second Life – retained veto.\textsuperscript{268} Within this framework, it was unsurprising that lawyers found virtual property was not protected by EULAs.\textsuperscript{269} In addition, the suggestion in Bragg that the arbitration provisions in Linden Lab’s EULA was unconscionable\textsuperscript{270} meant that, ‘although EULA that govern the virtual worlds provide a method for resolving disputes, their unenforcement and uncertainty … do not provide an adequate framework to protect players’ investments’.\textsuperscript{271} Having found that EULA do not protect players’ virtual property, lawyers examined wider laws relating to contract that might allow players greater rights, such as unconscionability, misrepresentation, promissory estoppel and

\textsuperscript{264} Balkin (2004b), p 2049.
\textsuperscript{266} Mayer-Schönberger and Crowly (2006), p 1793.
\textsuperscript{267} Lastowka and Hunter (2004), pp 55–56
\textsuperscript{268} Lederman (2007), p 1641; Caramore (2008), p 2.
\textsuperscript{270} Kane and Duranske (2008), p 11.
\textsuperscript{271} Glushko (2007), p 508
consumer protection laws.\textsuperscript{272} Indeed, for Sean F. Kane and Benjamin T. Duranske, the advisory opinion in \textit{Bragg} ‘may be the first chink in the EULA armor and may call into question the validity of some of the other general provisions’.\textsuperscript{273} However, notwithstanding Lastowka’s and Hunter’s optimism that there were strong policy grounds for EULAs to be struck down,\textsuperscript{274} most commentators were cautious as to how courts would balance the policy grounds in favour of striking out the EULA against considering virtual-worlds as ‘only a game’, which players could choose to leave.\textsuperscript{275}

Another line of analysis concerning EULA was the regulation of avatar conduct in-world. The virtual-worlds and law scholarship used the well-documented virtual sexual assault that occurred in \textit{LambdaMOO} in the early 1990s\textsuperscript{276} as evidence of the possibility of virtual wrongs and the remedy of removing the offending avatar.\textsuperscript{277} However, this example showed the limits of game administration. \textit{LambdaMOO} was a ‘community-based’ virtual-world that was ‘owned’ by a handful of dedicated programmers collectively known by the old-MUD term ‘wizards’.\textsuperscript{278} With arguments raging between \textit{LambdaMOO} citizens concerning process and punishment, one of the wizards made the decision to ‘toad’\textsuperscript{279} the offending avatar.\textsuperscript{280} The scholarship noted that contemporary virtual-worlds were commercial activities, and while EULAs imposed

\textsuperscript{273} Kane and Duranske (2008), p 11.
\textsuperscript{274} Lastowka and Hunter (2004), p 50.
\textsuperscript{275} For example see Jankowich (2006), p 48.
\textsuperscript{276} The details of this event have been documented by Dibbell. See Dibbell (1996); Dibbell (1998), pp 11–30.
\textsuperscript{278} Chen (2006), p 1059; Abrahams (2007b), p 305.
\textsuperscript{280} This was an early MUD term, meaning that the avatar had been turned into an immobile and incoherent toad. In \textit{LambdaMOO}, the offender, ‘Mr Bungle’, was deleted.
‘Community Standards’ with which players were expected to comply, it was argued that the absence of functional investigatory, dispute-resolution and punishment processes rendered these insufficient to address inter-avatar harassment.\textsuperscript{281} Indeed, the power to close player accounts, as demonstrated by the Ludlow and \textit{Bragg} controversies, appeared only to be exercised by game owners when players upset the game owners’ interests.\textsuperscript{282}

For United States scholars, the regulation of inter-avatar conduct raised problems regarding the protection of speech by the First Amendment. This cut two ways: first, whether game owners were restricted in exercising EULA exclusion power as a form of censorship; and second, whether the First Amendment prevent federal or state regulation of virtual conduct. While it was noted that, as private entities, game owners were not \textit{prima facie} subject to the First Amendment,\textsuperscript{283} it was argued that their quasi-governmental role might suggest some limit. To this end, First Amendment decisions looking at censorship activities by private universities, shopping malls, company towns and the Boy Scouts were examined, but were considered inconclusive concerning game owners.\textsuperscript{284} On stronger ground was analysis considering restrictions on United States governmental regulation of virtual conduct. It was agreed that the First Amendment would prevent regulations that attempted to censor virtual-worlds,\textsuperscript{285} unless the regulation was directed towards one of the First Amendment exemptions, such as harm to children.\textsuperscript{286} Some United States writers went on to examine the reach of the \textit{Child Pornography Protection Act (2000)}\textsuperscript{287} as explained in \textit{Ashcroft v Free Speech}

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Coalition\textsuperscript{288} to argue that pornography involving ‘child avatars’\textsuperscript{289} was not sufficiently real harm to real children to be subject to that law.\textsuperscript{290} In Australia, the issue of the application of real law to virtual wrongs produced a different outcome. Nick Abrahams argued that virtual assault could be addressed using Commonwealth laws concerning harassment and stalking via electronic communications, and sexualised actions by child avatars would be considered child pornography.\textsuperscript{291} The one area where the virtual-worlds and law scholarship was clear on the application of real-world to virtual-world disputes was when actions within a virtual-world led to real-world crimes. The example given was the Qui Chengwei matter from China, where a player in the real-world murdered another player who had stolen virtual property.\textsuperscript{292}

The virtual-worlds and law scholarship had established virtual-worlds as a problematic technology of the future that suggested controversies involving property, contract and wrongs – controversies that current real-world law of specific jurisdictions seemed inadequate to resolve. This survey grounded the call for law – or, more precisely, like the first-generation space law scholarship and the IVF and law scholarship, it grounded a call for law-making; thus the tension that was evident in the Sputnik-era scholarship concerning piecemeal versus comprehensive legislating was revisited. In this respect, the virtual-worlds and law scholarship represented an ongoing debate within cyberlaw scholarship between the ‘exceptionalists’, who regarded cyberspace as new and radically different, and felt it should be allowed to develop its own laws, and the

\begin{footnotesize}
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\item \textsuperscript{288} 535 U.S. 234 (2002).
\item \textsuperscript{289} By ‘child avatars’, the literature meant an avatar that looked like a child.
\item \textsuperscript{291} Abrahams (2007b), p 298.
\end{itemize}
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‘unexceptionalists’, who argued the unproblematic application of existing law to
cyberspace.293 In the virtual-worlds and law scholarship, Lastowka and Hunter articulated
the exceptionalist position:

Given the complexity of ascertaining a virtual world’s emerging legal rules and balancing them with avatar rights and wizardly omnipotence, the prospect of real-world courts entertaining virtual disputes is in some ways not very appealing. Perhaps, therefore, it would be best to require that the law of virtual worlds develops within their own jurisdiction … the wiser course may be for courts to keep their distance.294

Part of this position was influenced by Lawrence Lessig’s well-known synthesis of the exceptionalist thesis and unexceptionalist antithesis in the catch-phrase ‘Code is law’295 that cyberspace is a lawful realm; it is governed by the code in which it is written. So while some authors conceded ‘that criminal law provides a terribly blunt and awkward instrument for social control’296 and ‘[v]irtual worlds at bottom are computer games, and games are artificial structures better regulated by game administrators’,297 there were concrete suggestions for better code to deal with identifiable controversies.298 Phillip Stoup argued for more surveillance and recording of avatar conduct to be built into virtual-worlds,299 while Viktor Mayer-Schönberger and John Crowley argued that the universal avatar and portable property would necessitate game owners developing better governance structures, including code and in-game law aimed at preventing objectionable

293 These terms were coined by Post (2009), pp 166–168.
295 Lessig (1999), p 6, italics in original.
298 On examples of code developed by game owners to direct avatar conduct in contemporary virtual-worlds see Castronova (2007), pp 109–133.
conduct and also adequate resolution of in-game disputes, to attract and retain players.\textsuperscript{300} Although not a lawyer, Castronova – writing in the \textit{New York Law School Law Review} in 2004 – presented a novel justification for the exceptionalist policy position and its relation to real-world law. For Castronova, the application of real-world law relating to property, contract and wrongs to virtual-worlds would destroy their utopian potential:

The recent appearance of massively immersive play spaces … is a tremendous gift to us all, a great moment of liberation, and a drastically powerful reconnection between human beings and the artists who sustain them. The technology to create these play spaces now exists. If deployed properly, it will spread joy and self-esteem across the planet.\textsuperscript{301} However, Castronova did not argue against real-world law \textit{per se}; instead, he argued for an ‘Act of Interration’, a ‘general statement that play spaces are a unique form of commons, a unique collective good, whose value can only be sustained under certain restrictions on individual behaviour’.\textsuperscript{302} For Castronova, real-world law was needed that ‘grants EULAs a legal status robust enough to allow them to preserve synthetic worlds as play spaces’.\textsuperscript{303} Castronova wanted real-world law to declare virtual-worlds an exception.

The exceptionalist policy position of code and in-game law was directly challenged by Balkin: ‘the single most important reason why it is unreasonable to regard virtual-worlds as separate jurisdictions untouched by real-world law is the accelerating real-world commodification of virtual worlds’.\textsuperscript{304} Balkin conceived virtual controversies

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\item \textsuperscript{300} Mayer-Schönberger and Crowley (2006), pp 1802–1803, 1805–1808. See also Stoup (2008), p 338; Kane and Duranske (2008), p 9.
\item \textsuperscript{301} Castronova (2004), p 202.
\item \textsuperscript{302} Castronova (2004), p 200.
\item \textsuperscript{303} Castronova (2004), p 201.
\item \textsuperscript{304} Balkin (2004b), p 2070.
\end{enumerate}
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as a complex mat of conflicting rights: of individual players’ ‘right to play’ conflicting and players’ right to play conflicting with game owners’ ‘right to design’. 305 Appropriating Castronova’s ‘Act of Interration’, 306 Balkin argued that there should be legislative intervention providing for EULAs and game owner governance, which also fixed basic rights concerning conduct and property. 307 Following from Balkin and adopting the unexceptionalist perspective, various authors argued for ‘comprehensive legislative solution[s]’. 308 Another activity by the unexceptionalist virtual-worlds and law scholars was description of the unexceptional regulation of virtual-worlds by various jurisdictions. The decision of Li Hongchen v Beijing Arctic Ice Technology Development Co, 309 where the Beijing Chaoyang District People’s Court enforced the return of virtual objects, was described 310 along with the South Korean first step towards an Act of Interration in legislating for player intellectual property. 311 The final argument by the unexceptionalists was the adequacy of existing real-world laws to accommodate virtual controversies. Andrea Vanina Arias argued that, in the United States, virtual theft could be prosecuted under ‘current theft penal statutes’ and tax lawyers in the United States and Australia were convinced that existing tax law applied to real-world income realised when ‘cashing out’ of virtual-worlds. 312

307 Balkin (2004b), p 2091–2092
However, notwithstanding the policy disagreement driving the differences between the exceptionalists and the unexceptionalists, they shared the now-familiar account of instrumental law that can be posited. Both wanted law, whether code, in-game law, new real-world law or the application of existing real-world law; law was the instrument through which problematic dimensions of virtual-worlds should be addressed. Whether it was problems with property, contract or wrongs, the solutions were better laws. The disagreements concerned the perceived effectiveness of various species of law to achieve the desired public policy ends.

This commonality with first-generation space law and IVF and law scholarship was mirrored in more superficial ways. First, there was the belief that virtual-worlds and law scholars were being ‘practical’; they were planning for a smooth and inevitable virtual future. Second, there were charges of ‘bulk’: ‘Virtual-worlds have been the subject of much legal writing during the past few years’ caused by significant numbers of student authors reiterating much of the substance of either Balkin or Lastowka and Hunter. Finally, virtual-worlds and law scholarship possessed the seemingly mandatory ‘technical’ section in which virtual-worlds, their origins and the current experience of playing them was described.

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314 Lastowka (2008), p 903.
315 Miller (2003); Grimmelmann (2004); Jankowich (2006); Westbrook (2006) Blazer (2006); Chen (2006); Horowitz (2007); Holdaway (2007); Jacob Rogers (2007); Hunt (2007); Chin (2007); Marcus (2007), Sheldon (2007); Caramore (2008); Meek-Prieto (2008); Rosette (2008); Kunze (2008); Passman (2008); Lawrence (2008); White (2008); Arias (2008); Stoup (2008); Mack (2008); Horowitz (2008); Kriegshauser (2008).
In summary, the virtual-worlds and law scholarship manifested the same basic structure as had been evident 50 years earlier in the first-generation space law scholarship and also 30 years earlier in the IVF and law scholarship. The primary commitments were a problematic technology of the future; existing law that did not adequately address the anticipated future problems; and the call for law – or, more precisely, law-making to enact public policy goals. These explain the features common to the three literatures: a hybrid of speculation and description, and a tendency to talk of law-making processes and abstract discussions of effectiveness of various legal rules, rather than hard commitments to the exact substance of the called for law. It is this structure – the law and technology enterprise – that occupies technical legality.

3. The Occupation of Technical Legality

The three literatures examined have a common underpinning structure. Notwithstanding the time and technological differences, there is a structure that understands and ties together technology, law and future in a specific and stable way. Unsurprising, given its celebration as the mega-myth of modernity, this structure is informed by *Frankenstein*: technology is problematic – a monster promising gifts and well as death; and the future is contested, it was human destiny but in the future the monster would be sovereign. These elements of the myth ground the initial characteristics identified in the review of the literatures: a problematic technology (satellites, IVF, virtual-worlds), representing an inevitable future (space colonisation, artificial human reproduction, virtual reality) that had promises (lasting peace on earth, freedom to and from reproduction, untrammelled...
expression and experiences) and perils (space warfare, the diminishment of humanity in mechanised reproduction, replication of violence and inequalities in virtual-worlds). However, at this point there is a departure from the essence of the *Frankenstein* myth. The supposed passive humanity heading into the monster’s future, turns out not to be entirely helpless. Law is championed, it is called forth to legislate and regulate for desirable technological futures, and to prohibit and ban undesirable ones. Law is modern humanity’s reinstatement of Mumford’s ‘earliest forms of moral discipline and self-control’. The three literatures confidentially suggest that human law could direct the future, or at least mitigate some of the worst fears. International space law could legislate for space-faring peace and prosperity; national regulation could balance the competing ethical concerns surrounding IVF; and laws, whether code, in-game virtual law, new real-world law or application of existing real-world law, could address the concerns of property, contract and wrongs in virtual-worlds.

Having constructed these relationships, the literatures then turn to the practical tasks of description and analogy. Existing laws are shown to be inadequate. The merits of alternative law-making approaches are considered. Analogies of doctrines and precedents from existing law are assessed, and law-making processes and new laws are described. The lawyer tries to save the future through a hybrid of speculation and description.

In summary, the lawyers who were writing about technology were thoroughly positivist: law was seen as a tool to secure a desirable future, to direct a problematic technology’s impact according to values decided elsewhere. This is profoundly unsurprising. As James Boyd White expressed in 1985, this is what law and legal scholarship have become in the modern era:

Law then becomes reducible to two features: policy choices and techniques of implementation. Our questions are ‘What do we want?’ and ‘How do we get it?’ In this way, the conception of law as a set of rules merges with the conception of law as a set of institutions and processes. The overriding metaphor is that of the machine.\textsuperscript{318}

The law and technology enterprise merely expressed the foundational conceptions of law in modernity: law as policy choice and techniques of implementation. Kirby’s deployment of mechanistic imagery to describe the legal response to technology as a process concerned with technique was an acknowledgement of this origin. This raises the spectre – to be explored more fully in the chapters to come – that the monster was not leashed by law; rather, law itself had become possessed, monstrous and ironic. The law that responds to technology is itself technological.\textsuperscript{319}

However, this jumps the argument ahead. At this point, the three examined literatures have revealed a positivist structure for legal writing on technology that builds upon the essential components of the \textit{Frankenstein} myth. My claim is that this structure, the law and technology enterprise, occupies technical legality – that is, when lawyers think and write about technology, their thinking and writing are framed by stable assumptions: technology is problematic, the future is at stake, law is positive, existing law is inadequate, law is called, and the ‘lawyer-technician’s’ role is gap identification, analogy, description and discussion of most appropriate law-making methods through which already determined policy should be legalised.

\textsuperscript{318} White (1985b), p 686.
\textsuperscript{319} Riles (2005), pp 975–976; Cockfield (2005), p 402.
This is the structure that is repeated through the vast caverns of the JOLTs, JOLSTs and generalist law reviews. For example, in a 2003 article about nanotechnology, Glenn Reynolds canvassed its potential future benefits and harms, and concluded with law: ‘such capabilities [of nanotechnologies] would undoubtedly lead to considerable discussion and calls for regulation’. Having established a problematic technology of the future, Reynolds devotes the bulk of his paper to assessing legal responses to nanotechnology. The question became one of selecting the right instrument. For Reynolds, this involved describing and assessing alternative legal regimes. He rejected prohibition, as ‘the drawbacks are too great, the advantages too few and the difficulties too involved’. Also rejected was limiting nanotechnology to military purposes, as that would seemingly facilitate some of the feared military applications of nanotechnology while failing to allow for potential civilian benefits. In response to these ‘failed’ directions for law, Reynolds affirmed a compound approach of guidelines and licensing as the most facilitative regulatory structure. Another example is the Australian law and cloning scholarship, which is shown in Chapter 4 to be grounded on the law and technology enterprise. In short, considering the intersections of law and technology, technical legality has been occupied by seemingly concrete understandings of technology, law and future.

This occupation is almost complete. There are two much smaller literatures that, at least on the surface, appear to be outside of the law and technology enterprise. The first

324 Reynolds (2003), p 197.
is scholarship that attempts to address technical legality through considering ‘technology’ as a general category. Most law and technology writing has been about specific technologies and law\textsuperscript{326} – for example, satellites, IVF, virtual-worlds, nanotechnologies, mammalian cloning and therapeutic applications of human stem cells. However, the technology as a category literature, although more abstract, does not depart from the essential elements of the law and technology enterprise frame. Indeed, its abstractness renders this frame more visible.

Laurence H. Tribe, writing in the early 1970s, has generally been credited with the first systemic attempt to articulate a relationship between technology as a general category and law.\textsuperscript{327} Tribe drew upon the ambient souring of technology of the late 1960s and early 1970s to suggest that legal and political institutions needed to develop greater sophistication in the assessing and regulation of technological risks.\textsuperscript{328} A direction in Tribe’s account can be seen as manifesting the key tenets of the law and technology enterprise. In Tribe’s \textit{Channelling Technology Through Law} (1973), technology offers problematic futures\textsuperscript{329} that positive law can regulate.\textsuperscript{330} At this level, Tribe – like Kirby\textsuperscript{331} and C.G. Weeramantry\textsuperscript{332} in Australia – articulates institutional structures and general techniques through which legal-political-social solutions to technological problems can be produced.\textsuperscript{333} Tribe makes explicit the law and technology enterprise’s commitment to law as a form of technology.\textsuperscript{334} However, Tribe also recognises the irony

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\begin{itemize}
\item \textsuperscript{326} Drahos (1985), p 271.
\item \textsuperscript{327} Bernstein (2007), p 442.
\item \textsuperscript{328} Tribe (1973a).
\item \textsuperscript{329} Tribe (1973a), pp 6–9.
\item \textsuperscript{330} Tribe (1973a), pp 634–640.
\item \textsuperscript{331} Kirby (1982).
\item \textsuperscript{332} Weeramantry (1983).
\item \textsuperscript{333} Tribe (1973a), pp 592–633.
\item \textsuperscript{334} For other articulations of this scholarship, see Friedman (2001).
\end{itemize}
in instrumental thinking addressing instrumentality. Parallel to his ‘pragmatic’ work on technology assessment Tribe also questioned instrumentality. In doing so he affirmed a very counter-culture notion of human intellectual transcendence of the material.\textsuperscript{335} In this Tribe escapes the law and technology enterprise; however, his exit vector was not followed by subsequent scholars.\textsuperscript{336}

A second literature has a more recent pedigree. This literature initially arose from reflection on the sheer volume of cyberlaw literature that emerged in the mid-1990s, then from the internal cyberlaw debates on the ‘exceptionalist’ and ‘unexceptionalist’ responses to the internet.\textsuperscript{337} The defining characteristic was recognition that technical legality has a \textit{past}.\textsuperscript{338} While the law and technology enterprise tended to be concerned with technological futures, this scholarship began to think about technical legality as a successive series of engagements by law with technology. What was established was a research agenda of using social scientific methods to provide a more sophisticated understanding of the effectiveness of rules and models of regulation.\textsuperscript{339} This literature appeared as the ‘law and society’ supplement to the more basic ‘legal science’ of description and analogy.\textsuperscript{340} However, as with ‘pragmatic’ Tribe, the essential commitments of the law and technology enterprise within this ‘law, technology and society’ scholarship remained stable; technology still represented problematic futures that law could control. The differences between the two concerned disciplinary method: in addition to the legal science of positivism, the ‘law, technology and society’ scholarship

\begin{footnotesize}
\textsuperscript{336} An Australian scholar who did follow in Tribe’s metaphysical direction was Bell (1999), pp 277–279.
\textsuperscript{338} Mandel (2007), p 552. See also Pottage and Sherman (2007).
\textsuperscript{339} See, for example, Bennett Moses (2003); Bennett Moses (2007).
\textsuperscript{340} Collier (2004); See an acknowledgement of this by Bernstein in her title ‘socio-legal’: Bernstein (2002).
\end{footnotesize}
drew upon history, technology studies and social research to gain better understandings of the relationship between law, technology and society, in order to better regulate technology. The project remained the same – only the methods changed.

The end-point of these summaries is the simple proposition that technical legality has been occupied by the law and technology enterprise – even in literatures that take as their subject technology generally, or attempt to think about technology, law and society from social scientific perspectives, the essential elements of the law and technology enterprise – problematic technology, future, positive law – remain. Wider considerations of technical legality – for example, why certain laws were actually adopted, or the irony of law as technology to control technology – are, in Lyria Bennett Moses’ words, ‘left for another day’.

The emphasis on temporality within the law, technology and society scholarship, hinting that technical legality has a past as well as a future, suggests something more about the law and technology enterprise: that its founding moment lies within a speculative jurisdiction.

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341 See, for example, Yu (2006); Bernstein (2004); Sherman and Bently (1999); Dworkin (1996).
342 See, for example, Cockfield and Pridmore (2007) (looking at macro-accounts of society and technology from technology studies); Bernstein (2006) (looking at studies of technology diffusion); Mandel (2005) (looking a sociological data on public attitudes to technologies).
343 For example, Caudill used interviews with scientists and other stakeholders involved in pollution controversies. See Caudill (2009), p 266; Caudill and Curley (2009). Caudill also uses textual analysis in examining ‘sociotechnical’ arguments in tobacco litigation. See Caudill (2005). While Caudill’s focus is on the circulation of scientific evidence within legal areas, this use of social scientific methods and his conception of science within a more sophisticated ‘technoscience’ frame locate these studies within ‘law, technology and society’ scholarship.
3

Speculative Jurisdiction and Mythform

Courts cannot always, in the manner of Star Trek’s Captain Jean-Luc Picard, say ‘Make it so!’


This chapter argues that the law and technology enterprise is founded on a ‘speculative jurisdiction’. What this means is that behind the calls for positive law to regulate technology lies a legal imagination that is both terrorised and excited by technological futures. Further, this speculative jurisdiction – the fears, narratives, images and motifs that drive the law and technology enterprise – is given form by science fiction. This means that hidden within the pages of law journals that talk of the ‘grown-up’ concerns of translating policy to law lurk seemingly incongruent fantasies of wondrous machines, brave new worlds, apocalypse, mutants and aliens.

This argument is presented in two sections. The first peers deeper into the three literatures examined in Chapter 2 to perceive that the law and technology enterprise possesses a founding preoccupation with time. Its orientation is the future; the lawyer in the now desires law to secure certain technological futures. This dreaming of future is the

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1 *Phonographic Performance Company of Australia v Federation of Australian Commercial Television Stations* (1998) 195 CLR 158 at 181, per McHugh and Kirby JJ.

speculative jurisdiction, and its origin lies in the images of technological futures encoded and made popular by science fiction. This is demonstrated within the three literatures through the direct referencing of science fiction texts, the indirect referencing of science fiction images and narratives, and the deployment of the term ‘science fiction’.

The second section explains that these glimpses of science fiction foundations within the law and technology enterprise are to be expected. Notwithstanding science fiction’s marginal place within the literary establishment, critics have acknowledged science fiction as the ‘mythform’ of the modern West. That is, it is the Dreaming site for the West’s technological futures – a place for working through, at an epistemological and also an ontological level, the anxieties and promises of technological change. This section goes on to show the influence of science fiction as a Western mythform within legal theory, and concludes by inscribing science fiction as mythform into the law and technology enterprise to articulate the question, ‘What would it mean for technical legality if science fiction were taken seriously?’

1. Speculative Jurisdiction

The law and technology enterprise was concerned with time. In Chapter 2, the essential character of the law and technology enterprise was revealed as problematic technological futures that could be regulated, modified or prohibited through positive law made in the now. The future and the present were the operational dimensions. Concerning the individual literatures discussed, first-generation space law envisioned a desirable human future of space conquest to be legislated for, and preserved, by international space law, against the dark alternative future of space borne nuclear war; the IVF and law scholarship needed to preserve humanity within a future of artificial reproduction; and
virtual-worlds and law scholarship wanted property rights and good governance for the inevitable virtual future. The technology as a category and law scholarship desired a future where processes and institutions were identified and assessed, and where the risks of emergent technologies were regulated, while the law, technology and society literature began to ask questions about past engagements of law with technology within the familiar framework of trying to find effective legal instruments through which to craft desirable technological futures.

In all this talk, assessment and calling forth, the future was paramount. As was seen in Chapter 2, the law and technology enterprise was often articulated as a project involving ‘speculation’, ‘anticipation’, ‘prescience’ and ‘foreseeing’. Behind the urgency of the practical task of description, gap identification and law-making were dreams and nightmares of technological futures. Indeed, in contrast to the pragmatic agenda, there was the glimmer of creativity. Lawyers in the late 1950s were quick to see beyond the rather small Soviet satellite to a future of everyday human space habitation. In the late 1970s, lawyers saw beyond one child born from an expensive and still revolutionary technique to a ‘brave new world’ of artificial reproduction, and very recently lawyers regarded virtual-worlds – notwithstanding their marginal status within the entertainment economy – as harbingers of a parallel universe of digitally rendered human freedom.

It is at this point of fantastic futures that the law and technology enterprise’s origin is located. The law and technology enterprise binds the present to technological futures with law because of its ‘speculative jurisdiction’ – that is, the law and technology enterprise only has meaning through its quite vivid imagination of how contemporary technologies hold within the germ of a future form of human existence (space-faring
humans, humans ‘freed’ from biological reproduction, virtual humans). However, the speculative jurisdiction was not an original project. Much like the positivist desire at the law-making end of the law and technology enterprise, the content of the speculative jurisdiction emerged from elsewhere. This elsewhere was not the pronouncement of technical agencies like law reform commissions, nor specialist professionals like futurists and bioethicists, nor social scientific data concerning the community’s anticipations and concerns. The source of the images, narratives and tropes that form the technological futures in the speculative jurisdiction was science fiction.

The location of the speculative jurisdiction within science fiction can be seen at three sites within scholarship grounded on the law and technology enterprise. The first is through the direct referencing of science fiction texts. The second is the circulation of science fiction-sourced images, narratives and tropes. The third is the deployment of ‘science fiction’ as a meta-emblem for the speculative jurisdiction.

**Science Fiction Texts**

The most obvious evidence of the speculative jurisdiction is the direct citing of science fiction texts as emblems of technological futures. An example from first-generation space law comes from the editors of the *International and Comparative Law Bulletin*, who located Sputnik within a literary tradition that had projected human-made satellites, particularly Edward Everett Hale’s proto-science fiction short story ³ ‘The Brick Moon’ (1870), ⁴ along with Jules Verne, and Russian rocket scientist and science fiction author Kostantin Tsiolovsky. ⁵ Other contributors to first-generation space law cited H.G. Wells’

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The First Men in the Moon (1901),6 War of the Worlds (1898)7 and Verne’s From Earth to Moon (1865)8 as ‘prophetic’9 of humanity’s space-faring future.10 Indeed, Verne was mentioned as the embodiment of speculating on technological futures.11 However, the most frequently cited science fiction text in first-generation space law scholarship was not from the pen of Verne or Wells; it was the 1930s pulp space opera Buck Rogers.12 Some first-generation space lawyers referenced science fiction texts, but did so negatively. Morton S. Jaffe dismissed the excited speculation of Andrew E. Haley through an association with science fiction: ‘I yield this field to Mr. Haley, much as I do not presume to trespass even on Lewis Carroll’s “Wonderland,” and Aldous Huxley’s “Brave New World,” visited or revisited, or Mr. George Orwell’s “1984.”’13

While Jaffe marginalised the excessive speculation of first-generation space law scholarship with Huxley’s Brave New World (1932)14 and Orwell’s Nineteen Eighty-Four (1949),15 citing both these dystopian texts was a prerequisites for the IVF and scholarship. In 1968 George P. Smith II located artificial insemination and the future prospect of IVF in ‘[t]he shadowy predictions of Huxley and Orwell [that] can no longer be dismissed as blurred and unrealistic’.16 George J. Annas and Sherman Elias expressed more expansively that:

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6 Wells (1954).
7 Wells (1975).
9 Simeone Jr (1962), p 43.
11 Dembling (1959); Smirnoff (1962), p 385; Menter (1963), p 3.
13 Jaffe (1959), p 375.
14 Huxley (1977).
15 Orwell (1949).
16 Smith (1968), p 127. See also Smith (1982), p 63.
Modifications in reproductive methods have long been viewed as science fiction and have occasioned both fear and amazement. With 1984 less than a year away, we are reminded of Orwell’s world in which AID (artificial insemination by donor) was mandatory, and sexual pleasure and the family were destroyed to help maintain the tension necessary in a society dedicated to perpetual warfare. In Aldous Huxley’s *Brave New World*, the family was also destroyed; but he portrayed a society controlled not by fear, but by gratification and reinforcement. Abolition of the family was followed by complete sexual freedom; but reproduction was handled by the state.\(^{17}\)

Within the IVF and law scholarship, Huxley and *Brave New World* functioned as predominate tropes, representing both the immediacy and the perils of artificial human reproduction: ‘Artificial insemination is no longer just part of a Huxleian view of the future; it is with us now.’\(^{18}\) Michael Kirby quoted from Huxley,\(^{19}\) and in 1986 used ‘Brave New World’ as a heading for a section within an article on artificial human reproduction.\(^{20}\) Orwell and *Nineteen Eighty-Four* also circulated. IVF, it was suggested, had an ‘Orwellian connotation’,\(^{21}\) and even Julius Stone located IVF within an Orwellian authoritarian future.\(^{22}\)

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\(^{17}\) Annas and Elias (1983), pp 200–201.


\(^{19}\) Kirby (1981), p 1.

\(^{20}\) Kirby (1986), p 211.

\(^{21}\) Oakley (1974), p 386.

\(^{22}\) Stone (1973), p 244; See also Steeves (1979), p 1051; Favre and McKinnon (1981), p 691; Skene (1985), p 379.
Orwell and *Nineteen Eighty-Four* were deployed briefly in virtual-worlds and law scholarship concerning the issue of information privacy within virtual-worlds.\(^{23}\) However, unlike the IVF and law scholarship that circulated Orwell and Huxley, the heavy hitters of old-school dystopian science fiction,\(^{24}\) the virtual-worlds and law scholarship found its speculative jurisdiction within Neal Stephenson’s *Snow Crash* (1992)\(^{25}\) and William Gibson’s *Neuromancer* (1984).\(^{26}\) *Snow Crash*, with its virtual-world the ‘Metaverse’, peopled by ‘avatars’, was regularly referenced.\(^{27}\) Gibson’s *Neuromancer* – celebrated in cyberlaw scholarship as coining the name ‘cyberspace’\(^ {28}\) – recurred in the virtual-world and law scholarship.\(^ {29}\) Scott Holdaway went so far as to suggest that virtual-worlds were ‘a future that William Gibson, back in the early eighties, anticipated, and one that may soon be with is’\(^ {30}\). This appreciation of aesthetics of cyberpunk continued with the referencing of the Wachowski brothers’ 1999 film *The Matrix*:\(^ {31}\) ‘Second Life … is perhaps the first attempt by Internet users and programmers to make the digital realm of *The Matrix* come to life.’\(^ {32}\) However, this citing of science fiction texts heralded a more expansive engagement with science fiction. Not only were

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\(^{24}\) Berger (1976), p 89; Howe (1982).


\(^{26}\) Gibson (1984).


science fiction texts cited, but lawyers delved more deeply into the texts, extracting images, narratives and tropes to sketch the promises and perils of technological futures.

**Science Fiction Images, Narratives and Tropes**

While direct referencing of science fiction texts was limited in first-generation space law scholarship, it was sown through with images, narratives and tropes of space-faring futures that emerged from the sub-genre of space opera.\(^{33}\) E.E. (Doc) Smith, in *Skylarks of Space* (1928)\(^{34}\) and the ‘Lensman’ cycle (1934–1950)\(^{35}\) (published in Hugo Gernsback’s pioneering ‘pulp’ science fiction magazine *Amazing Stories*), has generally been credited as the creator of the ‘archetypical space opera’,\(^{36}\) while it has been argued that the *Buck Rogers* and *Flash Gordon* comic, print, radio and film franchises from the 1930s diffused space opera sensibilities through popular culture.\(^{37}\) Gary Westfahl articulates the core elements of the sub-genre:

First space opera involves a ‘space-ship’: like the nautical fiction from which it borrows terminology and tropes, space opera depicts journeys through uncharted realms in vessels bringing humans into contact with the mysterious stuff separating their safe harbours … Second, space opera is a ‘yarn’ – an exciting adventure story. Typically posting a universe filled with humans or

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\(^{33}\) The term ‘space opera’ was coined by Bob Tucker, writing in 1941 in his self-published science fiction fanzine *Le Zombie*. Tucker wrote: ‘For the tacky, grinding, stinking, outworn space-ship yarn, or world-saving for that matter, we offer “space opera”.’ Tucker (1941), p 9. As a sub-genre of science fiction, see Westfahl (1994), p 177.

\(^{34}\) Smith (1984).


alien spacefarers – some hostile, some friendly – space opera is a literature of conflicts, usually with violent resolutions.38

Space opera, with its spaceships, planets, galactic civilisation, aliens and conflicts, provided the context through which first-generation space lawyers saw within Sputnik a human space-faring future. In was Haley’s 1956 ‘metalaw’ speech that prioritised this vision of the future within the legal consciousness. Haley saw it as inevitable that ‘new propulsive systems will be found which will reduce the cost of construction and operation, commercial enterprises will demand access to space, emigration will commence, meteorite mining will become an industrial object’39 and ‘other stars have planets … other planets inhabited by intelligent beings’.40 Following E.E. Smith, whose human space civilisation needed the ‘Galactic Patrol’ to enforce order,41 Haley anticipated the need for a ‘metalaw’ to regulate conflicts from human/alien interactions, and Haley’s articulation of the basic principles of respect and non-interference42 seemed very similar to a later space opera’s metalaw: the ‘Prime Directive’ from the Star Trek franchise.43 Also following E.E. Smith’s lead, Haley saw this future as ennobling humanity:

… we believe space exploration will dignify and enrich mankind, erasing forever devastating economic problems and affording vistas of mysteries of creation immeasurably more challenging and interesting than we now

40 Haley (1956b), p 438.
43 As discussed in Chapter 1.
conceive of, and so engender a measure of tolerance and compassion that
man will rise above his past.44

In the more immediate time-scale, Haley believed the first human steps into space would
stimulate international law and set humanity on the path to another space opera staple,
unified human government on earth and in the stars.45

While Haley represented a fully realised space opera-grounded legal analysis, as
shown in Chapter 2, space lawyers wrote enthusiastically about the inevitable
interplanetary destination for humanity, feared future conflicts that needed law and
anticipated the promise in space travel of global cooperation and peace. This context of
space opera – of spaceships, planets, galactic civilisations, aliens and conflicts – infusing
legal scholarship explains the remarkable set of images and tropes within Martin
Menter’s 1963 hypothetical:

There has been an accident on a flight to Mars. Survivors parachuted to the
planet where they were hospitably received by the Martians who had been
watching with interest the developments on Earth since Martians are several
eons ahead of Earth in progress … The relatives of those lost in the Martian
flight employ counsel to recover damages owing to the death of passengers
on the flight because of the faulty construction of the flight vehicle or its
faulty operation. A lawyer must go to Mars to investigate the accident to take
depositions or for pre-trial examination. How does he get there? What

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44 Haley (1956b), p 449.
45 Haley (1956b), p 449. An unified human government forms the backdrop to E.E. Smith’s
‘Lensman’ saga. It also appears as a standard feature in Robert A. Heinlein’s stories, In Starship
Troopers (1959), the ‘Terran Federation’ defends itself against an alien civilisation (Heinlein
1986), while in Stranger in a Strange Land (1961), the protagonist comes to terms with the
language does he use? Where will the litigation be instituted; where and when tried; what laws will govern, Earth’s or Mars’s, or entirely new interplanetary laws subscribed to by Earth’s nations, the Martians and dwellers on other heavenly bodies with whom communication has been established?  

Menter shows space opera as first-generation space law scholarship’s speculative jurisdiction. Sputnik might have called forth public international law, but it primarily summoned from the pages of the pulps the space opera ensemble of space-faring humanity and transmitted that stylised technological future into legal discourse.

This transmitting of science fiction images, narratives and tropes into legal discourse as representations of technological futures was exactly what the IVF and law scholarship did. Indeed, the repeated referencing of *Brave New World* and *Nineteen Eighty-Four* represented the tip of a dystopian pyramid of images, narratives and tropes throughout the scholarship. Central to the dystopian sub-genre is a horror of loss surrounding the free human of modernity, and particularly anxieties concerning technical intervention in human birth and bodies for malevolent purposes.  

The dystopian tropes of manufactured humans of varying capacities in the ‘Central London Hatchery and Conditioning Centre’ from Huxley’s opening chapters appear throughout the IVF and law scholarship. Sir Zelman Cowen in 1985 saw: ‘At the end of this [IVF] road [humans] graded, produced to political, social, and economic specifications in laboratories and factories, with the process of gestation taking place outside the human body.’ Sharon Steeves saw IVF as raising the *Brave New World* spectre of state control over human

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46 Menter (1963), p 3.
49 Cowen (1985), p 569; see also Robertson (1986), p 1023.
reproduction.\(^{50}\) The mentioning in the IVF and law scholarship of artificial wombs suggested Huxley’s ‘Bottling Room’ where, with Fordist precision, conveyer belts of bottled sow’s peritoneum received a human embryo, later to be ‘decanted’\(^{51}\). Further along the dystopian continuum was the concern with the ‘[g]rowth of embryos for spare parts [as] … one of the futuristic possibilities introduced by IVF’.\(^{52}\) Also, as shown in Chapter 2, by imagining a future of artificial human reproduction, IVF and law literature saw human cloning in that future, conjuring Huxley’s dystopian vision of mindless, mechanised uniformity:

‘Ninety-six identical twins working ninety-six identical machines!’ The voice was almost tremulous with enthusiasm. ‘You really know where you are. For the first time in history.’\(^{53}\)

Julius Stone, peering into what he saw as an inevitable future of artificial human reproduction, sets out the central Huxley tropes – of power elites, diminished individuality and the end of history – behind clone hysteria:\(^{54}\)

Careful planning could use the principles involved to produce multiple identical copies of Adolf Hitler, Mussolini, or Al Capone … The threats from such quasi-vegetative reproduction, even when not manipulated by power elites, also include the danger of bringing society to an evolutionary dead end. Under manipulation it could enslave individuality to the needs of breeding reliable workers, soldiers, astronauts (or even scientists), creating children

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\(^{50}\) Steeves (1979), p 1051; see also Smith (1982), p 68; Robertson (1983), p 426.


\(^{52}\) McCartan (1986), p 711.

\(^{53}\) Huxley (1977), p 18.

\(^{54}\) ‘Clone hysteria’ is discussed in detail in Chapter 4.
who know they are preordained, freaks who can already see their future mirrored in another person.\textsuperscript{55}

Huxley's dystopia provided the basic material through which lawyers speculated on the problematic future of artificial human reproduction that framed the pragmatic task of law's response to IVF.

Beyond the obvious recognition that various virtual-worlds, such as CCP's \textit{EVE Online} and Sony's \textit{Starwars Galaxies}, draw their content from science fiction,\textsuperscript{56} it was an established feature of the virtual-worlds and law scholarship to weave cyberpunk images, narratives and tropes within the analysis. The term 'cyberpunk' was first deployed by Bruce Bethke as the title of a 1983 short story, published in \textit{Amazing Stories} about a young hacker;\textsuperscript{57} however, it was soon deployed to cover near-future fiction from the 1980s concerned with developments in:

… cybernetic and genetic engineering, in organ transplants, and artificial intelligence research; the equally significant developments having to do with information storage-and in particular, the ways that computerized data, microstorage and developments of data banks are controlled and owned by multi-nationals (in short, the increasing monopolization by private business of information, and the ways this monopolization is used for the purpose of wielding power and control over nation-states and individuals); the social, psychic, political, and behavioral impact resulting from the shift that has

\textsuperscript{55} Stone (1973), p 248.
\textsuperscript{56} See, for example, Jankowich (2006), p 2. More precisely, these worlds draw from space opera.
\textsuperscript{57} Clute (2003), p 67.
taken ... away from the older industrial technologies to the newer informational and cybernetic ones.\textsuperscript{58}

For critics, many of whom reduced cyberpunk to Gibson’s ‘sprawl’ trilogy\textsuperscript{59} – \textit{Neuromancer} (1984)\textsuperscript{60} \textit{Count Zero} (1986)\textsuperscript{61} and \textit{Mona Lisa Overdrive} (1988)\textsuperscript{62} – the sub-genre involved a masculine fascination with intimate technologies of the body that enhance, replace or render superfluous the ‘wetware’ of human existence.\textsuperscript{63} In the virtual-worlds and law scholarship, Gibson’s low-life characters from the digital wastelands of hyper-capitalism, opportunistically hacking corporate databases, become the virtual-world ‘griefers’\textsuperscript{64} who destroy and appropriate virtual property. It is the existence of lawless contemporary ‘console cowboys’\textsuperscript{65} that drives the need for law to protect property and play spaces. Beyond Gibson’s narrative of data and hackers, his tropes reappear at other points in the virtual-worlds and law scholarship. His now-famous description: ‘Cyberspace. A consensual hallucination experienced daily by billions of legitimate operators ... A graphic representation of data abstracted from the banks of every computer in the human system’,\textsuperscript{66} which is cited repeatedly by cyberlawyers,\textsuperscript{67} became in virtual-worlds and law scholarship, ‘Perhaps one day, not far in the future, every computer connected to the Internet will be a little piece of 3D virtual real estate’.\textsuperscript{68}

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\textsuperscript{58} McCaffery (1988), p 9.
\textsuperscript{60} Gibson (1984).
\textsuperscript{61} Gibson (1986).
\textsuperscript{62} Gibson (1988).
\textsuperscript{65} Easterbrook (1992), p 378.
\textsuperscript{66} Gibson (1984), p 67.
\textsuperscript{68} Chen (2006), p 1090.
\end{footnotesize}
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However, as feminist critics of Gibson emphasise, Gibson’s cyberspace is bodiless.\(^{69}\) Data are represented geometrically, the familiar ‘stepped scarlet pyramid of the Eastern Seaboard Fission Authority burning beyond the green cubes of Mitsubishi Bank of America’,\(^{70}\) but users float without location; indeed, for Gibson to be given a body in cyberspace causes the death of a real body.\(^{71}\)

While a small band of feminist cyberpunk writers imagined a ‘peopled’ cyberspace over the 1980s,\(^{72}\) it was Stephenson’s satirical *Snow Crash*, which presented a strangely familiar Metaverse with its Street populated by anthropomorphic avatars – of cyberspace just like reality, only better – that was often invoked by the virtual-worlds and law literature. Stephenson’s description of avatars – ‘If you are ugly, you can make your avatar beautiful. You can look like a gorilla or a dragon, or a giant talking penis in the Metaverse. Spend five minutes walking down the Street and you will see all of these.’\(^{73}\) – provided the template for virtual-worlds and law scholars’ descriptions of virtual-worlds: ‘She lives in a modest house on a popular island with her husband. They enjoy shopping, fishing, and going dancing. Like everyone else in her town, Ava flies, teleports to work, and talks to animals.’\(^{74}\) Stephenson’s comment that his primary character, the obviously named Hiro Protagonist, ‘has a nice big house in the Metaverse but has to share a 20-by-30 in Reality. Real estate acumen does not always extend across the universes’\(^{75}\) became the quote when considering virtual property.\(^{76}\)

\(^{71}\) Gibson (1984), p 290.  
\(^{73}\) Stephenson (1992), p 36.  
\(^{74}\) Meek-Prieto (2008), p 88.  
\(^{76}\) See Sheldon (2007), p 786.
Another cyberpunk image in the virtual-worlds and law scholarship was the cyborg. While the intimate fusion of body and technology has a pedigree in science fiction stretching back to Well’s Martians from *War of the Worlds*,77 Gibson’s stories involve a cavalcade of cyborgs: the hacker Case, who only feels whole when he is plugged into a ‘deck’ accessing the matrix; Molly, the cybernetic enhanced razor-girl with optical implants and retractable blades behind burgundy fingernail; and Armitage, the empty ex-army officer whose mind and personality have been constructed by the Tessier-Ashpool artificial intelligence ‘Wintermute’. Indeed, it can be argued that cyberpunk’s popularising of the cyborg as commonplace and ordinary, yet still other and transgressive, explains some of the attraction of the term to 1980s and 1990s technofeminism, particularly the reception of Donna Haraway’s iconic 1985 ‘A Manifesto for Cyborgs’.78 This connects with the virtual-worlds and law scholarship in Lastowka’s and Hunter’s introduction into the literature of the cyborg as a conceptual tool to conceive of the player/avatar construct79 and their development of ‘cyborg rights’80 to frame consideration of the legal concerns surrounding virtual-worlds.81

In summary, lawyers not only referenced science fiction texts, but extracted from science fiction images, narratives and tropes to imagine technological futures. First-generation space lawyers saw a future coloured by space opera; IVF and law scholars

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77 Rieder (2008), p 111.
81 When introducing the cyborg, Lastowka and Hunter parade several of science fiction’s more popular cyborgs: the ‘Six Million Dollar Man’ from the 1970s television series of the same name, and the ‘Borg’ from the *Star Trek* franchise. They also acknowledge Haraway as the portal for the cyborg to move from popular culture to scholarly discourse. See Lastowka and Hunter (2004) p 64, n 339.
conceived the future of artificial human reproduction according to Huxley’s dystopian vision; and lawyers writing about virtual-worlds saw virtual futures through cyberpunk’s mirrorshades. The circulation of science fiction content points to the meta-emblem for technological futures in the law and technology enterprise’s speculative jurisdiction – ‘science fiction’ itself.

**Science Fiction as Meta-Emblem**

The meta-emblem for the speculative jurisdiction was the term ‘science fiction’. Science fiction’ was used repeatedly by lawyers to talk about technological futures. Sputnik was greeted by space lawyers with phrases that have gone on to become hackneyed: ‘science fiction is now fact’;82 ‘the problems raised by science fiction may soon become reality’;83 and ‘[space travel] is no longer in the realm of science fiction’.84 ‘Science fiction’ was also deployed by IVF and law scholars to signpost the future of artificial human reproduction: ‘[y]esterday’s science fiction, however, is today’s reality’,85 and:

> The term *in vitro fertilization* probably does not mean much to most people, but the common name, test-tube baby, does. To the naïve, the latter term conjures up visions of babies cultured in laboratories. To the more sophisticated, either term represents a major advance in biological science

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83 Cerny (1958), p 98.
84 Smythe (1960), p 191. See also Dembling (1959), p 16; Johnson (1963), p 75; Jaffe (1960), p 68: ‘Just three years ago shooting the moon was the highly improbable concern only of science fiction writers.’
and presents opportunities to shape men’s lives in ways that until now were only possible in science fiction novels.\(^\text{86}\)

Virtual-worlds and law scholars were more circumspect in their deployment of ‘science fiction’ as a meta-emblem, although it was noted that: ‘Technology makes things possible today that were unimaginable or at the very least science fiction in the 1960s.’\(^\text{87}\) Within the literatures, science fiction was occasionally deployed in a disparaging way. In this context, ‘science fiction’ signified hysteria and unwarranted over-speculation: ‘The effects of these biotechnologies are frequently fantasized in a science-fiction like manner by the media and, as a result, are rarely examined in a rational, systemic manner.’\(^\text{88}\) However, this signification of ‘science fiction’ was minor, and remained secondary to its dominant deployment as the meta-emblem for a repository of technological futures.

Science fiction as texts, images, narratives and tropes, and ultimately as a meta-emblem for imagining the contours of technological futures, functioned as the wellspring for legal writing on technology. It was science fiction that informed the law and technology enterprise’s speculative jurisdiction. So while the pragmatics of the positivist legal scholarship of the law and technology enterprise emerged from speculation on technological futures, this speculative jurisdiction had its origins in, and was sustained by, science fiction. This apparent dissidence between the fantastic and the practical, and the union of the two in the law and technology enterprise, are not unexpected. The next section will argue that the law and technology enterprise emerges from science fiction precisely \textit{because} of science fiction’s role as the West’s mythform.

\(^{86}\) Eccles (1985), p 1033.

\(^{87}\) LeBlanc (2008), p 277.

\(^{88}\) Porte (1979), p 67. See also Jaffe (1959), p 375.
2. Western Mythform

This section argues that science fiction forms the West’s mythform. It is the dreaming site for the West’s technological futures, a place for working through both the anxieties and promises of technological change. The term ‘mythform’ itself has science fiction origins. Coined by Gibson in the third sprawl novel, *Mona Lisa Overdrive*, it was described as:

The mythform is usually encountered in one of two modes. One mode assumes that the cyberspace matrix is inhabited, or perhaps visited, by entities whose characteristics correspond with the primary mythform of a ‘hidden people’. The other involves assumption of omniscience, omnipotence and incomprehensibility on the part of the matrix itself.89

Drawing upon this quote in his attempt to render Gibson performative for virtual reality technology research, Ken Hills argues that Gibson’s novels suggest ‘virtual technologies … fill a vacuum in meaning left by the explanation, and hence denigration, of the old Christian God’.90 This resonates with the revelation of modernity in Chapter 1 as the myth-ridden era beyond myth.91 God might be dead, but as Mary Shelley showed, myths remain. Remembering *Frankenstein* is important. The celebration of Shelley’s creation as *the* myth of modernity opens to the claim that science fiction as a genre encases the mythform of the West. This claim is pursued in two sections. The first section examines science fiction as a genre, cataloguing claims made for science fiction’s pre-eminence as a repository for Western dreaming of future and future Being, and a documenting of

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91 Paul Carter uses the term ‘mythform’ to mean the raw material of myths, as the title to his volume describing the making of the text-heavy *Nearamnew* artwork in Melbourne’s Federation Square. See Carter (2005).
science fiction as mythform in the unlikely place of jurisprudence. The second section reinscribes science fiction as mythform into the law and technology enterprise to frame the question, ‘What would it mean for technical legality if science fiction were taken seriously?’

**Science Fiction as Western Mythform**

Starting with *Frankenstein* again, there is dispute about whether ‘science fiction’ begins with Shelley. Don Idhe and Robert Adams both argue that the substantive origins of science fiction lie with the interstellar journey texts of the seventeenth century, of which Cyrano de Bergerac’s are the best known, while Darko Suvin regards Thomas More’s *Utopia* (1516) as a key text in the formation of the genre. However, these claims are contested within science fiction criticism. Isaac Asimov, for instance, argues that science fiction proper must be seen as having emerged during the nineteenth century. However, this search for foundations turns not so much on the chronology of authors but, as Fredric Jameson acknowledges, on the definition of science fiction as a genre.

Asimov’s preference for science fiction beginning in the nineteenth century arises from his definition of science fiction as belonging to a culture responding to industrial technology and concerned about its technological future:

[science fiction] should glory in the fact that it is the literary response to humanity’s crowning triumph – modern science and technology. It should

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93 Ihde (2002), pp xiii–ix; Roberts (2005), pp 48–49. Both also document antecedent literatures concerning social and technical speculation and fantastic journeys back to Plato’s *Republic*.
94 More (1965).
95 Suvin (1979), p 92; Suvin (2003), p 188.
96 Kincaid (2003).
trumpet the fact that it deals with the great truth of contemporary times – rapid change. Science fiction is young because it is today’s literature; and, more than that, tomorrow’s.99

This conceptualising of science fiction amounts to what can be seen as the ‘epistemological’ definition of science fiction. Both editors credited with developing the genre in North America presented analogous definitions. In the first issue of Amazing Stories in April 1926, Hugo Gernsback set out the magazine’s publication policy of scientification: ‘By “scientification” I mean the Jules Verne, H.G. Wells, and Edgar Allan Poe type of story – a charming romance intermingled with scientific fact and prophetic vision.’100 In a similar vein, John W. Campbell’s definition was that: ‘Science fiction tries to … write up, in story form, what the results look like when [technological change] is applied not only to machines, but to human society as well.’101 However, these definitions of science fiction concerned with the external shape of technological futures proved unsatisfactory to the emerging discipline of science fiction criticism in the 1960s. The science fiction critics who were drawing on literary criticism protocols and attempting to reconcile ‘new wave’ writers102 to the earlier less literary opus tended to focus less on the editorial subject-matter and more on science fiction’s unique modus. It is from this context that Darko Suvin’s 1972 definition of science fiction as the ‘literature of cognitive estrangement’103 became popular.104 Suvin saw in science fiction not just

technological dreaming on an epistemological scale, but a deeper ontological project of thinking Being through the ‘strangeness’ of science fiction. Following Suvin and the arrival of academic science fiction critics, definitions of science fiction multiplied – the offspring of the promiscuous tension between epistemological and ontological registers. In his 1986 study, Gary K. Wolfe documents 33 different definitions from authors, editors and critics.

The flowering of definitions of science fiction had provoked cynical reactions. Damon Knight, as early as 1952, claimed that science fiction ‘means what we point to when we say it’, and more recently Paul Q. Kincaid suggested that the best that could be found when it came to a definition of science fiction were a collection of texts bearing a ‘family resemblance’. Notwithstanding this pragmatic approach, the Australian critic and author Damien Broderick offered a more expansive definition:

[Science fiction] is that species of storytelling native to a culture undergoing, the epistemic changes implicated in the rise and supersession of technical-industrial modes of production, distribution, consumption and disposal. It is marked by (i) metaphoric strategies and metonymic tactics, (ii) the foregrounding of icons and interpretative schemata from a collectively constituted generic ‘mega text’ and the concomitant de-emphasis of ‘fine writing’ and characterisation, and (iii) certain priorities more often found in

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105 Suvin (1979), p 14: ‘modern SF is analogous to modern polycentric cosmology, uniting time and space in Einsteinian worlds with different but covariant dimensions and time scales’.
scientific and postmodern texts than in literary models: specifically attention
to the object in preference to the subject.\textsuperscript{109} Broderick’s definition has been increasingly cited,\textsuperscript{110} possibly because it seems to bridge the epistemological register of Asimov’s technology and future, and Suvin’s literary and ontological emphasis, while avoiding content through labels such as ‘metaphoric strategies and metonymic tactics’ and ‘mega text’. However, what Broderick captured was the common thread that can be discerned through the contested history of science fiction definitions. Science fiction is where contemporary Western culture storytelling about technological futures – about how ‘objects’ will change life, not just the external forms and institutional arrangements (epistemological), but the expression of Being itself (ontological).

It is this relationship of science fiction to the contemporary West that is trumpeted by Fredric Jameson in the conclusion to his influential \textit{Postmodernism, or, The Cultural Logic of Late Capitalism} (1991).\textsuperscript{111} For Jameson:

\begin{quote}
Might it not still be possible, however, to generate history out of the present itself and to endow today’s fantasy projections and wish fulfilments with the force if not a reality, then at least of what grounds and inaugurates realities, as Heidegger liked to say (\textit{stiften}). These projections run in opposite directions, even though they can be detected in the most substantial corpus of such symptoms – contemporary science fiction.\textsuperscript{112}
\end{quote}

\begin{flushleft}
\textsuperscript{110} Roberts (2000), p 12.
\textsuperscript{111} Jameson (1991).
\textsuperscript{112} Jameson (1991), p 376, italics in original.
\end{flushleft}
From a rather different perspective to Jameson’s grand theorising on the decline of the grand comes Joanna Russ, who argues that, at their best: ‘The myths of science fiction run along the lines of exploring a new world conceptually (not necessarily physically), creating needed physical or social machinery, assessing the consequences of technological or other changes … they are myths of human intelligence and human adaptability.’ Russ captures the idea that science fiction in its epistemological and ontological registers constitutes the Western mythform – providing the materials to explore the external and internal of technological futures. That science fiction provides for explorations of technology and Being across epistemological and ontological planes is perhaps best recognised in science fiction criticism when critics invoke ‘myth’ in the analysis. Indeed, C.S. Lewis suggested that the strength of science fiction (along with fantasy of which he considered superior) was that it provided opportunity for myths and myth-making within the mythless modernity. However, this recognition of science fiction as mythform is not widely shared outside the quite closed community of science fiction authors and critics.

Broderick captures a sense of inferiority that surrounds science fiction when, in his definition, he alludes to a ‘de-emphasis of “fine writing”’ and ‘certain priorities more often found in scientific and postmodern texts than in literary models’. Samuel R. Delany observes that science fiction criticism has been beset by insecurities that science fiction is

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not ‘literature’. There is some substance to this insecurity. Science fiction texts rarely become canons of Western literature. Within film studies, science fiction does somewhat better. Fritz Lang’s *Metropolis* (1927), Stanley Kubrick’s *2001: A Space Odyssey* (1968), Ridley Scott’s *Blade Runner* (1982) and even George Lucas’s *Star Wars* (1977) regularly make it on to critics’ lists. As Susan Sontag observed in 1965, it seems that that science fiction is more at home with the moving image than with the written word. For Annette Kuhn, this wider acceptance of science fiction cinema comes because of the medium’s visual and visceral enactment of technological futures: ‘the medium fitting, if not exactly being, the message’. This dimension of science fiction seems to be encapsulated in Broderick’s definition of science fiction as involving ‘specific … attention to the object in preference to the subject’. Reflection on the ‘success’ of science fiction film, notwithstanding critical marginalisation, points to a key feature of science fiction that allows it to function as Western mythform: it is popular.

Science fiction is a ‘democratic’ genre. It belongs not to literary or cultural elites, but is diffuse across the Western popular consciousness. While science fiction – especially its populist manifestations on film and television and in paperbacks – might be considered cheesy and juvenile, Western consumers keep buying the product. Sociological research on science fiction audiences has provided specific explanations for

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116 Delany (1989), p 10. This is a concern that Delany does not share. Delany argues that science fiction has the possibility to transform and transgress the literary tradition. He does not want science fiction to be ‘literature’.


118 Lang, *Metropolis*, (Universum Film A.G., 10 January 1927).


120 Scott, *Blade Runner* (Warner Bros, 16 December 1982).


122 For example, see American Film Institute (2007); Roberts and Wallis (2002); Schrader (2006).


the attraction of science fiction to inhabitants of the modern West. There is an image of science fiction fans as under-employed, cultist ‘losers’ who emotionally and financially over-invest in specific franchises.\textsuperscript{125} While this account of the science fiction fan has a cultural life of its own through films like \textit{Trekkies} (1997),\textsuperscript{126} \textit{Galaxy Quest} (1999)\textsuperscript{127} and William Shatner’s notorious 1986 appearance on \textit{Saturday Night Live}, where he famously told Trekkies to ‘get a life’,\textsuperscript{128} it has been contested by studies of science fiction audiences.\textsuperscript{129} The general conclusion from this research is that science fiction has its heartland in the speculative life of the West’s technological classes. Appreciation of science fiction, while popular, is particularly strong within sections of the ‘middle class’ who have a professional or semi-professional relationship with technology.\textsuperscript{130} Constance Penley found enthusiastic enjoyment of \textit{Star Trek} was seemingly a prerequisite for employment at NASA in the 1990s.\textsuperscript{131}

In short, science fiction is not only the product of ‘a world of culture which has virtually replaced nature, remade it, and stands at the edge of destroying it’,\textsuperscript{132} but is the culture of that culture, and particularly the culture of the technological literate. To adapt a phrase from Donna Haraway, science fiction comes from ‘inside the belly of the monster’,\textsuperscript{133} belonging to and reflecting on technology. In this context, it is not surprising that her critical insights concerning cyborg, gender and technology in both ‘A Manifesto

\textsuperscript{125} Berger (1977), p 235; Jenkins (1992), pp 10–12;
\textsuperscript{126} Nygard, \textit{Trekkies} (Paramount Classics, 18 October 1997).
\textsuperscript{127} Parisot, \textit{Galaxy Quest} (Dreamworks, 25 December 1999).
\textsuperscript{128} Jenkins (1992), pp 9–10.
\textsuperscript{129} Tulloch and Jenkins (1995), p 4.
\textsuperscript{130} Berger (1977), pp 238–243; Elkins (1977), p 228: ‘[Science fiction] is the world view of the technologically minded petty bourgeoisie and the professional section of the bourgeoisie.’ See also Tulloch and Jenkins (1995), pp 235–236.
\textsuperscript{131} Penley (1997), pp 18–21. See also Anijar (2000).
\textsuperscript{132} Broderick (1995), p 156.
\textsuperscript{133} Penley and Ross (1990), p 12.
for Cyborgs’ (1985) and the later Modest_Witness@Second_Millennium.FemaleMan©_Meets_OncoMouse™ (1997) emerged from analysis of feminist science fiction. Nor is it surprising that studies looking into the origins of specific technologies have found that these technologies were initially called forth by science fiction. For example, in his extended study of the ‘Spaceflight Movement’, William Bainbridge argues that science fiction is its ‘public culture’; not only did science fiction prime the United States public for the space program, but ‘early [science fiction] authors had a direct and significant influence on the rocket pioneers and on the development of their ideas’. Another example is Christopher Haley’s suggestion that basic research into laser technology was driven by senior United States military officers fixated on Wells’ ‘heat ray’ and its space opera descendent the ‘ray gun’. A final very recent example is computer game designers directly crediting Snow Crash with inspiring contemporary social virtual-worlds like Linden Lab’s Second Life.

That the form and direction of technology and technology studies have been influenced by the mythform of science fiction is not unexpected, given the identified connection between science fiction and the technological sections of Western society. However, the claim that science fiction is the Western mythform lies in its formation of the dream space about the future – even for projects that prima facie do not appear to be concerned with technology. A good example is jurisprudence.

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135 Bainbridge (1976), p 222.
136 Bainbridge (1976), p 198. It is a common point in science fiction criticism that Robert A. Heinlein ‘was perhaps more than any other single person, responsible for the popularization in America of the concepts of space travel’: Franklin (1980), p 68.
It is probably unsurprising that the science fiction explicitly enters into jurisprudential scholarship with the ‘rock’ legal philosophy of the North American Critical Legal Studies (CLS) Movement. A mark of difference for the Baby Boomer generation was the cheeky inclusion of populist texts and culture into the rarefied spaces of the law reviews. Peter Gabel’s and Duncan Kennedy’s notorious dialogue ‘Roll Over Beethoven’ (1984) in the Stanford Law Review\textsuperscript{139} epitomises the style and challenge of CLS to the traditional legal culture, and also ruminates on central CLS dilemmas. Gabel and Kennedy touch on whether CLS should be considered a philosophical or pragmatic political movement; whether ‘trashing’ constitutes a CLS method; and the troublesome relation of rights to progressive politics.\textsuperscript{140} In the article, Kennedy adopts the image of ‘pods’ from Invasion of the Body Snatchers \textit{(1956)}. Invasion of the Body Snatchers is regarded by many critics as the best representation of the Cold War ‘takeover’ sub-genre, where nefarious aliens duplicate and replace innocent humans.\textsuperscript{142} The image is deployed flexibly by Kennedy. Early in the dialogue, ‘pods’ and ‘cluster of pods’ are used to label the traditions and forms of scholarly activity that appropriate ‘lucid’ and ‘clear’ statements through criticism, and in this reification undermine and usurp the original utterance.\textsuperscript{143} Later, the term ‘pods’ is used seemingly interchangeable with ‘robots’ to refer to the automatism of professional roles.\textsuperscript{144} In both instances the term ‘pods’ is deployed as representative of a lifeless and less-than-human existence.

\begin{itemize}
\item[\textsuperscript{139}] Gabel and Kennedy (1984).
\item[\textsuperscript{140}] Davies (2008), pp 194–195.
\item[\textsuperscript{142}] Telotte (2001), pp 19–24; Sobchack (1997), pp 121–125.
\item[\textsuperscript{143}] Gabel and Kennedy (1984), pp 7–9.
\item[\textsuperscript{144}] Gabel and Kennedy (1984), pp 42–43.
\end{itemize}
Kennedy’s engagement and integration of science fiction into legal theorising and scholarship were performative. In ‘Roll Over Beethoven’, he exulted legal scholars to ‘operate in the interspace of artefacts, gestures, speeches and rhetoric, histrionics, drama, all very paradoxical, soap opera, pop culture’. In this generational and institutional context, it appears uncontroversial when later critical legal scholars like Pierre Schlag and Costa Douzinas deploy narratives and tropes from science fiction in their writings. However, the theory of law was stewing in the Western mythform when Kennedy was only watching Invasion of the Body Snatchers at a matinee in his teens.

In Chapter 9 of The Concept of Law (1961), H.L.A. Hart attempts, controversially, to delineate a function for natural law as a theory of acceptance. Hart postulates that if a legal system contains some basic content, ‘it may gain and retain the allegiance of most for most of the time and will accordingly be stable’. This requisite basic content of a legal system is summarised as ‘fair and caters genuinely for the vital interests of all those from whom it demands obedience’. The phrase ‘vital interests’ is the key. Hart, following the social contract tradition, articulates a ‘natural’ conception of human vital interests within ‘five truism’ that capture ‘the salient characteristics of

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146  Schlag (1997), p 20 ‘Indeed, consider [how] these mythic creations [paramount norms of American constitutionalism] might function well in a Star Wars movie: “May the Authoritative Material be with you,” or “May you always follow the Master Rule of Recognition.” Douzinas (2000), pp 187–188 ‘From Aristotle’s slaves to Cyborgs and Blade Runner, the boundaries of humanity have been shifting.’ An altogether ‘left-field’ deployment of science fiction in legal theory was Milner S. Ball’s critique of Christopher Stone’s argument for an ecological informed legal ethos utilising Doctor Who. See Ball (1988). Stone’s reply, after expressing ignorance of Doctor Who, was a classic example of mainstream legal academy’s criticism of law and culture: ‘one of the problems of employing myth (literature?) as a medium (device?) for conveying information (advancing an argument?): the myth may be freighted with insights that the communicator could not otherwise convey so well. But it is also a technique that may freight fewer insights than sought.’ Stone (1988), p 232.
149  Hart (1961), p 197.
human nature’. These are ‘human vulnerability’, ‘approximate equality’, ‘limited altruism’, ‘limited resources’ and ‘limited understanding of strength and will’.  

It is at this point of articulating the five truisms that Hart turns to science fiction as the Western mythform for his explanations. Hart’s imagery is from pre-war British science fiction. His mode of argument is to define the truisms as absences, raising a fantastic alternative as a fantasy that evaporates, leaving the salty residual as human nature. Concerning the first truism, human vulnerability – the fact that humans can kill each other – Hart explains:

Yet though this is a truism it is not necessarily true; for things might have been, and might one day be otherwise. There are species of animals whose physical structure (including exoskeletons or a carapace) renders them virtually immune from attack by other members of their species … If men were to lose their vulnerability to each other there would vanish one obvious reason for the most characteristic provision of law and morals: Thou shalt not kill.

Hart deploys heavy imagery: biology, time and human nature tumble together. The inclusion of the phrases ‘one day be otherwise’ and ‘if men lose their vulnerability’ references Darwinian evolution: the intersection of biology, time and natural selection. Hart does not need to raise the point that human physiognomy, when seen in biological time, is only a transient moment comprising shifting attributes. In fact, it complicates his arguments. If he wanted to distance his claims from transcendent statements, he could have scaled his time to recorded history and made the claim that it exists ‘as long as it is

remembered’. Also problematic is Hart’s recourse to hard defensive armour, exoskeletons and carapace: he could have chosen species – like earthworms, for example – that possess no obvious offensive weapons able to cause harm to other members of the species; alternatively, he could have chosen sentient animals like corals that do not have the animation to exchange violent blows; or, in a more radical challenge, discussed entities composed of collectives of singular cell organisms, where the individuals depend on the collective for survival. The choice of defensive exoskeletons and carapaces appears, at first instance, random – maybe manifesting a deep desire for a thicker hide! However, this running together of evolution, human nature and hard shells has a literary pedigree and one that Hart himself acknowledges in the 1958 essay in the *Harvard Law Review* that became Chapter 9 of *The Concept of Law*, were he writes that the ‘details [are] left to science fiction’.154

The concluding chapter of H.G. Wells’ *The Time Machine* (1895) has the Time Traveller lurching into the far future. The Traveller faces humanity’s distant descendant:

I saw that, quite near, what I had taken to be a reddish mass of rock was moving slowly towards me. Then I saw the thing was really a monstrous crab-like creature. Can you imagine a crab as large as yonder table, with its many legs moving slowly and uncertainly …?155

This haunting image, ‘[t]he final glimpses of a dying planet … the most sublime vistas in English literature’,156 is the image referenced by Hart in his use of evolution and exoskeletons: Wells even describes the carapace: ‘Its back was corrugated and.

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153 Hart’s insecurities and sensitivity to criticism are well documented by Lacey (2004).
ornamented with ungainly bosses, and a greenish incrustation blotched it here and there.’

Hart also reaches for science fiction when outlining the truism of ‘limited resources’. He circles around the concept that humans require certain resources for sustenance:

Again, in this respect, things might have been different. The human organism might have been constructed like plants, capable of extracting food from air, or what it needs might have grown without cultivation in limitless abundance.

This imagery of plant-like beings can be found in Olaf Stapleton’s *Starmaker* (1937). Stapleton sketches a vision of ‘vegetable humanities’ who reject the dynamism of industrialisation for photosynthesis, leading to a spiritual and peaceful society.

The argument is not to expose science fiction as something else hidden in Hart’s closet, but to show how science fiction as Western mythform functions. At key moments in *The Concept of Law*, when Hart wants to ‘prove’ being, science fiction offers the resources that come to hand (and in doing so, demonstrates Suvin’s observation concerning science fiction’s cognitive estrangement as opening a window on to the ontological). The relationship between modern jurisprudence and science fiction has an

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159 Stapledon (1972).
161 That is not that Hart did not use more familiar material from philosophy, but even then he added a speculative edge. In outlining the truism of ‘approximate equality’, Hart acknowledges the debt that this truism owes to Hobbes: ‘Social life with its rules … is irksome at times; but is at any rate less nasty, less brutish and less short than un-restrained aggression for beings of approximate equal strength.’ Then he adds Jonathan Swift’s Lilliputian image of the ‘fantasy of giants among pygmies’: Hart (1961), p 191. On Swift as a forbearer of science fiction, see Roberts (2005), pp 68–72.
even earlier pedigree. In 1919, Carl Schmitt wrote a short fiction, ‘Der Buribunken’.\textsuperscript{162} Anticipating his later critique of the state as infected by bureaucratic technocrats,\textsuperscript{163} Schmitt envisaged a future of the ‘Buribunken … scribes and record keepers who had merge[d] with the machines that they use and the documents that they keep’.\textsuperscript{164} While Schmitt’s vision of a future humanity ‘plugged’ into a mega-machine was prefigured by E.M. Forster’s ‘The Machine Stops’ (1909),\textsuperscript{165} Schmitt, in a Hartian step, was concerned with describing the ‘internal point of view’ of the Buribunken as beings belonging to the machine:

\begin{quote}
I write myself. Who writes me? I write myself. What is the content of my writing? I write that I am writing myself. What is the great motor that lifts me out of this self-satisfying circle of ‘I’-ness? History! I am a key on the typewriter of history.\textsuperscript{166}
\end{quote}

Schmitt’s ‘Der Buribunken’ is quite remarkable, not because its imagery of the intimacy of the body and information technology predates cyberpunk by 60 years, or for its dystopian accents – Forster’s ‘The Machine Stops’ is the better work – but for its illumination of science fiction as Western mythform. Schmitt, whose Weimar career engaged with the valuelessness of technological existence as legal and political reality, first grappled with the theme through penning a science fiction.\textsuperscript{167}

\textsuperscript{162} Schmitt (1919).
\textsuperscript{163} McCormick (1997), pp 42–46.
\textsuperscript{164} Kennedy (2004), p 44.
\textsuperscript{165} Forster (1909). On Forster’s proto-dystopia, see Moylan (2000), pp 111–121.
\textsuperscript{166} Schmitt (1919), quoted in Kennedy (2004), p 45.
\textsuperscript{167} Schmitt is not the only legal theorist to have turned to science fiction. Critical race theorist Derrick Bell has penned a satirical short science fiction story concerned alien first contact, ‘The Space Traders’ Solution’ (1992), to reflect on race and citizenship. See Derrick Bell (1999) for the text of the story and Bell’s account of its critical impact.
The endpoint is that science fiction is the Western mythform, the Dreaming site for consideration of the structure of technological futures and the future of Being in those futures. With science fiction located in this pre-eminent role, its presence as the speculative jurisdiction of the law and technology enterprise can be explained. Law and technology scholars, located within Western culture, were irresistibly drawn to science fiction as the repository for shared imaginings of technological futures. This meant that the writings of the law and technology enterprisers were justified and legitimated through the mythform. This writing constitutes truly modern, deeply mythic narratives about future and BFeing, which forget it is myth under the guise of technical erudition.

**Taking Science Fiction Seriously**

The previous section concluded with a demonstration of science fiction as Western mythform in jurisprudence. This reminds of one of Ronald Dworkin’s lasting aesthetic contribution to legal scholarship, his title ‘Taking Rights Seriously’.\(^{168}\) This piece of ‘pseudo-Dworkinism’,\(^{169}\) first used by Dworkin in 1970,\(^{170}\) has been adopted and adapted by legal scholars who wish to take their work, and be taken, seriously.\(^{171}\) The narrative arc in Chapter 2 and this present chapter has been to identify that technical legality has been occupied by the law and technology enterprise. In turn, the law and technology enterprise was shown to have its founding moment in the speculative jurisdiction concerning technological futures that was grounded in science fiction as the Western mythform. It has been shown that technical legality, thinking at the intersection of law

\(^{168}\) Dworkin (1977).


\(^{171}\) See, for example, Twining (1984); West (1990); Coppel and O’Neill (1992); Tribe (1995); Balkin and Levinson (1999); Menkel-Meadow (2007).
and technology, has been occupied by a discourse that has its originary location in science fiction. To think technical legality through science fiction, therefore, is not novel, nor particularly radical, as science fiction is already the modus through which technical legality is thought. It is just the practitioners of the law and technology enterprise are unreflective on the founding commitments of their project; while occupying an imaginative universe given form by science fiction, their eyes are cast downwards to the technicalities of posited law doing policy work.

The task for technical legality is to take science fiction seriously as Western mythform; to adopt well worn phrases – this time from science fiction criticism; to go ‘in search of wonder’ and experience ‘the new maps of hell’. As was identified above, science fiction as Western mythform occupies two registers. The immediate one is of the material – the epistemological register associated with Asimov’s definition of science fiction as the projection of social, political and technological structures into the future. The second register, highlighted by Suvin, is the ontological – the strangeness of science fiction opening to a mediation on Being. It is the complex tension between these two that allows science fiction to be the mythform of the modern West. As such, taking science fiction seriously as the progressing of technical legality becomes two tasks.

The first task is taking science fiction seriously in its epistemological mode. How can science fiction as the mythform that surrounds legal engagement with technology better help to understand the relationship between law and technology? A form of this question was asked by the recent law, technology and society literature examined in Chapter 2. However, the continual emphasis on attempting to distil useful generalisations

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172 Knight (1967).
173 Amis (1960).
for the future regulation of technology has kept that scholarship from exploring, in its own right, the relationships between law and technology. In what follows, this taking science fiction seriously is undertaken at two moments in Australian political life when law-making occurred around an emergent technology: the passing of the Prohibition of Human Cloning Act 2002 (Cth) and its subsequent amendment in 2006; and the passing of the Motor Car Act 1909 (Vic). The analysis shows how the calling forth of these laws, and the very content of the laws themselves, came from and were infused with science fiction. As highlighted in Chapter 1, the method for taking this seriously is derived from the cultural studies turn in law and culture of considering law material as a cultural artefact in conjunction with other cultural artefacts to gain an understanding of a specific historical event.

However, in presenting what amounts to a historical and cultural analysis can only take technical legality so far. As will be seen, what is not explained through seeing the legal responses to cloning and motor vehicle technologies as participating in science fiction is that something deeply technological can be glimpsed in the very form of the called forth laws. Something about Being lurks within these technical laws. This pushes the narrative into science fiction’s ontological register. In what follows, two specific science fictions – Frank Herbert’s Dune cycle and Battlestar Galactica – expose, question and reconstruct the legality and the technical of technical legality. The method of these analyses follows MacNeil’s tri-layered jurisprudential reading of popular culture.

But how to begin? The seemingly innocent phrase ‘law and technology enterprise’ that has been deployed so far possesses a second meaning. Within the Western mythform, ‘enterprise’ suggests not just a ‘project undertaken or to be undertaken,
especially one that is of some importance or that requires boldness or energy\(^{174}\), but Gene Roddenberry’s indelible mark on science fiction. It seems only appropriate that taking the Western mythform seriously first involves considering Australian law’s response to human cloning through *Star Trek*.  

Stage II: Law and Technology Cultures
Clone Hysteria and *Star Trek: Nemesis*

I saw by the light of the moon the demon at the easement. A ghastly grin wrinkled his lips as he gazed on me, where I sat fulfilling the task which he had allotted to me. Yes, he had followed me in my travels; he had loitered in forests, hid himself in caves, or taken refuge in wide and desert heaths; and he now came to mark my progress and claim the fulfilment of my promise.

– Mary Shelley, *Frankenstein: Or, the Modern Prometheus*, 1818

This chapter utilises the epistemological register of science fiction to piece together an understanding of the *Prohibition of Human Cloning Act 2002* (Cth). This occurs in three sections. The first section replicates the methods of the cultural studies strand in law and culture to argue that the public archive of cloning in Australia that began with the announcement of ‘Dolly the Sheep’ and ended with the *Prohibition of Human Cloning Act 2002* (Cth) reveals ‘clone hysteria’. Further, the Australian legal literature on cloning, following the law and technology enterprise template, did not critically engage with this monstrous fear of human cloning. However, both the public archive and Australian law and cloning scholarship locate clone hysteria in science fiction’s ‘clone canon’. The second section takes this speculative jurisdiction seriously. It is argued that *Star Trek:*

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1 Shelley (1965), p 159.
Nemesis (2002)\textsuperscript{2} can be read as a capstone of the clone canon. Two narratives concerning the wrongness of clones are articulated in the film: the clone as double and the clone as artefact. Driving these anxieties is concern with essence. In reuniting the Prohibition of Human Cloning Act 2002 (Cth) with its speculative jurisdiction, a far richer understanding of the Act as a cultural event can be traced. The third section deploys this cultural framing of technical legality to explain the 2006 amendments to the Prohibition of Human Cloning Act 2002 (Cth). However, in so doing, the analysis opens to glimpses of another monster in the shadows – law as technology – in the primacy of procedure in both the law and law-making that follow cloning.

1. Clone Hysteria in Australia

This section traces the hysteria surrounding cloning in Australia from the announcement of the birth of Dolly the Sheep in February 1997 to the assent of the Prohibition of Human Cloning Act 2002 (Cth) in December 2002. Through examining the public archive of cloning, the debates in the Commonwealth Parliament, the governmental reports and newspaper items, what emerges is that the clone and cloning were considered monstrous. However, beyond this hysteria, consideration of cloning was mostly absent within the public discourses. Cloning was the evil extreme against which the moral ambiguity of embryonic stem cell research could be debated and the eventual compromise enacted. This absence was mostly shared by the Australian law and cloning scholarship. What was acknowledged in this literature was that the self-evident evil of cloning was demonstrated by the science fiction’s ‘clone canon’. Furthermore, the entire public discussions of cloning clearly acknowledged the ‘clone canon’ as the source of

\textsuperscript{2} Baird, Star Trek Nemesis, (Paramount Pictures, 13 December 2002).
proof for the evil of clones and cloning. However, beyond citing specific texts from the clone canon, serious reflection on clones and cloning remained absent.

Public Culture of Clone Hysteria 1997–2002

In Australia, it was not until 19 December 2002 – nearly six years after the news of Dolly\(^3\) – that the *Prohibition of Human Cloning Act 2002* (Cth) became law.\(^4\) As law, the Act was elegant in its simplicity. It prohibited the creation or importation into Australia of a human clone with a maximum penalty of fifteen years’ imprisonment.\(^5\) It prohibited, with the lesser maximum penalty of ten years’ imprisonment, other reproductive and genetic manipulations: creating a chimeric embryo (a human embryo into which animal DNA has been added); creating a hybrid embryo (an embryo created from the cross-fertilisation of a human and animal gamete); the harvesting of and trading in human embryos; and creating a human embryo from the genetic material of more than two persons.\(^6\) Assuming that the more morally repugnant the offence, the greater the penalty, it appeared from the Act that leading the army of dangerous beings marching menacingly out from cyberpunk\(^7\) was the clone.\(^8\)

But why did the clone attract this opprobrium? Textbooks define a clone as an entity with an identical genetic sequence to another individual.\(^9\) However, this definition

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\(^3\) Kolata (1998), p 32. It must be remembered that 23 February 1997 was the public announcement of Dolly. It was born 5 July 1996.

\(^4\) This is the national legislation. As was uncovered in the Australian Health Ethics Committee report of 1998, several of the Australian states had, at the time of the announcement of Dolly, legislation prohibiting human cloning. See Australian Health Ethics Committee (1998), pp 32–38.

\(^5\) *Prohibition of Human Cloning Act 2002* (Cth), ss 9, 11.


\(^7\) Sterling (1985).

\(^8\) In discussing the penalties for cloning in the Second Reading Speech of the Bill, the Prime Minister indicated: ‘This is a severe penalty and indicates the seriousness of the crime.’ Commonwealth Parliamentary Debates, House of Representatives, 27 June 2002, p. 4542 (John Howard, Prime Minister).

fails to explain the extreme penalties for cloning in the *Prohibition of Human Cloning Act 2002* (Cth). There are natural ‘clones’. Normal cellular reproduction by mitosis involves the splitting of a single cell into two identical daughter cells. Plant propagation by cutting produces siblings with the same genes as the parent, and identical twins also satisfy the definition.\(^{10}\) Clearly, the clones that the Act fearfully anticipated possessed something more than genetic sameness.

The *Prohibition of Human Cloning Act 2002* (Cth) can be seen as the endpoint of nearly six years of a public reckoning of which clones and cloning were a feature. During this time, there were significant technological developments as well as significant institutional activity. To better locate the argument concerning clone hysteria, a chronology of technology, actors and institutions is required. However, this chronology is not innocent. It establishes a narrative arc that has cloning all but disappearing from the public record.

**Chronology 1997–2002**

This public reckoning began on 24 February 1997, with page one stories concerning Dolly.\(^ {11}\) The initial reporting perceived three applications for the technology Dolly represented. The first was animal cloning, allowing breeders to maintain genetic lines through successive generations.\(^ {12}\) During 1997, the Australian media reported on

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\(^{10}\) On natural or ‘gecko’ cloning, see David and Kirkhope (2005), p 368. On the problems with using ‘clone’ as a legal definition, see Gogarty (2003).


\(^ {12}\) See Beale ‘Forget the Elvis Scenarios, It’s Time for Sensible Debate’, *Sydney Morning Herald*, 25 February 1997, p 8. The Dolly technology was developed within the context of genetically engineering sheep to produce pharmaceuticals in their milk. Cloning was needed to ensure successive generations of the genetically modified animal. See Wilmut et al (2000).
announcements of cloned monkeys and cows. The second was the revival of endangered species through cloning. The third was human reproductive cloning: creating a child who would have the same nuclear genetic material as another human.

At a political-legal level, 1997 witnessed the first attempts at regulating cloning with the Clinton Administration’s decision to prohibit federal funds for cloning research and the adoption by the General Conference of UNESCO on 11 November 1997 of the *Universal Declaration on the Human Genome and Human Rights*, which states that the cloning of humans is ‘contrary to human dignity’ and ‘shall not be permitted’.

A significant development occurred in 1998, in terms of the complexity and urgency within the public representations. In January 1998, the Australian media reported what would become a regular occurrence: the announcement of commercial human cloning by a fringe scientist or group. Seemingly in response to these reports, on 14 January 1998 the Commonwealth Health Minister requested the Australian Health Ethics Committee (AHEC) to review the science, ethics and law of human cloning. In November 1998 came the first reports of the successful propagation and manipulation of

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15 See, for example, Amalfi, ‘Rare Species Clone Risk’, *The West Australian* (Perth), 5 March 1997, p 9.
16 See, for example, Dow ‘Ethicists Predict Human Cloning’, *The Age* (Melbourne), 25 February 1997, p 7.
human embryonic stem cells,21 with the claim that the research could lead to cures for cancer, Parkinson’s disease and other fatal conditions.22 The initial reports claimed that embryonic stem cell propagation and manipulation could be combined with the Dolly technology to allow for ‘therapeutic cloning’ – the creation of stem cells genetically similar to a patient allowing the possibility of growing rejection-free therapies.23 The AHEC report was presented on 16 December 1998. In it, the AHEC urged a national ban on human cloning and a national approach to research on human embryos.24

The following year, 1999, was characterised by an overall positive assessment of embryonic stem cells in the Australian media,25 and the widespread adoption in the media of the terms ‘therapeutic cloning’ as distinct from ‘reproductive cloning’.26 It also witnessed the announcement of successful propagation of adult stem cells.27 Adult stem cells were championed as avoiding the politics of reproduction associated with embryonic stem cells.28 At the political level, on 10 August 1999 the Commonwealth government requested the House of Representatives Standing Committee on Legal and Constitutional Affairs to review the AHEC report.29

These announcements were made almost simultaneously by two different United States-based research teams: The University of Wisconsin team (Thomson and Marshall 1998; Thomson et al 1998); and the Johns Hopkins University team (Shamblott et al 1998).


Editorial ‘Cloning Cells Requires Consideration’, The Australian, 20 March 1999, p 18 is a good example of the positive reception of embryonic stem cells and the use of the terms ‘therapeutic’ and ‘reproductive’ cloning.


In terms of media, 2000 was similar to 1999, with most items relating positively to embryonic stem cells. Politically, 2000 saw the bulk of the evidence-gathering associated with the House of Representative inquiry, including public hearings in March. It also saw amendments added to the Gene Technology Bill 2000 (Cth) in the Senate, banning human cloning as a stop-gap measure pending the House Committee report and a national response.

An increase in the tempo of the controversy occurred in 2001. There were more items in the Australian media that were negative about embryonic stem cells, and greater awareness of the differences between adult and embryonic stem cells. Also, the relationship between embryonic stem cells and ‘surplus’ IVF embryos became clearer following the Bush Administration’s announcement allowing funding for research only on existing embryonic stem cell lines. With regard to cloning, there were further – false – announcements of human cloning by fringe groups. The House Committee delivered its report on 20 September 2001. The report, which became known as the ‘Andrews report’ after the chair, then Liberal backbencher Kevin Andrews, recommended that

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Commonwealth legislation (with mirror legislation from the states) be introduced.\textsuperscript{37} The majority recommended the banning of reproductive and therapeutic cloning, regulated access to surplus IVF embryos for embryonic stem cell research, a prohibition on the creation of embryos for research and a three-year review.\textsuperscript{38} The minority recommended a total ban on cloning and limiting research on existing embryonic stem cell lines.\textsuperscript{39}

The climax of the controversy was reached in 2002. On 25 February, it was reported in the media that Commonwealth Cabinet had considered the Andrews report and was favouring the minority’s recommendation.\textsuperscript{40} In response, supporters of embryonic stem cell research were widely reported lobbying for the research.\textsuperscript{41} Responding to this, then Prime Minister John Howard announced that Cabinet would make a final decision after consultation with stakeholders.\textsuperscript{42} Between 28 February and 4 April 2002, the Australian media contained many items from both supporters and opponents of embryonic stem cell research.\textsuperscript{43} On 4 April, Cabinet decided to follow the majority’s recommendations from the Andrews report.\textsuperscript{44} This proposal was endorsed by

\begin{footnotesize}
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\item\textsuperscript{37} House of Representatives (2001), p 224.
\item\textsuperscript{38} House of Representatives (2001), pp xix–xxi.
\item\textsuperscript{39} House of Representatives (2001), pp xii, 224.
\item\textsuperscript{40} See ‘Embryo Work Banned’, \textit{Courier-Mail} (Brisbane), 26 February 2002, p 1; Dodson and Gray, ‘Embryo Ban Hits Research’, \textit{The Age} (Melbourne), 26 February 2002, p 1
\item\textsuperscript{44} Parnell, ‘Go-ahead on Embryos – PM Supports Cell Research’, \textit{Courier Mail} (Brisbane), 4 April 2002, p 1.
\end{itemize}
\end{footnotesize}
the state premiers at the Council of the Australian Governments (COAG) meeting on 5
April.45

The Research Involving Embryos and Prohibition of Human Cloning Bill 2002 (Cth) was introduced to the House of Representatives on 27 June 2002.46 On 21 August, the Senate referred the Bill to the Senate’s Community Affairs Legislation Committee (Senate Committee). On 29 August 2002, due to agitation in the House concerning the Bill’s joining together of the prohibition of human cloning with the regulation of embryonic stem cell research, it was split into the Prohibition on Human Cloning Bill 2002 (Cth) and the Research Involving Human Embryos Bill 2002 (Cth).47 The Prohibition on Human Cloning Bill 2002 (Cth) passed the House on 29 August 200248 and the Research Involving Human Embryos Bill 2002 (Cth) passed on 25 September 2002.49 During the debate in the House, there was significant media coverage of parliamentary speeches,50 lobbying by researchers51 and a concentrated campaign by the

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opponents of embryonic stem cell research against the lead Australian researcher, Alan Trounson.  


This chronology does more than just map the events behind the making of law. It shows how cloning seemingly disappeared from the agenda; it was swamped by the politicking of embryonic stem cell research, with its images of curing the incurable and ‘little babies being dismembered’. At this level, the Prohibition of Human Cloning Act 2002 (Cth) can be understood as part of a legislative response to the politics surrounding stem cell research. However, this does not explain the severity of the prohibitions in the Act. Within the public record from 1997 to 2002, the clone was a hysterical image.

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52 The attacks on Trounson ranged from his criticism of the Catholic Church (Hope, ‘Trounson Labels Catholics Irrational’, The Australian, 1 August 2002, p1), his admission to using aborted foetus tissue in research (Robotham and Smith, ‘Abortion Set to Fuel Stem Cell Research’, Sydney Morning Herald, 5 August 2002, p 1) and his disclosures concerning his personal investment in embryonic stem cell research (Tingle, ‘News – Singapore Link Another Problem for Trounson’, The Australian Financial Review, 2 September 2002, p 3). The most damaging attacks arose from Trounson’s presentation to the Liberal-National joint party room, where he showed a video of a crippled rat that he claimed had been cured using embryonic stem cells. Opponents argued that the rat was cured with embryonic germ cells (a successor cell to a stem cell), suggesting that Trounson misled the parliamentarians (Shanahan, ‘Trounson “Rat Trick” Backfires’, The Australian, 27 August 2002, p 5.


54 Senate Community Affairs Legislation Committee (2002), p 1.


56 Bruce (2002), p 327.
Cloning did not invoke a rational response – unlike the rational debates and rationalisations surrounding embryonic stem cell research and access to excess IVF embryos. The clone was a wrong. The place to begin this examination of a public culture of clone hysteria is with the debates in the Commonwealth Parliament that accompanied passage of the Prohibition of Human Cloning Act 2002 (Cth).

**Clones in Parliament**

Cloning was not directly addressed in the Commonwealth Parliament. This avoidance can be seen in Howard’s second reading speech for the Research Involving Embryos and Prohibition of Human Cloning Bill 2002 (Cth) on 27 June 2002:

> I do not underestimate the sensitive nature of the subject matter assessed in this legislation, nor the strength of views that many will have on these issues … This Bill, in my view, successfully balances respect for human dignity, ensures that community standards and ethical values are upheld and enables the enormous potential of embryonic stem cell research to be explored.\(^{57}\)

Howard’s speech amounted to a careful defence of Cabinet’s decision to adopt the majority’s recommendations from the Andrews report and subsequent COAG agreement to allow access to surplus IVF embryos for stem cell research, and his references to ‘balance’ must be seen in that light. As to cloning, Howard was much less circumspect: ‘Like many in the community, I am opposed to any form of human cloning, both reproductive and therapeutic, and consider that now is the time to prohibit such practices

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from occurring in Australia.\textsuperscript{58} Howard carefully justified the stem cell compromise, but
the prohibition on cloning was announced without any justifications or explanations. Instead, Howard joined with ‘many in the community’ who do not need to explain why
their opinions should form law.

In the lengthy debate in the House that accompanied the passage of the Bill, members repeated this pattern. Embryonic stem cell research was a matter of controversy
requiring justification, argument and rhetorical ploys, while prohibiting cloning was the
point of commonality. Labor opposition members were allowed a conscience vote on
stem cell research, but the then leader Simon Crean made it clear that: ‘Our policy does
not support human cloning.’\textsuperscript{59} When members from both government and opposition
benches turned their minds to the prohibition of cloning, its prohibition was described as
‘self-evident’,\textsuperscript{60} through statements like ‘we say no’\textsuperscript{61} and that cloning threatened the
‘sanctity of human life’.\textsuperscript{62} Members commented that the provisions in the Bill dealing
with cloning had ‘unanimous support’,\textsuperscript{63} and ‘[the Bill] seeks to ban cloning human
beings, which is an action I very strongly support – and I do note there is a universal will
to do this across the community’.\textsuperscript{64} Ultimately, it fell to Liberal backbencher Bronwyn
Bishop to express what seemed obvious: ‘All are in agreement that cloning should be

\textsuperscript{58} Commonwealth Parliamentary Debates, House of Representatives, 27 June 2002, p 4541 (John
Howard, Prime Minister).
\textsuperscript{59} Commonwealth Parliamentary Debates, House of Representatives, 20 August 2002, p 5242
(Simon Crean, Leader of the Opposition).
\textsuperscript{60} Commonwealth Parliamentary Debates, House of Representatives, 21 August 2002, p 5317
(David Cox).
\textsuperscript{61} Commonwealth Parliamentary Debates, House of Representatives, 28 August 2002, p 6053 (Kim
Beazley).
\textsuperscript{62} Commonwealth Parliamentary Debates, House of Representatives, 28 August 2002, p 6044
(Danna Vale, Minister for Veterans’ Affairs and Minister Assisting the Minister for Defence).
\textsuperscript{63} Commonwealth Parliamentary Debates, House of Representatives, 21 August 2002, p 6068
(Alexander Downer, Minister for Foreign Affairs).
\textsuperscript{64} Commonwealth Parliamentary Debates, House of Representatives, 27 August 2002, 5866 (John
Forest). See also Commonwealth, Parliamentary Debates, House of Representatives 21 August

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outlawed.65 Evidence of this was that the Prohibition of Human Cloning Bill 2002 (Cth), freed from the provision relating to research on human embryos, immediately passed.66

A similar pattern followed in the Senate. Cloning was to be prohibited because it ‘transgresses normal and reasonably acceptable ethical and moral bounds … This is simply a reasonable argument about what people would accept as reasonable.’67 Cloning offended ‘human dignity’68 and: ‘We all support this Bill, of course, because it outlaws human cloning.’69 In urging the House to accept the minor amendments made by the Senate, Labor frontbencher Stephen Smith summarised: ‘A ban on human cloning is sensible, is necessary and, on the basis of the debate here and in the Senate, has the universal and unanimous support of Parliament.’70 What was remarkable about the parliamentary debate was the lack of debate. Liberal Senator for Tasmania Guy Barnett presented one of the few attempts at justifying the prohibition of cloning. Cloning, the Senator argued, threatened the continuation of the family and the stability of identity. He added: ‘Let us not just assume and take it as a fact that human cloning is wrong. We must put on the record the reasons why and make it clear to society as a whole that each person is important and that each individual is to be honoured and respected.’71 However, this task of recording the reasons against cloning was one he did not undertake.

In summary, the parliamentary debates reveal a muffled silence about cloning. Parliamentarians, when they did talk about cloning, did two things. First, the distinction, between therapeutic and reproductive cloning was under-appreciated. The Prime Minister condensed the two and most MPs followed in step.\textsuperscript{72} Second, their rejection of cloning was tied up with some hysterical images. It was dismissed as ‘wrong’, ‘not supported by the community’ and ‘against human dignity’. Notwithstanding that 106 out of 150 parliamentarians spoke,\textsuperscript{73} there appeared to be a common sliding scale of moral reprehensibility. Adult stem cell research was considered a good,\textsuperscript{74} even by the minority of members who voted against embryonic stem cell research.\textsuperscript{75} Cloning occupied the alternative pole: it was the wrong to be banished from Australia’s technological future. In the middle was the ambiguous moral and political consternation of embryonic stem cells. This scripting of the debate had a pedigree. The parliamentarians were enacting a script set out by the AHEC report, the Andrews report and the Senate report.

\textit{Clones in Reports}

The three Commonwealth reports can be read as successive redrafting of the script that was performed in parliament. As three iteration of the same general story, the reports


\textsuperscript{73} Sherd (2007), p 186.

\textsuperscript{74} See, for example, \textit{Commonwealth Parliamentary Debates}, House of Representatives, 28 August 2002, p 6102 (Daryl Williams, Attorney-General).

substantiate what was suggested when setting out the chronology: that, in the movement from 1998 to 2002, talk of clones and cloning became more hysterical.

The starting point is the AHEC report of 1998, which contains a chapter that attempts to set out ‘a series of ethical issues associated with human cloning.’ After making the distinction between ‘whole cloning’ and ‘part cloning’ of a human, prefiguring the terms ‘reproductive’ and ‘therapeutic’ cloning, the chapter progresses to canvass various consequential and deontological arguments for and against part-cloning, concluding ‘that the more convincing, weighty and cogent arguments support constraints on the use of cloning techniques which involve human embryos’. Discussion of whole cloning considers but dismisses the use of cloning to create a child – either because of infertility or same sex – as highly controversial, and something that ‘many would question’. In essence, the AHEC report accepts that cloning threatens ‘human dignity’, as demonstrated by community standards:

The Working Group chose not to conduct public consultation as so many International and National pronouncements from professional groups and community groups indicated a consensus of opinion on prohibiting the cloning of human beings.

The AHEC report set the essential elements of clone hysteria into play. Consideration of cloning was not a rational task. There was a basic emotional response of abhorrence which it then legitimated with dignity claims and community consensus.

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76  Australian Health Ethics Committee (1998), p 23 [3.1].
77  Australian Health Ethics Committee (1998), p 23 [3.2].
78  Australian Health Ethics Committee (1998), p 31 [3.33].
79  Australian Health Ethics Committee (1998), p 26 [3.16].
80  Australian Health Ethics Committee (1998), p v.
81  Australian Health Ethics Committee (1998), p ii.
82  This criticism of the AHEC report was made by Blackford (1999).
The Andrews report of 2001 followed the AHEC report. In the foreword, the House Committee packaged the emotional responses of the AHEC with ‘xeroxing’ to declare that:

… the notion of ‘photocopying’ a human being is contrary to human dignity, confuses family and personal relationships and offends many of the deepest understandings of our unique identity and individuality.83

The substance of the report did not explain these various points.84 Indeed, the chapter dedicated to discussion of reproductive cloning merely tallies small extracts from the submissions by bioethicists, the churches and the biomedical research community, as to why reproductive cloning was medically unnecessary,85 as well as how it offended human dignity,86 would undermine the family87 and would destroy identity.88 In doing so, the report did ‘little more than a sociological description of the views of Australian individuals and organizations who have taken an interest in the issue’.89 It did not actively assess, evaluate or consider cloning beyond cataloguing the ‘no’ perspective.90 It further resisted authorising the distinction between reproductive and therapeutic cloning.91 What the Andrews report did do, with its transmitting of clone hysteria, was formally cast cloning into the role of villain, to be the foil against which the majority’s

83 House of Representatives (2001), p x.
84 The Andrews report substantiated one position against reproductive cloning. In the chapter on science, the report canvassed researcher opinion that the then state of the science of reproductive cloning would expose mothers and any potential children to unacceptable risks. House of Representatives (2001), pp 34–35.
85 House of Representatives (2001), pp 78–79.
86 House of Representatives (2001), pp 79–82.
87 House of Representatives (2001), pp 82–86.
90 Little (2001), p 86.
recommendation allowing embryonic stem cell research on existing surplus IVF embryos could be a balanced and reasonable position.  

A final stage on which cloning played this role was in the Senate report. Like the AHEC and Andrews reports, cloning received limited discussion:

Evidence before the Committee suggests that there is near uniform support for the prohibition on reproductive cloning, and very strong support for a prohibition or at least a moratorium on ‘therapeutic’ cloning. This support is grounded in a strong consensus that such practices are ‘ethically unacceptable’. The reference for this ‘strong consensus’ was to Howard’s second reading speech in the House of Representatives, highlighting a circular dimension to the hysteria. The report did continue to emphasis what it considered as the basis of this consensus:

[It] is based on both direct consequentialist considerations, such as the risk of creating abnormal or prematurely aged embryos or individuals, and on broader concerns such as the threat to concepts of identity and kinship, fear of eugenics, commodification of children and the implications for genetic diversity. The reference given for these propositions was the Parliamentary Library Bill Digest for the Research Involving Embryos and Prohibition of Human Cloning Bill 2002, which perfunctorily canvassed opinions on these issues. Further, like the Andrews report and

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93  Senate Community Affairs Legislation Committee (2002), p 37 (citations omitted).
94  Senate Community Affairs Legislation Committee (2002), p 37 (citations omitted).
95  Norberry (2002).
the parliamentary debates, while the Senate report used the distinction between reproductive and therapeutic, the terms were questioned. 96

What the three reports bolstered was the hysterical treatment of cloning in the parliamentary debates. This hysterical deployment and disappearance of the clone was also a feature of the newspaper reporting

**Clones in Print**

The initial 1997 reports about Dolly presented cloning in two lights. Dolly, a rather average-looking Finn-Dorset ewe, was presented as reasonably innocuous, and as a subject for humour. 97 However, beyond the bemusement, Dolly immediately was framed as involving more than just cloned livestock, but as the harbinger of human cloning. 98 In light of the hysteria that came to surround clones, the tone of these initial reports appears quite balanced. Indeed, there were calls not for hysteria, but rather for moderation and reflection. Graeme Leech’s 25 February 1997 report in *The Australian* on Dolly’s announcement directly countered the hysterical response to cloning through emphasising that personality cannot be cloned. 99 Steve Dow, writing on the same day in *The Age*, included quotes from bioethicists that ‘people should remain calm and think’. 100 Bob Beale in the *Sydney Morning Herald* suggested: ‘how to resolve the issue initially: stop

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96 Senate Community Affairs Legislation Committee (2002), p 17.
the wild speculation about cloning babies for organ donors or bringing back Elvis, and encourage ethical, sensible medical and veterinary research to continue’. \(^{101}\) However, this balance was not reflected in the editorials. On the same day, 25 February, the editor of the *Sydney Morning Herald* was concerned:

> The obvious question after this week’s announcement was: can humans be cloned? ‘There is no reason in principle why you couldn’t,’ responded Dr Ian Wilmut, the leader of the team that made the breakthrough. But, he added, ‘All of us would find that offensive.’ Other scientists and ethicists feel Dr Wilmut’s reply was too glib. This eventuality has been anticipated for centuries. \(^{102}\)

On 16 March, the editor of *The Sunday Age* worried:

> But will it be adapted to the human race? History teaches us that if something can be done, it will be done if there is sufficient incentive for those who have something to gain … As yet we can but fantasise about the possibilities of human cloning, for good or for evil, and to worry about the seductive prospects and horrific dangers. Already there is speculation about the conceivable rise of another Adolf Hitler who not only dreams about breeding a master race but could command an effective means of doing so. If that sounds even faintly enticing, remember the ghastly downside: the systematic

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elimination of people stigmatised as useless, defective, subversive or racially inferior.\textsuperscript{103}

While the editors were sowing the seeds of clone hysteria, during 1997 and 1998 there were the occasional calls in the Australian press for human cloning in specific situations.\textsuperscript{104} For example, Deborah Smith writing in the \textit{Sydney Morning Herald} on 1 March 1997 suggested, as a possible and desirable future, a family cloning a sick child so that the ‘cloned’ sibling (delayed identical twin) could be could provide healthy tissue or even organ donations.\textsuperscript{105} However, by 2001 these suggestions had disappeared and opposition to human cloning became the common ground in the public debate surrounding stem cell technology.\textsuperscript{106} In this debate, the spectre of human cloning was deployed by opponents of stem cell research to persuade the public of the wrongs of stem cell technology.\textsuperscript{107} This negative characterising of human cloning was also accepted by pro-stem cell research advocates, who were careful to distinguish their position from support for reproductive cloning.\textsuperscript{108} This deployment of cloning was carefully managed in the editorials, especially during the critical political period of March and April 2002. On 6 April, the editor of the \textit{Courier-Mail} congratulated Howard and the state premiers for agreeing to the majority’s recommendations from the Andrews report as ‘offering

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\textsuperscript{103} Editorial, ‘Sorting the Sheep from the Ethics’, \textit{The Sunday Age} (Melbourne), 16 March 1997, p 20.


\textsuperscript{105} Smith ‘Send in the Clones’, \textit{Sydney Morning Herald}, 1 March 1997, p 36.


\textsuperscript{107} See, for example, Pell, ‘Decision a Pyrrhic Victory for Pragmatism’, \textit{Sydney Morning Herald}, 9 April 2002, p 13.

\textsuperscript{108} See, for example, Yallop, ‘No Ban, Urges Stem Pioneer’, \textit{The Australian}, 14 August 2002, p 5.
\end{flushleft}
hope for the future’, part of which involved the ‘banning of cloning’.\textsuperscript{109} This was backed up by other editorials during 2002 that recycled, in response to reports of Dolly’s arthritis and the announcement of human reproductive cloning by the Raelians, the well-established tropes of community disgust and threats to human dignity from cloning.\textsuperscript{110} In unison with the parliamentary debate and the reports, the media from the period established and maintained clone hysteria.

\textit{The Public Culture of Clone Hysteria}

What can be identified in the archive documenting the Australian response to cloning is a public culture of clone hysteria. While beginning with the media event surrounding reports of Dolly in 1997 and given a degree of focus in the AHEC report of 1998, cloning was soon displaced within the public record by embryonic stem cells. This did not mean that cloning disappeared. Instead, consideration of cloning became hysterical. Cloning was an evil. It was, \textit{prima facie}, contrary to both the collective and the individual. This hysteria had a function. Together with the acclaimed good of adult stem cell research, cloning was the evil frame of reference and as such delineated the parameters for the embryonic stem cell debate.

At one level, this explains the serious penalties in the \textit{Prohibition of Human Cloning Act 2002} (Cth). To function in the rhetorical role as the evil to be banished, allowing less repugnant, but still morally contested, technologies to flourish, clones and cloning needed symbolic weight. The threat of 20 years’ imprisonment to would-be


Australian cloners was not a rational response to an immediate threat of clandestine ‘meat-labs’ feeding a black-market of cloned children. Instead, it was the necessary end of the clone’s hysterical function in the embryonic stem cell debate. Clones as evil had to be banned with sufficient force as part of the package that would allow access to surplus IVF embryos for stem cell research.

This explanation of the transmission of hysteria to law misses a critical element. It has explained through examining the political context why the *Prohibition of Human Cloning Act 2002* (Cth) possessed quite extreme penalties. But what has not been explained is why consideration of cloning *became* hysterical. Unsurprisingly, given our identification of the law and technology enterprise in Chapter 2, this explanation is not ostensibly provided by the Australian law and cloning scholarship. However, the beginnings of an explanation can be glimpsed in that literature’s engagement with its speculative jurisdiction: science fiction’s clone canon.

**Australian Law and Cloning Scholarship and the Clone Canon**

Investigating clone hysteria that became law with the *Prohibition of Human Cloning Act 2002* (Cth) was not a strong feature of the Australian legal scholarship on cloning. However, within the predominately descriptive project, a small number of contributors, drawing upon bioethics, considered cloning in more significant detail. These represented the discourse corrective to the public record. The specific arguments about human dignity and community standards superficially raised in the public record were rationally dissected and evaluated. However, what was not directly answered in this literature was the tendency to clone hysteria, beyond the referencing of science fiction’s clone canon as
speculative jurisdiction. This tracing of clone hysteria to the mythform can also be glimpsed in the public archive.

**Australian Law and Cloning Scholarship**

Dolly functioned in the Australian law and cloning scholarship in the same way that Sputnik, Louise Brown and *Second Life* did in the literatures analysed in Chapters 2 and 3, as a crisis event that anchored the legal project. It was an established ploy in the Australian law and cloning scholarship to begin with a description of Dolly’s cultural impact.\(^{111}\) Having justified the task at hand, the literature then would offer several descriptive sections. There was description of the technologies involved, in more\(^{112}\) or less detail.\(^{113}\) Like the IVF and law scholarship, there was often a section titled ‘ethical issues’, in which various bioethical positions were summarised.\(^{114}\) There was description of existing legal regimes,\(^{115}\) and the invariable calling for law.\(^{116}\) There were descriptions of reform processes in Australia,\(^{117}\) internationally\(^{118}\) and in comparative jurisdictions.\(^{119}\) Finally, there were pieces that considered the impact of cloning on other legal fields.\(^{120}\)

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\(^{118}\) Dean Bell (1999), pp 218–226; Magri (2003), pp [51]–[54].


\(^{120}\) Rimmer (2003); Then (2004).
Like the other literatures based on the law and technology enterprise, the Australian law and cloning scholarship was a practical project. Lawyers were writing within a positivist modus of law as an instrument through which policy, generally determined from elsewhere, could be implemented. As such, the scholarship focused on technical issues: what formula of words would adequately achieve the policy outcome of prohibiting cloning\(^{121}\) or whether ‘hard law’, as in detailed prescriptive legislation, should be forgone in favour of ‘soft law’ of regulations able to quickly respond to a developing research field.\(^{122}\) The examples from the scholarship that did this legal advising were at the more sophisticated end of the spectrum. The bulk did not engage as deeply as that. Instead, the positivist commitment manifested in an educational guise: the lawyer-instructor was writing to simply communicate a problem, a reform process or a new law, to busy communities of lawyers and health professionals.\(^{123}\) They were serving up the ‘is’ for easy digestion.

However, interspersed with the bland diet of description were tastes of flavour. The first morsel was that the Australian law and cloning scholarship acknowledged its speculative jurisdiction. Dolly was a concern because clones carried cultural baggage, and the Australian law and cloning scholarship often cited texts from the clone canon – \textit{Brave New World},\(^ {124}\) \textit{The Boys from Brazil}\(^ {125}\) (1976 novel,\(^ 126\) 1978 film)\(^ {127}\), \textit{Jurassic

\(^{122}\) Magri (2005), pp 491–492.
\(^{123}\) See, for example, Taylor (2002); Puran (2002a, 2002c, 2002b); Szoke (2003); Morley et al (2003); Otlowski (2004).
\(^{126}\) Levin (1994).
\(^{127}\) Schaffner, \textit{The Boys from Brazil} (Twentieth Century Fox, 5 October 1978).
Park (1990 novel, 1993 film) – along with some of the familiar narratives and tropes associated with these texts – eugenics, replicas mad scientist/dictator. Dolly called lawyers to write because she embodied a long-imagined technological future whose time had come.

The second tidbit was that a small number of articles engaged with clones by advocating for a position drawing upon bioethics. Reflecting divisions within bioethics, there were two types of arguments made. One strain focused on fundamental values and the establishment of limits, while the other was concerned with balance and overall good.

While expanding the analysis beyond description, these articles remained narrow in focus. They emphasised that the technologies were subject to public debate and that law-making would occur in the wake of this debate. In doing so, they presented an idealised vision. By trying to engage in the debate at the level of ideas – reflecting on ethics, dignity and utility – the suggestion was that rational arguments had influence. As has been shown, reasoned argument and evaluation were not characteristics of the public record when it came to cloning. The bioethical informed law scholarship presented reasoned debate on the ethics of reproductive and therapeutic cloning that was mostly

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130 Spielberg, Jurassic Park, (Universal Studios, 11 June 1993).
132 Gogarty (2003), p 84.
134 Magri (2003), p [8].
135 Root Wolpe (1998), p 39. For examples of deontological bioethical arguments in Australia on cloning and stem cells, see Fleming et al (2002); Uren (2002). For examples of utilitarian-based arguments, see Swanton (1998); Savulescu (1999); Pera (1999); Blackford (2003). In this, the Australian bioethics literature reflects divisions within international scholarship. See, for example, Harris (1998); Häyry (2003).
136 See, for example, Thomson (2000); Bruce (2002).
137 See, for example, Chester (2001); Lee (2004).
absent within the public record. However, an explanation of the discontinuity between the professional and public discourses was under-formulated. Instead, the bioethics contributions manifested an intellectual distaste for irrational hysteria that characterised the public record on cloning, and championed the professional philosopher as the bringer of light and reason to the issue:

It is, however, folly to oppose human cloning outright … It is necessary that the debate on human cloning should continue, but in a civilised society it must be free of subjectivity and zealous appeals to people’s emotions and fears.139

What was to be feared in the clone hysteria was the hysterical fear.140 It is at this point that an explanation for clone hysteria breaks into the texts. The public fears the clone because science fiction’s clone canon has originated and nurtured clone hysteria.141 Not only can the clone canon be seen as the speculative jurisdiction inspiring the contributors to the Australian law and cloning scholarship, but it had been singled out as the mythform for clone hysteria.

**Clone Canon**

The clone canon manifested twice in the Australian law and cloning literature: as speculative jurisdiction, and in a smaller number of articles as the explanation for clone hysteria. This should come as no surprise. Human cloning possesses negative cultural resonance. Between 1997 and 2005, the birth of a human clone was announced five

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140 See Blackford (2001b), p 246; Magney (2003). For a long discussion on clone hysteria as hysteria, see Harris (1999).
141 Dean Bell (1999), p 217.
times, each time stimulating front-page reports carrying widespread condemnation.\textsuperscript{142} Jon Turney has observed that human reproductive cloning has been a part of the cultural horizon for at least 50 years.\textsuperscript{143} There have been earlier media controversies concerning human cloning, most notably the public debate that surrounded David Rorvik’s hoax cloning novel \textit{In His Image} (1978).\textsuperscript{144} Before Rorvik, there was a proto-bioethics discourse concerned with the possibility of human cloning and the ethical dilemmas it posed.\textsuperscript{145} Indeed, human cloning as self-evidently repulsive was used by pioneering bioethicists during the recombinant DNA and IVF controversies of the 1970s as \textit{the} extreme case of an out-of-control amoral science.\textsuperscript{146} By the 1970s, there existed enough serious consideration of cloning to inspire law and technology enterprise articles on human cloning\textsuperscript{147} and, as was seen in discussion of the IVF and law scholarship in Chapter 2, by the time of Louise Brown’s birth in 1978, cloning featured on the continuum of artificial human reproduction. By the mid-1980s, the prospect of cloning was regularly anticipated in law reviews\textsuperscript{148} and books,\textsuperscript{149} to the point – as noted by the Commonwealth reports and many contributions to the Australian law and cloning scholarship – that three Australian states – Victoria, South Australia and Western Australia – possessed legislative prohibitions on cloning prior to 1997.\textsuperscript{150}

\textsuperscript{142} Miah (2005).
\textsuperscript{143} Turney (1998), p 214.
\textsuperscript{145} See Klugman and Murray (1998), pp 11–12, commenting on the impact of Lederberg’s 1966 article on the dilemmas of human cloning. See Lederberg (1966). While Lederberg’s article is not in the most serious tone, it provoked a strong response from Ramsey (1970), pp 78–100.
\textsuperscript{147} See for example Pizzulli (1974); See also Stone (1973), p 233.
\textsuperscript{148} See for example Smith (1983).
\textsuperscript{149} See for example Carmen (1985).
For cultural scholars, the persistence of cloning in the public imagination was precisely because of the clone canon in science fiction. From its dystopian origins in *Brave New World*, the clone has featured within a variety of science fiction genres across print, film and television: from *The Boys from Brazil* to celebrated texts in feminist science fiction, such as Fay Weldon’s *The Cloning of Joanna May* (1989) and James Triptree Jr’s novella *Houston, Houston, Do You Read* (1976); to space opera, cyberpunk and monster action films such as *Jurassic Park*; through to humour. Indeed, prior to Dolly, John Clute’s and Peter Nicholls’ *Encyclopaedia of Science Fiction* (1993) suggested a non-conclusive list of the cloning canon running to over 40 entries. The clone joins the robot, spaceship, alien and cyborg as one of the icons of science fiction. Christine Corcos, Isabel Corcos and Brian Stockhoff suggest that, while the narratives and themes within the cloning oeuvre are diverse and complex, ‘most of them are negative’. Outside of some feminist science fiction, where critiques of heterosexuality allowed more positive stories about clones (like in *Houston, Houston, Do You Read*), the Tessier-Ashpool family turn out to be hive of clones, mostly cryogenically frozen in their villa Straylight atop the Freeside orbital platform. Gibson (1984), pp 95–96.

153 Levin (1994); Schaffner, *The Boys from Brazil* (Twentieth Century Fox United States of America, 5 October 1978); See also Le Guin (1978); Hamm, *Godsend*, (Lions Gate Entertainment, United States of America, 30 April 2004); Bay, *The Island*, (DreamWorks, United States of America, 22 July 2005).
157 In the * Neuromancer*, the Tessier-Ashpool family turn out to be hive of clones, mostly cryogenically frozen in their villa Straylight atop the Freeside orbital platform. Gibson (1984), pp 95–96.
the clone has generally been a figure associated with disorder, war and destruction. This distinguishes the clone from the robot, spaceship, alien and even cyborg. The clone is tied to authoritarianism and mad scientists, as in *The Boys from Brazil*. The clone invokes the manufactured and unnatural, as in *Brave New World*, and the clone usually features in narratives that involve a great deal of destruction and death, as in *Jurassic Park*.

These specific texts, and the narratives and tropes popularly attributed to them, were deployed in the Australian public record on cloning. In parliament, the then Foreign Minister, Alexander Downer, clearly had *The Boys from Brazil* on his mind when he informed the House that:

> I think all of us would agree that the implications of allowing human cloning are uncertain and, to some of us, even somewhat frightening. It raises the concept of eugenics … one particularly reflects here on the Nazis during the 1930s and the 1940s.

So too did Warren Entsch, who ridiculed the linking of embryonic stem cell research to Nazi experiments. Similarly, Joe Hockey – then Minister for Small Business and Tourism – opined that: ‘This debate is not furthered or enhanced by comparing embryonic stem cell research to Nazi wartime medical testing.’ Indeed, five

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164 Hartouni (1993), p 96; see also Blackford (2003).
parliamentarians felt it necessary to expressly distance embryonic stem cells from ‘unwarranted and unhelpful’ Nazi associations. With this weight of opinion against the Nazi tropes, Bob Katter, who voted with the minority against embryonic stem cells, drew upon other texts within the clone canon: ‘there are a lot of people who are pretty keen on becoming Dr Moreau or Dr Frankenstein. We read a lot about them in the very famous book Brave New World. That being the case, I think they should stop immediately.’

Like the clone itself, these texts lay in the shadows of the parliamentary debate. The clone canon signified the obvious wrong that most parliamentarians wished to be seen as rising above. Labor frontbencher Nicola Roxon enacted this. She ‘reject[ed] the idea that … we are on a slippery slope – a downward spiral into creating all sorts of Frankenstein clones or other types of fears that people have’. However, in rejecting it she acknowledged the influence of the Western mythform: ‘There are sections in that Bill which prohibit the sorts of things that we read about in sci-fi books, including some of the more extreme things, such as the creation of animal-human clones or placing part of a human embryo into an animal womb.’

This deployment of clone canon was more evident in the media.

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The Boys from Brazil was particularly the focus of Graeme Leech’s opinion piece on 1 March 1997:

… a mad dictator or an unscrupulous government wanting to conduct a secret experiment, or even a deranged billionaire, could, within a few years, have the capacity to gather the necessary personnel and equipment to clone a human. The frequently cited scenario contained in the movie The Boys from Brazil, in which Nazi fanatics plot to clone copies of Hitler, is no more than an entertaining piece of science fiction … But the fictional idea might still hold sufficient fascination for someone to undertake the work in secrecy …

So who would deny with any confidence that someone such as Saddam Hussein might not be tempted to clone himself?172

Indeed, as was later reflected in parliament, The Boys from Brazil (together with its tropes) was the predominate text on cloning through the five years.173 In addition, there were numerous suggestions that ‘Huxley’s Brave New World moves closer it’s becoming even more frightening’,174 and some specific referencing to 1990s science fiction television: ‘there will be no gruesome half-human, half-animals emerging from laboratories in NSW, no real-life enactments of The X Files’.175 A significant feature in

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the media was that it was in discussion of cloning, and not stems cells, that science fiction appeared, and this was across a range of voices, including opinion pieces by politicians and columnists, and also in the reporting of positions of bioethicists and researchers. However, when it came to embryonic stem cells, a difference in deployment between participants was visible. Opponents of embryonic stem cell research, especially over 2001–02, deployed the clone canon against embryonic stem cell research. For example, Senator Ron Boswell – who later played a prominent role in the attacks on Trounson – was reported in *The Australian* on 16 April 2002 as saying:

> He [Boswell] warned politicians ‘must not be naïve’ in debating a Bill which could create ‘a select group of millionaires’ from people promoting stem-cell research … Senator Boswell said Ingenko, another biotech company was similar to Ingen, the company in the *Jurassic Park* films.

This linking of embryonic stem cells to the clone canon was directly countered in the media by researchers. For example, John Smeaton, Chief Executive of Bresagen, argued that:

> When conversation turns to cloning, and the use of human embryos for research, some people tend to throw up their hands in horror and declare the

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176 ‘The stuff of nightmares and horror movies has come of age … a confirmation of our prejudices that mad scientists lurk in the shadows in their white coats with anti-social habits.’ Stott Despoja, ‘To Clone or Not to Clone’, *The Australian*, 26 February 1997, p 12.


178 Meryment, ‘“Foetus Farming” Claim Disputed’, *Courier-Mail* (Brisbane), 19 March 1999, p 5.


whole subject beyond the pale. Visions of mad professors creating vast armies of freakish look-alike humans infiltrating suburban playgrounds suddenly spring to mind. All very Hollywood and very off the mark. ¹⁸³

In summary, the public archive surrounding cloning reveals its mythform. Clones belonged to science fiction, and in parliament and the media the clone canon was invoked as evidence of the wrong of clones and cloning. So far the argument has not progressed very far: clone hysteria has been identified and for the bioethics-informed legal literature, the clone canon was responsible for the hysteria of cloning. Further, a review of the public record reveals moments when the clone canon as mythform breaks the surface. However, cultural anxieties that configured clone hysteria remained in the shadows. While *The Boys from Brazil*, *Brave New World* and *Jurassic Park* appeared in the legal literature, *Hansard* and the Australian media, observing their appearance does not explain the popularity and persistence of clone stories in the first place. Indeed, on closer inspection, all three texts are not really about clones. *The Boys from Brazil* belongs more properly to a horror and ‘airport-paperback’/action sub-genre concerning the Nazi legacy and ‘what if the Fuhrer had lived?’¹⁸⁴ Critics tend to agree that the crushing of liberal individuality by chemical, consumerist and sexual excess, and not the evil of cloning, are the core theme of *Brave New World*,¹⁸⁵ and the carnage in *Jurassic Park* was caused by hermaphroditic, hybrid dinosaurs – not even clones in the definitional sense!

So reports in the media about cloned sheep led five years later to the *Prohibition of Human Cloning Act 2002* (Cth) via a cultural hysteria concerning cloning informed by

¹⁸⁵ Huxford (2000); Blackford (2003); Hartouni (1993).
the clone canon. That there were shared cultural stories, which made it into the serious business of law-making in response to emerging technology, points to something horrifyingly fascinating about clones. However, the source of this hysteria emanated from something fundamental that the clone challenges, rather than the particular popularly manifested stories. The challenge, then, is ‘to boldly go’ beyond the public record and the professional glossators, beyond the archive methods of counting and documenting, to examine the deep origins of the clone hysteria. There is a need ‘to explore strange new worlds’ of the clone to unlock the fundamental cultural anxieties behind the Prohibition of Human Cloning Act 2002 (Cth).

2. Anxieties of Cloning in Star Trek: Nemesis

This section gets serious about clone hysteria through a detailed reading of a text that is focused almost exclusively on clones and cloning: Star Trek: Nemesis. Nemesis is a complicated reflection on cloning: it separates out the two fundamental anxieties surrounding the clone – clone as double and clone as artefact – but then question both in a rejection of essence. However, this victory of ‘acceptance’ and ‘life’ is Pyrrhic. In winning the text for life, essence returns – and returns totally. This has salient implications for considering the fate of the Prohibition of Human Cloning Act 2002 (Cth).

Star Trek: Nemesis

It is possible to see 2002 as the unofficial ‘year of the clone’ in cinema. It was the year that the two dominant American science fiction franchises, LucasArts’ Star Wars and Paramount’s Star Trek, released films involving clones.
While the clone featured in the title of *Star Wars: Attack of the Clones* (2002), clones were not at the forefront of this film’s telling of a story familiar to any science fiction reader aware of Isaac Asimov’s *Foundation* (1951), concerning the decline, decay and corruption of a fading galactic system. When the clones battle on to the screen, the issue is not that they are clones, but that they form an efficient army capable of ordering a changed galaxy. Unlike its space opera rival, *Star Trek: Nemesis* is a reflection on cloning and clone hysteria. The film is structured around a double set of clones: Captain Jean-Luc Picard (Patrick Stewart) and his younger clone, Shinzon (Tom Hardy); and the android Commander Data (Brent Spiner) and his physically identical ‘prototype’, B4. The contours of the convoluted plot need to be summarised.

The film opens with Shinzon seizing control of the Romulan Empire through assassinating the Romulan Senators and installing himself as Praetor. Shinzon then requests a meeting with the Federation, ostensibly with the objective of making peace. The *Enterprise* is the closest Federation ship, so the *Next Generation* crew begins what poor reviews and ratings dictated was to be their final adventure. However, the overtures of peace turn out not to be as genuine as the offers made to an earlier *Enterprise* Captain by the Klingons. In *Star Trek VI: The Undiscovered Country*, Shinzon is a clone with a history. He was created by the Romulans with the intention of having him impersonate the real Picard, thereby placing a Romulan agent at the heart of Star Fleet. To fulfil his destiny, Shinzon is an intriguing piece of genetic engineering:

188 On science fiction’s debt to ‘empire’, see Csicsery-Ronay (2003), pp 238–242.
190 Foundas (2002).
created using ‘temporal DNA’, he has been designed so his ageing could be accelerated to match Picard’s age. For reasons unknown, this use of Shinzon was abandoned, and in an attempt to destroy the evidence of the plot, Shinzon was condemned to die as a slave in the dilithium mines of Romulus’s twin planet, Remus.192

But Shinzon did not die. Instead, he leads the Remans in an uprising against their Romulan oppressors. With the support of the Remans, the collusion of the Romulan military and armed with the Scimitar, a battleship of unparalleled destructive power, Shinzon has staged his coup. Predictably, there is rather more to Shinzon’s plan than liberating his ‘Reman brothers’ from the hell of Romulan oppression. First, like all Star Trek villains, Shinzon’s ultimate goal is to destroy earth. Second Shinzon’s unique genetically engineered potential is also his fatal weakness: he needs a ‘DNA transfusion’ from Picard or he will die. It is no coincidence that it is Picard who is dispatched to negotiate with Shinzon. Shinzon has contrived to lure the Enterprise into close proximity to Romulus by planting B4 on a nearby planet, confident that the Enterprise would detect his ‘positronic’ signal and go to investigate.

The film concludes with a final confrontation between the Enterprise and the Scimitar. The remarkably resilient Enterprise survives and Picard saves the earth from annihilation. When the space debris settles, the Scimitar has been destroyed, the Federation saved and the Romulans are back in control of the Empire. Shinzon himself is dead, but so too is Data.

It is by prioritising clones through the paralleling of two sets of clones that the film presents itself as a reflection on clones and cloning. The film not only maps what is

192 Remus is reiteration of classic science fiction environment of the harsh prison planet where an intense survival of the fittest produces a tough, fanatical warrior population, most readily associated with Frank Herbert’s Dune cycle. See Chapter 6.
absent in the public record on cloning – the key anxieties that make up clone hysteria – but also attempts to destabilise these concerns. Two constitutive anxieties of clone hysteria are identified: the clone as double and the clone as artefact. Underlying them both is essence. The clone as double links thinking about clones to other narratives of the twin and the double; the clone as artefact names the anxieties surrounding the manufactured status of the clone and the concerns of the status of the original and the copy. What is at stake with both is the projection of an essential, material substance as determinate of Being. This anxiety remains and corrupts the film’s attempt to pose a counter-story of acceptance, difference and life.

**Clone as Double**

For Wendy Doniger, the cultural anxiety surrounding clones can be located in the mythology of the double. 193 The clone is a concern precisely because it promises an undistinguished ‘twin’ of the original. Identical twins are problematic due to their sameness and indistinguishableness, but also due to a perceived uncanny closeness. First, twin narratives abound with stories of doppelgangers, the identical malevolent others who substitute themselves for the innocent original. 194 Juliana De Nooy and Bronwyn Statham regard these substitution horrors as involving secondary themes depending on the gender of the twins: stories of male doubles often involve a counter-narrative of loyalty that invariably is absent from female twin stories; these predominately have a dichotomous and sexualised good, virginal twin and a bad, promiscuous twin. 195 A second archetypical twin narrative involves an association of twins with the uncanny. Twins are often

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considered to have special psychic connections: shared memories, extra-sensory perception (ESP) and other mental powers.\footnote{Herdman (1991), p 3.}

In *Nemesis*, the Picard–Shinzon double faithfully reproduces the discursive conventions of twin narratives. It can be seen that, notwithstanding the age difference, Picard and Shinzon are strongly, even excessively, represented according to the classical twin narratives of ‘good’ original and ‘evil’ double. Picard’s age signifies him as the initial, while Shinzon’s youth demarcates him as the second. The plot is structured from Picard’s perspective of discovering his clone. This is reinforced when Shinzon tells his origin story (complete with gratuitous flashback) in the nefarious machinations of the Romulan High Command. While *Star Trek* fans need little textual convincing of the ‘goodness’ of Picard,\footnote{On Picard’s ‘hero’ qualities, see Palumbo (2008), p 118.} Shinzon is revealed as not only being conceived in evil but as being evil: he bullies and dictates to his lackeys (in contrast to Picard’s leadership of his crew); he treats the android B4 as a tool (in contrast to Picard’s respect for both androids); and ultimately he threatens the earth with a weapon of mass destruction (in contrast to Picard’s sworn duty and repeated examples of protecting the earth, the Federation and life itself). As in the substitution twin narrative, Shinzon is revealed as obsessive towards the ‘original’, an obsession that leads to a compulsion to kill Picard.\footnote{On this ‘fratricidal’ struggle of the good and bad twin, see de Nooy (2002), pp 75–76.}

This coding of good and bad twin exceeds the established boundaries for male twin narratives by incorporating sexualisation, as in female twin narratives, of the distinction between Picard and Shinzon. At William Riker’s (Jonathan Frakes) and Deanna Troi’s (Marina Sirtis) wedding, Picard plays respectable masculine roles of ‘father of the bride’ and also ‘best man’. Further, in established *Star Trek* canon, Picard is clearly established...
as heterosexual and monogamous in his relationships, lacking even the macho conquest on every planet of James T. Kirk. In contrast, Shinzon is a deviant who ‘rapes’ Troi via a telepathic *ménage à trois*.

In addition, through over-determining Picard–Shinzon as good–evil twins, the film also suggests the uncanny dimension of twin narratives. Having revealed himself as Picard’s clone, Shinzon directly invokes the ‘two as one’ metaphor of twin narratives:

\[\text{SHINZON: … I can see as well as you can. I can feel everything you feel. In fact, I feel exactly what you feel, don’t I Jean-Luc? Come to dinner – just the two of us; or, should I say, just the one of us.}\]

This referencing of the uncanny is reinforced when at times Picard and Shinzon do the classic twin double-act of finishing each other’s sentences:

\[\text{SHINZON: Were we Picards always warriors?}\]
\[\text{PICARD: I think of myself as an explorer.}\]
\[\text{SHINZON: Well, were we always explorers?}\]
\[\text{PICARD: I was the first Picard to leave our solar system. It caused quite a stir in the family, but I’d spent my youth …}\]
\[\text{SHINZON: … looking at the stars, dreaming about what was up there, about …}\]
\[\text{PICARD: … new worlds.}\]

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The good–bad twin references, together with the uncanny twin suggestions, highlight a key aspect of clone hysteria: clones are evil beings with an unnatural connection to the original. This negative characterisation of the clone is counterbalanced by Data–B4.

The Data–B4 double challenges the reading of clones according to the conventions of twin narratives.Externally, they are perfectly identical and it could be expected that they will be distinguished along similar lines, with B4 the malicious copy actively seeking to subsume the original Data. However, they are not so coded. B4 is a simpleton – in android terms, his ‘neural pathways are less advanced’; he is an unconscious pawn in Shinzon’s scheming, rather than an active participant. This means that B4 responds no differently to Picard’s overtures of respect and friendship than to Shinzon’s disregard and violence. Contrary to the doppelganger narratives, it is Data who successfully exploits his identicalness with B4 to infiltrate the Scimitar, rather than an ‘evil’ B4 impersonating Data. Further, notwithstanding the potential for android connectivity to explain an uncanny link between Data and B4, the relationship is not so burdened. Even during and after the two androids were hardwired together in Data’s attempt to copy his memories to B4, there is no hint of the uncanny ‘two as one’ commonality suggested by Picard–Shinzon. In the film, the Data–B4 double resists the over-arching twin narratives that frame the Picard–Shinzon double. It is possible that this is because in the wider Star Trek story Data already has an evil twin in Lore. In the television episodes dealing with the Lore–Data double, the established tropes of good–bad twins are clearly evident. Lore attempts to destroy all the organic life forms on his

home planet, in opposition to Data’s duties as a Star Fleet officer to protect life and his internal commitments to the ‘Laws of Robotics’;\textsuperscript{206} and in the finale-opener ‘Decent’ between Seasons 6 and 7, Lore tries to destroy Data by disabling his ethical program and ‘feeding’ him a diet of emotions that he cannot resist.\textsuperscript{207} It is possible that the Data–Lore double has exhausted the need for Data–B4 to be framed according to the twin conventions.\textsuperscript{208} In doing so, the film challenges the treatment of clones that it articulates so clearly with the Picard–Shinzon double. In the film, Data is Data, B4 is B4, and the interaction is not one of good/evil, but one of kin. Data quickly labels B4 ‘brother’ and soon accepts B4’s difference from him. So it is Data who decommissions B4 when he is revealed as a pawn of Shinzon because Data accepts that B4 will never be any different from what he is – manufactured as the unwitting accomplice to Shinzon’s plans.

In the Picard–Shinzon double, \textit{Nemesis} suggests that clones are to be feared, that clones are evil, homicidal and interrupt the natural order in uncanny ways. Thus the film gives substance to the ‘community standards’ and ‘human dignities’ that regularly appeared in the public record surrounding the \textit{Prohibition of Human Cloning Act 2002} (Cth). However, the film also challenges this element of the clone hysteria. Through Data–B4, the film suggest that clones need not be conceived according to the extreme narratives of twin stories, but that surface similarities can be pierced, leading to more complex assessments of difference. However, the clone as double is one only element of clone hysteria. Clones are not just twins; they are manufactured twins. The clone as artefact is the other element of the clone hysteria the film expresses and challenges.

\textsuperscript{208} Wagner and Lundeen (1998), p 71.
Clone as Artefact

Clones are artificial twins. Inherent in the term ‘clone’ is the notion of intervention and conscience-creation. The clone as an artefact is the second anxiety within the clone hysteria that Nemesis maps. Again, the Picard–Shinzon double excessively prioritises the dilemmas feared to arise from the manufactured nature of the clone, while the Data–B4 double can be read as providing a different account.

The struggle between Picard and Shinzon drives the plot in Nemesis. Picard as the original comes to face his copy in Shinzon. Immediately at stake in the film are the questions of identity and the consequences of destabilising identity. Returning to the Enterprise after his initial encounter with Shinzon, Picard is clearly shaken and indignant at discovering he has a copy. For much of the film, Picard is given over to introspection. He cradles a photograph of himself the same age as Shinzon, wonders at his own youthful over-confidence and muses on whether, had their situations been reversed, he might not have ended up precisely like Shinzon. The original script made Picard’s emotions blatant. In a scene that was eventually not included in the cinema release, Picard confides in Troi:

TROI: … The strongest sense I had was that he’s very curious about you. He wants to know you.

PICARD: Does he indeed!

TROI: Captain, your feelings are appropriate.

…

PICARD: Can you imagine what it was like standing there, looking at him?

TROI: What you’re feeling is a loss of self.

PICARD: It was as if part of me had been stolen.
TROI: We cherish our uniqueness. We believe that there can only be one of us in the universe.

PICARD: Now there are two.\textsuperscript{209}

Even without that scene, Picard’s notion of self is clearly disrupted by Shinzon. Picard quickly see Shinzon as violent, warlike and impulsive, the very opposite of himself – the coolheaded, diplomatic peacemaker. The fundamental challenge that Shinzon offers to Picard’s sense of self is evident to Shinzon. It is a weakness that Shinzon attempts to exploit as relations deteriorate to armed conflict:

SHINZON: You are me! The same noble Picard blood runs through our veins. Had you lived my life you’d be doing exactly as I am. So look in the mirror. See yourself. Consider that, Captain. I can think of no greater torment for you.\textsuperscript{210}

While Picard is unsettled by the appearance of his evil clone, when the phasers start flying and the Federation is in danger, he pulls himself together and wins the day. Picard the original is tested, but survives. Shinzon the copy is not made of such durable stuff. After meeting Picard, Shinzon descends into a full-blown crisis of identity. Shinzon, as Picard’s clone, is a human who was raised by Romulans, but was rejected and disposed of on Remus. At times he characterises himself as Reman and refers to his ‘Reman brothers’. However, on another occasion he inserts himself into the Picard family history: ‘Were we Picards always explorers?’\textsuperscript{211} he asks Picard. Shinzon knows he is a clone. He knows that he is not Reman; but understands equally that he is not quite human – he is an


\textsuperscript{210} Baird, \textit{Star Trek Nemesis} (Paramount Pictures, 13 December 2002).

\textsuperscript{211} Baird, \textit{Star Trek Nemesis} (Paramount Pictures, 13 December 2002) (Shinzon).
experiment gone wrong – a steadily degrading copy of a human. The solution is obvious: the copy can only possess an identity through destroying the original.

    PICARD: What is all this about?
    SHINZON: It’s about destiny, Picard. It’s about a Reman outcome.
    PICARD: You’re not Reman.
    SHINZON: And I’m not quite human. So what am I? My life is meaningless as long as you’re still alive. What am I while you exist? A shadow? An echo? …
    PICARD: Shinzon, I’m a mirror for you as well.
    SHINZON: Not for long, captain. I’m afraid you won’t survive to witness the victory of the echo over the voice.212

    The Picard–Shinzon double’s talk of echoes and mirrors dramatises the anxiety that comes from the manufactured nature of the clone, the fear that existence of a copy will challenge the original’s sense of self, and the fear that the copy must desire destruction of the original in order to claim an authentic identity. This emphasising of the originality of identity as opposed to the secondary nature of the copy is challenged by Data–B4.

    The existential angst of Picard and Shinzon is absent from Data–B4 in *Nemesis*. Data’s identity is not thrown into crisis by the knowledge of the other. Conceivably, this is because he already is cognisant that he is an artificial creation, the product of a not-quite-sane scientist’s experiments.213 For Data, the potential that there are others of him is an established feature of his identity; indeed, Shinzon exploits his knowledge of Data’s

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openness to and active search for others like himself in using B4 as bait to lure the *Enterprise* to the Romulan border. Having ‘rescued’ B4, Data embraces his ‘prototype’ with some enthusiasm. Indeed, rather than being troubled by their similarity, Data tries to make B4 into an even more faithful copy of himself by having Chief Engineer Geordi La Forge (LeVar Burton) download Data’s memory into B4, in an attempt to upgrade B4 into another Data:

LA FORGE: I still can’t believe the Captain went along with the memory download.

DATA: Captain Picard agrees that the B4 was probably designed with the same self-actualisation parameters as myself. If my memory engrams are successfully integrated into his positronic matrix, he should have all my abilities.

LA FORGE: Yeah but he would also have all of your memories as well. You feel comfortable with that?

DATA: I feel nothing, Geordi. It is my belief that with my memory engrams he will be able to function as a more complete individual.

LA FORGE: An individual more like you, you mean?214

Significantly, there is no question of Data downloading anything from B4. In this, the dynamic between Data and B4 is quite unlike that between Picard and Shinzon. If Shinzon insists that he is a mirror for Picard, Picard is only too ready to respond that he too is a mirror for Shinzon. So whereas Picard–Shinzon plays out the feared loss of identity and competition between the original and the copy, Data–B4 displaces these expectations. Data, unlike Picard begins the film without privileging himself as a unique

creation of nature. He is an artefact, the product of a repeatable process of manufacture. His identity and sense of self are not given by nature but have been hard won in ‘life’. This is reinforced in the failure of Data’s memory to change B4. It suggests that identity lies beyond essences, whether genetic or positronic. In a significant exchange, as the *Enterprise* races from Romulus, Picard and Data reflect on the recent interactions with their doubles:

PICARD: He says he is a mirror.

DATA: Of you, Sir?

PICARD: Yes.

DATA: I do not agree. Although you share the same genetic structure, the events of your life have created a unique individual.

PICARD: If I had lived his life, is it possible that I would have rejected my humanity?

DATA: The B4 is identical to me, although his neural pathways are not as advanced. But even if they were, he would not be me.

PICARD: How can you be sure?

DATA: I aspire, Sir, to be better than I am. B4 does not; nor does Shinzon.215

In *Nemesis*, the Picard–Shinzon double articulates the fear that clones as artefacts lead to a loss of identity in a war for meaningful survival between the original and the cloned copy. Clones are not just evil doubles, but ultimately will be driven to seek destruction of the original. When twined with the clone as double, the anxiety and extraordinary public culture of hysteria that surrounded and were given voice in the *Prohibition of Cloning Act 2002* (Cth) make more sense. While some participants

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mentioned identity, what essentially was at stake was the relation of Being to essence. It is this foundational anxiety, and the attendant fascinations and revulsions, that explain both the endurance of the clone canon in science fiction and the public hysteria of cloning that became law. However, Nemesis also challenges these anxieties. The Data–B4 double suggests that identity lies beyond essence, and as such law is not needed to impose a civilised veneer on dangerous nature. Ironically, it is the manufactured, identical androids that provide a critique of clone hysteria. The Data–B4 double suggests that essence is not determinative.

**Essence**

In exposing the two elements of the clone hysteria – clone as double and clone as artefact – Nemesis can be read as articulating the anxieties that called forth the Prohibition of Human Cloning Act 2002 (Cth). It is also a critique. It suggests alternative accounts of clones that resonate with some of the arguments in the bioethical literature on cloning, which emphasise acceptance, difference and the importance of life experience. In doing so, the film reveals the ambiguity at the very centre of clone hysteria – the relation of essence to Being.

Shinzon challenges Picard’s identity by continually suggesting that their common genetic heritage means Shinzon and his monstrous behaviour are internal to Picard; that Picard would be Shinzon if the circumstances were reversed:

SHINZON: You don’t trust me.

PICARD: I have no reason to.

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SHINZON: You have every reason. If you had lived my life and experienced the suffering of my people, you would be standing where I am.

PICARD: And if you had lived my life, you would understand my responsibility to the Federation. I cannot allow my personal feelings to unduly influence my decisions.

SHINZON: All I have are my personal feelings. I want to know what it means to be human. The Remans have given me a future; you can tell me about my past.

PICARD: I can tell you about my past.217

For the Picard–Shinzon double, essence matters. In this, both are seen struggling with the conception that genes are a type of chemical fate that predetermines an individual. Hence the clone illicitly trespasses on another’s fate, bringing evil, loss of self and threatened annihilation. At stake is the position that an individual manifests a core essence that shines through the surface accretion of lived experience:

SHINZON: Not quite the face you remember?

PICARD: Not quite.

SHINZON: A lifetime of violence will do that. They broke my nose, my jaw. But so much is the same. The eyes! Surely you recognize the eyes?

PICARD: Yes.

SHINZON: Our eyes reflect our lives, don’t they? And yours are so confident.218

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Through the Data–B4 double, the film challenges the notion of determinative essences. The download of Data’s memory into B4’s supposedly identical hardware does not produce the expected Data II. La Forge’s sceptical observation during the download that ‘maybe [B4] is not supposed to be like you, Data. Maybe he’s supposed to be exactly the way he is’\textsuperscript{219} seems correct. Therefore, it is Data, reflecting on that experience, who suggests to Picard that identity lies beyond essences in the intangible life history and aspirations of a being. It is the android that rejects a materialist basis for the self and champions a spiritual commitment to aspiration.

In Data, the film attempts to go beyond essence. However, by the final shot of the Enterprise undergoing repairs in dry dock above a blue earth, Nemesis does not confidently present the victory of spirit over material, aspiration over fate, for Data has been destroyed and with him goes a vision of non-essential being.

The Picard–Shinzon double does not stray from the expected narrative; in the inevitable final confrontation, the original restores the world through destroying the clone. There is little room for acceptance, difference and life in a knife brawl on the disintegrating bridge of a doomed ship. Data is one of the many sacrificed to the Picard–Shinzon double. While Data becomes a martyr to life, the message is that living goes to those accepting the reality of essence. This message is communicated in one of the last scenes when it becomes apparent that B4’s earlier termination by Data was not permanent. Picard has reactivated B4. The exchange between Picard and B4 is frustrating. Picard is attempting to explain Data’s sacrifice; B4 does not understand and Picard leaves. The camera follows Picard, and then swings back to B4. B4 is mumbling the words to a song in a voice like a faint AM radio station. But it is not any song; the

\footnote{\textsuperscript{219} Baird, \textit{Star Trek Nemesis} (Paramount Pictures, 13 December 2002).}
song is Irving Berlin’s ‘Blue Skies’, which Data sang at Riker’s and Troi’s wedding many scenes earlier. Data is back! This suggests that the memory download has worked and Data lives on.\textsuperscript{220}

At this point, the film undermines previous attempt at challenging essence. If the download worked, it means that essences matter. Donna Haraway has suggested that in the contemporary Western notions of individuality, freedom and future have become dominated by genetic determinism.\textsuperscript{221} The nature/nurture debate of earlier generations has become drowned in a helix of deoxyribonucleic acid. For Haraway, genetic determinism has become a popular story in a conservative epoch, an epoch marked by an abandonment of the social, a rejection of community over individuality, retribution over rehabilitation, and the return to a naturalisation of social, ethnic and economic inequality.\textsuperscript{222} As such, it is possible to see the public culture of clone hysteria – the fear of “photocopying” a human being’, as the Andrews report expressed it\textsuperscript{223} – as articulating genetic determinism. \textit{Nemesis} tells us that essence, the pure determination of being by nature, is problematic but ultimately, in the promise of Data’s resurrection, unassailable.

So \textit{Nemesis} exposes the myth of essence at the centre of the hysteria that became law with the \textit{Prohibition of Human Cloning Act 2002} (Cth). It became law not just to

\textsuperscript{220} This reading of the climax in \textit{Nemesis} with Data’s survival has also been made by Short (2003), p 222. Her argument is that this is maintains consistency with the finale of the television series that has future Data, retired from Starfleet as a Professor at Cambridge (Kolbe, \textit{All Good Things ... Star Trek: The Next Generation}, (Paramount Pictures, 23 May 1994)). This is a contested reading. In that episode, it is suggested that the glimpses of the future of the Next Generation Crew was an alternative future conjured by Q in his test of Picard and humanity. In the non-canonical comic series \textit{Star Trek: Countdown} by IDW Publishers Data, set after \textit{Nemesis}, Data is portrayed as alive and captain of the \textit{Enterprise}. The explanation provided in the comic is that Data’s memories took hold and B4 transformed into Data. See Orci and Kurtzman (2009).

\textsuperscript{221} Haraway (1997), pp 145–149.

\textsuperscript{222} Haraway (1997), p 148; See also Nelkin and Lindee (1995).

\textsuperscript{223} House of Representatives (2001), p x.
facilitate the embryonic stem cell regime, but to shore up Western individualism. The ultimate essence at stake in the film is the essential difference of humanity and technology. The clone, in conflating the two, in conceiving the human as a technological artefact capable of replication and manipulation, leads to the wrong, the uncanny and destruction. Yet, for the android – the machine born of technique – a double is acceptable, indeed desirable. The Act can be understood as legislating for the Captain Jean-Luc Picards and the John Winston Howards that they are self-made men, against the fundamental reality of determinative essence. Seeing Nemesis as technical legality allows the Act to be understood as doing fundamental mythical work. The force of law was deployed to shield, at least in the realm of the social, Being from essence, to keep the human and the technological distinct.

As such, all is as it should be. Ultimately, Nemesis ends with a repaired Enterprise captained by Picard, and Prohibition of Cloning Act 2002 (Cth) appears to be preventing its mischief as the Australian media have yet to sensationaly announce a living human clone (or chimera or hybrid). But all is not as it seems in this peaceful and ordered universe, for cloning is now legal in Australia.

3. Monstrous Shadows

This section examines the 2006 amendments through Nemesis as technical legality. It traces how the amendments enacted the critique of clone hysteria identified in Nemesis. In 2006, the prevailing image was of technically useful clones; essence was to be put to work. However, in so doing, the analysis opens to glimpses of another monster shadowing technical legality – law as technology – in the primacy of procedure in the law and law-making following cloning.
2006 Amendments

In 2006, the Commonwealth Parliament passed the Prohibition of Human Cloning for Reproduction and the Regulation of Human Embryo Research Amendment Bill 2006 (Cth). The Bill retitled the Act as the Prohibition of Human Cloning for Reproduction Act 2002 (Cth) and continued most of the prohibitions of the original. However, absent were the original section 9 ‘A person commits an offence if the person intentionally creates a human embryo clone’ and the original section 13, which made it an offence to create a human embryo ‘other than by fertilisation’. Included were new sections allowing licences for the creation of an embryo other than by fertilisation, creating ‘a human embryo containing genetic material provided by more than two persons’, creation of a new embryo from an embryonic stem cell and creating a hybrid embryo. The purpose of these amendments was to allow for the legalisation and regulation of therapeutic cloning.

Why this sudden change of policy? Indeed, several parliamentarians expressed surprise that they were debating a Bill allowing an activity that only four years earlier had attracted universal condemnation. Senator Andrew Bartlett expressed the belief ‘that

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224 Given assent 12 December 2006.
229 Prohibition of Human Cloning for Reproduction Act 2002 (Cth), s 23A.
230 Prohibition of Human Cloning for Reproduction Act 2002 (Cth), s 23B.
232 Commonwealth Parliamentary Debates, Senate, 19 October 2006, p 11 (Jan McLucas); Commonwealth Parliamentary Debates, Senate, 19 October 2006, p 17 (Helen Polly); Commonwealth Parliamentary Debates, House of Representatives, 4 December 2006, p 134 (John Anderson, Deputy Prime Minister); Commonwealth Parliamentary Debates, House of Representatives, 5 December 2006, p 70 (Patrick Secker); Commonwealth Parliamentary Debates, House of Representatives, 5 December 2006, p 116 (Steven Ciobo); Commonwealth
the legalising the creation of human embryos through cloning is a significant ethical shift for our society’. Labor member Craig Emerson was more direct in demanding to know ‘What has changed since 2002?’ Evidence of the change can be seen in the fact that in 2006, unlike 2002, the distinction between reproductive and therapeutic cloning had become more widely accepted:

… the word ‘cloning’ is used to describe both the replication of a whole human being or a whole being as well as the replication of single cells and genetic material. It seems to me that one of the ways in which this debate has been conducted is to conflate … those two concepts. The replication of a whole human being is something that I do not believe anybody would contemplate as being ethical and appropriate. Unfortunately some of the conflation of these two concepts has, I fear, been utilised to try and gain the response that I think all people would have to the prospect of cloning human beings, when what we are talking about is cloning a single cell or the replication of single cells, not a whole human being.

This distinction was further emphasised in the debates with the adoption by supporters of the Bill of the more technically neutral sounding ‘SCNT (somatic cell nuclear transfer)
technology’. Indeed, supporters repeatedly distanced the Bill from cloning and its hysteria by emphasising ‘this Bill is not about cloning humans’, while opponents to the Bill continued to call it cloning.

However, this semantic divergence does not explain the law that was passed. In many respects, the 2006 debates mirrored the 2002 debates. Again there was a conscience vote and again the Bill was prefigured by official reports. The primary report was the 2005 ad hoc Legislative Review Committee’s review of the Prohibition of Human Cloning Act 2002 (Cth) and its twin, the Research Involving Human Embryos Act 2002 (Cth) (The Lockhart Review); the second was the Senate Standing Committee on Community Affairs’ review of the Lockhart report’s recommendations. Also similar was the tone of the debate. This time around, SCNT technology/therapeutic cloning – like embryonic stem cell research in 2002 – was framed as offering hope for cures: ‘Too many lives can be saved or dramatically improved by the use of this revolutionary branch

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236 See, for example, Commonwealth Parliamentary Debates, House of Representatives, 30 November 2006, p 53 (Martin Ferguson); Commonwealth Parliamentary Debates, House of Representatives, 4 December 2006, p 142 (Julie Owens); Commonwealth Parliamentary Debates, House of Representatives, 5 December 2006, p 23 (Annette Ellis); Commonwealth Parliamentary Debates, House of Representatives, 5 December 2006, pp 129–130 (Malcolm Turnbull). Such substitution was criticised by opponents: see Commonwealth Parliamentary Debates, House of Representatives, 4 December 2006, p 123 (John Murphy).


239 See Commonwealth Parliamentary Debates, House of Representatives, 30 November 2006, p 16 (Julia Gillard) on the fact that all parliamentary parties allowed a conscience vote for their members on the Bill.


241 Senate Standing Committee on Community Affairs (2006).
of health sciences for me as a legislator to stand in the way of its development.\textsuperscript{242} For the majority of members, the ‘answer to the question of what has changed is that every single day our body of scientific knowledge expands’,\textsuperscript{243} and in this the majority were mirroring the justification given by the Lockhart report.\textsuperscript{244} Meanwhile a minority questioned the potential for medical progress from SCNT technology/therapeutic cloning\textsuperscript{245}, and an even smaller number invoked the clone hysteria with texts\textsuperscript{246} and tropes.\textsuperscript{247} This explains how the change occurred but does not account for what did change.

The subsequent Australian legal literature, continuing the law and technology enterprise framing of description and positivism,\textsuperscript{248} does not offer an explanation beyond

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\item \textsuperscript{242} Commonwealth Parliamentary Debates, House of Representatives, 5 December 2006, p 119 (Brendan O’Connor).
\item \textsuperscript{244} Australian Government (2005), p 58.
\item \textsuperscript{245} Commonwealth Parliamentary Debates, House of Representatives, 4 December 2006, p 158 (David Fawcett); Commonwealth Parliamentary Debates, House of Representatives, 4 December 2006, p 172 (Sophie Mirabella); Commonwealth Parliamentary Debates, House of Representatives, 5 December 2006, p 96 (Bob Baldwin); Commonwealth Parliamentary Debates, House of Representatives, 6 December 2006, pp 35–36 (Kay Hull).
\item ‘Nazis’: see Commonwealth Parliamentary Debates, House of Representatives, 4 December 2006, p 158 (David Fawcett); ‘Greedy scientists’: Commonwealth Parliamentary Debates, House of Representatives, 4 December 2006, p 125 (John Murphy). See also Commonwealth Parliamentary Debates, House of Representatives, 6 December 2006, p 25 (Alan Cadman).
\item A recent challenge to the law and technology enterprise framing in Australia has been recent work by Isabel Karpin, drawing on feminist critics of biotechnology to examine Australian law-making
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documenting the change of law,249 the Lockhart report250 and the parliamentary debates.251 The closest that it comes to doing so is in recognising that the 2006 amendments represented a victorious campaign by biomedical researchers252 and changing community attitudes.253 It is here that Nemesis as technical legality is insightful. Nemesis suggests that clone hysteria is open to alternative stories. In Nemesis, the obviously manufactured Data–B4 double, the technical objects, could save life. Data saves Picard, the Enterprise and the Earth; and B4 ‘saves’ a well-loved character, allowing him to keep on trekking. Nemesis presents the template for the rehabilitation of clones and cloning. It traces how to avoid the cultural hysteria of cloning. First, there is clear avoidance of the hysterical term ‘clone’. Data and B4 are not clones, but brothers, and in the 2006 debates cloning and its cultural baggage were sublimated by the neutral sounding ‘SCNT technology’. The second similarity is the embrace of the clone’s artefact origins: clones are properly seen as things and techniques, not some uncanny manifestation of illicit tamped with essences. In the debates, SCNT technology was repeatedly emphasised as a ‘technique’,254 among other medical techniques. Third, there

in response technological mediated human reproduction. See Karpin (2006); Karpin and Bennett (2006).

249 Nemesis (2008), p 142
251 Nemes (2008), pp 143–144.
253 The Lockhart report references research commissioned by Biotechnology Australia documenting slight changes in Australian attitudes to therapeutic cloning between 2002 and 2005. See Australian Government (2005), pp 82–88. On research that suggests that the majority of Australians have a more progressive and accepting attitude to embryonic stem cell research and therapeutic cloning than was enacted in 2002, see Farquharson and Critchley (2004), p 137; Dodds and Ankeny (2006), p 105. See also Gilding and Critchley (2003); Barlow-Stewart et al (2005).
254 See, for example, Commonwealth Parliamentary Debates, House of Representatives, 30 November 2006, p 14 (Julia Gillard); Commonwealth Parliamentary Debates, House of Representatives, 30 November 2006, p 47 (Cameron Thompson); Commonwealth Parliamentary Debates, House of Representatives, 30 November 2006, pp 56–57 (Andrew Southcott); Commonwealth Parliamentary Debates, House of Representatives, 4 December 2006, p 138 (Teresa Gambaro, Parliamentary Secretary Foreign Affairs); Commonwealth Parliamentary
is a linking of these things and techniques to life: in the words of Labor backbencher Annette Ellis, ‘Life’ was at the ‘heart’ of the debate of the Bill. While the members opposed to the Bill saw that what was at stake was the sanctity of human life and the definition of when life begins, the majority saw the Bill as supporting and enhancing life in the present; of offering hope, progress and cures.

That cloning, which *Nemesis* tells us is entwined with essence, could properly be seen as a technique that could save life appears paradoxical. In Data–B4, there is a critique of clone hysteria. However, this critique is shadowed by essence and the essential maintenance of a distinction between human and machine. SCNT technology connected with life because the parliamentarians saw in it a stabilised technological field in which malfunctions in essence – cancer, Parkinson’s disease, Alzheimer’s disease, multiple sclerosis – could be remedied with techniques that work at an essential level. SCNT technology, like embryonic stem cells in 2002, promised hope because the promise was the classic promise of the technological – human mastery over nature. The Bill was supported not because it was about cloning, but because it embodied scientific progress. In supporting the Bill in the House, liberal backbencher Russell Broadbent provided the basic elements of this argument:

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*Debates*, House of Representatives, 4 December 2006, p 145 (Bruce Baird); *Commonwealth Parliamentary Debates*, House of Representatives, 5 December 2006, p 100 (Arch Bevis); *Commonwealth Parliamentary Debates*, House of Representatives, 5 December 2006, p 105 (Greg Hunt); *Commonwealth Parliamentary Debates*, House of Representatives, 6 December 2006, p 10 (Laurie Ferguson).


256 See, for example, *Commonwealth Parliamentary Debates*, Senate, 7 November 2006, p 12 (Jan McLucas).

257 This commitment and its metaphysics is the subject of Chapter 7.
Five decades in terms of human history is a relatively short time, and the advances that have been made have been remarkable. In addition to transplant surgery, in-vitro fertilisation and surrogacy have meant much to couples who in an earlier era would have gone through married life without the joy that children bring … All of these advances were part of the evolution of medical science that this bill seeks to further advance. All their development met with degrees of ethical debate around well-founded, genuine concerns. However, these hurdles were overcome and society today accepts these procedures as a part of ethical medical practice.\textsuperscript{258}

This is what \textit{Nemesis} cleared the way for. It is perhaps unsurprising that a \textit{Star Trek} film promises a better world, but ultimately presents a conservative future.\textsuperscript{259} In working through the founding anxieties of clone hysteria to essence, \textit{Nemesis} re-erects the divisions between humans and the technical and humans and nature. \textit{Nemesis} as technical legality explains the 2006 amendments. The anxiety, threat and danger of cloning were repudiated in a reaffirmation of progress, of technical mastery of essence for human benefit. While in 2002 cloning was the monster in all its Shelley gothic, in 2006 cloning in the guise of SCNT technology was the affable, lovable, helpful Data.

However, the monster can still be glimpsed shadowing Australian law’s engagement with cloning. What was remarkable about the 2006 amendments was that they occurred without official support. Indeed, on receipt of the Lockhart report, Howard

\textsuperscript{258} Commonwealth Parliamentary Debates, House of Representatives, 30 November 2006, p 17 (Russell Broadbent).

\textsuperscript{259} The failure of \textit{Star Trek} to offer an authentic progressive future is a common critique of the franchise. See, for example, Boyd (1996), p 111; Bernardi (1997), p 224; Heller (1997), p 226.
expressly rejected its recommendations.\textsuperscript{260} The Bill entered parliament as Liberal Senator Kay Patterson’s Private Member’s Bill, and is one of the very few Private Member’s Bills to have become law.\textsuperscript{261} Notwithstanding the aura of the debate and conscience votes, there was something almost mechanical about the 2006 amendments, as there was with the 2002 Act. Both were laws produced by experts, by committees that claimed to be distanced from the everyday of parliamentary politics. The 2006 amendments even possessed sufficient momentum to be translated into law without the executive’s formal support. The suggested image is of automatic law – law as the product of a legislative factory.

\textbf{Law as Technology}

The amended \textit{Prohibition of Human Cloning for Reproduction Act 2002} (Cth) has in its very text the hint of technicality. It is at one level a ‘neutral’ law. While much of it comprises criminal prohibitions, the new (in 2006) Division 2 provides the basic machinery for the licensing regime. What is mentioned is ‘licence’,\textsuperscript{262} which is defined in section 8 as a licence granted under the \textit{Research Involving Human Embryos Act 2002} (Cth).\textsuperscript{263} In turn, Division 4 of that Act sets out the procedure through which an application for a licence by a ‘person’\textsuperscript{264} is decided by the ‘NHMRC Licensing Committee’.\textsuperscript{265} In making the decision, the NHMRC Licensing Committee must ensure that appropriate ‘protocols’ are in place concerning consent,\textsuperscript{266} verifying the origins of

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\textsuperscript{261} Dixon (2004).
\textsuperscript{262} \textit{Prohibition of Human Cloning for Reproduction Act 2002} (Cth), ss 22, 23, 23A, 23B.
\textsuperscript{263} \textit{Prohibition of Human Cloning for Reproduction Act 2002} (Cth), s 8.
\textsuperscript{264} \textit{Research Involving Human Embryos Act 2002} (Cth), s 20.
\textsuperscript{265} Established by section 13 of the \textit{Research Involving Human Embryos Act 2002} (Cth).
\textsuperscript{266} \textit{Research Involving Human Embryos Act 2002} (Cth), s 21(3)(a).
\end{flushleft}
embryos, and must consider the ‘likelihood of significant advance in knowledge’. Further, the committee needs to consider the report on the application by the Human Research Ethics Committee, any relevant guidelines issued under the National Health and Medical Research Council Act 1992 (Cth) and any matters specified by regulations. Here, the critical decision-making has been turned over to an expert body; the legislation just provides for the mechanics for the decision. Further, the substance of the decision – the nitty-gritty of what content and considerations through which these experts should decide the application – is predominately left to other experts, the Human Research Ethics Committee, guidelines and regulations. The law itself has been, in Carl Schmitt’s 1929 term, ‘neutralised’, stripped of values, leaving only an apparatus through which technicians can exercise power. In this, Schmitt was commenting on the arrival of modern law, heralded by Max Weber. Weber’s analogy was with the mechanised factory:

The fully developed bureaucratic apparatus compares with other organizations exactly as does the machine with the non-mechanical modes of production. Precision, speed, unambiguity, knowledge of the files, continuity,

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267 Research Involving Human Embryos Act 2002 (Cth), s 21(3)(b).
268 Research Involving Human Embryos Act 2002 (Cth), s 21(4)(b).
269 Research Involving Human Embryos Act 2002 (Cth), s 21(3)(c).
270 Research Involving Human Embryos Act 2002 (Cth), s 21(4)(c).
271 Research Involving Human Embryos Act 2002 (Cth), s 21(4)(e). The Prohibition of Human Cloning for Reproduction Act 2002 (Cth), s 26 allows for executive regulations, as does section 48 of the Research Involving Human Embryos Act 2002 (Cth). There is a Research Involving Human Embryos Regulation 2003 (Cth) which regulation 2.3 specifies the committee under section 21 must also consider the ‘ART guidelines’ and the National Statement on Ethical Conduct in Human Research, issued by the CEO of the NHMRC in 2007 and as existing on 24 August 2007.
discretion, unity, strict subordination, reduction of friction and of material and personal costs – these are raised to the optimum point.\textsuperscript{273}

For Weber, the arrival of ‘mechanised’ law was the ultimate step in the long process of rationalisation ending with a procedural framework for rational, efficient bureaucracy.\textsuperscript{274} However, for Schmitt the emergence of modern law as form, as a framework that experts can wield to specific ends, represented fundamental danger; it indicated that the law had become technology.\textsuperscript{275} Modern law, like the *Prohibition of Human Cloning for Reproduction Act 2002* (Cth) appears to substantiate Schmitt’s suggestion in *Political Theology* (1922) that the modern state had not only become a ‘great machine’, but one in which ‘[t]he machine runs itself.’\textsuperscript{276}

However, there is a deeper technicality to the Act. In *The Crisis of Parliamentary Democracy* (1923), Schmitt writes that the alleged ‘intellectual foundations’\textsuperscript{277} for parliament in openness and debate have been contradicted in its modern manifestation where: ‘Small and exclusive committees of parties or of party coalitions make their decisions behind closed doors.’\textsuperscript{278} The Australian response to cloning can be seen as taking Schmitt a step further.

The 2002 Act and the 2006 amendments enacted the recommendations of the major reports, the Andrews report of 2001 and the Lockhart report of 2005. Notwithstanding the media debates, subsequent Senate reports and conscience votes, the laws corresponded with the expert reports. In Chapter 2, Michael Kirby described the

\textsuperscript{273} Weber (1968), p 973.
\textsuperscript{274} Weber (1968), p 848.
\textsuperscript{275} Schmitt (1922), p 28.
\textsuperscript{276} Schmitt (1922), p 48.
\textsuperscript{277} Schmitt (1923a), p 49.
\textsuperscript{278} Schmitt (1923a), pp 49–50.
Australian institution of law reform commissions as a ‘technique of law development’\textsuperscript{279} using ‘procedures … to provide legislators with a well-fashioned instrument by which to tackle the “too hard basket” of legal change’.\textsuperscript{280} A common comment by parliamentarians was that responding to cloning was almost too hard. Many suggested it was ‘difficult’.\textsuperscript{281} Indeed, for Liberal Kerry Bartlett, the 2002 decision was:

For me and, I suspect, for many of my colleagues [the Bill] has been the most difficult pieces of legislation I have had to consider … It is difficult because of the immensity of the implications that flow from it and difficult because of the strength of the arguments on both sides.\textsuperscript{282}

Faced with difficulty, and without the ‘security blanket’ of party discipline,\textsuperscript{283} many parliamentarians deferred to the reports, as evidenced by the numerous comments commending and approving of the reports.\textsuperscript{284} As texts, the Andrews and Lockhart reports

\begin{itemize}
\item Kirby (1983a), p 10.
\item Kirby (1982), p 14.
\item \textit{Commonwealth Parliamentary Debates}, House of Representatives, 28 August 2002, p 6093 (Kerry Bartlett).
exude authority. Both present their recommendations as the outcome of a detailed inquiry that has considered the science, the ethics and community standards. Both acknowledge the complexity – indeed, the intransigent character – of the ethical debate. In the Lockhart report, an attempt is made to apply a neutral technical approach to the ‘processes’ of gathering and synthesising community attitudes. Finally, they share the framing of their respective recommendations as ‘balance’.

What can be glimpsed in the way Australian law responded to cloning in 2002 and 2006 is beyond Schmitt’s claim that the form of law in modernity had become technological. If the ‘machine runs itself’ in terms of positive law providing a neutral framework for the modern executive, in the Australian law-making in response to cloning, it can be suggested that the very making of this law had become technical. The machine runs itself, not just at the level of the everyday decision, but at the macro level of institutional change. This is particularly so when considering the Lockhart report. The Lockhart Committee was anticipated in the Andrews report in the recommendation for a three-year review, and this was legislated for in section 25 of the Prohibition of Human Cloning Act 2002 (Cth) and section 47 of the unamended Research Involving Human Embryos Bill 2002 (Cth). In this context, the 2006 amendments, which followed in Lockhart’s wake, can be seen as autonomous, the cyclic operation of a self-maintaining machine.

287 This was emphasised by the authors of the report in a separate journal article Skene et al (2008). On the technicality of the process see Parker (2009), p 583.
Otto Rank’s foundational study of the double considers shadow myths as part of the double oeuvre. Recognising that the law in response to cloning in Australia was technical in form, and was especially so in creation, substantiates the irony first seen in Chapter 2, with the place of the Frankenstein myth in the law and technology enterprise. Shadowing the clone was the institutional production of law. But law’s double in this drama of criminalising and then decriminalising the clone, law’s shadow through the plot – possibly its mirror in which its essential nature can be seen – was the monster.

\[290\] Rank (1971), pp 50-52.
They were strolling along the high-road easily … when far behind them they saw a small cloud of dust, with a dark centre of energy, advancing on them at incredible speed, while from out of the dust a faint ‘Poop-poop!’ wailed like an uneasy animal in pain. Hardly regarding it, they turned to resume their conversation, when in an instant (as it seemed) the peaceful scene was changed, and with a blast of wind and a whirl of sound that made them jump for the nearest ditch, it was on them! The ‘Poop-poop’ rang with a brazen shout in their ears, they had a moment’s glimpse of an interior of glittering plate-glass and rich morocco, and the magnificent motor-car, immense, breath-snatching, passionate, with its pilot tense and hugging his wheel, possessed all earth and air for the fraction of a second, flung an enveloping cloud of dust that blinded and enwrapped them utterly, and then dwindled to a speck in the far distance.

– Kenneth Grahame, *The Wind in the Willows*, 1908

This chapter continues within science fiction’s epistemological register, but moves away from the obvious meeting of technology, law and science fiction that was seen with clones in Chapter 4. In common with Chapter 4, it continues to utilise cultural studies methods to explore the nexus between law and the cultural. Ultimately, this chapter

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argues that behind the making of the one of the first Australian laws regulating the motor vehicle, the *Motor Car Act 1909* (Vic), is a substantiation of the modern conception of law as technology. The monster can be seen away from the shadows. This argument is in three sections.

The first section argues the *Motor Car Act 1909* (Vic) did not correspond to publicly voiced concerns about motor vehicles during the pioneering period of motoring (1897–1914). Instead of restrictions, the Act established a regulatory scheme of registries, licensing and policing that was pro-motorist. The second section seeks an explanation for this dislocation, but does not find it in the purely political and temporal influences such as the class politics of the era, the availability of UK templates or the lobbying by the Automobile Club of Victoria (ACV).

The third section constructs a more adequate cultural explanation through locating the reactions to motor vehicles within the mythform of the age, as given form in the late nineteenth century ‘scientific romances’ of H.G. Wells. Wells gave form and voice to a ‘progressive modernism’ that can be seen as motivating both the members of parliament and the ACV. Progressive modernism conceived in the motor vehicle the possibility of a better future of mass automotive transport, but this future was not inevitable; it needed to be facilitated through rational law. Progressive modernism reveals that, as suggested in Chapter 4, the law called forth by technology is itself technological.
1. 'The History of the Haste-Wagons'

This section traces the cultural impact of the motor vehicle prior to World War I, with a specific focus on the state of Victoria. What is identified in the work of popular historians, and the primary cultural archive of newspapers, correspondence and parliamentary debates, is a society seemingly antagonistic to this new form of transport. However, this antagonism – unlike the clone hysteria in 2002 – was not translated into law. An examination of the Motor Car Act 1909 (Vic) reveals a motorist-friendly regime that allowed permissive use of ‘the haste-wagons’.

Motor Cars 1897–1914

A history of the motor vehicle in Australia has yet to be written. Notwithstanding recent work by cultural historians, the documenting of the history of the motor vehicle in Australia has tended to be undertaken by journalists and amateur historians, who frame the events that led to the car’s ascendency according to a triumphant teleology. This literature begins prior to World War I, when the motor vehicle was a dangerous novelty. It then moves through the expansion of ownership in the 1920s, to Chifley and Australia’s Own in 1948, to the ‘Super-Car Scare’, oil crisis and industry decline of the

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3 Graeme Davison’s cultural account of the motor vehicle in Victoria is a solid step towards an Australian history of the motor vehicle. Unfortunately, his work is limited to Melbourne and begins in 1945, leaving the first 50 years of motor vehicles in Australia to only a few paragraphs. Davison (2004), pp 48–49, 114. It is arguable that such a project has been undertaken for the United Kingdom (Plowden 1973), Germany (Sachs 1992) and the United States (Flink 1970, 1976, 1988).
5 Knott (1994b), p 222. For examples of this type of scholarship, see Goode (1969); Cheney (1965); Martin (2001).
6 Birney (1984), p 42.
7 See Cheney (1965).
In this literature, the motor vehicle is naturalised – its contemporary place within Australian society is portrayed as the inevitable outcome of historical events.

The ‘pioneer period’ of motoring in Victoria, from 1897–1914, was marked by five key events. The opening event was the arrival of the first motor vehicle to Victorian streets. Depending on the source, this vehicle was either the ‘Thomson Steamer’, a homemade steam-powered contraption that supposedly first chugged up New Street, Armadale, in May 1896, or the kerosene-powered Ridge-Austin machine developed for the ‘Australasian Horseless Carriage Syndicate’ that took to the streets around Fitzroy in February 1897. The second event was the formation of the ACV on 9 December 1903. The third was the 1905 Sydney-to-Melbourne reliability run that inspired A.B. Paterson’s ‘History of the Haste-Wagon’. The fourth was the arrival in 1909 of the Model T Ford. The Ford had two advantages over its European contemporaries: it was cheaper and more robust when it came to dealing with Australia’s poor roads. The fifth was the coming into force of the Motor Car Act 1909 (Vic) in January 1910.

The popular history literature links these events together by conceiving the pioneer period of motoring as a ‘dark age’, in which a vanguard of progressive motorists faced a hostile society of Luddites, horse-loving reactionaries, regressive law-makers and

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12 See Blainey (1993), p 80.
over-zealous police. This understanding of the pioneer period of motoring by this literature seems to be supported by the primary sources, which reveal significant community anxieties concerning the new machines. As early as 1900, *The Argus* wrote:

The real truth is that when the motor comes into universal use life will not be worth living … [T]o live in a city when motors have superseded horses will be like living in a cotton mill, with a boiler factory on one side and a merry-go-round with a steam organ on the other … A horse does not like to run a man down if he can help it, but a machine of steel and brass will delight in killing people.

In 1905, the ‘blood thirst’ of the motor vehicle prophesised by *The Argus* had come about, with the first recorded fatality occurring when a vehicle ran down and killed a cyclist. In 1910, Sir Henry Weedon addressed the Legislative Assembly on a matter of ‘public urgency, namely the numerous motor car accidents occurring through reckless driving’. Weedon told the Legislative Assembly:

Deplorable accidents … have occurred, one as late as Sunday morning last, when an innocent man, going home quietly from his work, was mown down. … They are happening in various parts of the metropolis, and motor cars are becoming a menace.

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13 Winser’s 1954 text could be regarded as the archetype of this characterisation. The prominence of that work as a source for later popular histories goes some way to explaining the uniformity of this characterisation: see Goode (1969), p 30.


15 ‘Motor-Car Collision – A Cyclist Killed’, *The Argus* (Melbourne), 5 January 1905, p 5. At the subsequent inquest, the driver was found not to be at fault: ‘Motor-Car Collision – Verdict of Accidental Death’, *The Argus* (Melbourne), 12 January 1905, p 5.


Weedon was not alone in his concern about the motor menace. In 1912, Robert Solly said to the Legislative Assembly:

The other day a boy was knocked down in Fitzroy by a car, and the car went on without doing anything to aid him. Hardly a day passes without one seeing accounts in the press of serious accidents, and it is time that something was done to protect life against motor hogs. Every one can see cars rushing through the streets at speeds up to thirty miles an hour, and there seems to be nobody to protect the people against them.18

It seemed that the motor vehicle did not discriminate in its bloody desire. In 1908, one member of the Victorian Parliament complained that another member had nearly run him over!19 Further, notwithstanding the Motor Car Act 1909 Amendment Act 1914 (Vic), it again fell to Solly on 24 September 1914 to report to the Assembly that: ‘Nearly every Monday morning we find reports in the newspapers of a number of motor accidents which have occurred during the week-end, by which people are maimed and … killed.’20 From these sources, it appears uncontroversial that for the period 1897–1914, the motor vehicle’s undesirable consequences of turning people into ‘cold meat’21 was a focus for public anxiety.22

18 Victorian Parliamentary Debates, Legislative Assembly, 10 October 1912, p 1945 (Robert Solly).
19 Victorian Parliamentary Debates, Legislative Assembly, 23 July 1908, p 291 (Edward Warde). The accused was Norman Bayles, the Member for Toorak.
21 To use the endearing phrase of the Member for Bendigo East: Victorian Parliamentary Debates, Legislative Assembly, 31 August 1905, p 1295 (Alfred Bailes).
22 Although it must be kept in mind that the numbers of motor vehicle-related injuries and deaths were very low compared with the real killer on the streets of urban Australia at the time: the electric tram. In Sydney for the period 1903–14, there were 49 fatalities from motor vehicle-caused accidents compared with 130 for trams. Knott (1994b), p 226. See also Knott (1994a).
However, the motor vehicle’s destructive nature was not the only cause of public anxiety. The Argus’s prophecy also anticipated the noise of motor vehicles shattering urban calm. Again, by 1907 The Argus’s concerns seemed well placed. In Sydney, The Daily Telegraph reported that on Sundays a ‘procession of snorting and evil smelling motor cars … regularly distort the features of the attendant worshippers’. As early as 1902, noise was the cause of the first litigation in Australia involving a motor vehicle. An action was brought against a motorist in the Supreme Court of Victoria because his vehicle frightened a racehorse, causing the horse a fatal injury. The mythology surrounding the case tells that, at the close of the first day of sittings, Madden CJ stood on William Street and observed (and heard) a staged re-enactment of the incident. The Chief Justice agreed with the deceased horse concerning the noise of the machine, and the horse owner was awarded £250 in damages.

Another anxiety that surrounded motor vehicles before World War I was that they were the preserve of the wealthy. The 71 foundational members of the ACV comprised representatives of the elite and wealthy of Melbourne, along with members of the medical profession and representatives of the nascent motor vehicle industry. Susan Priestley’s description of the ACV’s first rooms could be that of any gentlemen’s club from the era:

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24 Madden CJ’s judgment was not reported. However, the application for costs was reported: Bloomfield v The Dunlop Tyre Company Ltd (1902) 28 VLR 72. The accident happened on 30 August 1901. The vehicle involved was a De Dion Bouton, purchased by Dunlop for promotional purposes: Blainey (1993), pp 69–72. For an account based on the recollection of the driver, see Winser (1954), pp 56–57.
25 Blainey (1993), p 70. While Madden CJ gave judgment against a motor vehicle in 1902, the vehicle must have left an impression, since he agreed to be the foundational President of the ACV in 1903: Priestly (1983), p 9.
26 Knott suggests that in 1905 an entry-level ‘Argyll’ would have cost 250 weeks’ income at minimum adult male wages, Knott (2000), p 7. This is only the purchase price. Hovenden suggests that in 1906 the weekly running costs of a motor vehicle were £5/7/3, at a time when £3/0/0 was considered a good wage for a tradesman: Hovenden (1983), p 139.
there was a reading and smoking room, a billiard room with two tables, a committee room and an office, a refreshment bar, a fine balcony overlooking Collins Street, and a cool well-lit luncheon room where a meal costing from six pence to two shillings could be had from twelve to two.28

In a period when Victorian society was sensitive to class politics,29 the motor vehicle was a visible symbol of the well-off’s contempt for the worker: ‘To the cynic the car was just another rich man’s toy. To the envious, it was an emblem of class distinction and bloated capitalism owned by a snob who flashingly flaunted evidence of ill-gotten gains.’30

Together, the dangerous speed, noise pollution and class status meant that some in the community did more than just write letters to the editor or Members of Parliament voicing their concern about the new machines. One parliamentarian suggested that, ‘considering the way the drivers of motor cars act … the British public ought to be allowed to carry arms and shoot some of the beggars at sight’.31 There were no reports in Australia of this extreme response to motor vehicles. However, there were reports of motorists being abused, pelted with rocks, and the malicious arranging of sharp objects on roads to puncture pneumatic tyres.32

Therefore, the primary sources from the period give voice to a public mood that displays significant anxiety, if not outright hostility, to the emerging motors. Indeed, in 1905 the report on a meeting of the ACV tells that the pioneering motorists were

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31 Victorian Parliamentary Debates, Legislative Assembly, 14 October 1908, p 1212 (Alfred Outtrim).  
concerned that a “wave of hysteria” had swept over the community on the subject of motoring’. As this wave of hysteria was contemporaneous with the first motor vehicle legislation, the popular history literature suggests that this law was a populist response, pandering to the anxieties and hostilities of the non-motorist majority through the introduction of low speed limits, exorbitant taxation and curfews. For example, Shane Birney articulates this linking of public antagonism with regressive law:

The first cars were seen as little more than toys both by those who owned them and those that did not. All manner of draconian laws were invoked to suppress the ‘maniacal’ urges of this lunatic fringe. Very low speed limits were fixed and police were encouraged to give close attention to the behavior of motorists … In Melbourne any motorist who had the temerity to overtake a cable tram (speed about 12km/h) was dealt with swiftly and severely by the law.

Birney is wrong. As will be shown, the Motor Car Act 1909 (Vic) cannot be regarded as a regressive attempt at controlling a dangerous new technology. Even Birney’s reference to motor vehicles passing trams is wrong. In 1912, the Supreme Court of Victoria acquitted a convicted motorist who hit a child while overtaking a tram on the right. Further, the Motor Car Act 1909 (Vic) was not repealed and then replaced with a more workable scheme after the initial public anxieties had dissipated – the fate of much

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36 Gillin v Malmgren [1912] VLR 26 at 28 (a’Beckett J). Birney is also wrong as to the speed of trams. Contemporary sources have the urban trams in Melbourne doing 12 mph, not the rather more sedate 12 km/h: Victorian Parliamentary Debates, Legislative Assembly, 5 September 1905, p 1350 (Henry Beard).
populist law enacted in response to hysteria. Instead, the key elements of the Act – registries, licensing, prescribed norms, and policing – remain the cornerstones of contemporary motor vehicle regulation.

**Motor Car Act 1909 (Vic)**

The *Motor Car Act 1909* (Vic) cannot be understood as a simplistic reaction to public anxieties about the new motor vehicles. Instead, it provided a sophisticated scheme for the regulation of such vehicles. A fuller understanding of the Act must begin with the pre-1910 regulation of motor vehicles and the Act’s own legislative history.

Prior to 1910, motor vehicles were subject to the established road rules. While the substance of the road rules had remained consistent during the 1800s, the key reform felt by early motorists was the emergence in the 1890s of police as the central traffic enforcement agency. For the control of motor vehicles before 1910, the police relied primarily on the offence of ‘furious or negligently riding or driving through any public place’ under section 5(17) of the *Police Offences Act 1890* (Vic). From a police and motorist perspective, this was an unsatisfactory approach. ‘Furious driving’ related to harnessed horses, and from the agitation, sweat and breathing of a horse, a police officer could generally tell whether it had been driven furiously. Motor vehicles lacked such telltale signs, and as such prosecution of a motorist for furious driving relied primarily on the opinion of the police officer and any witnesses. Prosecution became dependent on the competing credibility of the motorist and the police officer. Therefore, from an early point, the police and the motorist were pitted at loggerheads, with claims of harassment

37 Morgan (1999).
38 On the problems of the application of ‘furious driving’ to motorists, see Plowden (1973), p 17; Emsley (1993), p 363.
and bribery being made by both sides.\textsuperscript{39} Evidence of this conflict can be seen in the ACV’s decision in 1906 to set up a fighting fund to provide legal representation to members accused of furious driving.\textsuperscript{40}

The Victorian Parliament first addressed the issue of motor vehicles as early as 1900. The \textit{Traction Engine Act 1900} (Vic) excluded ‘motor cars and motor cycles’ from its reach.\textsuperscript{41} In doing so, this Act followed its United Kingdom precursor, the \textit{Locomotives on Highways Act 1896} (UK), which exempted light locomotives (defined as a self-propelled vehicle under 3 tonnes not used for haulage) from the restrictions placed on traction engines.\textsuperscript{42} The first legislative attempt to regulate motor vehicles was in 1905, when the government of (later Sir) Thomas Bent introduced the Motor Car Bill 1905 (Vic) ‘to secure and preserve the lives and limbs, not only of persons who have the right to use the public highways … but also to protect the lives and limbs of those persons who use these motor cars themselves.’\textsuperscript{43} Like the \textit{Traction Engine Act 1900} (Vic), the 1905 Bill was mostly a copy of an English law, the \textit{Motor Car Act 1903} (UK). The core elements of the 1905 Bill were the licensing of drivers and vehicles, the provision of a

\textsuperscript{39} ACV, \textit{Automobile Club of Victoria Annual Report 1909–1910} (1910), p 6; ACV, \textit{Automobile Club of Victoria Annual Report 1910–1911} (1911), pp 5, 10. Even the Governor’s chauffeur was not immune from prosecution. It is reported that chauffeur Arthur Benning was fined 40 shillings for furious driving, having previously been fined 20 shillings for a similar offence. See ‘Motor Traffic – Governor’s Chauffeur Again Fined’, \textit{The Argus} (Melbourne), 24 January 1905, p 6.

\textsuperscript{40} Priestly (1983), p 22. Here the ACV followed the establishment of a similar fund by the English Automobile Club: Plowden (1973), p 19. However, the conflict between motorists and the police was not resolved by the 1909 Act. As early as 1910, the Commissioner of Police had to make public announcements defending the tactics and instruments used by the police in enforcing the Act, ‘Police and Motorists – Mr O’Callaghan’s Views’, \textit{The Argus} (Melbourne), 17 November 1910, p 10.

\textsuperscript{41} \textit{Traction Engine Act 1900} (Vic) s 3.

\textsuperscript{42} The \textit{Locomotives on Highways Act 1896} (UK) released both traction engines and motor vehicles from the red flag requirement. However, ‘light locomotives’ were subject to a blanket speed limit of 14 mph: s 4.

\textsuperscript{43} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 23 August 1905, p 1146 (Sir Samuel Gillott, Chief Secretary). Bent was Premier from 1904–08. He succeeded William Irvine as Premier and as leader of the conservative free trade faction in the Legislative Assembly, referred to in the political history literature as ‘Ministerialists’: see Browne (1985), p vii. On Bent and his government, see Glass (1993).
new criminal offence of driving a motor vehicle negligently, and maximum speed limits. It was proposed that local councils were to be given responsibility for licensing drivers and vehicles, while the police were to be responsible for traffic management and prosecution. The Bill progressed mostly without controversy through committee with only minor amendments. However, it did not become law. After committee had passed amendments to the Bill, the Labor opposition proposed the addition of provisions fixing an eight-hour working day and a set wage for drivers. Given the opposition’s ‘unacceptable’ proposal, Bent decided enough time had been spent ‘on this little Bill’, and it was discharged on 29 November 1905.

Bent’s decision to withdraw the Bill seems unexpected. In 1905, Bent had the numbers in the Assembly to pass the Bill without support from Labor. Robert Haldane, in his history of the Victorian Police, suggests that the Bill was dropped because of concerted lobbying by the ACV, which opposed the Bill outright. This over-simplifies the ACV’s position regarding the 1905 Bill. The ACV was supportive of the Bill, but was concerned that the speed limits and the powers proposed for the local councils could unreasonably prejudice motorists. An alternative explanation for the abrupt discharge of

44 Motor Car Bill 1905 (Vic) cls 6, 8, 9. Initially, the Bill was introduced with the 1903 English limits of 20 mph generally, with local councils allowed to specify 10 mph in city streets. These were both increased in committee to 25 mph and 12 mph respectively see Victoria, Parliamentary Debates, Legislative Assembly, 5 September 1905, 1344–1350.
45 Motor Car Bill 1905 (Vic) cl 8. See the continual reference to police powers in the debate surrounding cls 6, 7 and 8: Victorian Parliamentary Debates, Legislative Assembly, 31 August, 1905, pp 1292–1309.
46 Victorian Parliamentary Debates, Legislative Assembly, 5 September 1905, p 1358 (Thomas Bent, Premier).
47 Victorian Parliamentary Debates, Legislative Assembly, 29 November 1905, p 3177.
49 The provisions of the 1905 Bill were discussed at length at the 1905 Annual General Meeting of the ACV, and a detailed list of amendments was recommended to the Chief Secretary. The amendments were of a minor character – for example, suspension of licence for only three to six months, and a mechanism for unlicensed people to be taught to drive: ACV, Minutes of Annual General Meeting (1905), pp 37–38.
the Bill can be found in Margaret Glass’s portrait of Bent. She suggests that by the time Bent became Premier, he was suffering from mental deterioration that led to notorious bouts of unpredictability and flash anger.\textsuperscript{50} Bent’s discharge of the Bill in a moment of outrage seems consistent with this account of him.\textsuperscript{51} Indeed, the ACV expressed surprise and disappointment that the Bill was dropped.\textsuperscript{52}

Following the abandonment of the 1905 Bill, regulation of motor vehicles was not raised again until 1908, when the Bent government introduced a new Motor Car Bill 1908 (Vic) in October.\textsuperscript{53} By 1908, Bent was governing with the support of the ‘Liberal’ faction and key Liberals, Sir Alexander Peacock and John Murray, were in the ministry.\textsuperscript{54} The 1908 Bill differed from the 1905 Bill in two important respects. First, the police, rather than the local councils, were given responsibility over licensing drivers and vehicles in order ‘to secure uniformity’.\textsuperscript{55} Second, the Bill did not legislate for speed limits. In doing away with speed limits, the government was following the advice of the United Kingdom Royal Commission on Motor Cars, chaired by Lord Selby, which reported in 1906.\textsuperscript{56} There were three arguments used in the 1906 report, which were adopted by proponents of the ‘no speed limit’ policy of the 1908 Bill. The first was that

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\textsuperscript{50} It was Bent’s unpredictability (and a series of questionable land transactions) that led the ‘Liberals’, rallying around John Murray, to leave the government and support the 1908 no-confidence motion against Bent. See Glass (1993), pp 179–188.

\textsuperscript{51} Bent’s refusal to engage with the ‘chauffeur question’ was the explanation given for the abandonment of the 1905 Bill in an anonymous fifth year retrospective on the ACV: The Automobile Club of Victoria – An Historical Review (1908).

\textsuperscript{52} ACV, Automobile Club of Victoria Annual Report 1905–1906 (1906), p 11.

\textsuperscript{53} Victoria, Parliamentary Debates, Legislative Assembly, 23 July 1908, 368 (first reading); 14 October 1908, 1206 (second reading).

\textsuperscript{54} The decision of the ‘Liberals’ to align with Bent in February 1907 was to compensate for Bent losing the support of some rural ‘Ministerialists’ and to avert a no-confidence motion that might have resulted in a Labor government: Glass (1993), p 180. On the use of the term ‘Liberals’ to describe this group, see Browne (1985), p vii.

\textsuperscript{55} Victorian Parliamentary Debates, Legislative Assembly, 14 October 1908, p 1208 (Sir Alexander Peacock, Chief Secretary).

\textsuperscript{56} Royal Commission on Motor Cars (1906).
drivers tended to treat prescribed speed limits as absolutes, regardless of road conditions. The second was that it was difficult for a driver to know their speed when driving (this was before the development of dashboard-mounted speedometers) and third, it ‘detract[ed] from the dignity of the police who are employed in trapping drivers of motor cars’.\textsuperscript{57} Instead of a fixed speed limit, the Bill put the onus on the driver to drive responsibly, to be enforced through a new offence of reckless or negligent driving.\textsuperscript{58} Like the earlier Bill, the 1908 Bill passed through committee with few amendments.\textsuperscript{59} At third reading, the Labor opposition again attempted to add a provision regulating the pay and working hours of drivers, but this time the amendment was put to the vote and defeated.\textsuperscript{60} However, the 1908 Bill also did not make it on to the books. After being read a first time in the Legislative Council, ongoing tensions within the Bent government led to Legislative Assembly elections on 29 December 1908.\textsuperscript{61}

The aftermath of the 1908 elections was a new ‘Liberal’ ministry under John Murray, with the Labor Party again the formal opposition.\textsuperscript{62} One of the first measures of the Murray government was to resurrect the text of the lapsed 1908 Bill as the Motor Car

\textsuperscript{57} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 14 October 1908, p 1210 (Sir Henry Weedon).

\textsuperscript{58} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 14 October 1908, p 1210 (Sir Alexander Peacock, Chief Secretary). This clause was amended in committee by Sir Henry Weedon inserting the words ‘Having regard to all the circumstances of the case, including the nature, condition, and use of the highway and to the amount of traffic’: \textit{Victorian Parliamentary Debates}, Legislative Assembly, 21 October 1908, p 1326. This section made it into the 1909 Act. On its interpretation and application (in section 10 of the 1909 Act), see \textit{Chammen v Gilmore} [1914] VLR 455 at 457–458 (Hodges J).

\textsuperscript{59} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 21 October 1908, pp 1325–1334.

\textsuperscript{60} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 24 November 1908, pp 1550–1551.

\textsuperscript{61} Controversial to the last, Bent’s response to the vote of no confidence orchestrated by Murray in late 1908 was not the expected recommendation to the Governor to appoint Murray or Prendergast Premier, but rather to prorogue the Assembly: Glass (1993), p 188.

\textsuperscript{62} Murray was at one stage a member of the Labor Party. By 1909, he was leader of the ‘Liberals’, although he governed with the support of other non-Labor members: see Bongiorno (1996), p 81. Victoria’s first Labor government was formed in 1913 under George Elmslie for two weeks in December 1913: see Browne (1985), p 61.
Bill 1909 (Vic). The Bill was introduced in the Legislative Council in July 1909. The Council made amendments to the Bill concerning provisions for learner drivers, a regime for the temporary registration of interstate motor vehicles, and provisions for local councils to receive half of the fine revenue from prosecutions. In the Legislative Assembly, the half-fine revenue amendment was rejected and opposition attempts to introduce speed limits were also defeated, but an opposition amendment concerning the establishment of a wages board for drivers was passed. The Legislative Council rejected the wages board provision and the Legislative Assembly voted not to insist on it.

The Motor Car Act 1909 (Vic) became law on 4 January 1910. The Act prescribed norms regarding vehicles and driver behaviour – motorists were required to stop when there was an accident, all vehicles needed lights and a bell or a horn, all vehicles had to display a registration number; all drivers had to be over eighteen – as well as special motor vehicle-related offences. Importantly, the speed of motor vehicles was regulated through a new offence of ‘driving recklessly, negligently or at speed’ that

63 Victorian Parliamentary Debates, Legislative Council, 7 July 1909, p 100 (first reading); 20 July 1909, pp 256–68 (second reading).
65 Victorian Parliamentary Debates, Legislative Assembly, 16 September 1909, p 1157 (defeat of half-fine provision); 3 November 1909, p 1963 (defeat of Labor speed limits amendment); Victorian Parliamentary Debates, Legislative Assembly, 21 December 1909, p 3501 (passing of wage board amendment).
66 Victorian Parliamentary Debates, Legislative Council, 23 December 1909, p 3631 (Legislative Council agreeing to the Assembly’s amendments, with the exception of the wage board provisions); Victorian Parliamentary Debates, Legislative Assembly, 24 December 1909, p 3683 (at vote, the Assembly by a majority of three agreed not to insist on the wage board amendments).
67 Motor Car Act 1909 (Vic), s 14(2).
69 Motor Car Act 1909 (Vic), ss 4–5.
70 Motor Car Act 1909 (Vic), s 6(2).
71 Motor Car Act 1909 (Vic), section 4(4) (offences relating to registration of vehicles), section 8 (offences relating to licences), section 19 (fraud on registration or licences) and section 25 (drink-driving).
was to be determined through a subjective test, having ‘regard to all the circumstances of
the case, including the nature, condition and use of the highway and to the amount of
traffic’.\textsuperscript{72} The Act established a statewide registry of ‘motor cars’\textsuperscript{73} and a state-wide
licensing scheme for drivers.\textsuperscript{74} It conferred on the police the separate tasks of enforcing
the norms, and the administrative responsibility for licensing. It gave wide power to the
Governor to make regulations dealing with motor vehicle construction, Sunday traffic,
signage of roads and licence qualifications.\textsuperscript{75} The Act was not constituted by the
simplestic or populist restrictions to motor vehicles that might be anticipated, having
regard to the anxieties within the community or the characterisation of the first motor
vehicle laws in the popular literature. The Act did respond to the public mood. Concerns
about speed and danger were addressed by the reckless driving offence and the
requirements that drivers be of a certain age and be issued with a licence, vehicles be
fitted with lights, drivers stop at an accident, and all vehicles be identified by unique
number plates. While the Act imposed on motorists new and significantly more
regulation, it did so under the guise of making the motor vehicle safer. The Act did not
regressively attempt to restrict motoring; there were no red flags, no speed limits, no
exorbitant taxation, no blanket bans enforced by drastic criminal penalties. Instead, the
lack of a speed limit, the reasonably affordable registration and licence fees and the

\begin{footnotes}
\item[72] Motor Car Act 1909 (Vic), s 10.
\item[73] The term ‘motor car’ was defined in the Act as ‘any vehicle propelled by steam, gas, oil,
electricity or any mechanical power and used or intended to be used on a public highway’.
Included in the definition were motorcycles. Excluded were trains, trams and traction engines:
Motor Car Act 1909 (Vic), s 2(c).
\item[74] This scheme charged 20 shillings for vehicle registration and 2/6 for a driver’s licence, Motor Car
Act 1909 (Vic), ss 4, 6.
\item[75] Motor Car Act 1909 (Vic), ss 15–16. The subsequent Regulations Under the Motor Car Act 1909
(Vic) came into force on 23 February 1910.
\end{footnotes}
subjective reckless driving provision suggested that, on the contrary, the Act was for
motor vehicles and was motorist-friendly.

That the Act was, on balance, motorist-friendly might appear at odds with the
statements of most parliamentarians during the pioneer period. The members who
engaged in debate around the Bills generally professed a dislike of motorists and motor
vehicles. For example, in 1905 Donald MacKinnon expressed: ‘We have not a great
many motor cars here, but we have, I think, developed one or two gentlemen who are
what are called in the old country “road hogs” – who drive their cars furiously and ought
to be stopped.’76 Similar thoughts were offered by Richard Toutcher in 1908:

The motor traffic is becoming a very great menace in the city, especially to
elderly people who have to cross the streets, and whose lives are in jeopardy
from day to day … Bicycles are bad enough, but it requires a great deal of
alertness nowadays to dodge the motor bicycles and motor cars.77

In 1910, Donald McLeod remarked: ‘It is scandalous to see the reckless way in which
some motorists travel along the country roads … The law should come down so heavily
on these offenders … that they must respect the rights of others.’78 Even in 1914,
William McPherson complained:

I have seen motor cycles, especially, going along Burwood-road [sic],
Hawthorn, at a terrific speed. The speed has been so great that every one in

76 Victorian Parliamentary Debates, Legislative Assembly, 30 August 1905, p 1268 (Donald
MacKinnon).
77 Victorian Parliamentary Debates, Legislative Assembly, 23 July 1908, p 291 (Richard Toutcher).
78 Victorian Parliamentary Debates, Legislative Assembly, 20 September 1910, p 1233 (Donald
McLeod).
the street has turned around and watched the vehicle … it is high time that some regulation was made to bring such people to the scratch.\textsuperscript{79}

The Act was not the regressive law that might be expected from this rhetoric; nor was it subject to much revision. Between 1910 and 1914, many MPs noted ongoing public concern regarding motor vehicles. For example, on 2 August 1911, Robert Stanley asked:

\begin{quote}
\ldots [whether] in view of the disregard for the safety of human life shown by some of the drivers of motor cars, the Government will introduce an amending Motor Cars Bill this session, in order to more effectively protect the lives of the people?\textsuperscript{80}
\end{quote}

The Acting Premier’s response was that the 1909 Act was working well and only required minor amendments.\textsuperscript{81} Two minor changes were made to the motor vehicle regime prior to World War I. The \textit{Vehicle Act 1912 (Vic)} made it an offence to take a motor vehicle for a ‘joy ride’\textsuperscript{82}. Further, the passing of the \textit{Motor Car Act 1909 Amendment Act 1914 (Vic)} allowed for the issuing of temporary vehicle registration for dealers, repealed the requirement for temporary registration of interstate motor vehicles and tightened the drink-driving provisions.\textsuperscript{83} The success of the 1909 Act was even mentioned by the Chief Secretary in the second reading speech for the 1914 amendment: ‘Upon the whole, one marvels, when one considers the matter, how fully the original Act

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\textsuperscript{79} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 16 July 1914, p 457 (William McPherson).
\textsuperscript{80} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 2 August 1911, p 361 (Robert Stanley).
\textsuperscript{81} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 2 August 1911, p 361 (William Watt, Acting Premier).
\textsuperscript{82} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 20 November 1912, pp 2940–2945 (Norman Bayles).
\textsuperscript{83} \textit{Motor Car Act 1909 Amendment Act 1914 (Vic)}, ss 2, 4, 7. This Act also gave the Governor-in-Council power to make regulations dealing with horns (s 6), and included motorcycles with sidecars in the definition of motor car (s 8).
\end{flushleft}
has provided for the development of the motor car traffic which has since expanded to such a large extent.84 Indeed, the regime regulating motor vehicles in Victoria has remained remarkably consistent since the 1909 Act, with licensing registries and policing being the cornerstones of the current legislation.85

In short, notwithstanding community anxiety about motor vehicles, observations to the contrary in the popular history literature and declared hostility to the motor vehicle by many parliamentarians, the Motor Car Act 1909 (Vic) did not impose regressive measures on motorists. The Act responded to the community’s anxieties concerning the danger of the motor vehicle, not with restriction and prohibition but through regulation and management. The anxieties and the Act cannot be regarded as a sealed hermeneutic. While the anxieties called forth the Act, the Act cannot be explained solely as a response to the community’s concerns. There was dissociation between the community’s attitudes of hostility and restriction, and the Act’s regulative permissiveness. James Flink, summarising his review of the initial United States motor vehicle legislation, makes a similar finding that, ‘contrary to the popular myth [of regressive laws reflecting hostile community attitudes] however, early motor vehicle legislation appears in retrospect to have been extremely reasonable’.86 While Flink makes the observation, he does not offer an explanation for the dissociation. This is the task of the next section.

84 Victorian Parliamentary Debates, Legislative Assembly, 16 July 1914, p 447 (John Murray, Chief Secretary).
85 See, for example, Road Safety Act 1986 (Vic); Road Safety (Procedures) Regulations 1988 (Vic); Road Safety (Vehicles) Regulations 1999 (Vic); Road Safety (Traffic) Regulations 1988 (Vic).
86 Flink (1970), p 166.
2. Explaining the Dissociation

The previous section suggested that there was a dissociation between the *Motor Car Act 1909* (Vic) and the historical anxieties about the motor vehicle. While the Act responded to the community’s concerns regarding danger, speed and noise, it did not pander to the popular mood by unduly restricting motorists. This section develops an explanation for this dissociation through a closer review of the parliamentary debates on the Bills. Given the community’s anxieties about the motor vehicle and the fact that the motor vehicle was new technology that in important respects exceeded, and could not be regarded as analogous to, any of the existing transportation technologies (the horse, bicycle, railroad), it might be expected that the passage of the Bills would have been accompanied by robust debate and a wide spread of opinion about the motor vehicle and the appropriate legislative response. However, this was not so. While there was a spread of opinion about the utility of the motor vehicle and the morality of motorists, it was not hardened along class or faction lines. Furthermore, although there were some members who suggested very different ways to control motor vehicles and govern motorists, these opinions were not taken up or debated by the parliament.

Through focusing on the parliamentary debates, two other ‘political’ factors that influenced the Act can be discerned: the United Kingdom template and the lobbying of the ACV. However, it is argued that these factors do not, of themselves, explain how the Victorian Parliament responded to the motor vehicle with registries, licensing and policing. While these factors offer partial explanations for the Act, they in turn disclose deeper understandings of how the Act emerged to regulate motor vehicles.
**Class and the Parliamentary Debates**

The parliamentary debates that accompanied the Motor Car Bills were, as might be expected given the public concern, full of rhetoric about the dangers and horrors of the motor car. However, some members praised the potential of motorised transport, if not motor vehicles directly. This diversity of opinion seemed independent of the factional or ‘class’ loyalty of the members.\(^{87}\)

It is generally assumed that, prior to the formation of modern non-Labor parliamentary political parties in Australia, parliamentarians had greater freedom in expressing opinions and the way in which they voted. The evidence often cited was the churning of short-lived governments, brought about by unstable coalitions of individuals. During the pioneering period of motoring, Victoria went against this trend, enjoying a period of political stability.\(^{88}\) One cause of this stability was that the Legislative Assembly was split into three clearly identifiable political groupings. The most visible group was the Labor Party,\(^{89}\) whose parliamentary members post-Federation were nearly exclusively drawn from the ranks of the union movement.\(^{90}\) The non-Labor side of politics during the period was split between the Bent-led ‘Ministerialists’, a combination of rural members in conjunction with wealthy members with social conservative tendencies, and the smaller ‘Liberal’ grouping clustered around Sir Alexander Peacock,

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\(^{87}\) Knott observes that the debates surrounding the regulation of motor vehicles in New South Wales during the pioneer period ‘crossed party lines’: Knott (1994b), p 236.

\(^{88}\) During the period 1905–08, there was only the one change of government, from Bent to Murray after the 29 December 1908 Legislative Assembly elections. Bent succeeded Irving as Premier and ‘Ministerialist’ leader in 1904, while Irving came to power in 1902: see Thomson and Serle (1972), pp 16, 101.

\(^{89}\) Prendergast was leader of the Labor Party from 1904–13: Thomson and Serle (1972), p 168.

Donald MacKinnon and John Murray, consisting of the more socially progressive members of the elite.\(^91\)

From this identification of discernable class differentiation between Labor and non-Labor members, it might be expected that the class prejudice surrounding the first motor vehicles would have manifested in Labor members voicing strong anti-car sentiment and opposing motorist-friendly provisions.

Robert Solly, first elected to the Legislative Assembly as a representative of the railway workers and later as the Member for Carlton, conforms to this expectation.\(^92\) The union organiser and bootmaker\(^93\) seemingly took delight in documenting to the House another bloody accident:

A terrible accident occurred at St Kilda a little while ago. A man was driving a car at an enormous speed, and a young woman was killed. [Interjection – He drove the motor car up a telegraph pole.] He must have been driving at a very great speed. The woman [who] was sitting in the car with him was thrown out and killed.\(^94\)

However, Solly’s simple position of opposition was not shared by his parliamentary leader George Prendergast, the Member for North Melbourne.\(^95\) Prendergast’s initial

\(^{91}\) Browne (1985), p vii. Browne’s use of these terms of description for the non-Labor factions has been taken up in the historical literature: see Bongiorno (1996); Glass (1993).

\(^{92}\) See also Victorian Parliamentary Debates, Legislative Assembly, 16 September 1909, p 1152 (Robert Solly). A short-lived reform of the Irving government was the provision for direct representation of the public service in the Assembly through having four seats exclusively for the public service. It lasted from 1904 until 1906: Bongiorno (1996), p 75.


\(^{94}\) Victorian Parliamentary Debates, Legislative Assembly, 3 December 1909, p 2741 (Robert Solly, interjection by John Billson).

\(^{95}\) There might be an argument that the difference of opinion between Solly and Prendergast could be explained by regarding bootmaker Solly as true working class, while Prendergast – who was a printer by trade and had also been a journalist before becoming the organiser of the Trades Hall-affiliated Typographical Association – possessed bourgeois intellectual leanings: see Thomson and Serle (1972), p 168; Browne (1985), p 197. However, Bongiorno, in his history of the
comment concerning the 1905 Bill was that ‘some of the clauses are much too stringent’, 96 and in the debates of that Bill he appeared to be taking up the Chief Secretary’s invitation to assist the government in passing a ‘measure which will not unduly or harshly interfere with those who have these vehicles at their command’. 97 To this end, Prendergast orchestrated the reduction in licence and registration fees, 98 and supported a government amendment allowing a driver 48 hours to present their licence to the police, on the ground that Prendergast ‘wished to protect the drivers of these cars from the over-officiousness of any policeman’. 99 Concerning the 1908 Bill, Prendergast professed that ‘I do not believe in taking exception to every car in the street’, 100 although he was alarmed at the absence of speed limits and unsuccessfully attempted to introduce them. 101 In 1909, he complained about the dust stirred up in his own street by motor vehicles and described the noise from motor cycles as being ‘like that of a battery of artillery’, 102 but also supported the ACV’s position that the half-fine revenue clause had to be removed or else ‘owners and drivers of motor cars [would] be subjected to penalties for the mere purpose of providing revenue to the municipalities’. 103 By 1913,

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96 Victorian Parliamentary Debates, Legislative Assembly, 30 August 1905, 1268 (George Prendergast, Leader of the Opposition).
97 Victorian Parliamentary Debates, Legislative Assembly, 23 August 1905, p 1149 (Sir Samuel Gillott, Chief Secretary).
99 Victoria, Parliamentary Debates, Legislative Assembly, 31 August 1905, p 1301 (George Prendergast, Leader of the Opposition).
100 Victorian Parliamentary Debates, Legislative Assembly, 14 October 1908, p 1218 (George Prendergast, Leader of the Opposition).
102 Victorian Parliamentary Debates, Legislative Assembly, 16 September 1909, p 1152 (George Prendergast, Leader of the Opposition).
103 Victorian Parliamentary Debates, Legislative Assembly, 16 September 1909, p 1152 (George Prendergast, Leader of the Opposition). Both Prendergast and Premier Murray supported the amendment in committee: at 1156–1157.
Prendergast’s concern regarding motor vehicles had become purely acoustic. In debate regarding the amendment of the regulation power in the *Motor Car Act 1909* (Vic) to provide for the standardisation of horns, Prendergast suggested: ‘I think it would be very desirable if in regulating these sounds we could obtain a sound that was not only suitable for its main object but was also euphonious.’\(^{104}\)

Similarly, non-Labor members were not uniform in their opinions concerning motor vehicles. The Member for the western rural seat of Lowan, Robert Stanley, often voiced anti-motorist sentiments, notwithstanding his association with the governing ‘Ministerialists’.\(^{105}\) He told the House how his ‘blood boils on reading the death and destruction to children and the aged by the motor car … I am greatly surprised … that not one of these [motorists] has been hanged.’\(^{106}\) During the third reading of the 1908 Bill, Stanley moved an amendment that would deem a driver liable for damage arising from any accident involving motor vehicles. He justified the amendment in the language of radical class politics: ‘I want it to apply everywhere, and especially the Hamilton district, where the swagmen have to get on the other side of the fence to get out of the way of the squatter kings.’\(^{107}\) The ‘Liberal’ John Murray, Member for Warrnambool and Premier from 1909 until 1912, initially shared with Stanley a class analysis of motoring. Responding to the 1908 Bill’s adoption of the Royal Commission’s recommendation against speed limits, Murray decried the Commission as biased. Having listed the experience, past offices and peerages of the members of the Royal Commission, Murray

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\(^{104}\) *Victorian Parliamentary Debates*, Legislative Assembly, 29 October 1913, p 2187 (George Prendergast).

\(^{105}\) Browne (1985), p 198.

\(^{106}\) *Victorian Parliamentary Debates*, Legislative Assembly, 21 October 1908, p 1331 (Robert Stanley).

\(^{107}\) *Victorian Parliamentary Debates*, Legislative Assembly, 24 November 1908, p 1553 (Robert Stanley).
explained: ‘I thought I was going to ascertain that these gentlemen approved of the speed limit [but they do not] … I suppose every mother’s son of them has a garage full of cars. Their sympathies were all with reckless driving.’ However, by 1909 and as Premier, Murray had changed his perspective on motor vehicles and he defended the no speed limit policy on the ground of the technical difficulty of detection and enforcement.

After 1909, Murray conformed to the expectation that the non-Labor members would support motor vehicles. Not all non-Labor members needed the premiership to have the expected class attitude towards the motor car. During the pioneering period, Norman Bayles (see Appendix 2), the Member for Toorak, took upon himself to be the spokesperson for motor vehicles and motorists in parliament. It was Bayles who defended motor vehicles, spoke for the ACV, became the personification of motoring in the speeches of other members and introduced the joy-riding Bill.

The diversity of opinion regarding motor vehicles, irrespective of class or factional loyalty, continued more remarkably in the Legislative Council. In Victoria during 1905–09, members of the Legislative Council had to possess over £500 in freehold property and represent an electorate that had either to own a minimum of £10 in freehold property, or lease property worth more than £15. For Geoffrey Serle, these limits explained the class homogeneity of the Council and its obstructionism towards

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110 Bayles was an early member of the ACV and active in its management: Priestly (1983).
112 See, for example, Victoria, Parliamentary Debates, Legislative Assembly, 23 July 1908, pp 290–291 (discussion in the Assembly of Bayles’ driver being acquitted of dangerous driving).
113 University graduates, barristers, medical doctors, the clergy, school teachers and military officers were franchised irrespective of their property holdings: see Browne (1985), p viii.
progressive legislation during the period. Given the Council’s class bias, it might be expected to be a pro-motoring chamber. However, motor vehicles and their regulation also provoked a split of opinions in the Council. Alfred Hicks attacked the elitism of motor cars: ‘Seeing … that they were owned mainly by bloated capitalists, those who had them being nearly all millionaires.’ Yet others members were favourable to motor vehicles and the Bill. Frederick Brawn suggested ‘that the Bill as a whole would commend itself to honourable members’. Some members thought that the utility of the motorcycle for farmers meant they should be excluded from the Bill, while many agreed with the sentiment that ‘there was no more unsafe vehicle used on the roads than the motor cycle’. There was also clear disagreement between members who supported the Municipal Association’s call for the local councils to directly receive an income from motor vehicles as compensation for the damage that motor vehicles did to roads, and strong objections to this claim based on a different assessment of the impact of motor vehicles on road surfaces. Like in the Legislative Assembly, where opinions were not dictated by class or factional loyalty, the representatives of the property-owning classes in the Legislative Council were not unified in their opinions.

From this review of the diversity of opinions in the parliamentary debates concerning motor vehicles and motorists, it might be expected that the debates themselves were a lively affair, with strong opinions regarding the utility of motor

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115 Victorian Parliamentary Debates, Legislative Council, 3 August 1909, p 515 (Alfred Hicks).
116 Victorian Parliamentary Debates, Legislative Council, 20 July 1909, p 266 (Frederick Brawn).
120 ‘Honorable members spoke about the damage done to the roads by motor cars, but a motor was like a man in slippers. How could a pneumatic tyre injure the road?’ Victorian Parliamentary Debates, Legislative Council, 4 August 1909, p 561 (Sir Edward Miller).
vehicles translating into vigorous debates about the proposed scheme for their regulation. However, if the parliamentary discussion is examined in this light, it comes up looking decidedly ‘anaemic’, as one member described the debate in the committee stage of the 1905 Bill.\textsuperscript{121} There was very little debate concerning the basic issues. Nowhere was the prohibition of motor vehicles suggested. Nor was there any significant disagreement regarding the core elements of the regime for the regulation of motor vehicles; it was uncontroversial that the state should license drivers, keep a registry of vehicles, introduce unique motor vehicle offences and regulate for safety. During the debates on the Bills, the concern was with the details of these schemes, not the deployment of these techniques of regulation. For example, in 1905 some members questioned the need for owners to have a licence to drive their own vehicles on the grounds that an owner of a horse did not require a licence to ride it in public.\textsuperscript{122} However, by 1908 no members raised this objection. Another was the spectre of the Eureka Stockade that haunted parts of the debate in the Legislative Council during consideration of the power of police to demand production of a licence.\textsuperscript{123} The solution, passed in committee, was not to remove the ‘licence on demand’ provision, but amend the time period for production of a licence from 48 hours to seven days.\textsuperscript{124}

This acceptance of the core elements of the regulatory regime can be seen in the spectacular lack of support for the few suggestions that proposed to regulate motor vehicles by different means. At several times, Prendergast proposed that, as an alternative

\textsuperscript{121} Victorian Parliamentary Debates, Legislative Assembly, 31 August 1905, p 1307 (Donald MacKinnon).
\textsuperscript{122} Victorian Parliamentary Debates, Legislative Assembly, 31 August 1905, pp 1292–1293 (George Sangster). This aspect of the 1905 Bill prompted one letter of complaint by a motorist to the editor of The Argus: see ‘The Motor Bill’, The Argus (Melbourne), 4 August 1905, p 9.
\textsuperscript{123} Victorian Parliamentary Debates, Legislative Council, 20 July 1909, p 262 (Richard Rees).
\textsuperscript{124} Victorian Parliamentary Debates, Legislative Council, 4 August 1909, pp 565–566.
to police-enforced speed limits, motor vehicles should be shod with solid rubber tyres, his idea being that it would be impossible for anyone to remain comfortable and in control of a vehicle travelling at over 20 mph on solid tyres.\textsuperscript{125} Notwithstanding the regularity of Prendergast’s suggestion, it was not discussed or even mentioned by other members (including any from the Labor Party).\textsuperscript{126} Another alternative was suggested by John Grey, who thought that motor vehicles, like ships, could be given legal personality and made liable for damage.\textsuperscript{127} However, like Prendergast’s solid tyres, this alternative was ignored, and the debate sailed on.

The extent to which the form of the regulation of motor vehicles appears predetermined can be seen in the remarkable 1905 speech of David Gaunson. Gaunson was the only voice that disputed the need for legislation, and with it licensing, regulation and policing. Instead, he championed the common law:

Because a man is rich is he to be permitted to drive as if he were going headlong to the devil? Let him drive himself there if he likes … I strongly protest against any legislation for the benefit of these gentlemen … If the common law is applied to these offenders there is no necessity for this hare-

\textsuperscript{125} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 14 October 1908, p 1218 (George Prendergast, Leader of the Opposition); 20 September 1910, p 1232 (George Prendergast, Leader of the Opposition).

\textsuperscript{126} Prendergast was not alone in advising the government of mechanical approaches to regulating the motor vehicle. On 16 October 1908, Joe Millar of Armadale wrote to the Chief Secretary suggesting that the Bill should include three restrictions on motor vehicles: large wheels (to reduce rotational velocity and the amount of dust disturbed by the wheel); that bodies be hung on straight axles (giving the vehicle a high centre of gravity, reducing stability and speed of vehicles); and narrow tyre width (reducing the quantity of dust disturbed): Letter from Joe Millar to J.E. Mackey (Chief Secretary), 16 October 1908 (PROV, VPRS 3392/P0 Unit 1100 File D7335 letter re certain suggestions for a Motor Car Bill).

\textsuperscript{127} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 21 October 1908, p 1332 (John Grey).
brained, helter-skelter, ridiculous legislation, in passing which we are going at greater speed than the motorists do themselves.¹²⁸

Gaunson was ignored. Nevertheless, his contribution throws into stark relief the fact that, for the Victorian legislators in the pioneering period, the issue of motor vehicles involved a surface debate reflecting the community’s anxieties. This debate did not, however, ground a more basic contest concerning how Victoria should respond to this emerging technology. Instead, the conclusion to be drawn from the parliamentary debates was that it was mostly assumed that motor vehicles required state regulation through licensing, registries and policing. This does not, in itself, explain the dissociation between the 1909 Act and the community’s concerns, but suggests that there were other factors influencing the Act. Two obvious political factors were the United Kingdom motor vehicle law as a template for the Victorian Act and the lobbying of the ACV.

**United Kingdom Template**

From 1905 onwards, it was made clear by the introducing ministers that the proposed Bills were based on English experience, and further that the United Kingdom legislation was used as a template.¹²⁹ Indeed, the parliamentary debates suggest a commonly held belief during the pioneering period that Victoria was a ‘British’ community, very much part of the Empire and inhabited by ‘liege subjects’.¹³⁰ It is possible to argue that the

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¹²⁸ *Victorian Parliamentary Debates*, Legislative Assembly, 30 August 1905, p 1271 (David Gaunson).

¹²⁹ ‘This measure is based upon the experience that has been gained, not only in this and the sister States, but also in the Mother Country’: *Victorian Parliamentary Debates*, Legislative Assembly, 23 August 1905, p 1146 (Sir Samuel Gillo; Sir Alexander Peacock, Chief Secretary); *Victorian Parliamentary Debates*, Legislative Council, 20 July 1909, pp 256–257 (James Brown, Attorney-General and Solicitor-General).

¹³⁰ *Victorian Parliamentary Debates*, Legislative Assembly, 14 October 1908, p 1212 (Alfred Outtrim); *Victorian Parliamentary Debates*, Legislative Assembly, 28 January 1914, p 3413 (William Watt).
dissociation identified between the community’s anxieties and the permissive regulation of the Act was because the Bent and Murray governments slavishly followed the Imperial precedent, irrespective of local conditions. Reinforcing this argument was that the passage of the *Motor Car Act 1903* (UK) was surrounded both in parliament and in the press by vocal objections to state-based regulation and the attendant surveillance and policing. However, the *Motor Car Act 1909* (Vic) did not adopt the Imperial template, departing from it in critical respects: there was no speed limit; the registration of drivers and vehicles was centralised and not the responsibility of the local councils; and provision was made for drink-driving. There was strong evidence within the debates that the parliamentarians regarded Victoria not as an extension of England, but as a better England. Rarely was the United Kingdom the ‘mother country’, but the more derisive ‘old country’, marked by crowding, archaic inefficiencies and wracked by class conflict. As such, Murray described the 1909 Bill as ‘better than the provision in the English law’ because of the perceived efficient centralisation. For James Brown in the Legislative Council, calls to decentralise the registration of vehicles and the licensing of drivers were misguided:

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131 ‘I do not suppose that this measure will be very long in force. Probably before long we shall be engaged in imitating another English Act’: *Victorian Parliamentary Debates*, Legislative Assembly, 30 August 1905, pp 1269–1270 (Donald MacKinnon).
133 There was also the difference of the Victorian Act centralising prosecution, reflecting the differing institutional policing histories of Victoria and England: see Haldane (1995).
134 This observation resonates with MacIntyre’s finding on the perspective of Australian leaders during the late colonial and early federal period: see MacIntyre (1991).
135 *Victorian Parliamentary Debates*, Legislative Assembly, 23 August 1905, p 1147 (Sir Samuel Gillott, Chief Secretary); *Victorian Parliamentary Debates*, Legislative Assembly, 31 August 1905, p 1307 (Donald MacKinnon); *Victorian Parliamentary Debates*, Legislative Assembly, 21 October 1908, p 1330 (John Murray); *Victorian Parliamentary Debates*, Legislative Council, 20 July 1909, p 264 (William Evans).
It is not fair to compare this country with England, for the conditions were quite different. In England there were millions of people, and the local bodies or county councils who registered the cars had each more cars to deal with than we had in the whole of Victoria.137

The formal relationship between Imperial law and Australian law, and the level of local autonomy and innovation, is a contested point within Australian legal history scholarship.138 While clearly the text of the final Act was based on a United Kingdom template, it was not an uncritical adoption.139 This suggests that the Victorian legislature was not beholden to Imperial precedent, but was prepared to depart from it when local conditions or sentiment called for it.140 As such, the dissociation between the community’s anxieties and the Act cannot be explained solely as reliance on the slavish following of an imperial template that did not relate to local circumstances. The absence of speed limits and the centralised, rather than localised, registries were not features of the UK law. This suggests that local factors influenced the Act. The single obvious local influence was the lobbying by the ACV.

139 Indeed, even in the wider community, the Imperial Act was subject to criticism. As early as 1903, Scientific Australian published an article that was critical of the speed limits of the Motor Car Act 1903 (UK): ‘Among the Auto-Mobilists’, Scientific Australian, 20 March 1904, p 55.
140 Castles suggests that, while commercial legislation tended to follow England, the Australian colonial and later state legislatures did innovate when it came to land regulation, mining and industrial relations: Castles (1982), pp 445–471. That said, Webb in 1892 reported that a significant portion of the legislation passed by the Victorian Parliament was a ‘transcription’ of provisions from Imperial statutes: Webb (1892), pp 79–107.


**Lobbying by the Automobile Club of Victoria**

During the pioneering period, the ACV was a persistent influence on the Bent and Murray governments’ deliberations that resulted in the *Motor Car Act 1909* (Vic). It can be argued that the ACV’s lobbying was successful and that this explains the dissociation between the public anxiety surrounding motor vehicles and the motorist-friendly provisions of the Act, but it does not explain why the particular regimes of licensing, registries and policing were adopted.

The international literature concerning the first motor vehicle laws suggest that the newly formed automobile clubs were hostile to local, state or national attempts at regulation.141 This hostility did not mark the actions of the ACV;142 indeed, a resolution to oppose the 1905 Bill at the ACV’s annual general meeting was defeated.143 The ACV during the pioneer period did not act defensively to fend off attempts at regulation, but can be seen as energetically pursuing its foundational object of ‘securing rational legislation, and the formation of proper rules and regulations governing the use of motor-cars and motor-cycles in cities, towns, and country districts’.144

Between 1905 and 1909, the ACV sent repeated delegations to Premiers Bent and Murray and the various Chief Secretaries, as well as sending circulars to all

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141 Flink (1970); Plowden (1973), pp 29–36. In Australia, Knott has observed that the Automobile Club of Australia in New South Wales, if not outright hostile, did not actively lobby for regulation: see Knott (1994b), p 234.


143 Automobile Club of Victoria, *Minutes of Annual General Meeting* (1905), p 35.

parliamentarians. The effect of this lobbying was significant. In 1908, Sir Alexander Peacock concluded his recommendation of the Bill to the Legislative Assembly with:

I may mention that the Automobile Club have given me a great deal of information and assistance in connexion with this Bill, and they have circularised honourable members, intimating that if any honourable member wishes to have a run to see how the motor cars are worked they will be glad to afford every facility for the purpose …

There is evidence that a similar run organised by the ACV in 1905 swayed at least one member to support the 1905 Bill. Indeed, throughout the debates the ACV is referred to not as a nefarious association drawn from the indulgent caste, but an important stakeholder whose opinion needed to be respected. At several stages, the ACV was directly able to affect the final provisions. The ACV claimed that the removal in the Legislative Assembly of the fine revenue-sharing provisions was a victory for its

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145 See generally the correspondence from the ACV in the Chief Secretary file for the Motor Act: Letters from Automobile Club of Victoria to J.E. Mackey (Chief Secretary) (PROV, VPRS 3992/P0 Unit 1143 File F9918); ACV, Minutes of General Committee of the Automobile Club of Victoria 1(1), 18 July 1905, p 42; 31 July 1905, p 45; ACV, Minutes of General Committee of the Automobile Club of Victoria 1(2), 7 August 1908, p 39; 11 September 1908, p 47; 1 July 1909, p 104; 4 November 1909, p 143; The Automobile Club of Victoria – An Historical Review (1908); The Automobile Club of Victoria (1909); The Automobile Club of Victoria – Motor Car Bill (1909).

146 Victorian Parliamentary Debates, Legislative Assembly, 14 October 1908, p 1209 (Sir Alexander Peacock, Chief Secretary). Peacock was referring to the amended text of the proposed 1908 Bill that the ACV forwarded on 16 July 1908. Many of the recommendations suggested by the ACV are in the 1908 Bill: see Letter from E.L. Holmes to W.A. Callaway, 16 July 1908 (PROV, VPRS 3992/P0 Unit 1143 File F9918 letter re Automobile Club of Victoria suggested alteration to Bill).

147 Victorian Parliamentary Debates, Legislative Assembly, 31 August 1905, p 1295 (James Boyd).

148 To paraphrase the words of John Murray prior to his elevation to the Premiership: Victorian Parliamentary Debates, Legislative Assembly, 31 August 1905, p 1295 (James Boyd).

149 See Victorian Parliamentary Debates, Legislative Assembly, 31 August 1905, pp 1294, 1304 (Sir Samuel Gillott, Chief Secretary); 23 July 1908, p 291 (Norman Bayles); Victorian Parliamentary Debates, Legislative Council, 4 August 1909, p 571 (William Brown); Victorian Parliamentary Debates, Legislative Assembly, 16 September 1909, p 1153 (George Prendergast, Leader of the Opposition); Victorian Parliamentary Debates, Legislative Council, 4 August 1909, p 557 (James Brown, Attorney-General and Solicitor-General).
It also was invited by Premier Murray to participate in the drafting of the Regulations, and after several meetings with the Commissioner of Police it was reported that ‘the main demands of the Club had been granted in the regulations which had just been issued’.\(^{151}\) The ultimate evidence of the ACV lobbying was the coming into force of the Act with no speed limit. From 1906 onwards, this objective had been the central demand of the ACV.\(^{152}\) The ACV congratulated Murray for introducing the 1909 Bill without speed limits, stating that this reflected the most modern thinking on motor vehicle regulation,\(^{153}\) and the ACV’s magazine at the time, the *Australian Motorist*, commented that Labor’s attempt to reintroduce speed limits during the final Legislative Assembly debates on the 1909 Bill ‘was so utterly absurd that it was promptly laughed out’.\(^{154}\)

From this record of close and active involvement in the formation of the Act, it could be said that the *Motor Car Act 1909* (Vic) was motorist-friendly because the ACV got the legislation it wanted.\(^{155}\) Indeed, H.W. Chenoweth, in the ACV’s *Annual Report 1910–11*, praised the Act: ‘The twelve months experience of our Victorian *Motor Car Act* has proved that with proper and fair administration it is a capable and effective one.’\(^{156}\) This is not to suggest that the Act was entirely the product of the ACV. The ACV was

\(^{150}\) The Automobile Club of Victoria — Motor Car Bill (1909).
\(^{151}\) ACV, Minutes of General Committee of the Automobile Club of Victoria 1(2), 2 February 1910, p 168.
\(^{152}\) This policy objective was first declared in 1906 when a leading motorist was deputised by the ACV to attend the Municipal Conference and to ‘express the Club’s views that the Club is opposed to a Motor Bill and that it considered the law as it at present stands penalising for “driving to the common danger” is sufficiently explicit for the limit of speed’: ACV, *Minutes of General Committee of the Automobile Club of Victoria* 1(1), 28 September 1906, pp 100–101.
\(^{153}\) ACV, Interview with John Murray, Premier of Victoria (Melbourne, 7 July 1909) (PROV, VPRS 3992/P0 Unit 1143 File F9918 Notes of Minutes of Interview with Premier, 7 July 1909).
\(^{154}\) The Automobile Club of Victoria — Motor Car Bill (1909).
\(^{155}\) A similar conclusion was reached by Morton concerning the *Motor Car Act 1904* (SA): Morton (1962), p 44.
disappointed in two areas. First, it remained opposed to the general regulation-making power in the Act and, while it was placated by involvement in the drafting of the Regulations, it remained concerned that a ‘motor-phobic’ government could gazette repressive measures. Second, the ACV calls for ‘medical men’ to be exempt from the Act did not make it into law. However, these are minor issues. Overall, the Act was for the ACV, and enacted the ACV’s preferred vision of what a Motor Car Act should be like. Sir Samuel Gillott makes this plain as early as 1905:

With regard to certain suggestions which have been made by the automobile clubs and others, I desire to say that there is no wish to pass an Act which will be unduly harsh against persons who now use these machines, which, as I said before have come to stay.

The ACV’s influence explains the orientation of the Act as motorist-friendly. However, this does not explain why the ACV’s lobbying was so effective. The Chief Secretary’s file on the Act reads as a competition between the ACV and the Municipal Association, each making submissions rebutting earlier proposals of the other. Indeed, the ACV distinctly conceived its lobbying as a battle against the ‘anti-motorist’

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157 Victorian Parliamentary Debates, Legislative Assembly, 21 October 1908, p 1333 (Norman Bayles).
158 ACV, Minutes of General Committee of the Automobile Club of Victoria 1(2), 10 July 1908, pp 29–30. In calling for special treatment of doctors, the ACV was joined by the British Medical Association (Victoria Branch): Letter from British Medical Association (Victorian Branch) to J.E. Mackey (Chief Secretary), 10 July 1908 (PROV, VPRS 3992/P0 Unit 1095 File D5791 letter re request that medical men be exempt from Motor Bill).
159 Victorian Parliamentary Debates, Legislative Assembly, 23 August 1905, p 1149 (Sir Samuel Gillott, Chief Secretary).
160 Letter from C. Tecadeau to A.O. Sache, 18 July 1908 (PROV, VPRS 3992/P0 Unit 1143 File F9918 letter re Municipal Association of Victoria suggested alteration to Bill); Letter from E.L. Holmes to J.E. Mackey (Chief Secretary), 24 November 1908 (PROV, VPRS 3992/P0 Unit 1143 File F9918 letter re Automotive Club of Victoria suggested alteration to Bill).
Municipal Association. An initial explanation could be that, in bringing together the medical community, representatives of the emerging motor vehicle industry, the wealthy elite and Normal Bayles in the Legislative Assembly – with the combined tactics of letters, circulars, offers of rides in motor vehicles and having ‘quiet chats’ with the Premier – the ACV just out-lobbied the less dynamic Municipal Association, which primarily relied on flooding the Chief Secretary with letters of complaint from the local councils. However, this does not explain the actual form of the Act. It just shifts the focus of inquiry from parliamentarians to the ACV. The same concern arises as to why the particular regimes of licensing, registries and policing in the Act were adopted. What was it that meant the provisions of the 1909 Act were sufficiently ‘rational’, to use the term from the ACV’s objectives?

The key to a fuller explanation of why the Motor Car Act 1909 (Vic) regulated motor vehicles through licensing, registries and policing lies in the final words of the just-quoted closing statement of Sir Samuel Gillott, that motor vehicles ‘have come to stay’. There was a conception of the inevitability of a technological future compelling the legislators to Act.

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161 The Municipal Association was described as ‘anti-motorist’: see The Automobile Club of Victoria (1908).
162 Priestly (1983), p 159. There were early concerns that the ACV, by involving both motorists and the motoring industry, might be too fractious an organisation to effectively lobby government. It seems from the ACV’s success that it managed to merge and adequately represent the various interests of its members: ‘Trade Influence and the Automobile Club’, Australian Cyclist and Motor-Car World, 28 January 1904, p 15.
163 ‘Having a quiet chat with the Premier’ was the description used in the ACV’s General Committee Minutes concerning the July 1909 interview with Murray: see ACV, Minutes of General Committee the Automobile Club of Victoria 1(2), 1 July 1909, p 110.
164 The idea of rational law was a common phrase used by the ACV. On the abandonment of the 1905 Bill, John Lang wrote in the Annual Report: ‘It is to be hoped that at no very distant date rational legislation will be introduced.’ Automobile Club of Victoria, Automobile Club of Victoria Annual Report 1905–1906 (1906), p 11.
3. Progressive Modernism

This section draws upon the traces identified in section 2 to argue that the *Motor Car Act 1909* (Vic) can best be understood as a manifestation of progressive modernism. The key elements of progressive modernism are identified and isolated through considering the late nineteenth century ‘scientific romances’ of H.G. Wells. In this, Wells is seen as articulating the mythform driving the Act. These elements are certainty of future, uncertainty about human well-being in this future, and a confidence about the capacity of rational human action in the present to shape that future. It will then be shown how progressive modernism was manifested in the fundamental desires to legislate for the future and to provide the most ‘modern’ law.

**Future and Rationalism in H.G. Wells’ Scientific Romances**

Herbert George Wells is universally acclaimed as major god in the science fiction pantheon. Long-lived (1866–1946) and prolific, Wells’ oeuvre can be divided into three groups. The first are his late nineteenth century scientific romances, of which *The Time Machine* (1895), *The Island of Dr Moreau* (1896), *The Invisible Man* (1897), *War of the Worlds* (1898) and *The First Men on the Moon* (1901) are the most well known and critically celebrated. The second are his ‘comic/mundane’ novels, such as *Love and Mr Lewisham* (1900), *Kipps* (1905), *Tono-Bungay* (1909) and

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166 For a full survey and organisation of Wells’ fiction and non-fiction, see Mullen (1973).
168 Wells (1896).
169 Wells (1971).
170 Wells (1975).
171 Wells (1954).
172 Wells (1972).
The History of Mr Polly (1910).\textsuperscript{175} The third group comprises his works of quasi-fiction utopias concerned with mapping future, war, technology and political organisation, such as *Anticipations of the Reaction of Mechanical and Scientific Progress upon Human Life and Thought* (1902),\textsuperscript{176} *A Modern Utopia* (1905)\textsuperscript{177} and *The Shape of Things to Come* (1933).\textsuperscript{178}

Transmitted in the first group of late nineteenth century scientific romances are the essential elements of progressive modernism that drove the *Motor Car Act 1909* (Vic). However, this claimed use of these texts is not as straightforward as it might appear. Wells’ scientific romances are on the romance side. Unlike Julies Verne, whose plodding descriptions of nature and real science lent a technological prophetic sense to his texts, Wells was much more speculative.\textsuperscript{179} Indeed, Wells himself claimed that his writing involved ‘[a]n ingenious use of scientific patter’,\textsuperscript{180} from which Darko Suvin extracted: ‘The principle of a Wellsian structure of science fiction is mutation of scientific into aesthetic cognition.’\textsuperscript{181} In other words, Wells’ romances do not provide a ‘blueprint’ for the future manifestations, and social impact, of mass motor vehicle transportation nicely packaged for the Victorian legislators. Wells’ fiction on mechanised land transport was limited to the 1903 short story, ‘Land Ironclads’, which prefigured World War I

\textsuperscript{174} Wells (1909).
\textsuperscript{175} Wells (1959).
\textsuperscript{176} Wells (1904).
\textsuperscript{177} Wells (1967).
\textsuperscript{178} Wells (1945).
\textsuperscript{179} Stableford (2003), p 24. This distinction between Wells and Verne was observed by Verne, who described Wells as a ‘purely imaginative writer’. See Compere (2000), p 42.
\textsuperscript{181} Suvin (1979), pp 232–233, italics in original.
tanks\textsuperscript{182} and belonged to the ‘Future War’ genre that was common in the United Kingdom from the 1870s, abruptly ending in 1914.\textsuperscript{183}

However, what Wells’ romances do provide for is thinking about the future. The dominant and lasting image of \textit{The Time Machine} is not the social commentary of class with the dim-witted Eloi and subterranean Morlocks,\textsuperscript{184} but its Darwin via Thomas Huxley vistas of evolution.\textsuperscript{185} The Time Traveller sees the ebb and flow of the material world from the time machine as it travels into the future;\textsuperscript{186} he sees the decaying material culture of eons of humanity in the Palace of Green Porcelain;\textsuperscript{187} and in the sublime concluding images discussed in Chapter 3, he witnesses a dying planet and the crustacean of humans to come.\textsuperscript{188} Unlike Marx and the socialist tradition of the time,\textsuperscript{189} as well as the Christological belief in a second coming,\textsuperscript{190} this was a future agnostic to the struggles, hopes and dialectics of humanity: ‘\textit{The Time Machine} confronts us with the shattering implications of time’s inhuman duration.’\textsuperscript{191} It also confronted ‘British’ society from the period of the \textit{Motor Car Act 1909} (Vic) with the implications for a secular and anti-teleological future: the future will happen, there will be change, technology will change,

\begin{footnotesize}
\begin{enumerate}
\item\textsuperscript{182} Wells (1903).
\item\textsuperscript{183} On the ‘Future War’ genre in the United Kingdom from 1870–1914, see Stableford (2003), pp 22–23; Rieder (2008), pp 125–141. It can be seen that Wells’ 1902 quasi-fiction \textit{Anticipation} does anticipate in quite some detail the mass use of private motor vehicles, the necessity for a national road network and the implications for allowing urban sprawl: see Wells (1904), pp 9–12.
\item\textsuperscript{184} Hillegas (1967), p 31; Huntington (1982), p 45.
\item\textsuperscript{185} Suvin (1979), p 223; Roberts (2005), pp 142–146; Hillegas (1961).
\item\textsuperscript{186} Wells (1995), p 17.
\item\textsuperscript{187} Wells (1995), p 59.
\item\textsuperscript{188} Wells (1995), pp 72–76.
\item\textsuperscript{189} On Wells’ engagement with Marxism and alternative future utopian thinking, see Parrinder (1973), pp 18–19; Crossley (1982), p 29.
\item\textsuperscript{190} McConnell (1981), p 72.
\item\textsuperscript{191} Alkon (2002), p 50; see also Laker (1979), p 78.
\end{enumerate}
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society will change, the very being currently called human will change, but there is no meaning, and no transcendence, beyond the material fact of change.\textsuperscript{192}

This reading of \textit{The Time Machine}, with time as the ultimate manifestation of Social Darwinism’s cruel and indifferent nature, has nihilistic tendencies.\textsuperscript{193} This can also be seen in \textit{The War of the Worlds}. Emerging from the ‘Future War’ genre,\textsuperscript{194} and with its direct referencing of the cataclysm of colonialism for the ‘Tasmanians’ in the opening chapter,\textsuperscript{195} critics readily see it as manifesting anxieties concerning the civilising project behind colonialism.\textsuperscript{196} Rightly described as ‘apocalyptic’,\textsuperscript{197} \textit{The War of the Worlds} presents a orgy of destruction: the heat-ray victims ‘charred and distorted beyond recognition’,\textsuperscript{198} the military vanquished, the civilised countryside burnt and then smothered by the alien red weed, and the terrified English reduced to being refugees and a food source for the vampiricMartians. The resolution, in the bacterial victory, offers little solace. The Martians are defeated, ‘after all man’s devices had failed’,\textsuperscript{199} by chance. Such a sense of hopelessness can also be seen in \textit{The Island of Doctor Moreau}, which opens with a cannibalistic pact,\textsuperscript{200} continues with the pathetic servitude of the Beast-Men to Moreau and his ‘House of Pain’,\textsuperscript{201} and concludes with the ultimate failure of Moreau’s interventions on to the ‘stubborn beast flesh’.\textsuperscript{202}

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\textsuperscript{192} Rose (1981), p 129. \\
\textsuperscript{193} McConnell (1981), p 61. \\
\textsuperscript{194} Alkon (2002), p 48. \\
\textsuperscript{195} Wells (1975), p 11. \\
\textsuperscript{196} Paudyal (2009), p 102; Rose (1981), p 132; Rieder (2005), p 380. \\
\textsuperscript{197} Malia (2009), p 96. \\
\textsuperscript{198} Wells (1975), p 32. \\
\textsuperscript{199} Wells (1975), p 179. \\
\textsuperscript{200} Wells (1896), pp 10–11. \\
\textsuperscript{201} Wells (1896), pp 76–112. \\
\textsuperscript{202} Wells (1896), p 164. On this reading of \textit{The Island of Doctor Moreau}, see Philmus (1981).
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Further, it is tempting to see in Wells’ romances, as Mark Hillegas did, the origins of a dystopian account of technology. Absent from them are the technological fetishes of both Verne and also the ‘Future War’ genre. In *The Time Machine*, the workings of time machine are not described; indeed, its physical presence seems domestic. The future machines in the Palace of Green Porcelain are mysterious objects, broken and meaningless. In *The War of the Worlds*, human technology is ineffective against the heat-ray and fighting machines, and the Martians’ prosthetic technology does not save them from microbial attack. Moreau, as template for fictive mad scientists in the century to come, is doubly destroyed. He is physically slaughtered by the Beast-Men and his legacy is destroyed when the Beast-Men revert. In this, Wells seems to be suggesting that technology fails. At this level, Wells’ scientific romances seem to offer little hope in their vistas of empty futures, inhuman nature, technical incompetence and precarious civilisation. However, to paraphrase Mark Rose, Wells’ stories do suggest how to fill the void.

Wells’ success came from his texts giving ‘the impression of hard science, by employing the language of scientific discourse’. His narratives seemed ‘plausible’. Wells did not write of worlds and times sealed off from his own, but in his ‘mutation of scientific into aesthetic cognition’ his stories were connected to his present. In the

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204 Hillegas (1975), p 396.
206 Alkon (2002), 53.
207 Rieder (2005), pp 381–382.
209 Wells (1896), p 140.
scientific romances, the link with the present was the narrators. All written in the first person – the unnamed Time Traveller from The Time Machine, the unnamed scientific journalist in The War of the Worlds and Edward Prendick in The Island of Doctor Moreau – each presents the text as the journal of a rational observer. What is important is that the rational observer survives. Here, Wells presents the being that can survive this empty future: the rational-humanist. This is what fills the void.

Wells’ romances encode the commitments of the rational-humanist at several levels. At an obvious level, there is the ‘scientific’ descriptions of events, landscapes and even self of the narrators; there is ‘no substitute for rationalism as a method’. Wells does not dispense with reason. Indeed, according to Istvan Csicsery-Ronay:

In H.G. Wells’ The War of the Worlds … antagonistic technological regimes compete for dominance. Whatever their differences may be, however great the gulfs between them, they operate in the same social-ontological continuum, the most salient quality of which is the ability of sentient beings to construct technological cultures to manipulate and extend their power over the world.

What does seem to be rejected by Wells is too much faith in ‘technological culture’. In The War of the Worlds, the technological civilisation of the Martians fails at the moment of triumph; and the human equivalent, the artilleryman with his ‘not novels and poetry swipes, but ideas, science books’ and dreams of a technological triumphant humanity,

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218 Wells (1975), p 168.
is delusional and comic. Moreau, who rejects Prendick’s ethical objections, and can offer no justification for why he chose the human form as the goal of his manipulations, dies an animal death, torn apart by his creations.

Balanced against the excessive commitment to technology by the Martians, the artilleryman and Moreau is the detached humanism of the narrators. They are not blind to the suffering around them, even if their engagement in the narrative they relate is clumsy. The Time Traveller is not indifferent to the Weena, the Eloi or the Morlocks; the recorder of The War of the Worlds is not indifferent to the human suffering that he documents, and does not gloat over the pitiful cries of the dying Martians; Prendick is not indifferent to the Beast-Men and their economy of pain. There is, as Richard Tuerk identifies, an upper middle class sensibility and paternalism to Wells’ romances. This is not a rejection of rationalism but its sublimation: the Traveller, armed with devices to measure and record the future, sets off once more. Rationalism goes hand in hand with a civilising will. John Huntington conceives Wells in the scientific romances as postulating the challenge of ‘ethics’, for humans to be reflective in their dealings with each other and the cosmos. In the conclusion of The Island of Doctor Moreau, Prendick describes his life after the Island. In what could be read as post-traumatic shock, he cannot shake the images of beasts projected on to the empty faces of urban humanity.

He finds peace in the rational explorations of chemistry and astronomy, and in the

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219 Paudyal (2009), p 111.
220 Wells (1896), p 69.
221 Huntington (1982), p 51.
225 Huntington (1982), p 84.
226 Wells (1896), p 175.
'glittering hosts of heaven. There it must be, I think, in the vast and eternal laws of matter, and not in the daily cares and sins and troubles of men, that whatever is more than animal within us must find its solace and its hope.' This conclusion bundles Wells’ challenge to modern ‘man’: to accept nature, future and technology, but to do so through the ‘whatever is more than animal within us’.

In Wells’ quasi-fiction, this call becomes the call for a ‘modern utopia’, a rational and humanist civilisation where:

... social order can be upheld in a utopia guaranteeing individual liberty, freedom of movement, freedom of expression, privacy, freedom from drudgery, and control of personal property ... The framework of centralized controls include a money economy, an advanced technology, a humane penal system, regulated marriage, population planning, sanitation, health-care, state supported child-care, central data storage, institutionalized wage-bargaining.

However, again and again in his speculation, this modernity can only be guaranteed by a small ruling elite of the technologically competent, the technical successors to Plato’s philosopher kings. This political embodiment of the Time Traveller, the journalist/survivor from the Martian invasion and Edward Prendick – of human-rationalists in their technical manipulations, filling the void and allowing the rest of humanity to live useful and happy animal lives – clearly carries proto-fascist elements.

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227 Wells (1896), p 176.
231 Roberts (2005), p 152.
How Wells’ fusion of rationalism and humanism could be seen as pre-empting a darker set of connections that was soon to set Europe ablaze is not the primary objective. Instead, what Wells’ romances articulate are a set of quite sophisticated cultural commitments towards technology and future that were part of the intellectual milieu of late Victorian and Edwardian British society. And significantly, these can be seen as the engine of the *Motor Car Act 1909* (Vic).

Wells’ romances connect the present with the future. Actions in the present – the class divisions of Victorian England – give rise to the evolutionary division of humanity into two distinct species in the year 802,701, thus determining the future. Importantly, this future that will evolve from the present is agnostic to humanity; there can be no guarantees of civilisation enduring, no teleological unfolding towards the good. This places responsibility on to the present: a preferred human future can only be achieved through rational activity in the present to mould and guide. However, this is not a complete giving over to technology, to pure manipulation whatever the consequences as manifested by the Martians or Moreau. Reason is the tool, not the end. The end, for Wells lies in what is ‘not animal’; rather, it is the human potential to care for other members of the species that grounds liberal desires for peace, ‘good’ government, private (if not political) rights and the modern welfare state. While Wells’ precise political prescription was contested, what he articulated was a fundamental cultural position of ‘progressive modernism’ that melded future and reason together. The first was the inevitability of future connected to present. The second was the need to rationally act in the present, to secure a desirable future. Identification of this cultural foundation explains what has

\[\text{232 Alkon (1996), p 146.} \]

\[\text{233 On Wells’ relationship with socialism, Fabians and social liberalism, see Mead Earle (1950), pp 183–186.}\]
hitherto been enigmatic: the Motor Car Act 1909 (Vic). The inevitability of future that needs to be won in the present explains the desire of the Victorian elite (both the parliamentarians and the ACV) for an Act to regulate motor vehicles. Further, reason deployed responsibly explains the material manifestation of the Act that regulated motor vehicles through centralised licences and registries.

**Legislating for the Future**

The parliamentary debates concerning motor vehicles during the pioneering period had a particular sense of occasion. The members spoke and legislated with a shared awareness that they were passing law for a radically different future than their horse-drawn and bicycle era.\(^{234}\) The slogan of this awareness was the oft-repeated phrase that motor vehicles ‘have come to stay.’\(^{235}\)

This was a direct manifestation of the first commitment of progressive modernism – the seeing in the present the traces of the future. The parliamentary debates were not focused on the immediate regulation of the small number of motor vehicles in Victoria during the pioneer period, but were directed to an anticipated future where motor vehicles would become more affordable and widely used: ‘that the car that was owned by the rich man to-day might be owned by the business man to-morrow’;\(^{236}\) and ‘As the patents run

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\(^{234}\) On the recognition that experience with horses meant little when it came to dealing with motor vehicles: see *Victorian Parliamentary Debates*, Legislative Assembly, 31 August 1905, p 1295 (James Boyd).

\(^{235}\) *Victorian Parliamentary Debates*, Legislative Assembly, 23 August 1905, p 1146 (Sir Samuel Gillott, Chief Secretary); *Victorian Parliamentary Debates*, Legislative Assembly, 30 August 1905, p 1269 (Donald MacKinnon); 5 September, 1905, p 1347 (William Watt); 14 October 1908, p 1210 (Sir Henry Weedon); 14 October 1908, p 1218 (George Prendergast, Leader of the Opposition).

\(^{236}\) *Victorian Parliamentary Debates*, Legislative Assembly, 31 August 1905, p 1294 (James Boyd).
out the cars will come within the reach of the man with moderate means, and we shall find twenty cars in use for every one that is in use at the present time."\textsuperscript{237}

Further, this future of mass automobile transportation glimpsed in the present was seen by the parliamentarians as desirable. While the immediate rhetoric of many members was anti-motoring, there was also recognition that the motor vehicle promised a better society of more rapid and reliable transportation: ‘While we all admit their convenience, it must be admitted that the traffic wants regulating.’\textsuperscript{238} In 1905, several members favourably compared the motor vehicle to horses.\textsuperscript{239} Also in 1905, the government itself acquired its first motor; Bent justified the decision on the basis that the vehicle’s speed would assist in good government through allowing ministers to rapidly tour the state.\textsuperscript{240} It is significant to realise that complaints about motor vehicles in the parliamentary debates were generally complaints about badly behaved drivers, as John Murray makes clear in the Second Reading of the 1909 Bill:

It makes one indignant to see the careless way in which a car is occasionally driven, but I know that the great body of the motor car owners have no sympathy with those who drive in such a way as to endanger other people.\textsuperscript{241}

\textsuperscript{237} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 21 October 1908, p 1332 (John Thomson).

\textsuperscript{238} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 14 October, 1908, p 1210 (Sir Henry Weedon).

\textsuperscript{239} See, for example, \textit{Victorian Parliamentary Debates}, Legislative Assembly, 31 August 1905, p 1296.

\textsuperscript{240} Priestly (1983), p 8. Throughout the pioneer period, the government car fleet increased. In 1906, the Education Department acquired a motor vehicle: \textit{Victorian Parliamentary Debates}, Legislative Assembly, 12 July 1906, p 279 (William Colechin). In 1909, an allocation was set aside in the budget for the building of a dedicated government garage: \textit{Victorian Parliamentary Debates}, Legislative Council, 27 July 1909, p 392. By late 1909, Prendergast was accusing government ministers of reckless driving in a trip made in a government car from Ballarat to Melbourne at a reported 40 mph average: \textit{Victorian Parliamentary Debates}, Legislative Assembly, 3 December 1909, p 2740 (George Prendergast, Leader of the Opposition).

\textsuperscript{241} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 14 September 1909, p 1086 (John Murray, Premier).
Very few members adopted the Luddite position of cursing the ‘motor car … [as] a fiend which … should be hung, drawn, and quartered’. Instead, it was the ‘road hogs’ – the minority of inconsiderate, speeding, accident-causing, bad drivers – who were demonised. That the properly used motor vehicle was considered a positive addition to society, and expected to become common and widespread, which goes some of the way towards explaining the ‘anaemic’ nature of the debate – after all, it promised a better future. These connections can be seen in John Murray’s ridiculing of Norman Bayles:

When with the cheapening of the costs of construction every poor person can drive a motor car it will, of course, become unpopular with very rich people. Then, instead of driving in a motor car we will find the honourable member for Toorak not bothering our roads, but if he does threaten the lives of his fellow subjects he and his friends will do so flying on an aeroplane.

In their enthusiasm for the potential of motor vehicles to provide for a better future, the parliamentarians were articulating, to a point, a cultural enthusiasm for ‘progress’ through technology.

During the pioneering period of motoring, the potential of the motor vehicle was popularly espoused. Banjo Paterson gave voice to the cultural anticipation of the motor vehicle in his enthusiastic reporting of the 1905 Dunlop Sydney-to-Melbourne reliability run:

We outpace, we outlast, we outstrip.

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243 See *Victorian Parliamentary Debates*, Legislative Assembly, 30 August 1905, p 1268 (Donald MacKinnon); 14 October 1908, p 1215 (Norman Bayles).
244 The linking of motor vehicles with progress was an opinion that was widely canvassed in ‘progressive’ magazines of the period, such as *Scientific Australian*. See, for example, ‘Among the Auto-Mobilists’, *Scientific Australian*, 20 March 1904, p 55.
245 *Victorian Parliamentary Debates*, Legislative Assembly, 21 October 1908, p 1331 (John Murray).
Not the fast-fleeing hare,
Nor the racehorses under the whip,
Nor the birds of the air
Can compete with our swiftness sublime,
Our ease and our grace;
We annihilate chickens, and time,
And policemen and space.²⁴⁶

Just after the tentative travels of the first motor vehicles in 1897, *The Age* anticipated:

The near approach of a time when the world is to be full of horseless carriages … They will run on pneumatic tyres, without jolting, bumping or bolting, putting forth a giant’s power at the turning of a screw, and resuming the tractability of a babe at the pressure of a child’s finger. It cannot be otherwise than that machines of this character will be in vast demand.²⁴⁷

A reflection of the belief that the motor vehicle represented the future can be seen in the responses of the horse and bicycle industries to the emergence of motorised transport. While the popular history literature suggested that these groups opposed the motor vehicle, the opposite seems evident from the trade journals of the period. Instead of

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defensively protecting the older transportation technologies, the motor vehicle was quickly adopted, as demonstrated by the inclusion of motor vehicles in journal titles.248

This progress through technology explains not only the lack of debate concerning how to regulate motor vehicles, but more significantly the motorist-friendly orientation of the Motor Car Act 1909 (Vic), because it was a common assumption that motor vehicles were the harbinger of a better future. Indeed, while the link between motor vehicles and progress was implicit in much of the ACV correspondence for the period, there did not seem to be the requirement to make it explicit. Arthur Sachse does give voice to the place of motor vehicles within the belief in technology and progress:

the motor car was a vehicle that had come to stay with us, and one that would be of great future benefit. It was no doubt of great utility, and anything which promoted the scientific development of mechanical power should meet with the approval of the House … [the] motor car had become a necessity of modern life; and, therefore, an institution which must facilitate the progress of the country.249

Regarding technology as the potential for progress was a key element of progressive modernism. Wells’ utopian texts chart a happy, peaceful, prosperous technological humanity. It explains the success of the ACV’s lobbying – it voiced the possibility of progress through technology, a voice that found willing ears in progressive modernism. However, a critical dimension in how motor vehicles were conceived during the pioneering period of motoring reveals more fully the commitment of progressive modernism. This is what the archive of the period amounts to: calls for law and the

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248 *Australian Cyclist* added ‘and Motor-Car World’ to its title in 1901: see *Australian Cyclist and Motor-Car World*, 21 March 1901.

making of law. It discloses a culture that was not technologically naïve. The stuttering ‘Thomson Steamer’ or the patchy reliability of the Model T Ford were not to be left to their own devices to evolve into the anticipated mechanised future, nor were conservative elements that voiced their prejudices in newspapers and got elected to the local councils that made up the Municipal Association to be allowed to tarnish the promises of speed and chrome. Jennifer Malia has read *The War of the Worlds* as a critique of the hysteria and sensationalism of the dangerously ‘democratic’ mass-circulation newspapers, and a message for the rational to be sceptical of the media’s agendas.\(^{250}\) For the elite in parliament and the ACV, the motor vehicles of the day promised a desirable future, but that future was not guaranteed. Rational action in the present, in the form of the making of a facilitative law, was required. They were legislating for the future.

However, what remains unaccounted for is why the *Motor Car Act 1909 (Vic)* imposed centralised schemes of licensing, registries and policing. In the words of Madden CJ, why was the first motor vehicle law a ‘police Act’?\(^{251}\) Again, progressive modernism explains the specific regimes brought into effect by the Act.

**Rational Law**

The *Motor Car Act 1909 (Vic)* instigated a regulatory scheme of licensing and policing to regulate the future. As has been discussed, there was little active debate on whether state-centred regulation through bureaucratic registries and policing was the appropriate mode for this future governance. The degree to which the Act was the product of a common

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\(^{250}\) Malia (2009), p 96.

\(^{251}\) *Parkin v Whithers* [1913] VLR 533 at 537: ‘That Act requires the registration of motor-cars, and the payment of fees for the purpose of revenue and also ensures that drivers of motor-cars are competent persons, motor cars being highly dangerous to the public except when driven by reasonably careful and capable drivers. It also provides for the numbering of motor-cars; a ready means by which they can be identified. It is what I may call a police Act.’
conception about how the desirable technological motorised future should be secured was highlighted by Gaunson’s opposition to the 1905 Bill. In response to the Bill’s regulatory scheme, Gaunson celebrated the common law’s adjudicative mode of governing:\textsuperscript{252}

\begin{quote}
I am altogether against this sort of legislation, for the common law will put these fellows in Pentridge [dangerous motorists in the notorious Melbourne prison] … In fact some of them will be hanged yet. If a fellow drives at such a reckless pace as to kill an unoffending child, he deserves to be punished for murder as much as the man who shoots at random in the street, not caring a tinker’s curse whether he kills or not … Leave the good old common law to deal with these gentlemen. Let them be sent up for trial before a jury of their country, and then they will find it is no joke.\textsuperscript{253}
\end{quote}

At the same time, he degraded posited norms and regulative regimes established by legislation: ‘I am satisfied to rest with my feet firmly planted upon the common law, not upon your frisky, risky, befrilled, and rubbishy Acts of Parliament, which are absurd in their operation and cannot do a bit more than the old common law did in the first place.’\textsuperscript{254}

Gaunson was a lone voice in the parliamentary debates in criticising the Bills as providing for bureaucratic regulation of motor vehicles. Indeed, Gaunson’s faith in the courts and the common law was in contrast to that of the rest of the legislature. During the pioneer period, the prevailing attitude when it came to motor vehicles was of ‘court

\begin{footnotes}
\textsuperscript{252} On the common law as a mode of governing, see Murphy (1991).
\textsuperscript{253} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 30 August 1905, pp 1270–1271 (David Gaunson).
\textsuperscript{254} \textit{Victorian Parliamentary Debates}, Legislative Assembly, 30 August 1905, p 1271 (David Gaunson).
\end{footnotes}
bashing’. The courts were routinely attacked for failing to convict motorists.\(^{255}\) The Victorian Supreme Court decision in \textit{Gillin v Malmgren}\(^{256}\) was subject to strong criticism. That decision interpreted the term ‘vehicle’ in the \textit{Regulations Under the Motor Car Act 1909} (Vic) to include trams, ruling it permissible for motorists to overtake a stationary tram on the right.\(^{257}\) In parliament, the decision was attacked because it contradicted local council by-laws that specified the overtaking of stationary trams on the left,\(^{258}\) and more importantly it endangered the lives of tram passengers by allowing motorists to pass trams on the wrong side of the road, catching alighting passengers unaware.\(^{259}\)

Hugh Collins has famously described Australia as a ‘Benthamite society’.\(^{260}\) In ignoring Gaunson’s call to leave it to the common law, and in the attacks on the judiciary, the echo of Bentham’s rejection of adjudicative governance by lawyers, and the endorsement of legislation, regulation and policing by the executive, can be heard.\(^{261}\) There is debate over whether Collins’ ascribing of ‘Benthamism’ to Australia is an adequate description of the ambit of political philosophy during federation and before World War I.\(^{262}\) Nevertheless, common to Collins’ account of ‘Benthamism’, as well as alternative accounts that emphasise T.H. Green’s social liberal ‘evolution’ of

\(^{255}\) \textit{Victorian Parliamentary Debates}, Legislative Assembly, 30 August 1905, p 1268 (Donald MacKinnon); \textit{Victorian Parliamentary Debates}, Legislative Assembly, 20 September 1910, p 1231 (John Murray, Premier); 28 January 1914, pp 3417–3418 (John Murray, Chief Secretary).

\(^{256}\) \textit{Gillin v Malmgren} [1912] VLR 26.

\(^{257}\) \textit{Gillin v Malmgren} [1912] VLR 26 (a’Beckett J); \textit{Regulations under the Motor Car Act 1909} (Vic) r 2(3). For precedent the court relied on the English case of \textit{Burton v Nicholson} [1909] 1 KB 397 at 403 (Lord Alverstone CJ), 404 (Bingham J) and 404 (Walton J): \textit{Gillin v Malmgren} [1912] VLR 26 at 29.

\(^{258}\) \textit{Victorian Parliamentary Debates}, Legislative Council, 6 August 1912, p 562 (James Brown, Attorney-General and Solicitor-General).

\(^{259}\) \textit{Victorian Parliamentary Debates}, Legislative Assembly, 28 January 1914, pp 3412–3419.

\(^{260}\) Collins (1985).


\(^{262}\) Maddox (2000), p 207.
utilitarianism, were a confidence and faith in legislation and the regulation of society through executive action.\(^{263}\) This period provides some of the more celebrated and notorious examples in Australia of legislators not leaving it to the common law, and instead enacting regulatory schemes.\(^{264}\) The conciliation and arbitration schemes that emerged contemporaneously with the pioneer period of motoring are celebrated examples of legislation providing for a rational scheme of centralised decision-making for the wider social good.\(^{265}\) The Aboriginal Protector legislation from the same period provides a more notorious example of this same impulse for law-making for governance.\(^{266}\)

In short, it can be seen that, during the pioneering period of motoring, the regulatory legislation establishing and authorising a centralised scheme of decision-making to achieve a desired end – industrial harmony or ‘protection’ of Indigenous people – was increasingly common.\(^{267}\) Indeed, it was a sign of progress itself that ever-increasing aspects of social life were not left to the archaic common law with its divisive \textit{laissez faire} tendencies, but were properly regulated by the state for the wider social

\(^{264}\) See generally, Finn (1987).
\(^{265}\) See, for example, Rowse (1978), p 30; Sawer (2003), pp 50–67.
\(^{266}\) Berns (2002).
\(^{267}\) The Victorian Parliament passed 56 Acts in 1909. Out of this total, ten Acts related to the budget and taxation, eleven were minor amendments of existing Acts, three were private Acts concerning the legal rights of individuals and one restricted words that could be used in company names (\textit{Companies Names Act 1909} (Vic)). The bulk of legislation (23 Acts) concerned land. Most of this related to directing or providing for local councils, boards or trusts to deal with specific land in certain ways (see, for example, \textit{Caulfield Land Act 1909} (Vic)), or was an enabling Act to facilitate the construction of public infrastructure (see, for example, \textit{Eltham to Hurst's Bridge Railway Construction Act 1909} (Vic)). Only a few of these land Acts modified existing land law (see, for example, \textit{Landlord and Tenant Act 1909} (Vic)). Therefore, most of the Acts passed in 1909 involved small piecemeal changes to existing statutory or common law, were Acts directed to specific people or specific parcels of land, or facilitated state-sponsored development. Significantly, seven Acts (including the \textit{Motor Car Act 1909} (Vic)) were framework Acts that established a bureaucratic decision-making regime to regulate diverse areas of social and economic activity such as sheep dipping (\textit{Sheep Dipping Act 1909} (Vic)), access to water (\textit{Water Act 1909} (Vic)), coal mines (\textit{Coal Mines Regulation Act 1909} (Vic)) and traffic on the Yarra River (\textit{Upper Yarra Traffic Act 1909} (Vic)).
In this light, the specific regimes of licensing, prescribed norms and policing in the Motor Car Act 1909 (Vic) are explained. As with not prohibiting motor vehicles, it just went without saying (except by Gaunson) that the motor vehicle must be regulated through state agencies keeping registries, licensing, and achieving compliance through surveillance and policing. Indeed, for the ACV, the progressive character of the Act as a regulatory scheme was what satisfied the foundational demand for ‘rational legislation’.

This characterising of a law that establishes licences and registries, a law that gives mechanisms for the direct regulation of the social by the executive, is the law anticipated by progressive modernism. Social evolution cannot be left to itself; values need to be enshrined and nurtured through rational action.

This was how the community’s anxieties and calls for law fed into the regulatory scheme of the Motor Car Act 1909 (Vic); it was an expression of the progressive modernist belief that executive regulation was the most rational, and therefore obvious, way to govern this new technology. Evidence for this can be found in the regular praise in parliament after 1910 for the police’s administration of the Act, in contrast to the criticisms that have been noted concerning the judiciary. It is also found in the minor controversies that surrounded the passage of the Act. Both the Legislative Council’s attempts to decentralise revenue to the local councils, and the ACV’s objections to the

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269 Gaunson kept suggesting to the House to at least think more deeply about the regulation of motor vehicles: ‘[H]ow absurd it was to bring a Bill of this kind before a half-tired, a half-informed Assembly, when it should be put before a Select Committee for careful investigation.’ Victorian Parliamentary Debates, Legislative Assembly, 31 August 1910, p 1299 (David Gaunson).
270 ACV, Interview with John Murray, Premier of Victoria (Melbourne, 7 July 1909) (PROV, VPRS 3992/P0 Unit 1143 File F9918 Notes of Minutes of Interview with Premier, 7 July 1909).
271 See, for example, Victorian Parliamentary Debates, Legislative Assembly, 28 January 1914, p 3417 (John Murray).
wide power to make delegated legislation, anticipated two criticisms that were later to emerge concerning the regulative state: centralisation of power in the executive at the expense of regional autonomy; and the problem of parliamentary supervision of delegated law-making. However, in the Legislative Assembly, these objections were brushed aside. Centralisation, and with it uniformity and efficiency through larger resources, was celebrated as a virtue of the regime. In a statement resonant with Diceyian confidence in the cultural restraints on ‘English’ decision-makers, Premier Murray assured:

> It is reasonable to presume that the Act will be administered with some intelligence, and that no oppressive regulations will be made … I have no fear that the power to make the regulations will be used in a tyrannical manner, but if it is, the House will be quite ready to bring the Ministry to task.

Thus the *Motor Car Act 1909* (Vic) established a regulative regime of registries, licensing and policing administered by the centralised police force. This was not because of the community’s anxieties regarding motor vehicles, but rather manifested a pervasive cultural sub-stratum common to the Victorian legislature and also the pioneering motorists of the ACV of progressive modernism. This meant that the call for law within the community was channelled into legislating for a desirable technological future through rational law, which facilitated executive regulation through licensing and registries. The implications for technical legality of this arranging of technology, future

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272 *Victorian Parliamentary Debates*, Legislative Assembly, 14 October 1908, pp 1208–1209 (Sir Alexander Peacock, Chief Secretary); *Victorian Parliamentary Debates*, Legislative Assembly, 16 September 1909, p 1156 (George Prendergast, Leader of the Opposition).

273 *Victorian Parliamentary Debates*, Legislative Assembly, 21 October 1908, p 1333 (John Murray, Premier).
and law should now be clear. The law produced as the offspring of the motor vehicle and progressive modernism was technical law.

**Law as Technology (Reprise)**

In Chapter 4, it was suggested, through considering Schmitt, that regulatory law, with the provision for regimes through which experts can manage the social, invoked a technological aura in the primacy of procedure over substance. This was exactly what was provided for in the centralised registries, licensing, policing and delegated law-making of the rational *Motor Car Act 1909* (Vic). Outside of the speed and the drink-driving provisions, the Act did not provide for many substantive values that could be enforced in a court. Much of the content for the Act – qualification of drivers, safety and construction of motor vehicles, types and styles of licence plates – was to be filled in by the executive through regulation. The Act provided a framework through which bureaucratic organisation could regulate motor vehicles and motorists.

Therefore, the *Motor Car Act 1909* (Vic) was technical law that dealt with the emerging motor vehicle according to the conception at the time that good government involved centralised executive regulation. At times, the technical nature of the Act was made explicit in the parliamentary debates. Arthur Sachse warned the Legislative Assembly: ‘But the House would have to be perfectly fair, and not produce a sort of Frankenstein’s monster that would suppress motor traffic altogether, nor should they place arbitrary power in the hands of officials.’

Sachse’s citing of Frankenstein’s monster was not used as might be expected, especially after considering the monster’s fate as discussed in Chapter 1 to become the

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cultural embodiment of technology. He deployed it to characterise the scheme anticipated by the Bill. Sachse exposed the contradiction within progressive modernism that the twinning together of rationalism and responsibility is not as simple as Wells’ romances suggest. In rationalism, values and ‘ends’ can be lost, treated as contestable and subjective, leaving the procedure as the only thing that is hard and enduring.

With Sachse’s comments, the monster that has been stalking technical legality so far through this thesis comes out of the shadows and into the light. That form of law championed by the law and technology enterprise is the same form as was passed by the Commonwealth parliament in response to cloning, and the same as was enacted by the Victorian parliament in 1909: law as technology. The monster is a trickster and the Frankenstein myth is ironic. Having bathed two cultural moments where law responded to technology in their mythforms, the Prohibition of Human Cloning Act 2002 (Cth) and the Motor Car Act 1909 (Vic) emerge, in the final wash, as technology.

There is circularity at play. The fear of a certain technological future in 1997–2002 and the desire for a certain technological future in 1905–1909 both ended in affirmation of law as technology. The monster appears to be truly monstrous; it possesses a dimorphic being. As material technology – in the form of the clone or the motor vehicle – the monster plays the ascribed Frankenstein role of the Other outside of the human, threatening and promising, provoking law as humanity’s response. However, this human response of law can be seen as technological. In this, the monster is brought inside, a tool to confidently be used for human ends. At this point, the Frankenstein myth, with its positing of humans and technology, spirals to infinity: there is a continual transgression of what is out to what is in. It has gone supernova, leaving the nothing that

is something, a black hole. However, this singularity possesses a residual oscillating on the event horizon: What does it mean that in modernity law is technology?

Of course, black holes are an established science fiction trope,\textsuperscript{276} popularised by Fredrick Pohl’s \textit{Gateway} (1977)\textsuperscript{277} and Disney’s dreadful \textit{The Black Hole} (1979).\textsuperscript{278} However, the residual at the event horizon of the implosion of the Frankenstein myth cannot be answered through science fiction’s epistemological register. Using science fiction as the mythform to make sense of specific historical moments where there was a coming together of law and technology exposes the monster; it organises the archives in such a way that the technical in the legal engagement with technology might be revealed. However, different methods are needed if the black hole that was the \textit{Frankenstein} myth is to be thought. It is at this point that the journey that is this thesis, following the monomyth, moves from the world of becoming to being. Black holes in science fiction are regularly the door, the mirror, the passage to another, more essential world.\textsuperscript{279} And it is to this world, and science fiction’s ontological register, that Stage III of this thesis now turns – not to explore, with its \textit{Star Trek}, rational and epistemological connotations, but to reveal the essence of modern law and technological Being.

\footnotesize{\textsuperscript{276} Clute and Nicholls (1993), pp 129-130.  
\textsuperscript{277} Pohl (1977).  
\textsuperscript{278} Nelson, \textit{The Black Hole}, (Walt Disney Productions, United States of America, 21 December 1979).  
\textsuperscript{279} Samuelson (1993), p 208.}
Stage III: Technologies of Law
I am the Kwisatz Haderach. That is Reason Enough.

– Frank Herbert, *Dune*, 1965

This chapter marks the beginning of a different direction in exploring technical legality. The previous chapters have discovered a black hole: that the *Frankenstein* myth, modernity’s basic story – particularly concerning technical legality – has imploded. In Chapter 2, it was hinted that the law and technology enterprise, in locating law as the saving power to tame technology, was a technological conception of law. Chapters 4 and 5 utilised science fiction’s epistemological register to consider two specific moments when law and technology intersected: clones and the *Prohibition of Human Cloning Act 2002* (Cth), and motor vehicles and the *Motor Car Act 1909* (Vic). These detailed examinations of the public archive revealed the same conclusion as Chapter 2. The law that was to save Australia from a clone future and the law that was to secure a motor vehicle future were both the same law: law as technology.

This implodes the *Frankenstein* myth, with its categories of humans, technology and saving law, as the saviour turns out to be one and the same as the monstrous threat. Technical legality is emerging not so much as legality but as technical; maybe there is wisdom in the positivism, the practical and modest technical explorations that characterise the law and technology enterprise. However, what does it mean to think law as technology? This marks a shift in method. Whereas the epistemological register

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1 Herbert (1965), p 442.
allowed cultural material to be organised to illuminate specific moments in technical legality; in the previous two chapters, science fiction was located as mythform, providing the cultural meaning through which the archive of reports, newspapers, parliamentary debates, private papers and the laws could tell their stories. It can identify the irony of monstrous law ruling monstrous technology, but it cannot go further.

To go further, to think about what it means for law as technology, requires a more essential gaze, and a different method. It is at this stage that the thesis turns to taking science fiction’s ontological register seriously, and drawing upon William P. MacNeil’s method of reading jurisprudentially to reveal technical legality’s essential commitments.

This chapter argues that Dune exposes the essential commitments of law as technology. Dune is a coriolis storm from the title planet of the cycle that ‘cut[s] metal like butter, etch[s] flesh to bones and eat[s] away the bones’. The bones of law as technology that are exposed are sovereignty. However, the abrasiveness of Dune goes beyond exposing skeletal matter; it dissolves the very notion of sovereignty, leaving its essential commitments: death and time. Dune shows the truly monstrous in law as technology.

The argument of this chapter is in three sections. The first section reviews Dune both as a novel and a cycle. Dune might seem an odd choice for consideration of technical legality, as there is a seeming absence of both technology and law within Herbert’s universe. What is suggested is that Dune’s import is at an essential level, and this can be seen in the secondary literature surrounding the novel.

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3 In this chapter, *Dune* (in italics) refers to the first novel of the series, originally published in 1965. *Dune* (no italics) refers to the cycle as a whole or following the conventions of science fiction criticism as shorthand for Herbert’s imagined universe.
The second section re-examines the secondary literature on Dune. Critics have identified that Dune reflects on messianism, Machiavelli and ecology. The commonality identified between these is a meta-theme concerning the illusion of control. Each attempt at implementing rational decision becomes thwarted by a universe that rebels against the imposition of will. This over-arching theme in Dune has led critics to summarise Herbert’s opus as a rejection of the public and as encoding a message of self-care and disengagement with the world. However, claims for Dune as a handbook for ‘Western Buddhism’ seem disingenuous. The very ‘public’ nature of Herbert’s protagonists suggest that there is another accounting for Dune.

The third section takes up this alternative accounting of Dune. What is shown is that the detail discussed in analysing the received critical literature can be re-woven, taking as its starting point the desire for control in Dune. What emerges is that Dune articulates the essential elements of sovereignty. In its bloody pages, it embraces the consumption of bare life that legal theory has mystified. In its primacy of sovereignty, it also highlights one constant within a universe of change: time. In conclusion, in animating the necessary death inherent in sovereign attempts to lock in a desirable future, Dune is revelatory of a temporal core of law as technology. Dangerously – at least for the liberal democratic tinge within the law and technology enterprise – is Herbert’s dry aftertaste; that decisionism is the ‘representative’ response to the alchemy of death and time in sovereignty. It is this spectre of Carl Schmitt that opens to the following chapter and a deeper appreciation of the metaphysics of technology through Battlestar Galactica.
1. Sand, Spice and Empire

Winner of both the Hugo and Nebula Awards in 1966, a year after it was first published as novel (having previously been serialised in Analog), Dune remains high within ‘all time great’ lists and on reading guides for science fiction courses. It is common for critics to note that the complexity of Herbert’s world-building in Dune, the depth of his invented landscapes, languages, religions, entities, institutions and appendixes, makes it a creative tour de force comparable with J.R.R. Tolkien’s Lord of the Rings (1954–1955). In this reasoning, Dune is to science fiction what Lord of the Rings is to fantasy: a genre-defining template much copied but rarely exceeded.

Having said that, the bare structure of Dune and its immediate sequels can be summarised quickly: Dune rearticulates the monomyth. Indeed, Brian Herbert claims that his father wrote Dune in parallel with reading Lord Raglan’s The Hero (1936). Dune is divided into three ‘books’. Book I introduces Paul Atreides, a boy of unique parentage (born of the union of a planetary ruler, Duke Leto Atreides, and his concubine, the Lady Jessica, who herself possessed uncanny powers), whose life is changed when his family’s mortal enemy, the Baron Vladimir Harkonnen, invades, takes over the land (precisely the planet Arrakis/Dune) and kills his father. The boy and his mother escape

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into the deep desert of Arrakis and are presumed dead.\textsuperscript{12} In Book II, Paul and Jessica meet up with the indigenous inhabitants of Arrakis, the Freman.\textsuperscript{13} Paul, through the training given to him by Jessica, his genetic inheritance and using concentrated drugs as a catalyst, discovers that he is prescient and able to access his ancestors’ memories.\textsuperscript{14} In Book III, set two years later, Paul has taken a Freman name, Muad’Dib,\textsuperscript{15} a Freman woman, Chani, as his mate,\textsuperscript{16} has exploited Freman mythology concerning an outsider saviour, becomes their military leader and wages a guerrilla war against the Harkonnens.\textsuperscript{17} The climax has Paul, returning as a man, leading his Freman hordes riding on the backs of the gigantic sandworms of the desert, conquering the Harkonnens and not only claiming his rightful Ducal title, but also becoming Emperor of the Known Universe.\textsuperscript{18}

The immediate sequel, \textit{Dune Messiah} (1969), set twelve years after \textit{Dune}, tells a story of decline. The establishment of the Atreides’ empire had precipitated a bloody jihad across the universe. Paul is a broken character in \textit{Dune Messiah}, riddled with grief at the galaxy-wide slaughter for which he is responsible, distressed that his empire and religion have ‘fallen into old patterns’\textsuperscript{19} and surrounded by plotting traitors within the Freman and by the established institutions of the Imperium (the Spacing Guild, the Bene Gesserit and the Bene Tleilaxu). Unable to foresee any better alternative, Paul allows himself to succumb to the plotting, becomes blinded and exiles himself in the desert to be

\begin{footnotesize}
\begin{enumerate}
\item[\textsuperscript{12}] Herbert (1965), p 221; Campbell (1968), p 78.
\item[\textsuperscript{13}] Herbert (1965), pp 257, 264.
\item[\textsuperscript{14}] Herbert (1965), pp 210, 281; Campbell (1968), pp 90–91.
\item[\textsuperscript{15}] Herbert (1965), p 292.
\item[\textsuperscript{16}] Herbert (1965), p 344.
\item[\textsuperscript{17}] Herbert (1965), pp 405–407; Campbell (1968); p 126.
\item[\textsuperscript{18}] Herbert (1965), pp 425–464; Campbell (1968), pp 193–237.
\end{enumerate}
\end{footnotesize}
presumed dead, leaving the Empire to his newborn twin children with his sister, Alia, as regent.

The action in the third novel, *Children of Dune* (1976), occurs nine years after *Dune Messiah*. In many respects, it is a replaying of *Dune*, complete with the Baron Vladimir Harkonnen returning to possess Alia, an escape into the desert for the male son, Leto II, his testing and discovering even more special powers than his father, and his merging with the nymph stage of the sandworms to become physically invulnerable. The novel concludes with Leto II, now superhuman in mind and body, taking the throne to reign for thousand of years.

The fourth novel, *God Emperor of Dune* (1981), deals with the Leto II’s ‘death’ 3500 years after the third book. Now a small sandworm with a bloated, vaguely human face, Leto II rules a simplified empire of docile humans as a living god. This novel is predominately a palace drama of feints, plans and plots, culminating in Leto II’s fulfilment of his death wish by submersion, birthing a new generation of sandworms.

The final two novels, *Heretics of Dune* (1984) and *Chapter House Dune* (1985), set 2000 years further into the future focuses on the Bene Gesserits, and deals with the aftermath of Leto II’s reign, the return of descendants of refugees who escaped from the Atreides Empire and the final destruction of some of the lingering institutions and entities from that earlier period.

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20 Herbert (1976), p 58.
22 Herbert (1976), p 373.
Contemporary readers could be forgiven for dismissing *Dune* as a 40-year-old book that became popular through counter-culture iconography of shamanic orgies and a psychedelic hero achieving enlightenment/becoming the überman through chemical excess. Furthermore, Herbert’s central female characters, the Lady Jessica, Chani and Alia Atreides, are deeply problematic for contemporary readers. Jessica, the beautiful, intelligent and resourceful concubine of Duke Leto Atreides, can be dismissed as a mismatch of Jungian archetypes of both mother and crone. Chani functions as a sexual vessel for Paul’s teenage desires and later for the perpetuation of the Atreides line, even conveniently dying in childbirth in *Dune Messiah*. Alia Atreides succumbs to the ‘female’ weakness of being unable to control the past lives within her consciousness, and becomes possessed by Baron Harkonnen, abandoned by her mother, denounced by her brother and destroyed in her nephew’s coup. The secret school/order for females to which Jessica belongs, the Bene Gesserit, is colloquially referred to as ‘witches’ by the male characters, a term also used by Jessica herself. Notwithstanding these problematics, the physical and mental powers of members of the Bene Gesserit order play a behind-the-scenes manipulative role within Imperial politics and particularly in the fulfilment of their secret plan to breed a male capable of their skills – the Kwisatz Haderach. Jessica, Chani, Alia and the Bene Gesserit betray Herbert as a misogynist,

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26 Silliman (1996), p 122; Roszak (1968); Rossinow (2002).
30 Herbert (1976), p 368.
32 Herbert (1965), p 150.
33 Kwisatz Haderach was explained by Ben-Tov as ‘Herberticized Hebrew for a concept in the Jewish cabbala, roughly translatable as “the shortcut,” an ability of saintly rabbis to travel to the end of time and back.’ Ben-Tov (1995), p 122.
fearful of women’s domestic and reproductive power.\textsuperscript{34} Finally, Herbert’s portrayal of the homosexual Baron Harkonnen as a paedophile is particularly repugnant to contemporary sensibilities.\textsuperscript{35} It is tempting to suggest that science fiction has moved on, and by the 1980s the last three novels\textsuperscript{36} – not to mention David Lynch’s ‘disastrous’ 1984 film,\textsuperscript{37} the Science Fiction Channel’s low-budget mini-series of 2000\textsuperscript{38} and 2004,\textsuperscript{39} and the trashy Brian Herbert and Kevin J Anderson series of prequels\textsuperscript{40} and sequels\textsuperscript{41} – give the impression that the franchise has outlived its cultural moment\textsuperscript{42} – that it has become, to use Herbert’s own imagery, a ghola living outside its natural time.

This does not establish why \textit{Dune} should be offered as a reflection on technical legality. Both technology and law lie in the background of the founding novel and the sequels. Technology lies literally in the background. The action is set millennia after the ‘Great Revolt’ or ‘Butlerian Jihad’, where humanity revolted and destroyed ‘thinking machines’.\textsuperscript{43} The Butlerian Jihad opened to Herbert two structural elements for the Dune universe.

The first element is that it explains the technological primitiveness of Dune. Drawing on medieval motifs and images – feudal political and social structures and hand-to-hand combat – was an established feature of science fiction prior to Herbert, a legacy...

\textsuperscript{34} Hand (1985); Youngerman Miller (1985), p 191; Silliman (1996), p 121.
\textsuperscript{35} Herbert (1965), pp 180, 348; Roberts (2000), p 43; Silliman (1996), p 131. Herbert’s son Bruce was gay, and Herbert’s homophobia destroyed the relationship between the two: see Herbert (2003), pp 250–251.
\textsuperscript{36} Aldiss (1988), p 503; Spinrad (1990), p 156.
\textsuperscript{38} Harrison, \textit{Dune} (Science-Fiction Channel, 3 December 2000).
\textsuperscript{41} Herbert and Anderson (2006, 2007).
\textsuperscript{42} On the limits of \textit{Dune} for contemporary sensibilities, see Gough (2003), pp 6–10.
\textsuperscript{43} Herbert (1965), pp 495–496.
of the genre’s growth out of juvenile fiction and its interconnections with fantasy.\textsuperscript{44} In addition, by postulating an essential limit to military capacity with the ‘Hotzman effect’, which caused shields and laserguns to mutually explode in utter devastation, meant that the Butlerian Jihad allowed a science fiction that could be sustained without gee-wizz high technology. However, this does not mean that technology is absent in \textit{Dune}. There is hard technology – the Spacing Guild’s massive interstellar Heighliners, and the associated intrastellar vehicles; the ornithopter, carry-alls and harvester factors associated with spice gathering on Dune; the superbly adapted technology of the Freman, the windtraps, stillsuit, fremkit and thumper; the domestic technology of the Imperium, floating glowglobs, shigawire and the more exotic technology of royal households, poison snoopers, distrans and hunter-seeker – but it never occupies centre stage. Instead, the Butlerian Jihad allowed Herbert to manifest an alternative technology in the training of human subjectivity.\textsuperscript{45}

This alternative technology is the second structural element that Herbert’s imagined history of the Butlerian Jihad allowed. The Jihad with its central dogma that: ‘Thou shalt not make a machine in the likeness of a man’s mind’\textsuperscript{46}, ‘forced human minds to develop. Schools were started to train human talents.’\textsuperscript{47} The resulting specialisation, of mentats (human computers), Guild Navigators (beings capable of limited prescience allowing the piloting a spacecraft at trans-light speed) and the Reverend Mothers of the Bene Gesserit (formidable beings adept at controlling others using voice alone, discerning ‘truth’ and accessing the memories of female ancestors) reveal Herbert’s focus

\begin{footnotes}
\item[46] Herbert (1965), p 17.
\item[47] Herbert (1965), p 17.
\end{footnotes}
on soft technology. There are fantasy elements to this. The elixir that stimulates and sustains these extraordinary mental powers is melange, the spice incapable of synthetic manufacture and only found on Arrakis, registering the absolute significance of the title planet to the universe. There is a focus on Paul’s training with *Dune*, particularly Book I. The illicit Bene Gesserit mental and physical control training given by Paul’s mother, the training in leadership and strategy from his father and from the Atreides’ mentat Thufir Hawat, and training in combat and swordsmanship from Gurney Haleck show Herbert emphasising that Paul’s ability rests on his learnt talents as much as his inheritance. These soft technologies that can be learnt dominate *Dune*: ‘We can identify the vision of human society in *Dune* as the megamachine, the social engine made of specialized human components.’

So while there is technology in *Dune*, there seems to be little law. Technology and law intersect in Herbert’s back story with the conclusion of the chaos of the Butlerian Jihad in the enacting of the ‘Great Convention’ between the Spacing Guild, the Great Houses and the Imperium, the central provision being the prohibiting of the use of atomic weapons against humans. But beyond this foundational legal moment, the mentions of law in *Dune* suggest a profound cynicism towards legal forms. Early in *Dune*, Duke Leto comments on the poster declaring him ruler of Arrakis: ‘Who was fooled by that fatuous legalism?’ Stilgar reacts ruefully when Jessica asks what evidence he can give to

\[\text{\footnotesize\cred\small\cite{48} Reverend Mother Gaius Helen Mohiam observes about Paul ‘You’ve been training him in the way – I’ve seen the signs of it. I’d have done the same in your shoes and devil take the rules.’ Herbert (1965), p 31.}
\text{\footnotesize\cred\small\cite{49} Herbert (1965), pp 101–103.}
\text{\footnotesize\cred\small\cite{50} Herbert (1965), pp 33–36.}
\text{\footnotesize\cred\small\cite{51} Herbert (1965), pp 37–41.}
\text{\footnotesize\cred\small\cite{52} Ben-Tov (1995), p 116.}
\text{\footnotesize\cred\small\cite{53} Herbert (1965), pp 494–495.}
\text{\footnotesize\cred\small\cite{54} Herbert (1965), p 78.}\]
vouchsafe her safety among his tribe: ‘Out here, woman, we carry no paper for contracts. We make no evening promises to be broken at dawn. When a man says a thing, that’s the contract.’\textsuperscript{55} He goes on to express a knowing cynicism on legality when discussing the Freman rule of free challenge to leaders:

> The law that demands our form of choosing a leader is a just law,’ Stilgar said. ‘But it does not follow that justice is always the thing a people needs. What we truly need now is time to grow and prosper, to spread our force over the land.’\textsuperscript{56}

Paul – rightly, it turns out\textsuperscript{57} – justifies his use of nuclear weapons on what could appear to be a technicality:

> ‘The injunction!’ Paul barked. ‘It’s fear, not the injunction that keeps the houses from hurling atomics against each other. The language of the Great Convention is clear enough: “Use of atomics against humans shall be cause for planetary obliteration.” We’re going to blast the Shield Wall, not humans.’

> ‘It’s too fine a point’ Gurney said.

> ‘The hair-splitters up there will welcome any point.’\textsuperscript{58}

\textit{Dune Messiah}, with its narrative of the hubris of empire and religion, also contains some particularly cynical remarks directed to law. There are Schmittian tones of the limiting dangers in liberal constitutionalism in Paul’s rejection of the call for a constitutional monarchy:

\begin{footnotes}
\item[55] Herbert (1965), p 269.
\item[56] Herbert (1965), p 279.
\item[57] Herbert (1965), p 451.
\item[58] Herbert (1965), p 428
\end{footnotes}
‘Constitutions become the ultimate tyranny,’ Paul said. ‘They’re organised power on such a scale as to be overwhelming. The constitution is social power mobilised and it has no conscience. It can crush the highest and lowest, removing all dignity and individuality. It has an unstable balance point and no limitations.’

And Jeremy Bentham’s spectre can be heard in the Duncan Idaho ghola Hayt’s comments: ‘Natural law? What is natural law? That myth haunts human history. Haunt! It’s a ghost. It’s insubstantial, unreal. Is your Jihad natural law?’ However, these comments seem to be just that. They are surface garnish, opportunities of Herbert’s own philosophising – a tendency, like Robert A. Heinlein, that increased as he aged. There is no real sense within Dune of law-making. Imperial law is mentioned by members of the Great Houses as code for the ritual of politics that surrounds clandestine manoeuvrings. The Baron plots a quasi-legal move that could place Feyd-Rautha on the throne, while Paul, newly escaped from the Harkonnens, tries to buy the allegiance of Leit-Kynes with a ‘legal’ plan to discredit the Emperor:

‘Once he has involved himself beyond escaping his guilt, let the Emperor face the possibility of a Bill of Particulars laid before the Landsraad.’

…

‘“Law is the ultimate science,’” Paul quoted. ‘Thus it reads above the Emperor’s door. I propose to show him law.’

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62 Herbert (1965), p 312.
63 Herbert (1965), p 214.
Meanwhile, the object of these politico-legal plotting, the Padishah Emperor Shaddam IV, appears a foppish character incapable of decisive action, whether that be law-making, producing a male heir or putting down Muad’Dib’s Freman revolt; the parliament of nobles, the Landsraad, is spoken of – as it was by Paul and Leit-Kynes – as a distant forum, and Paul’s father, Duke Leto Atreides, appears to govern through a combination of charisma, the unquestioned personal loyalty of his lieutenants and propaganda. Once Emperor, Paul seems to rule through specific decrees and the religious bureaucracy of the Qizarate. However, this talk about law does not immediately translate into textual legality. There are no courtrooms and legal trials – the mainstay grist for the law and literature mill; the closest thing in Dune is the veiled threat by the Emperor’s ambassador, Count Fenring, to the Baron of the possibility of a ‘process verbal’ and the public, and inconclusive, cross-examination of the traitor Korba by Paul and Alia before the assembled Freman Naibs in Dune Messiah. Judgment, made readily and often by the characters, is a product of intuition mixed with deep knowledge of non-verbal signs to identify the betraying marks of ‘guilt’ displayed by another.

So what contribution can Dune make to technical legality if technology and law are just surface texture? Further, in the context of 40 years of critical literature on Herbert and Dune, what additional insights can be hard won in the sand? In the following section, the critical literature on Dune is re-examined. It is shown how established readings, that Dune is about messiahs, Machiavelli and ecology, tend to end with a shared affirmation

64 Herbert (1965), p 194.
65 ‘‘My propaganda corps is one of the finest,’’ the Duke said.’ Herbert (1965), pp 102–103.
66 ‘‘The Baron hid his sudden stiffening of surprise by stumbling on the first step down from the exit. Process verbal! That made was a report of a crime against the imperium!’’ Herbert (1965), p 313.
that Herbert’s meta-theme concerns chaos and the failure of human control. It is suggested that this theme renders Dune a text about Western Buddhism, about turning away from public activities to a focus on self-care. However, it is argued that this reading does not do justice to the texts. Herbert’s protagonists are not pyrons living, loving and dying against an epic backdrop of a chaotic galaxy, but rulers, Emperors and messiahs, planning and scheming – notwithstanding the unpredictability of the universe. It is this orientation to planning that opens Dune as technical legality. However, Dune is not the mythform infusing a specific law and technology interface. Its register is more essential, for it exposes the metaphysical commitments of law as technology.

2. Thematics of Dune

The size of *Dune* and its sequels presents a challenge for critics. Herbert’s six forays into the Dune universe over a 20-year period have a sheer physical presence and are also considerably more complex than earlier Golden Age science fictions. Also, there are Herbert’s own inconsistencies – claims with each successive book that it had been planned and expected from the beginning.\(^6^8\) Faced with bulk and complexity, critics have tended to emphasise particular themes threaded through Herbert’s work. Three themes have been identified in the secondary literature: Messianism, Machiavelli and ecology. However, as will be seen, all three are not independent but rather manifest a meta-theme on the failure of control.\(^6^9\)


Messianism

Writing in 1980, Herbert suggested that *Dune* and its sequels were a reflection on the danger of messiahs.\(^{70}\) However, this is not as clear-cut from the novels as it might appear. There is little doubt that in *Dune* Paul plays a messiah character. He is referred to as such by the Freman, and is seen as their legendary ‘Lisan Al-Gaib’\(^{71}\) (The Voice from the Outer World), an off-world prophet, and also their ‘Mahdi’ (The One Who Will Lead Us to Paradise).\(^{72}\) Significantly, he does deliver on these mythic promises. As a military leader, he rids Arrakis of the oppressive Harkonnens. He usurps the Emperor, and in doing so has all the other powers of the Imperium, the Landsaard, CHOAM, the Bene Gesserit and the Guild recognise his/Freman sovereignty of the planet and their control of the spice. Further, as Emperor he can accelerate Liet-Kynes’ program to transform Arrakis from Dune to a green world of surface water. This seems an ambiguous story concerning the dangers of messiahs. Paul is bothered by his prescient visions of ‘the green and black Atreides banner waving … somewhere ahead … still see the jihad’s bloody swords and fanatic legions’.\(^{73}\) In an oft-quoted passage, Liet-Kynes hallucinates in the final moments of his life the warning that: ‘No more terrible disaster could befall your people than for them to fall into the hands of a Hero.’\(^{74}\) However, *Dune* does not end with images of bloody jihad. Instead, it ends with images of bloody justice. The Harkonnens are dead, the Emperor and his Sardaukar defeated, the Bene Gesserit humiliated, and the other Great Houses and Guild subdued. Indeed, ‘at *Dune’s* end we

\(^{70}\) Herbert (1980), p 72.
\(^{71}\) Herbert (1965), p 497.
\(^{72}\) Herbert (1965), p 497.
\(^{73}\) Herbert (1965), p 294; also at pp 304, 306 and 369.
cheer … reading it has been an emotionally satisfying experience, for the wrongs of the novel have been righted. In fine monomyth style, Paul has overcome: his own fears of jihad in Book II of *Dune* fade in Book III. He becomes committed and victorious. This suggests more a celebration of messiahs than a warning.

Herbert seemingly prioritises the evils of messiahs in the appropriately named *Dune Messiah*; however, even in this novel the message is less clear. Repeatedly, Herbert tells of the horrors of the Atreides-Freman jihad. Paul recollects: ‘Statistics: at a very conservative estimate, I’ve killed sixty-one billion, sterilised ninety planets, completely demoralised five hundred others. I’ve wiped out the followers of forty religions.’ Alia comments: ‘There’s enough butchery going on under the Atreides banner.’ Nevertheless, these are bland observations. The jihad is not in the foreground; there are no action scenes like the numerous battles that quicken the pace in *Dune*. The evidence of the jihad is seen mostly through Paul’s blue-in-blue eyes, and coloured by his feelings of responsibility – the exception being the Freman Farok telling of his experience of jihad, of submerging in a sea of floating bodies. Further, even Paul’s feelings of personal responsibility are contradicted in the text. Instead, Herbert repeatedly emphasises the predestination of the jihad. In the climax of *Dune*, with the powers of the Imperium at his feet, Paul senses:

Here was the unborn jihad, he knew. Here was the race consciousness that he had known once as his terrible purpose. Here was reason enough for a Kwizatz Haderach or a Lisan al-Gaib or even the halting schemes of the Bene

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75 Fjellman (1986), p 51.
79 Herbert (1969), pp 43–44.
Gesserit. The race of humans had felt its own dormancy, sensed itself grown stale, and knew now only the need to experience turmoil in which the genes would mingle and the strong new mixtures survive.\(^{80}\)

This predestination and lack of personal responsibility also appear in *Dune Messiah*, parallel to Paul’s moments of doubt:

[Paul] felt the pressure of mass-unconscious, that burgeoning sweep of humankind across the universe. They rushed upon him with a force like a gigantic tidal bore. He sensed the vast migrations at work in human affairs: eddies, currents, gene flows. No dams of abstinence, no seizures of impotence nor malediction could stop it. Muad’Dib’s Jihad was less than an eye-blank in this larger movement.\(^{81}\)

By *Children of Dune* and *God Emperor of Dune*, messianism is further in the background. Leto II is no messiah – there are no myths to herald him, and the salvationary content of Freman culture appears burnt up with Muad’Dib. All that is left are the stories of Jacurutu, of a place of forbidden transgression.\(^{82}\) Leto II does not seize the throne with anticipatory promises of a better future for his followers as his father does, such as a green world freed from the Harkonnen fist.\(^{83}\) He declares himself a tyrant: ‘I have the cruelty of the husbandman, and this human universe is my farm.’\(^{84}\) *Dune* is a weak text on the dangers of the messiah. The best that can be said is that the Paul/messiah

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\(^{80}\) Herbert (1965), p 457.

\(^{81}\) Herbert (1969), p 110.

\(^{82}\) Herbert (1976), p 69.

\(^{83}\) Herbert (1965), p 406.

\(^{84}\) Herbert (1976), p 378.
prepared the way for Leto II/Shai-Hulud, the Freman word for the defied sandworm, but also a derivative of Shaitan/Satan.\textsuperscript{85}

However, something instructive is going on with Herbert’s patchy messiah message. Dune does not tell a cautionary tale of the dangers of messiahs; it tells a conflicted story that opens with the seductive attraction of a hero, shows that hero’s mid-life crisis and ends with an over-over-man dominating time and space. Timothy O’Reilly claims that Herbert’s basic insight concerns the limits of human consciousness within an infinite universe.\textsuperscript{86} In the partial messiah message, Herbert is being performative. Paul’s loyalty in \textit{Dune}, his tears when he first kills and his remorse in \textit{Dune Messiah} are not the characteristics popularly associated with evil, and the Harkonnens – with their oppression, amorality and scheming – are seemingly foils for the ‘noble Atreides’ in this regard.\textsuperscript{87} Yet Paul is Harkonnen, his mother the unacknowledged daughter of Baron Harkonnen,\textsuperscript{88} and some of Paul’s comments and attitudes in Book III of \textit{Dune} cause Gurney Hallack to play the Atreides conscience and doubt Paul’s integrity.\textsuperscript{89} For Herbert, such absolutes – who is good and who is bad – and the confidence of knowing for the project of control, are impossible.

The clearest example of this failure of control is Paul’s prescient powers. John W. Campbell worried on reading the manuscript of \textit{Dune} that in Paul Herbert had created a superman, with all the authorial difficulties for credibility of character and plot.\textsuperscript{90}

\begin{flushleft}
\textsuperscript{85} Herbert (1965), pp 502–503.
\textsuperscript{86} O’Reilly (1981), p 3; see also Kucera (2001), p 232.
\textsuperscript{88} Herbert (1965), p 191.
\textsuperscript{89} Herbert (1965), pp 394, 443 (on Paul ruing the loss of equipment and not lives).
\textsuperscript{90} In Campbell’s words to Herbert: ‘Congratulations! You are now the father of a 16-year-old superman! … You’ve set yourself one hell of a problem! You might make the next one somewhat more plottable if you didn’t give Paul quite so much of the super-duper.’ Herbert et al (2005), p 275.
\end{flushleft}
Herbert’s response was to emphasise the limited nature of Paul’s ‘gift’. The recurring image that Herbert deploys when describing Paul’s ocular insight is the dance of an object caught in a jetstream. Herbert describes Paul’s first full prescient experience: ‘He [Paul] remembered once seeing a gauze kerchief blowing in the wind and now he sensed the future as though it twisted across some surface as undulant and impermanent as that of the windblown kerchief. In Dune Messiah, Paul explains to Irulan:

… prediction is a natural consequence in the wave of the present. It wears the guise of nature, you see. But such powers cannot be used with an attitude that prestates aims and purposes. Does a chip caught in a wave say where it’s going? There’s no cause and effect in the oracle. Causes become occasions or convections and confluences, places where currents meet.

Herbert suggests that Paul can see the future but this does not mean he looks on fate as an absolutely known. Paul’s vision, and with it his ability to control based on this sight, is limited. He can see some of the tensions and forces at play in alternatives futures but he is also blind to the working of other oracles – a weakness exploited by the plotters in Dune Messiah through using the prescient Guild Navigator Edric to mask the conspiracy. In short, attempts by Paul to see clear, to know from the infinity of possible futures the true one, or to know with certainty what actions in the present would deliver a desirable future, elude him. Displaying the classic behaviour of addiction, Paul keeps taking greater quantities of spice, but the hit is never enough. However, again Herbert

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91  An edited extract of Herbert’s response can be found at O’Reilly (1981), p 153.
92  Herbert (1965), p 187.
95  Herbert (1969), pp 107–108; in Dune Messiah (p 192), Alia is also seen overdosing on spice in an attempt to know the future.
confounds this simple explanation. Once Paul succumbs to the vision that leads to his blindness and Chani’s death, he is shown as able to function as if sighted, relying on his memory of the prescient vision of this future to live in it.\textsuperscript{96} By giving in and not fighting the vision, it becomes true. However, this is not entirely the case: the birth of twins was unforeseen and elements of the plot to usurp him remained unknown.\textsuperscript{97}

What can be seen in Paul’s prescience is a working of Herbert’s meta-theme of the illusion of control. Herbert’s universe is illusive, always thwarting attempts at knowledge and control: ‘You do not take from this universe, he thought. It grants what it will.’\textsuperscript{98} In this there is a similarity between Herbert and H.G. Wells’ empty future in \textit{The Time Machine}, identified in Chapter 5. The complexities of \textit{Dune} arise because this message is coded in the very presentation of the messiah theme. The book and sequels elude determinative judgment: at times they are sophisticated texts warning of the peril of messiahs\textsuperscript{99} and at other times ‘masturbatory power fantasies’.\textsuperscript{100} It is this meta-theme of the human desire for control in an uncontrollable universe that is reiterated through Herbert’s other themes of Machiavelli and ecology.

\textit{Machiavelli}

With its machinations in the corridors of power, leadership and revolt, critics have considered \textit{Dune} a popular window into the writing of Niccolo Machiavelli.\textsuperscript{101} Herbert was no stranger to Machiavelli. In the 1958 short story ‘Cease Fire’ (1959), Machiavelli’s

\textsuperscript{96} Herbert (1969), pp 162–169, 201–208.
\textsuperscript{97} Herbert (1969), p 208.
\textsuperscript{98} Herbert (1969), p 108.
\textsuperscript{99} Roberts (2005), p 236.
\textsuperscript{100} Spinrad (1990), p 155.
\textsuperscript{101} Mulcahy (1996); Minowitz (1997).
*The Prince* (1532) circulates as an image for ‘deceit and treachery’. \(^{102}\) In *Dune*, the activities of the Great Houses can be read as a sustained animation of Machiavelli. That the Harkonnens employ Machiavellian tactics is unsurprising. Kevin Mulcahy observes that the Baron’s strategy of subduing the reconquered Arrakis is a straight take from Chapter 7 of *The Prince*, where Machiavelli praises Cesare Borgia’s use and then disposal of a known cruel lieutenant to win over a conquered people. \(^{103}\)

However, notwithstanding this *Prince*-like plan, the Harkonnens are not Machiavellians. They are not only prepared to kill and deceive to gain power and wealth; they are also sadists. \(^{104}\) This is not Machiavelli’s ideal tyrant. For Isaiah Berlin, ‘Machiavelli is not sadistic’. \(^{105}\) According to Machiavelli, the prince should be restrained in the ways of violence; he must have the character and confidence to do all that is necessary to secure order and peace – and this includes unpleasant and dirty work. \(^{106}\) However, for the good ruler, violence is a tool with known strengths and weaknesses, and the torture chamber should not be used when there are more peaceful means available. In this, the Harkonnens are more properly characterised as ‘Machiavels’ from Elizabethan and Jacobethan theatre. \(^{107}\) The Machiavel is a just a figure of pure evil, cruelly calculating and a lover of over-complicated plots designed not just to kill the object of hatred but obliterate the target’s very sense of being. \(^{108}\) The Baron is more Richard III or Iago than Borgia. His plot to destroy the Atreides meanders around: there is the deal with the Emperor and the Sardaukar; the spies and the feints within the ‘War of Assassins’; an

\(^{102}\) Herbert (1975), p 138.  
\(^{105}\) Berlin (1980), p 51.  
\(^{106}\) Machiavelli (1950), pp 56-57.  
\(^{107}\) Meyer (1897), pp 41-48.  
\(^{108}\) Raab (1964), p 56.
attempt on Paul’s life; the distrust generated through releasing disinformation concerning Jessica’s loyalty; and finally the actual betrayal by the Atreides’ physician, Dr Wellington Yueh. In Yueh, the supposed medic conditioned against taking life, the Baron could have had the Atreides family and top lieutenants efficiently killed off at any time, through a simple overdose of the medications that Yueh administers. Instead, in fine Machiavel style, the Baron spends Book I of *Dune* floating around and gloating about his genius in pulling off the ‘biggest mantrap in history’.\(^{109}\)

This leaves the Atreides to take up the mantle of Machiavelli. The Atreides do what is necessary. In *The Prince*, Machiavelli emphasises that the statesman should display what Berlin has identified as the Roman Republic ideals of *virtu*: ‘courage, vigour, fortitude in adversity, public achievement, order, discipline, happiness, strength, justice and above all assertion of one’s proper claims and knowledge and power needed to secure their satisfaction’.\(^{110}\) This reads as a character description of both Duke Leto and Paul. Herbert portrays both as courageous: Duke Leto does not run when faced with the trap of Arrakis; Paul does not shirk from Jamis’s challenge. Both profess a manly bravura, shared with the Old Duke who died in the bull ring before his adoring subjects, and Paul in particular shows great fortitude in adversity during the flight into the desert. Further, both are big on public achievement, order, discipline and strength, coupled with confidence in their claim to rule. While a bit short in the justice and happiness stakes, Herbert paints the Atreides as leaders of *virtu*, whose strength of character has been rewarded with loyal and admiring subjects.

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\(^{109}\) Herbert (1965), p 19.

\(^{110}\) Berlin (1980), p 45.
It is this cultivation of followers that reveals the Machiavellian style of the Atreides. The Atreides followers are there to be used for the Atreides’ power. Duke Leto does not flinch in risking his family, his army and his people to gamble on the occupation of Arrakis. Paul’s rise to leader of the Freman reveals his skills as the master opportunist. He secures strategic alliances through Chani, Liet-Kynes’ daughter and Stilgar’s niece, and together he and Jessica manipulate Freman mythology and power structures to locate themselves at the religious and military apex. That this manipulation is done with a knowing cynicism – it is thought about as a ‘sham’, ‘tricks’ and ‘scenes … cooked up’ – detracts neither from its effectiveness nor from Paul’s and Jessica’s adherence to the strategy.

Therefore, the Atreides appear to be a fairly successful rendering of Machiavelli’s prince. It is at this point that Herbert’s meta-theme of failure of control intrudes. All the political players in *Dune* – the Baron, the Emperor and the Bene Gesserit – fail to control the situation on Arrakis. The Baron kills off Duke Leto and re-establishes Harkonnen rule only to trigger the cycle that ends with his own death. The Emperor succeeds in destroying Duke Leto, a dangerous rival to the throne, only to create Paul, who takes the throne. The Bene Gesserit spend centuries on their breeding program only to have the dreamed-of Kwisatz Haderach arrive one generation early and outside of their control. Mark Siegel suggests that these players fail because their over-confidence prevents a cool assessment of the consequences of their actions. The Baron does not regard the Freman as worthy of consideration in the running of Arrakis. The Emperor places so much

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112 Herbert (1965), p 56.
113 Herbert (1965), p 271.
confidence in his Sardaukar that he puts himself and his family on the front line and the sisterhood trusts its abilities at controlling the men of power in the Imperium. In Machiavellian terms, these princes lose through poor judgment based on a failure to assess consequences. The symmetry to this analysis is that Paul wins because he considers consequences, helped in this regard by his uniqueness.

However, Paul does not win. Clearly the ends of Paul in *Dune Messiah* and *Children of Dune* cannot be taken as wins except by the most committed Stoic – and even in the victorious climax of *Dune*, the nascent jihad is poised to inflame the universe. Mulcahy argues that the message is the corruption for both leader and the lead that arises from cynical manipulation.\(^{116}\) Paul goes from appealing youth in Book I to lost adventurer in Book II to God-like leader in Book III. In Book II, he sheds water for the dead when killing Jamis; but by Book III he has difficulty grieving for his dead son. Even the Freman go from a fierce and independent people in *Dune* to a bunch of divided, fawning sycophants in *Dune Messiah*. For Mulcahy, this is Herbert’s critique of Machiavelli.\(^{117}\) The drive for charismatic leaders to give certainty in a dangerous and uncertain universe gives rise to power-hungry monsters. In placing responsibility for the leadership with the people that follow, Mulcahy suggests that Herbert’s prince-like novel affirms democracy. However, this message is incomplete. Nowhere in the Dune universe do the people go, to adopt the Bene Gesserit terms, from animals to humans.\(^{118}\) To start crediting Herbert with democratic motivations seems at odds with the texts. Again, the meta-theme of uncertainty is disclosed: if *Dune* is a democratic critique of Machiavelli, it

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\(^{117}\) Mulcahy (1996), p 34.

\(^{118}\) Herbert (1965), pp 12–17; Siegel (1988), p 70.
is a very problematic one that borders on rather undemocratic celebrations of the überman.

For Peter Minowitz, Herbert’s biological metaphor for the people is instructive. Not only does it remind of Machiavelli’s description of a leaderless people as an escaped captive beast, but it links Herbert’s politics with his ecology.

**Ecology**

Ecology features in *Dune*. Herbert’s biographers have suggested that the origins of *Dune* lay in his 1957 (or 1958) newspaper assignment looking at the use of grasses to stabilise desert in Florence, Oregon, and Herbert does dedicate *Dune* to ‘the dry-land ecologists, whenever they may be, in whatever time they work’. This is only reinforced through Herbert’s provision of Appendix, 1 titled the ‘Ecology of Dune’, a cartographic map of Arrakis, the character of the Planetologist Liet-Kynes, and also the wider ecological narrative of ecological destruction and rejuvenation that arcs through the six novels. This ecological theme seems reinforced through Herbert’s well-documented paraphrasing of ecologist Paul B. Spears, and in the technical details of the planetologial plan for its transformation. It is also apparent in Herbert’s provision of a biological explanation for the sand plankton–little maker–sandworm cycle on which he tries to ground a scientifically plausible explanation for the existence of oxygen on

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121 Herbert (1965), p 2.
122 Herbert (1965), pp 467–474.
124 Herbert’s adoption of Spears term ‘law of the minimum’ and other phrases has been documented by O’Reilly (1981), p 55; Scigaj (1983), p 348; and Ellis (1990), p 115.
Arrakis, the absence of water and the formation of melange. Taking all these threads together it is little wonder that *Dune* has been hailed as an ecological novel.\(^{125}\)

However, as R.J. Ellis has observed, this emphasis on ecology is not particularly evident in the bare narrative of *Dune*.\(^{126}\) Paul is the focus, not Liet-Kynes, and the Atreides’ adoption of the planetologist’s plan appears to be just another policy strategically adopted to secure the allegiance of the Freman. Like a warning on messianism or an animation of Machiavelli, *Dune* can only be partially read as a work of eco-literacy. The first obstacle to reading *Dune* as ecological is Joseph Meeker’s foundational point that works of eco-literacy should be in the comic rather than tragic genre. Meeker’s contribution to eco-literacy\(^ {127}\) is that comedy – the laughing at life as is and the putting down of humanity – transmits an ecocentric vision of humans in the world.\(^ {128}\) In contrast, the tragic – with its affirmation of the spirit and transcendence of nature – encodes an anthropocentric vision of ecological domination.\(^ {129}\) *Dune* is not *The Hitchhiker’s Guide to the Galaxy* (1979), a novel which – notwithstanding the early destruction of Earth\(^ {130}\) – seems to be more ‘ecological’ in Meeker’s schema.\(^ {131}\) The

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\(^{125}\) Schmitt-v Mühlenfels (1986); Elgin (1985), pp 125–152.

\(^{126}\) Ellis (1990), p 104.


\(^{128}\) Meeker (1997), pp 15–16: ‘Comedy demonstrates that humans are durable, although they may be weak, stupid, and undignified. As the tragic hero suffers or dies for ideals, the comic hero survives without them. At the end of his tale he manages to marry the girl, evade his enemies, slip by oppressive authorities, avoid drastic punishment, and stay alive. His victories are small, but he lives in a world where only small victories are possible. His career demonstrates that weakness is a normal condition.’

\(^{129}\) Meeker (1972), p 42: ‘Tragedy, unlike catastrophe, is comforting and flattering to man … the universe is shown to care enough about man to punish him when he goes astray … [a]nd man appears as a worthy object of love, for he has the capacity to grow and to learn, even to the point of transcending many of his own weaknesses and limitations. Tragic man is ennobled by his struggles.’

\(^{130}\) Adams (1980), p 35.

\(^{131}\) It is disappointing that Hanlon’s otherwise enjoyable and richly packed text focuses solely on Adams’ legacy with the hard sciences and overlooks the ecological dimension of *The Hitchhiker’s Guide to the Galaxy*. See Hanlon (2005).
comic is not Herbert’s modus. And without contributing to the minor debate about whether Dune should be properly categorised as a ‘novel’ or an ‘epic’, its seriousness—along with characters like the Atreides whose name was poached from Greek mythology (King Atreus, whose children were called Atrides)–clearly suggests that Dune should be read as belonging towards the tragic end of the continuum.

Further, notwithstanding the ecological veneer that accompanies Herbert’s world-building, questions can be put regarding the depth of Herbert’s engagement with ecological thought. The prevailing ecological motif, repeated throughout the text, is that of predator and prey. This primal image of Darwinism harks back to an earlier era of biological thinking, and not the systemic interconnectedness that advocates argue characterises ecology. The Baron styles himself as a predator, feeding off lesser prey in his gloating over the Atreides’ soldiers trapped in the caves of the Shield Wall: ‘Rabbits all of them!’ Duke Leto worryingly paces: ‘I must rule with eye and claw—as the hawk among lesser birds. Unconsciously, his hand brushes the hawk emblem on his tunic.’ It is possible to argue that Herbert’s use of the predator–prey image with the Baron and Leto is to suggest their shared thinking in the ways of domination and ignorance of connection, distinguishing Paul as more ecological in orientation. However, Paul does not seem to escape the fascinating pull of the ‘red in tooth and claw’.

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134 ‘The term ecology is therefore intended to refer to the study of the conditions of existence that make up our larger, cosmic household.’ Fox (1990), p 32.
135 Herbert (1965), p 176. Also pp 169 and 229.
136 Herbert (1965), p 100.
'Mice!' he hissed.

*Pop-hop-hop!* then went, into shadows and out.

Something fell soundlessly past their eyes into the mice. There came a thin screech, a flapping of wings and a ghostly grey bird lifted away across the basin with a small, dark shadow in its talons.\(^{138}\)

While there is symmetry to the fact that, in becoming Freman, Paul renounces the Atreides Hawk for Muad’Dib, the Freman name for the Kangaroo Mouse, this renaming is a gesture. The image of predator and prey remains, just the identification of Paul’s father and grandfather with the predator shifts to prey. This false modesty of Paul’s is ironic. Seeing the future does not necessarily mean Paul appreciates consequences – as evidenced by his twin failures of jihad and climate change. Paul is not the eco-activist who emerges from more recent science fiction.\(^{139}\) Some have observed that there are elements of a stance against global capitalism and its exploitation of environments and indigenous communities in *Dune*.\(^{140}\) The monopolistic trading company CHOAM, the Guild and Bene Gesserit can be read as acting as trans-galactic corporations maintaining a spice-dependent universe system grounded on oppression of the Freman and exploitation of the Arrakian ecosystem. However, Paul’s jihad is not against the Imperium’s economic structures and its environmental degradations. It is not ‘Freman of Arrakis unite you have nothing to lose but your chains!’ or ‘Spice and Worms for Freman!’ but a more primal ‘Revenge!’ Paul is prepared to destroy the entire ecosystem

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\(^{138}\) Herbert (1965), p 257.


with his spice bomb,\textsuperscript{141} he is prepared to use nuclear weapons on cliffs and he is prepared to allow the Fremans to mess with the basic ecology. Further, safely ensconced on the Lion Throne (another celebration of the predator), he does not dismantle the economic system that has oppressed ‘his’ people, but rather takes it over, continuing the spice system as an Atreides monopoly. The endpoint is the give-away lines in \textit{Dune Messiah} by Paul that he is ‘\textit{the supreme energy-eater of this domain}’.\textsuperscript{142}

The ultimate ecological image in Dune is the sandworms. Immortalised on the cover of \textit{Analog} and then on the covers of successive editions of \textit{Dune}, the worms have entered popular culture as truly terrifying alien monsters.\textsuperscript{143} The effectiveness of the worms lies in the repetition of the predator–prey dualism. The worms devour anything moving on the sand. It is in the act of predation that they rise from the text:

A gigantic sand whirlpool began forming there to the right of the crawler. It moved faster and faster. Sand and dust filled the air now for hundreds of metres.

Then they saw it!

A wide hole emerged from the sand. Sunlight flashed from the glistening white spokes within it. The hole’s diameter was at least twice the length of the crawler, Paul estimated. He watched as the machine slid into that opening in billow of dust and sand. The hole pulled back.

‘Gods, what a monster!’ muttered a man beside Paul.\textsuperscript{144}

\begin{itemize}
\item \textsuperscript{141} Herbert (1965), p 424.
\item \textsuperscript{142} Herbert (1969), p 150.
\item \textsuperscript{143} Schmitt-v Mühlenfels (1986), p 29.
\item \textsuperscript{144} Herbert (1965), p 121.
\end{itemize}
However, almost as a logical consequence of the casting of the worm as predator, the worms become the ultimate sign of human dominance and exploitation of nature. The worms dominate nature – yet the Freman control the worms. The worms not only form the backbone of the Freman global transport system; they are also deployed by Paul as a key piece of military hardware in the Battle of Arrakeen.¹⁴⁵

In this, Herbert’s meta-theme is performed. Dune has much ecological content, yet the ecological message is mixed: the ‘structure contradicts, perhaps even mocks, the theme which has been fashioned for it’.¹⁴⁶ This incompleteness of Herbert’s ecological imagining is challenged by O’Reilly. For O’Reilly, the ecology theme and the illusion of control theme are one: ‘Paul’s vision is to take ecological concepts to a much deeper level. Paul comes to see opposition between the aims of civilisation and those of nature, as represented by the human unconscious.’¹⁴⁷ O’Reilly turns this into an inner struggle between consciousness and unconsciousness that locates the meta-theme of Dune as personal – how to thrive in a changing world.

**Western Buddhism**

O’Reilly is not alone in suggesting that the incompleteness of the ‘public’ themes in Dune leads to an assessment of the meta-theme of the illusion of control at the ‘personal’ level. Leonard M. Scigaj, drawing on Herbert’s well-documented interest in Zen and Eastern mysticism,¹⁴⁸ suggests that Dune is a populist handbook for such ideas. Paul is seen as Zen-like – he engages in life and takes risks, even if it is to pointlessly fight Feyd-

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¹⁴⁵ Herbert (1965), p 441.
¹⁴⁶ Elgin (1985), p 152.
Rautha in the final pages of *Dune*. However, Paul is not a very successful demonstrator of Zen calm, notwithstanding the Zen-like statements that he makes to his followers. Simply put, Paul is not at rest. Like other tragic characters, Paul is always questing. It is perhaps only as the Preacher in *Children of Dune* that Paul appears to be at rest in the world he has had a hand in creating.

It is Leto II who can particularly be seen as embodying the heightened subjectivity of the Zen-aware. Leto II dominates *God Emperor of Dune*. This makes *God Emperor of Dune* less a novel and more a sustained character study of a 3500-year-old part-human, part-sandworm tyrant. Scigaj argues that Leto II emerges from *God Emperor of Dune* as a being who flows with the universe:

Leto bases his alternative approach upon a tripartite philosophy: a grasp of intuitions emanating from his Jungian unconscious; facility with a Zen precognitive, egoless awareness of the present moment as a fluid matrix of possibilities; and an adaptation of the Chinese respect for chance. Leto II mocks the attempts by the Bene Tleilaxu and the Ixians to plot and control. He celebrates surprises, and he claims to be teaching humanity a lesson: not to desire the stagnant future promised by messiahs, but to be responsible for self

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152 Elgin (1985), p 152.
154 Scigaj (1983).
155 Touponce suggests that Herbert wrote the first half of *God Emperor of Dune* in the first person (Leto II’s), only translating portions into the third person in redrafting: Touponce (1988), p 87. It is for this exact reason that Fjellman suggests *God Emperor of Dune* works for male academics. Fjellman (1986), p 60.
156 Scigaj (1983), p 343.
in adapting to change. His ‘Golden Path’ heralded in *Children of Dune* seems undefined, driven by prescience visions of human extinction and Kralizec, the Typhoon Struggle. Leto II’s victory is not political or epic (he won on that field in the climax of *Children of Dune*); rather, it is personal. He has mastered himself, a uniquely difficult task for the son of a superman, born with both the memories of all his ancestors and the faculty of prescience. In mastering himself, Scigaj suggests that Leto II is a role model:

Through Leto’s ability to anchor prana-vitality within himself, and to extend this balance outward to include the society and environment of Dune, Herbert offers a startling fresh and illuminating fusion of current ecological wisdom from the Occident and ancient philosophical wisdom from the Orient. So does Dune really just amount to a personal development manual urging us to lose control and focus on inner peace?

Slavoj Žižek has described what he calls ‘Western Buddhism’ as the of New Age, spiritualist and Eastern mysticism that has become popular within the West. He contends that these movements are not an innocuous flowering of empowered subjectivity, but encode at a fundamental level the very ideological commitments of globalised capitalism. Faced with the ‘future shock’ of rapid technological change, information overload and the isolation of Western urban existence, Western Buddhism preaches a return to the self through a belief that achieving inner calm, through maintaining an ‘indifference towards the mad dance of this accelerated process, a distance based on the

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159 Herbert (1976), p 327.
insight that all this social and technological upheaval is ultimately just a non-substantial proliferation of semblance’. 162 Western Buddhism allows a gap between complicit engagement with the realities of competitive social existence and the self. This seems to be very close to the ultimate message of Dune. The universe denies control. A mere human – even a superhuman like Paul – fails at controlling it. Public enterprises, like religion, politics and ecology, are seen as incomplete. Human doing in the world is failure; all that exists is a coming to peace with oneself within the chaos of existence. Unlike Wells’ rational humanist who, when faced with a similar universe, was called to make the future, Herbert seems to be suggesting a 1960s-style ‘drop out’. This would seem to offer a complete rendering of Herbert’s universe. Also, and significantly, it seems to suggest that Dune has no contribution as technical legality beyond an extension claim that the public project of law is doomed to fail. However, this would overlook a fundamental element of the texts.

This can be glimpsed in one of the more successful multimedia offshoots of Dune. In 1992, the software developer Westwood Studios released a computer game based loosely on Dune. In the game, called Dune II: The Building of a Dynasty, players take command of rival houses, build bases, control units, harvest spice and try to destroy opposing, AI-controlled enemies. 163 Dune II defined the genre that became known as ‘god games’, 164 or real-time strategy (RTS). RTS allowed players to fulfil total control fantasies of micro and macro management of military, economic and geopolitical

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163 Westwood Studio (1992). On Dune II as the founder of the RTS genre, see Geryk (2001). It was called Dune II to differentiate it from an earlier Dune computer game developed by Cryo Interactive, which was a fusion of turn-based strategy and role-playing.
relationships within a virtual-world: building empires, conquering opponents and also controlling individual units.\footnote{Postigo (2003), p 595.} For Steven Poole, the message of RTS games is that:

The gameplayer doesn’t count as an individual: he or she is, after all God.

What matters is the inexorable march of the corporate machine. There seems to be a pernicious subterranean motive here: such games offer you a position of infinite power in order to whisper the argument that, as an individual in the world, you have none at all.\footnote{Poole (2000), p 49.}

RTS games exploit the tension between control and the lack of control, and present as symptom and therapy for the ‘lost souls’ of the West. With this at their core, it seems entirely fitting that the founding game of the genre should have been inspired by Herbert.

However, the game \textit{Dune II} offers a different narrative from that of Herbert. Within the game, the gamer rules supreme. The game climaxes with total victory. There are no future echoes of jihad or \textit{Dune Messiah}-like sequels of decay. This exposes something absolutely fundamental in Dune. Even with the Western Buddhism messages of disengagement and self-care, the public, ‘the plans within plans’\footnote{Herbert (1965), p 217.} and the questing for order continually reappear throughout the novels – whether it is Paul’s failed attempt at grabbing power to prevent jihad, or Leto II’s multi-faceted Golden Plan, or the Bene Gesserit’s attempts to fight the Bene Tleilaxu and the Honoured Matres and recreate the desert-worm-spice cycle on other planets in \textit{Chapter House Dune}. While the universe remains outside of willed control, the humans and superhumans of Herbert’s far future keep trying. The tragic that confused the ecological message is revealed at the absolute centre of Herbert’s imaging.
This human desire for order, the attempt to keep out the chaos, is something that resonates with technical legality. But it does so at a fundamental level. Dune can be re-read as jurisprudence. In doing this, the material worked over by the existing secondary literature can be rewoven. The next section argues that Dune is a sophisticated animation of sovereignty. However, it does more than this. In animating sovereignty, it exposes sovereignty’s metaphysical basis in the alchemy of death and time.

3. Sovereignty as the Alchemy of Death and Time

The previous section finished much like the description of sandworms, lying exhausted on the dunes, having been ridden too hard.\textsuperscript{168} It seems that the complexity of Dune has founded a multi-thematic secondary literature offering different accounts as to Dune’s message, but which can be unified by the meta-theme of the tragedy of control.

Control is exactly what law as technology is about. It is about making law. As we have seen, the law and technology enterprise desired to control the future, and does so through writing a thoroughly positivistic theory of law. The \textit{Prohibition of Human Cloning Act 2002} (Cth) and the later amendment were both deployed to control the future manifestation of cloning in Australia, and progressive modernism mandated the legal attempt to control the development of the motor vehicle in Victoria in the \textit{Motor Car Act 1909} (Vic). Law as technology makes worlds. It conjures out of the ether new criminal offences, such as ‘intentionally plac[ing] a human embryo clone in the body of a human’\textsuperscript{169} or ‘recklessly or negligently [driving] a motor car on a public highway’;\textsuperscript{170}

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\textsuperscript{168} Herbert (1976), p 316. \\
\textsuperscript{169} \textit{Prohibition of Human Cloning for Reproduction Act 2002} (Cth) s 9. \\
\textsuperscript{170} \textit{Motor Car Act 1909} (Vic), s 10(1).
\end{flushleft}
new entities and institutions, such as the NHMRC Licensing Committee or registries of motor vehicles, and new rights, such as the right to apply for a licence to undertake human cloning or to drive motor vehicles on public roads. It makes the world-to-come.

In Dune, the makers of the world are the sandworms. Freman culture acknowledges this in the terms ‘little maker’ for the worm’s sandtrout nymph stage and Shai-Hulud – the destroyer – for the adult form. Within a jurisprudential frame, law as technology conjures the being that can make law – the sovereign. This reading of Dune should be obvious from the terrifying sandworms on the covers – Dune as technical legality is about Leviathan.

**Leviathan**

That Dune is a sophisticated animation of sovereignty was glimpsed by the Machiavelli readings of Dune. What originated these accounts was the demonstrated politics in the texts. As a text on politics, Dune suggests a question that bedevilled Leo Strauss, who is the founder of the modern political philosophy: Machiavelli or Thomas Hobbes? Strauss’s response was complicated. For Strauss, it seemed that the answer depended on his definition of modernity that required an essential break with the received tradition. In the original 1936 edition of his *The Political Philosophy of Hobbes*, Hobbes was awarded the title. However, it was revoked in the 1952 preface of the American edition with the

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172 Motor Car Act 1909 (Vic), s 4(1).
174 Motor Car Act 1909 (Vic), s 6(2).
175 A link made even more obvious in the entry for the sandworm in the *Dune Encyclopaedia*. See McNelly (1984), p 456.
176 Strauss (1952), pp 1–2.
aside that ‘not Hobbes, but Machiavelli, deserves this honor’.\textsuperscript{177} In Strauss’s extended study on Machiavelli, the claim of Machiavelli over Hobbes as founder of modern political philosophy is under-developed.\textsuperscript{178} Strauss’s later preference for Machiavelli seems to circulate around Machiavelli as the provider of the first comprehensive account of politics based on the ‘evil’ of humanity.\textsuperscript{179} However, Hobbes’ contribution was not denigrated. For Strauss, while Hobbes might not have founded modern political philosophy: ‘It is in Hobbes’ political doctrine that power becomes for the first time \textit{eo nomine} a central theme … one may call Hobbes’ whole philosophy the first philosophy of power.’\textsuperscript{180} According to Strauss, what is original across Hobbes’ work is a theory of power that orders all species of power – that is, in a break with classical philosophy. Hobbes presents a unified account of personal power, violence and legal authority.\textsuperscript{181}

Hobbes provides a way to associate the seeming lack of law and law-making in Dune with law as technology. The starting point is what it means to make law. Law’s response is a tale of transformation. The common law, it must be remembered, did not make law. It was an oral – indeed a mythic – law.\textsuperscript{182} Located in time immemorial, it claimed that it emanated from the very soil of the ‘Sceptred Isle.’\textsuperscript{183} The judicial function was to declare the law, not make it, and legal training amounted to memorising speeches and decisions of the past.\textsuperscript{184} Written records, where they existed, were cryptic mnemonic aids for those initiated in Sir Edward Coke’s ‘artificial reason’\textsuperscript{185} of the law.\textsuperscript{186}

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\begin{footnotesize}
\begin{enumerate}
\item \textsuperscript{177} Strauss (1952), p xv.
\item \textsuperscript{178} Martinich (2005), p 209.
\item \textsuperscript{179} Strauss (1958), pp 278–280.
\item \textsuperscript{180} Strauss (1953), p 194.
\item \textsuperscript{181} Strauss (1953), pp 194–195.
\item \textsuperscript{182} Douzinas et al (1991), p 153.
\item \textsuperscript{183} Goodrich (1990), pp 210–213; Postema (1986), pp 4–5.
\item \textsuperscript{184} Goodrich (1996), pp 86–90.
\item \textsuperscript{185} \textit{Prohibitions del Roy} [1607] EWHC KB J23; 77 ER 1342.
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Established legal history notes that, with the wider Reformation, England experienced legal reformation in the expansion of the influence of the Crown and Parliament. Politically, the common law negotiated this period by aligning with the Crown and nationalising its jurisdiction as the King’s Court. It also developed the doctrine of parliamentary supremacy, reinventing itself as a body of inferior rules. This preserved much of the common law, both in practice and doctrine, until the reforms of the nineteenth century.

Such a story is familiar. The narrative of the Reformation birthing a spirit of rational activity that refashions the pre-modern into the modern has its origins in Max Weber’s rationalisation thesis. For Weber, as was noted in Chapter 1, the evolution of modern law was a movement from oral legal orders, to systemic codification, to the provision of procedural frameworks for rational bureaucracy. Weber, however, underplayed a critical creature that emerged during this development – the sovereign.

Familiarity dims awareness of how radical Hobbes’ account of sovereignty was within Western political and legal thought. While it is trite to say Hobbes’ sovereign emerges from the social contract, what is missed is the form of being that arises. The sovereign is human but is not. The sovereign retains – and I use Hobbes’ gendered possessive pronoun – his ‘natural’ freedom.

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188 Goodrich and Grey Carlson (1998), p 70.
191 Weber (1905), pp 180–182.
192 Cain (1983), p 70.
194 Sorell (2004).
There is only one way to erect such a common power that will be able to defend men from the invasions of foreigners, and from the injuries of one another … This way is to confer all of their power and strength upon one man, or assembly of men, that will reduce all of their wills … Everyone thereby submits their wills to his will, and their judgments to his judgments. This is more than consent or concord; it is a real unity of them all into one and the same person, made by covenant of every man with every man … This is the generation of that great Leviathan, or rather, to speak more reverently, of that mortal god, to which we owe our peace and defense under the immortal God.\(^{195}\)

In this celebrated passage from *Leviathan* (1651), a key differentiation of Hobbes’ sovereign from the latter-day liberals can be gleaned. The sovereign is not party to the social contract; the contract is between would-be subjects. Hobbes makes this clear:

> The right of bearing the person of all the multitude is given to the one made sovereign by the people making the covenant with each other and not to the one who is the sovereign. Therefore, there can be no breach or covenant on the part of the sovereign.\(^{196}\)

This sovereign freedom has been well recognised by public international lawyers.\(^{197}\) However, what this freedom meant domestically has been overlooked. Unlike the common law and other pre-modern orders, where continuity was assured through transcendence, Hobbes’ modern sovereign meant that questions of authority became


\(^{196}\) Hobbes (2008), p 119.

\(^{197}\) Douzinas (2006a), p 35.
temporal. Law was no longer law because of ‘meer immemorial Usage or Custom’, or nature, but rather because of a valid law-making act of the sovereign. This is a point about which Hobbes was consistent throughout his long career:

The civil laws are the rules that the commonwealth has commanded to every subject either by word, writing or other sufficient sign of his will. These laws distinguish right from wrong in terms of what is contrary or in agreement with the rules … The laws are the rules of what is just and unjust, as nothing can be considered unjust that is not contrary to some law.

Having rendered all law positive law of the commonwealth, Hobbes reveals who is behind the commonwealth:

The sovereign is the only legislator in a commonwealth … Only the commonwealth prescribes and commands the observation of those rules that are called laws. Therefore the commonwealth is the legislator. But the commonwealth is not a person and does not have capacity to do anything. The person is the representative, which is the sovereign, and therefore the sovereign is the sole legislator.

Hobbes articulates the defining feature of modern law: its origin and authority depend entirely on positive action by the sovereign, and this posited law is the sole arbitrator of just and unjust law within a commonwealth. Banished from the legal system are any

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200 Hobbes (2008), pp 183–185. See his comments in A Dialogue Between a Philosopher and a Student, of the Common Laws of England (1681), written after Leviathan: ‘Statutes are not Philosophy as is the Common-Law, and other disputable Arts, but are Commands, or Prohibitions which ought to be obeyed.’ Hobbes (2005), p 29.
201 Hobbes (2008), p 184. See also in the Elements of Law: Natural and Politic (1640): ‘The making whereof [laws] must of right belong to him that hath the power of the sword, by which men are compelled to observe them; for otherwise they should be made in vain.’ Hobbes (1969), p 112.
claims to independent legal authority in the Bible, conscience or the judiciary. As Norberto Bobbio observes, the key to understanding Hobbes is ‘unity over anarchy. Hobbes is obsessed by the idea of dissolution of authority.’ In pursuit of this unity, the sovereign must be free to make law on any topic unconstrained by nature, custom or any other power group in the commonwealth. The law of the commonwealth becomes, for Hobbes, another tool at the sovereign’s disposal to maintain unity and peace.

It is at this point of unity that Dune can be read as Hobbesian. There are many surface parallels between Hobbes’ and Herbert’s texts. The shared affirmation of monarchy as the most stable and appropriate form of government, and a demonstration of how the faction-ridden Corrino Empire gave way to the unitary Atreides regime, are two immediate similarities. Some of Herbert’s text could have been penned by Hobbes:

‘Mankind has ah only one mm-m-m science,’ the Count said.

…

‘And what science is that?’ the Baron asked.

‘It’s the um-m-m-ah-h science of ah-h-h discontent’ This cynicism concerning the folly of humanity would fit well within Hobbes’ {Behemoth, or the Long Parliament} (1681), his reflections on the civil war. However, there are deeper relations. Reading Dune through Hobbes provides a critical insight missed by the existing secondary literature. Hobbes, for all his postulating of rationality leading to social contract, is not blind to the ingredients behind human

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204 Although Hobbes, anticipating John Austin, seems to indicate that law must have a general character, something he emphasises in working through the example in Behemoth commanding a subject to kill his father. See Hobbes (1990), p 51; Austin (1998), pp 7–19.
206 Herbert (1965), p 313.
fanaticism. A theme within the ‘Hobbes industry’ concerns what weight should be given to Hobbes’ detailed engagement with theology and religion. Hobbes understood that for humans the fear of death paled in comparison to the fear of eternal damnation: ‘as much as eternal torture is more terrible than death, so much they would fear the clergy more than the King’. Furthermore, Hobbes observes that this weakness intensifies in a group setting and can be manipulated by rhetoric-savvy leaders: ‘it is easier to gull a multitude, than any one man amongst them’. In this, Paul’s self-coronation as the Freman Lisan al-Gaib and Duke of Arrakis in the Cave of Birds takes on particular meaning – not as a demonstration that the Freman are fools, but as a manifestation of Herbert’s cynical view of humanity that seems remarkably coherent within a Hobbesian frame. However, not only are Herbert’s humans ‘irrational’ in their passions, so too are his sovereigns.

The Machiavelli on Dune scholarship was right in considering Dune a drama of ‘princes’. However, it is more correctly a drama of sovereigns. Herbert animates a succession of sovereigns. The Atreides are not just Machiavellian leaders of virtu, but Hobbesian sovereigns. The maintenance and unity of power are Paul’s and Leto II’s fundamental motivations. Marie-Noelle Zeender captures this well:

This extraordinary family are particularly obsessed with power. First was Paul who could not resist the temptation; by setting himself up if not as god,
at least as Dune Messiah, he had been led to launch the jihad in order to maintain the stability of his reign and his absolute authority.\textsuperscript{214}

What Zeender’s psychoanalytic account of the Atreides misses is not how they suffer, but how the exercise of power is necessary for sovereignty. Here, Herbert’s animation of Hobbes is particularly insightful. Paul falls. Victorious in the battle of Arrakeen, he sits as undisputed sovereign over the political, economic and religious institutions of the Imperium. However, Paul’s religious state fractures within itself – paralleling his own divisions between guilt and irresponsibility. This is a point Herbert reiterates in a letter from Jessica to her children:

‘You produce a deadly paradox,’ Jessica had written. ‘Government cannot be religious and self-assertive at the same time. Religious experience needs spontaneity which laws inevitably suppress. And you cannot govern without laws. Your laws eventually must replace morality, replace conscience, replace even the religion by which you think to govern.’\textsuperscript{215}

Jessica’s warning seems very consistent with Hobbes’ desire at the conclusion of \textit{Leviathan} for a state religion where law and religion are one, and ‘spontaneous religious experience’ is replaced by legally dictated, uniform public worship.\textsuperscript{216} As critics have pointed out, Paul’s residual humanity – that he loves and expresses a kind of grief, that he professes to believe that ‘when law and duty are one, united by religion, you never become fully conscience, fully aware of yourself. You are always a little less than an individual’\textsuperscript{217} – is the fault that leads to his fall. The conspirators’ complicated plotting in

\begin{flushright}
\textsuperscript{215} Herbert (1969), p 171.
\textsuperscript{216} Hobbes (2008), pp 252–253.
\textsuperscript{217} Herbert (1965), p 388.
\end{flushright}
*Dune Messiah* aims to polish Paul’s love for Chani and Duncan Idaho into a cruel mirror in which they hope he will see, and despise, the monster he has become: ‘A creature who has spent his life creating one particular representation of his selfdom will die rather than become the antithesis of that representation.’

This monstrous self is exactly who Paul’s son Leto II becomes with his catchcry that ‘*his skin was not his own!*’ In the succession from Paul to Leto II, Herbert animates a characteristic of sovereignty implicit in Hobbes: Leto II merges with Leviathan. This physical act is symbolic of the unitary state that he commands as God Emperor for 3500 years, where law and religion are clearly one as demonstrated in the decennial Siaynoq rally and peregrination in the Festival City of Onn. Leto II plays the ‘mortal god’ and achieves galaxy-wide peace. The Bene Gesserit note that, in Leto’s Empire, not only have the Great Houses declined and the other power groups been subjugated, but:

> It is to be noted that familial conditions grow more and more similar … We are seeing here the emergence of a portion of the Lord Leto’s grand design. Even the poorest families are well fed, yes, but the circumstances of daily life grow increasingly static.

Leto II criticises his father for failing to take this essential step, this merging with the worm to ensure a lasting, oppressive peace, and Herbert confirms this choice in Leto

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223 Herbert (1981), p 78. See in this quote Hobbes’ warning about times of peace: ‘The truth is, the security was worth nothing, but served well enough to gull those seditious blockheads, that were more fond of change than either of their peace or profit.’ Hobbes (1990), p 113.
224 Herbert (1976), p 204.
II’s defeating of the weathered Paul as Preacher in a duel of prophecy.\textsuperscript{225} The clear message seems to be that sovereignty demands the losing of Paul’s tragic nobility. It involves a full and conscious union with the worm/power resulting in something other than human – indeed, something more animal. This is exactly what Hobbes proposed. Hobbes can be observed as caught in the paradox of the social contract. In the state of nature:

\begin{quote}
… there is no industry because its fruits would be uncertain. There is no culture of the earth, no navigation … there is no knowledge of the face of the earth, no account of time, no arts, no letters and no society. Worst of all there is continual fear and danger of violent death, and the life of man is solitary, poor, nasty, brutish and short.\textsuperscript{226}
\end{quote}

In other words, the hallmarks of humanity are absent. However, it is supposedly human reason in the state of nature that rescues humanity from this animal existence.\textsuperscript{227} The paradox is an assumption of rationality prior to the alleged rationality-securing event. Herbert does not provide a solution of this ‘puzzle’, to use Peter Fitzpatrick’s term.\textsuperscript{228} But what Herbert does in Leto II is show what it means to say, as Hobbes does, that the sovereign remains in the state of nature. It means that the sovereign is not human – at least not human as they might be known after the social contract. Just like Leto II, the sovereign contains the animal. This makes sense of the predator–prey imagery that interrupted the ecological message. The biblical Leviathan is described as the ultimate

\textsuperscript{225} Herbert (1976), p 321.
\textsuperscript{226} Hobbes (2008), p 81.
\textsuperscript{227} Hampton (1986), pp 68–69.
\textsuperscript{228} Fitzpatrick (2001), p 26.
predator,\textsuperscript{229} and Leto II declares in his Journal that ‘my purpose is to be the greatest predator ever known’.\textsuperscript{230} Leto II either calls himself or is accused of being a predator eight times in \textit{God Emperor of Dune}.\textsuperscript{231} As God Emperor, he is represented as possessing two natures: the sage-like Atreides Emperor who, even encased in his 7 metre-long ‘pre-worm’ body,\textsuperscript{232} is capable, as the Western Buddhism reading emphasises, of play, love and regrets,\textsuperscript{233} and the worm that kills.\textsuperscript{234} This seems a perfect animation of Hobbes’ sovereign, terrifying in thought and action.

For Hobbes, it is the sovereign’s terrifying nature that facilitates sovereign peace. As Strauss, and before him Carl Schmitt, note, Hobbes is foremost a theorist of fear,\textsuperscript{235} and Herbert is quite clear that Leto II’s Empire is maintained through fear – fear of his female Fish Speaker army\textsuperscript{236} and fear based on his monopoly over the last of the spice.\textsuperscript{237} Hobbes’ humans, just like Herbert’s, are motivated by fear – especially fear of violence.\textsuperscript{238} It is fear that drives the social contract\textsuperscript{239} and it is fear of that common power that keeps, most of the time, irrational and seditious human passions in check.\textsuperscript{240} Law

\textsuperscript{229} ‘There is nothing on earth to compare with him; he is a creature that has no fear. He looks down on the even the proudest animals; he is king of all wild beasts.’ Job 41:33–34, The Bible Society in Australia (1976), p 536. On Hobbes’ iconography, see Farneti (2001).
\textsuperscript{230} Herbert (1981), pp 16, 69.
\textsuperscript{231} Herbert (1981), pp 69, 70, 73, 176, 190, 191, 257, 376.
\textsuperscript{232} Herbert (1981), pp 7, 94: ‘Idaho swept his gaze along the faceted silvery-grey body, noted the beginnings of a sandworm’s ribbed section, the sinuous flexings … the small protuberances which had once been feet and legs, one of them somewhat shorter than the other. He brought his attention back to well-defined arms and hands and finally lifted his attention to the cowled face with its pink skin almost lost in the immensity, a ridiculous extrusion on such a body.’
\textsuperscript{233} Herbert (1981), pp 192–195.
\textsuperscript{234} Herbert (1981), pp 29–30. The transformation between the two happens in an instant when Leto II is threatened by the aged Duncan Idaho.
\textsuperscript{236} Herbert (1981), pp 125, 313.
\textsuperscript{237} Herbert (1981), pp 76–82.
\textsuperscript{238} Blits (1989), p 424.
\textsuperscript{239} Hobbes (2008), pp 84, 116.
\textsuperscript{240} Hobbes (2008), p 113.
works in Hobbes’ schema not because it is just, or custom, but because it is coded sovereign violence. Its register is the irrational.

Law as sovereign violence has been overlooked by much twentieth century legal thought.241 Hans Kelsen proposed a legal order rationally unfolding from a shared grundnorm: that the legal order is legitimised by a fundamental ‘political’ acceptance of its legitimacy242 and was condemned by Schmitt for ‘negating’ the actuality of sovereignty.243 Liberal political thought since has tried to deny the violence of positive law; having inherited Leviathan, liberals have put it in the chains of constitutions, rights, separation of powers and due process.244 This was Schmitt’s argument. Schmitt saw that Hobbes opened the way for law ‘to became decision and command in the sense of a psychologically calculable compulsory motivation’.245 Schmitt’s imagery was specific and telling. Hobbes opened the way for Leviathan to be not only the awe-inspiring mythic monster, but the mega-machine:246

For technically represented neutrality to function, the laws of the state must become independent of subjective content, including religious tenets or legal justifications and propriety, and should be accorded validity only as the result of the positive determinations of the state’s decision-making apparatus in the form of command norms.247

For Schmitt, ‘technically represented neutrality’ signified processes that could be used to deliver any value, an ‘economical-technical apparatus’ that is indifferent between ‘a silk

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241 Nonet (1990), p 669.
242 Kelsen (1992), p 1
244 Holmes (1995), pp 69–70.
245 Schmitt (1938), p 70.
247 Schmitt (1938), p 44.
blouse and poison gas’.\textsuperscript{248} Schmitt was prepared to declare the modern state producing positive law as ‘a huge industrial plant’.\textsuperscript{249} Hobbes’ Leviathan wielding plastic positive law allowed the fear of law to be formalised – that is, turned into a form, and to be deployed for whatever end,\textsuperscript{250} including the end of securing technologically desirable futures. Here the analysis reconnects directly with law as technology, for the sovereign is the being that has transmuted law into technology,\textsuperscript{251} which has gone on to become the everyday of the law and technology enterprise, and allowed the \textit{Prohibition of Human Cloning for Reproduction Act 2002} (Cth) and the \textit{Motor Car Act 1909} (Vic) to be in the world. As Philippe Nonet comments ‘positive law is the metaphysics of modern technology’\textsuperscript{252}.

However, 

\begin{quote}
Dune does more than expose the sovereignty behind law as technology: it shows the metaphysical ground on which sovereignty, and with it law as technology, arises. Its ultimate lesson is ontological. That Dune registers on the essential plane is perhaps not unsurprising. Herbert casts Paul’s prescience as an ontological experience:

He wonder if it might be possible that his ruh-spirit had slipped over somehow into the world where the Freman believed he had his true existence – into the alam al-mithal, world of similitudes, that metaphysical realm where all physical limitations were removed.\textsuperscript{253}
\end{quote}

Dune not only shows the leviathanic monster behind the monstrous law as technology, but shows just how monstrous law as technology is. In one of Paul’s rants against his

\textsuperscript{248} Schmitt (1923b), p 39.
\textsuperscript{249} Schmitt (1922), p 65.
\textsuperscript{250} Schmitt (1922), p 28.
\textsuperscript{251} Schmitt (1922), p 35.
\textsuperscript{252} Nonet (1990), p 683.
\textsuperscript{253} Herbert (1965), p 363.
Empire in *Dune Messiah*, Herbert provides a glimpse of a more essential contribution, explicitly linking law and death:

‘Ahh. Laws,’ he said. He crossed to the window, pulled back the draperies as through he could look out. ‘What’s law? Control? Law filters chaos and what drips through? Serenity? Law – our highest idea and our basest nature. Don’t look too closely at the law. Do, and you’ll find the rationalised interpretations, the legal casuistry, the precedents of convenience. You’ll find serenity which is just another word for death.’

**Death**

There is ample death in *Dune*. Paul achieves sovereignty over the deaths of (in order) Shadout Mapes, most of the Atreides’ army, Wellington Yueh, his father, Duncan Idaho, Liet-Kynes, Jamis, numerous unnamed Freman who challenge his leadership, Gurney Halleck’s smuggler crew, his first-born son, Sardaukar and Freman during the Battle of Arrakeen, Baron Harkonnen, Thufir Hawat and Feyd-Rautha Harkonnen. Leto II’s sovereignty follows the death of his mother Chani...
in childbirth, the Preacher’s guide Assan Tariq, Paul as Preacher and Ali Atreides. Accompanying these actual deaths are Paul’s and Leto II’s faked deaths – Paul’s in flying the ornithopter into the sandstorm in *Dune* and then again marching into the desert in *Dune Messiah*, and Leto II in faking the success of the Corrino assassination attempt with the Laza tigers in *Children of Dune*. Finally, these deaths are just a prelude to the deaths that flow once Paul and Leto II install themselves as Emperor. Billions die in Paul’s jihad, and billions of billions are slaughtered ensuring the eons of Leto’s Peace. Herbert seems to be sending a clear message that death is entwined with sovereignty. This relationship is something that even Hobbes underplays. For Hobbes, the sovereign is a source of fear and awe emanating from its potential to do violence. However, Hobbes was caught in a bind. Not prepared to claim an independent source of authority in the individual as a bulwark against the sovereign, Hobbes nevertheless conceived the sovereign as necessary for the protection of the individual from the chaos of the state of nature. In his major works, Hobbes turns to natural law to attempt to weave sovereign and individual into a mutually reinforcing system. However, as Schmitt identifies, in building his theory of sovereignty ‘geometrically’ of the individual subject to natural law, Hobbes sowed the seeds that

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271 Herbert (1976), p 322.
272 Herbert (1976), p 363.
273 Herbert (1976), p 368.
274 Herbert (1965), p 220.
278 There is a report of a historical atrocity by Leto II. In 2116 of his reign, the Bene Gesserit record that Leto executed nine historians by burning them alive ‘on pyres of their own published works’. Herbert (1981), pp 73, 14–125. There is a more general observation about Leto II’s ‘bloody executions’: Herbert (1981), p 134.
were to grow into liberal claims of rights against the state.\textsuperscript{282} The sovereign, who in the deistic view of the world, had remained the engineer of the great machine, has been radically pushed aside. The machine now runs itself.\textsuperscript{283} Hobbes seems to suggest in \textit{Leviathan} that individuals have a right to resist when the sovereign sends for the executioner.\textsuperscript{284} Yet Hobbes is particular in emphasizing that ‘the sovereign never lacks the right to do anything … It may and often does happen in commonwealths that a subject may be put to death by the commands of the sovereign, and yet neither does a wrong to the other.’\textsuperscript{285} It seems that, in Hobbes’ own schema, the decision by the sovereign to kill allows a micro-state of nature to engulf sovereign and doomed subject. This means that neither is ‘wrong’ – the sovereign in bringing death and the subject in resisting. However, the outcome of this staged ‘original’ clash of wills is inevitable. Herbert’s celebrated image of sandworms obliterating humans seems apt.\textsuperscript{286}

Schmitt’s concern with the transformation of Leviathan into a ‘technically neutral state’\textsuperscript{287} that followed from Hobbes was the capacity of this state to consume its subjects. Postulating alternative Judaic imagery for the state, Schmitt suggests that ‘the very mention of the name “leviathan” could evoke the recollection of dreadful Asiatic myths of an all-demanding Moloch or an all-trampling Golem’.\textsuperscript{288} Schmitt does not hold with this reading, preferring – at least in \textit{Political Theology} in 1922 – the mythic, decisionist

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\textsuperscript{282} Schmitt (1938), pp 84–97.
\textsuperscript{283} Schmitt (1922), p 48.
\textsuperscript{284} Hobbes proposes that a natural law is that: ‘A covenant not to defend myself from force by force is always void.’ Hobbes (2008), p 93. This is taken up in Chapter 21 to be a liberty to defend their own bodies even against those that lawfully invade them. Hobbes (2008), p 149; see Dyzenhaus (1994), p 16.
\textsuperscript{285} Hobbes (2008), p 146.
\textsuperscript{287} Schmitt (1938), p 45.
\textsuperscript{288} Schmitt (1938), p 95.
\end{flushleft}
and representative manifestation of Leviathan as the solution to the mechanistic state. Here, Schmitt’s preference for myth sends warnings. Schmitt’s (and Strauss’s) criticisms of Hobbes’ proto-liberalism in his right of resistance reveal their preferred vision of humanity as ‘needed to be ruled’. While concerned with the state as Moloch, particularly if it was seized by the communists, Schmitt was more concerned with the liberal undermining of the state’s capacity for collective protective violence, to defend itself from the enemy ‘when the organizations of individual freedom were used like knives by anti-individualistic forces to cut up leviathan and divide his flesh among themselves’. Schmitt tried to articulate another Leviathan that reconnected myth with the fear of death, and found it – at least from 1933 to 1938 – in the National Socialist state.

Remembering Schmitt’s problematic involvement with the Nazi regime reminds of its horrors, wars and deaths. Nevertheless, the liberal aversion to speaking about sovereignty prevented an appreciation of death within legal theory. John Austin spoke of commands backed by threats, but did not dwell on the necessary consequences of disobedience, beyond a fairly unspecific ‘evil’. H.L.A. Hart, could only speak of this through agricultural metaphors when he suggested that a society composed solely of subjects whose obedience to law is secured by external force would be ‘deplorably sheeplike; the sheep might end up in the slaughter house’. Lon L. Fuller, like Kelsen, tried to get around the necessity for death in sovereignty through excluding such

291 Schmitt (1938), p 95.
292 Schmitt (1938), p 74.
elemental violence from the study of law,\textsuperscript{296} an approach that was continued with the interpretative turn in jurisprudence and Ronald Dworkin’s account of law as a rational Herculean activity of best fit.\textsuperscript{297} It took the reception of another Weimar intellectual, a correspondent with Schmitt\textsuperscript{298} but from a radically different political and religious tradition – Walter Benjamin – for a more thoughtful engagement with death. Through what has become an iconic text of ‘postmodern or deconstructive’ jurisprudence,\textsuperscript{299} Jacques Derrida introduced Benjamin’s ‘Critique of Violence’ (1921) to Anglo-American jurisprudence.\textsuperscript{300} Via Derrida, Benjamin reminded jurisprudence that legal order was founded on two violences: the violence that finds, and the violence that preserves the law.\textsuperscript{301} Both become indistinguishable in the modern apparatus of the police state. The shared commonality of both founding and preserving violence is as species of ‘mythic violence’, as opposed to ‘divine violence’, and the defining characteristic is the need for blood.\textsuperscript{302} In Benjamin’s words:

Mythical violence is bloody power over mere life for its own sake, divine violence pure power over all life for the sake of the living. The first demands sacrifice, the second accepts it.\textsuperscript{303}

It is tempting to locate Benjamin’s essay within his life, and to consider, in his suicide on the Spanish border in 1940 while fleeing occupied France, that the text was a response to the Nazi state. However, ‘Critique of Violence’, dated 1921, anticipated

\begin{footnotesize}
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\item \textsuperscript{296} Fuller (1969), p 110
\item \textsuperscript{297} Dworkin (1977), pp 105–123. The absence of death in Dworkin clearly brought out by Cover (1986).
\item \textsuperscript{298} Weber (1992); Agamben (2005), pp 52–64.
\item \textsuperscript{299} Davies (2008), p 377; Douzinas and Gearey (2005), p 70.
\item \textsuperscript{300} Benjamin (1978); Agamben (2005), p 37.
\item \textsuperscript{301} Derrida (1992), pp 35–40; Douzinas (2007), p 252.
\item \textsuperscript{302} Derrida (1992), pp 42–45, 52.
\item \textsuperscript{303} Benjamin (1978), p 297.
\end{itemize}
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rather than ‘witnessed’ the bloody machinations of Nazism. Giorgio Agamben, drawing upon Schmitt and Benjamin, does attempt to construct a juridical account of Nazism’s signature excess: the concentration camp. For Agamben, the camp is not to be understood as just an evil, the tragic production of madmen, but rather is a manifestation of the perfection of modern sovereignty in the West. In Benjamin’s terms, sovereignty demands ‘bloody power over mere life for its own sake’. The camp makes explicit that the ultimate fact of sovereignty is violent power over bare life, the very physical bodies of subjects. Agamben shows that, in the brute existence of sovereignty, the human becomes an animal: a material substance to be used and consumed. The fear of death that was the basic commitment on to which Hobbes erected his mythic Leviathan is revealed in the camp as dependent on something more basic. In order to fear Leviathan, the sovereign must have capacity to deliver on its promise: it must bring death. In essence, it is not Leviathan the sea serpent that all but God fears; nor is it Behemoth, Hobbes’ code for the state of nature; nor is it a Golem, an animation of lifeless matter; nor is it a Moloch, with the connotation of complicated, ritual sacrifice. It is something more primal. To raid, like Herbert and Schmitt did, kabbalah mythology, the more appropriate deification of modern sovereignty would be the Angel of Death – Samael.

Herbert, unlike contemporary legal theory, does not need the continental philosophic supplement to reveal that death is the sovereign’s being. This is what he shows in Dune. Paul becomes sovereign through learning how to kill. O’Reilly suggests

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308 While the sources are many, most accounts have Samael in two related, yet different manifestations: as the faithful servant of God who brings death and also a demon closer to Satan of the New Testament who was the serpent in Genesis. Unifying the representations is Samael as bringer of death. See Jung (1925); Dan (1980).
that in *Dune* Paul learns that: ‘Death comes easily, and one must be willing to take life easily.’\(^{309}\) This is the importance of the Jamis. Taking Jamis’s life is Paul’s confirmation on the road to sovereignty. Paul is innocent of all the deaths that surround him up to that moment; he saves Shadout Mapes from the hunter-seeker.\(^{310}\) However, after Jamis Paul is responsible for death: directly as the wielder of the ‘point [that] slid home into his [Feyd-Raytha’s] brain\(^{311}\) and indirectly as warlord leader of the Fremans. The play on the Janis is possibly deliberate: Jamis looks back to Paul the human boy, subject to the vagrancies of the universe and forward to Paul the sovereign, maker of worlds and killer of humans. Looking forward further, Leto II is represented as Samael, particularly in the Gnostic image of Samael as a lion-headed serpent.\(^{312}\) Leto II brings death. Beyond claims to predator status, Herbert has Leto killing or threatening to kill throughout the text. He crushes the aged Duncan Idaho,\(^{313}\) he orders the execution of the Corrino heir,\(^{314}\) he runs over Face Dancer assassins with his cart,\(^{315}\) he discloses he had killed one of Hwi Noree’s ancestors,\(^{316}\) he threatens to crush the Ixian civilisation,\(^{317}\) he threatens to kill Reverend Mother Luyseyal, he enters the fray outside the Ixian embassy as a ‘terrible death-machine’,\(^{318}\) and he ‘orders’ his major domo Moneo to kill the ex-ambassador from Ix, and the brains behind the complicated plot against him, Malky.\(^{319}\) In between, various

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310 Herbert (1965), p 69.
311 Herbert (1965), p 461.
312 Davies (1980). Helped in addition, albeit cryptically, by Samael’s status as guardian angel of Rome and Leto’s curse on the Romans to have infected humanity with the curse of government. Herbert (1981), p 42.
316 Herbert (1981), p 158.
other characters comment on Leto II’s killing.\textsuperscript{320} Leto II emerges from the text as a death-bound figure, from descriptions of his underground lair as a mausoleum\textsuperscript{321} holding the ‘the water, the bones and dust of his ancestors and of the Atreides who had lived and died since the Dune time’,\textsuperscript{322} to the awed Fish Speaker description of his involvement in the embassy skirmish: ‘he flew down from above them and executed a terrible slaughter among the sinners’.\textsuperscript{323} Leto II does ‘not play hide-and-seek with death’.\textsuperscript{324} His reflections on death are obsessive:

‘Don’t you understand about death?’ [Leto II] asked. ‘You must understand.
The species must understand. All life must understand.’

‘Help me, Lord,’ she whispered.

‘It is the most profound experience of any creature,’ he said.\textsuperscript{325}

In Leto II, Herbert shows what sovereignty must do: it must kill. This is a truth that Hobbes and also Schmitt obscured. This means that the plastic law of modernity, the law radiating from the sovereign, is grounded on death. Herbert has Paul anticipating this realisation:

The convoluted wording of legalisms grew up around the necessity to hide from ourselves the violence we intend toward each other. Between depriving a man of one hour of his life and depriving him of his life there exists only a difference of degree. You have done violence to him, consumed his energy. Elaborate euphemisms may conceal your intent to kill, but behind any use of

\textsuperscript{320} Herbert (1981), pp 17, 39, 64, 204, 308, 318. 323, 388.
\textsuperscript{321} Herbert (1981), p 37.
\textsuperscript{322} Herbert (1981), p 19.
\textsuperscript{323} Herbert (1981), p 289.
\textsuperscript{324} Herbert (1981), p 234.
\textsuperscript{325} Herbert (1981), p 256.
power over another the ultimate assumption remains: ‘I feed on your energy.’

However, this is not the end of Dune as technical legality. Dune not only shows the commitment of death on which modern sovereignty and law are erected, but it shows the other essential ‘ground’ – time.

**Time**

It is surprising that the received literature on Dune does not make more of Herbert’s clear preoccupation with time throughout the series. First, Herbert plays with what could be called ‘epoch time’, the meta-timescale of civilisations. The events in Dune occur 10,000 years after the formation of the Empire in the aftermath of the Butlerian Jihad, which in turn was the culmination of thousands of years of machine age that stretched back to the twentieth century. Book I and II of *Dune* unfold chronologically, yet Book III leaps three years into the future, while *Dune Messiah* occurs seventeen years later. *Children of Dune* jumps another seven, leading to the 3500-year fast-forward to the end of Leto II’s reign in *God Emperor of Dune*, and 2000 years of famine, scattering and revival until the events of the final two books. Second, there is the phenomenon shared by the Atreides and the Bene Gesserit Reverend Mothers of ‘remembering’ past lives. Here the past is animated in the character’s present. Finally, there is Paul’s and Leto II’s faculty of prescience, shared in a lesser way with the Guild Navigators, that renders futures in the present. This emphasis on time is reaffirmed in Herbert’s many asides, pontificating and gesturing about time – especially surrounding Paul and Leto II. Paul’s first forays into his exceptional being are described as:

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Awareness flowed into that timeless stratum where he could view time, sensing the available paths, the winds of future ... the winds of the past: the one-eye vision of the past, the one-eye vision of the present and the one-eye vision of the future—all combined in a tri-ocular vision that permitted him to see time-become-space.\textsuperscript{328}

In a similar – although more pompous – vein, Leto II tries to explain his being:

‘Very well,’ he sighed. ‘First, as to Time: There is no difference between ten thousand years and one year; no difference between one hundred years and a heartbeat. No difference. That is the first fact about Time. And the second fact: the entire universe with all of its Time is within me.’\textsuperscript{329}

In Dune, Herbert can be seen playing with time – both timescales and the personal experience of time.

Louis E. Wolcher has recently written about the essence of time for law. He suggests that the West imagines time in two ways. The first is the timescale, which is the formal progression of time as a linear series of events (‘Past→Present→Future’), each a known space through which objects move.\textsuperscript{330} The plotting of events of Herbert’s future-universe represents this image of time. The second is existential time, the experience of beings living in the present. Here, past and future do not occupy known space (points on a line), but ‘the future as the wellspring of an unseen force that ceaselessly renews and surrounds the present, continually pushing the past into oblivion over the horizon of the now’.\textsuperscript{331} Wolcher represents this as (‘Future→PRESENT→Past’).\textsuperscript{332} In Dune, this is the

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\begin{itemize}
  \item \textsuperscript{328} Herbert (1965), p 281.
  \item \textsuperscript{329} Herbert (1976), p 95.
  \item \textsuperscript{330} Wolcher (2008), p 213.
  \item \textsuperscript{331} Wolcher (2008), p 213.
\end{itemize}
Freman’s life before the Atreides, with the immediate concerns of weather, spice, Harkonnen patrols and dreams of a green Arrakis that fade into distant recollections of past injustices and planetary migrations. Wolcher’s examination of time ends, in an attempt at synthesis, through Martin Heidegger and Kafka’s Er(He) (1920) of a (possibly quite unremarkable) Western truth about time ‘that time is not an objective property or determination of things in themselves, but rather a medium or mode of ordering which finds it true home only in the context of human experience’.333 There are moments in Dune when time is experienced in a human context. Leto II comments that: ‘Time runs out for a finite observer. There are no closed systems. Even I only stretch the finite matrix.’334 And later says: ‘Sometimes, time rushes by me; sometimes, it creeps.’335 However, Leto II is not human; Herbert even has him declaring himself ‘the ultimate alien’.336 He is sovereign and, as with the revelation of death for sovereignty, Dune tells something about the relationship of sovereignty to time.

Hobbes’ sovereign was to maintain peace. Killing was the basic tool within the sovereign’s peace-keeping arsenal. However, the sovereign, remaining in the state of nature, possessed the baseline rationality that is the natural inheritance of humanity.337 Inherent in this rationality is an assigning of temporal mastery. It involves thinking about the future and taking active steps in the present to achieve future goals. This ‘prudence’,338 to use Hobbes’ term, is a function of a thinking being in time: ‘prudence

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332  Wolcher (2008), p 213. The faded past and the future is in the original.
333  Wolcher (2008), p 216.
334  Herbert (1981), p 70.
338  Hobbes (2008), pp 12, 44.
is a *presumption* of the *future* contracted from the *experience* of *past* time*. Hobbes maps the constituents of reason – projection of future events based on reflection, or ‘*experience*’, of past events. A clearer awareness that modern reason emanates from time is one of Heidegger’s gifts to the West. However, it is a gift that has yet to be appreciated by legal theory. That law is grounded on time appears a truism. Legal practice is dominated by time: limitations, sentences, court dates, appointments, billable hours. Jurisprudence talks excessively about time, but not about Being in time. The common law speaks to history, custom and a notion of continuity with the past. Positivism – as critics like Dworkin reveal clearly – involved a succession of law-making events located in an institutionalised history. In response, the interpretative jurisprudence of Dworkin focuses on legal decision-making in the present, while deconstructive replies to the interpretative project speak of the future. Yet, beyond recognition of the temporality of law, how law and time interpose has yet to adequately be theorised.

Dune opens the ground for theorisation of time and sovereignty. In particular, Dune shows that sovereignty involves a different relationship with time then either the linear or experiential times summarised by Wolcher or his Heidegger/Kafka-informed claim that time is human experience. The sovereign has to be prudent in a way that the human subject does not. Humans fear for their own in the state of nature, a fear based on the immediacy of violence of the war of all against all. However, the sovereign is

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responsible for all the subjects of the commonwealth and must, ‘prince like’, sort ‘friends’ from ‘enemies’ and also deal with internal sedition. The sovereign must, in Dune-speak, deal with ‘[f]eints within feints within feints’ of a civilised War of Assassins.\textsuperscript{347} He must deal with the double and triple-speak of ambitious power groups at banquet.\textsuperscript{348} The sovereign must ensure that the spice flows. In short, the sovereign’s prudence involves making decisions within a much more complicated tangle of activities and projects than either the human in the state of nature or the human who has been freed by the social contract to get on with ‘peace and profit’.\textsuperscript{349} The sovereign requires, to use Herbert’s phrase, ‘a tri-ocular vision’\textsuperscript{350} of past, present and future. He must imagine futures based on a reasoned appreciation of how activities of the present can be understood as unfolding. Its vision must be beyond that of a mere human. Here Herbert’s Atreides animate this time mastery of sovereignty. They directly embody the ‘experience’ of the past, the memory of countless ancestors and they ‘sampled the time-winds’\textsuperscript{351} of the future. As the Machiavelli and ecology reading of the Atreides emphasise, they have the capacity to appreciate consequences, at least better than their rivals, within the complex systems that they master.

Here, time and sovereignty suggest that the sovereign is atemporal – outside time – looking down as God, or at least Samael, at the unfolding of the world. This is exactly why Hobbes described Leviathan as a god. Herbert confirms as much when Leto II greets his father in such terms – “You are the \textit{fihaquiqa}, The Reality. You are Abu Dhur,
Father of the Indefinite Roads of Time.”

However, Hobbes’ deification of the sovereign is partial: his famous phrase is ‘mortal god’ and the adjective ‘mortal’ makes a profound difference. While being sovereign – killing in the name of peace or, more mundanely, making positive law for technological futures – involves a striving towards timelessness, Hobbes specifies that sovereignty lives within time. It is mortal and can die. It is the death of the sovereign that rallied Hobbes, and also Schmitt nearly three centuries later, to raise their pens in sovereignty’s defence. Hobbes’ sovereign has birth in the social contract and remains vulnerable to political pathogens. Leviathan can be consumed by a bigger leviathan or torn apart by behemoth. Ultimately, Paul dies – ironically stabbed by one of his own priests – and Leto II disintegrates after his plunge into the Idaho river; his animal selves disappear – his sandtrout skin burrows to encase the water, and the pre-worm body ‘slough[ed] away’ leaving a pathetic remanent of bone and flesh. Here sovereignty is in history. The sovereign’s acts are not timeless. The sovereign is not located, as in pre-modern orders, in a mythic time of creation – God in Genesis – but merges with lived time to be an ever-present possibility.

Further, the sovereign is not just in history, but becomes the author of history. The past as experience needs to be known and ordered, made useful to the present. Here, Herbert is insightful. The past, represented as the cellular ancestral memory, is perceived as a dangerous thing. It is feared that the ‘pre-born’ would be an ‘abomination’ because an ancestor’s memory would dominate, demonstrated by the Baron’s possession of Alia. The first task that Paul and Leto II undertake on their road to sovereignty is master their

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352 Herbert (1976), p 320.
memorial inheritance: they order the past into something useful, into history. Derrida regarded this ability to create history in present time as a critical element of modernity, giving it the name ‘white mythology’. The phrase plays on ambiguities. ‘White’ is used in two ways: it is a white mythology because it belongs to the West; and it is white because it is a colourless myth. In merging mythic and lived time, the colour and poetry of the creation stories of pre-modernity are lost. Creation becomes a bland task of the sovereign’s officers, writing dates and decrees on white paper.

Thus sovereignty possesses, to use Costas Douzinas’s phrase, ‘a dual time’. In being sovereign, it must be timeless, outside time looking at past, present and future with a tri-ocular vision. Yet sovereignty remains time bound, experiencing linear time, and with that birth and death and an immediate present that becomes more than past, it becomes history. In animating sovereignty in the Atreides, Herbert reveals this complicated relationship of sovereignty to time. However, there is a shared character to the sovereign’s dual time. Herbert’s sovereigns do not know the future: they can see more than mere humans but total prediction elude them. In this, they remain future-focused, facing a universe that has escaped control. Similarly, their linear temporal existence opens to an unknown future – both Paul and Leto II fail to foresee the moment of their death. This discloses something about sovereignty and time. To be sovereign is to be future orientated. The sovereign does not write timescale, he makes timescales; nor does the sovereign experience the present as a ‘human experience’, he decides the limits on what subjects experience. The sovereign forever sifts the ‘time-winds’, predicting,

360 Herbert (1981), p 21 Leto II: ‘Absolute prediction which equals death to me.’
anticipating, responding, deciding and ultimately killing for the future. To rework Wolcher’s syntax images of time, sovereign time as revealed through Dune is ‘FUTURE←past+present’.

**Decisionism**

In summary, Dune reveals sovereignty emerging from the alchemy of death and time. Herbert’s texts are not entirely about messiahs, Machiavelli, ecology or Western Buddhism, as documented in the received scholarship. Drawing upon the meta-theme of failure to control, Dune as technical legality has been revealed as a detailed rumination on the existence of sovereignty and, beyond that, how sovereignty is constituted in the alchemy of death and time. Leviathan – or more correctly Samael – kills for the future. The figure that looms throughout the texts, behind Herbert’s veneer of religion, political manipulation, ecology and self-care, is the sovereign. Dune as technical legality does not form a speculative jurisdiction for a law and technology enterprise narration of what law should do with an emergent technology,\(^{361}\) nor does it articulate the mythform that informed a specific, historical legal engagement with technology. Instead, it reveals the essential commitments of law as technology – a desire for decisions that transform a potential, formless legality, a raw power over bare life – into structures that facilitate certain ways of life within a preferred technological future.

Dune therefore achieves two things. First, in its allusions to Hobbes, it thinks the residual on the event horizon of the black hole that was the Frankenstein myth; law as technology is stripped of its mundane technicality and seen as the monster that it is – a

\(^{361}\) Unlike *Frankenstein*, *Brave New World* or even *Snow Crash*, *Dune* does not appear as speculative jurisdiction in the JOLTS. One exception is Kayser on virtual-worlds, who epigraphs her article on virtual-worlds with the Bene Gesserit maxim that opens *Dune*: ‘A beginning is the time for taking the most delicate care that the balances are correct.’ Kayser (2006), p 59, Herbert (1965), p 9.
creature of death and time. The second is the Schmittian ‘solution’ to technological law in the ‘representative’ sovereign – the sovereign that represents the people as an organic whole, as the People, in the making of decisions. Instead of hiding the sovereign decision within constitutions, rights and process, Schmitt celebrated the deciding sovereign, famously in the catchphrase that the sovereign decides the exception.\textsuperscript{362} Schmitt’s sovereign decides when emergencies require the normal legal system to be negated. As an exposé of sovereignty, there is much in Dune that speaks to Schmitt’s representative and deciding sovereign. The Atreides are very keen to embody their people – whether it is Paul and the Freman, or Leto II and the multitude of his Empire. They, notwithstanding Paul’s cynicism or Leto II’s hubris, style themselves as the representatives of the multitude as a political unity. Further, Herbert’s Atreides are full of decisions that negate law. Paul’s career in \textit{Dune} amounts to a sustained exercised in law-breaking.\textsuperscript{363} He breaks the Freman law on political leadership by refusing to challenge Stilgar; he ‘finely’ negotiates the Great Convention’s prohibition on atomics; he negates the Imperial law of succession to place himself on the throne; and in \textit{Dune Messiah}, he decides to ignore Freman laws on the blind\textsuperscript{364} and, even when he does succumb and march into the desert, he avoids the law of death. Leto II negates accepted laws of marriage to revive the pharaohical practice in marrying his sister.\textsuperscript{365} In usual Herbert style, just so this message is not missed, this deciding action is glossed by exegesis: ‘Arrakis teaches the attitude of the knife-chopping off what’s incomplete and saying: ‘Now, it’s complete because it’s

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\textsuperscript{362} Schmitt (1922), p 5.
\textsuperscript{363} Barton-Kriese (1993), pp 211-212.
\textsuperscript{364} Herbert (1969), p 163.
\textsuperscript{365} Herbert (1976), p 379.
\end{minipage}
ended here,’ declares an epigram in *Dune*.\textsuperscript{366} Farad’n Corrino, Leto II’s rival for the throne in *Children of Dune*, remarks that: ‘Arrakis [is] a training ground for hard decisions.’\textsuperscript{367} And Leto II, discussing his favourite topic – himself – observes: ‘I can play at being callous and I can make the necessary decisions, even decisions which kill, but I cannot escape the suffering.’\textsuperscript{368}

Leto II’s linking of decision, killing and suffering points to the limit of Dune as technical legality. Herbert’s metaphysical register on the essence of sovereignty means that once Paul and also Jessica are off-stage, what is left is desert – a fairly dry palace drama of tyrants and super-humans. The engaging connection with humanity that both embody – youth coming of age, a mother coping with life’s vagrancies – is lost. This is performative of sovereignty – that it comes from humanity to be something animal and alien. Indeed, it becomes a 7 metre-long worm with human hands and face. What is left undone in Dune is how bare life is lived in the shadow of Samael, and the two monsters that are one: technology and law. In this demonic age, is Being still worth being? This is the essential question left by the implosion of Frankenstein myth. The next chapter crafts a response to this question through looking a text whose core revolves around ‘just’ living in the midst of decision, killing and suffering – *Battlestar Galactica*. 

\textsuperscript{366} Herbert (1965), p 166.
\textsuperscript{367} Herbert (1976), p 186.
\textsuperscript{368} Herbert (1976), p 313.
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Battlestar Galactica as Technical Legality

Fraking Toasters!

– Common exclamation, Battlestar Galactica, 2003–10

The monomyth climaxes with the ultimate struggle between the ‘terrible father’ and the hero.\(^1\) In overcoming the challenge, the hero learns about self and can return changed and triumphant to the world of becoming.\(^2\) This chapter is the climax of this thesis, but the ‘victory’ is not monomythical, for realms of Being and becoming merge. This chapter therefore continues the ontological examination of technical legality, through a detailed analysis of the Science Fiction Channel’s recent Battlestar Galactica (2003–2010)\(^3\) series. It is argued that Battlestar Galactica shows that technology collapses the received Western metaphysics, but this collapse is not the black hole-like implosion that marked the Frankenstein myth. Battlestar Galactica affirms that Being continues, but that Being gives way to technological Being-in-the-world. This chapter ends with this express preference for Haraway over Heidegger, through free responsibility for becoming opening to confidence with myth.

This argument is presented in two sections. The first section locates Battlestar Galactica, exploring its thematics and basic narrative arc. It then takes seriously the invitation of Schmitt and decisionism that closed Chapter 6, but shows that Battlestar

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1 Campbell (1968), pp 126–149.  
2 Campbell (1968), p 229.  
3 Rymer, Battlestar Galactica Mini-series: Battlestar Galactica (Sci Fi Channel/NBC Universal, 8–9 December 2003); Olmos, The Plan: Battlestar Galactica (Sci Fi Channel/NBC Universal, 10 January 2010).
*Galactica* does not just re-enact science fiction’s tendency to fascist fantasies.⁴ In *Battlestar Galactica*’s identification of sovereign and subject, the public becomes the personal. This movement away from the public to identity, however, is not complete. Behind the show’s animation of identity lies the now familiar monster, but in an unfamiliar environment. Closing the first section is the fundamental realisation glimpsed in Chapter 4 that in modernity the personal, threatened by essence, discloses the technical.

The second section draws upon these strands. *Battlestar Galactica* rethinks the metaphysics of technology. Unlike *Star Trek: Nemesis*, in *Battlestar Galactica* the distinction between essence and artefact has been completely blurred. Here *Battlestar Galactica* seemingly performs the ‘end’ of Western metaphysics in the occupation of Being by Enframing. This climax appears to mark the triumph of the monster. However, in this very defeat lies redemption. *Battlestar Galactica*, in its apocalyptic sensibilities, suggests that living remains after the end. The occupation of Being by Enframing can lead to technological Being-in-the world, which leads to affirming life and myth.

1. Sovereigns and Subjects in *Battlestar Galactica*

This section resembles the second section from Chapter 6 in that it engages with the thematics that critics have readily seen in *Battlestar Galactica*. The obvious politics of the show provide an opportunity to engage directly with Carl Schmitt, who has been the ‘wizen man’⁵ of this thesis. However, placing *Battlestar Galactica* in direct engagement with the theorist of the exception reveals a limit in Schmitt: the infection of the public by

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⁴ Roberts (2006).
⁵ Campbell (1968), p 69.
the private. This turns to another thematic readily identified in *Battlestar Galactica*: identity. *Battlestar Galactica* confounds a progressive liberal reading, just as it confounded Schmitt’s illiberalism. In the show’s animation of the anxieties of identity, there can be seen a monstrous residual of essence and technicality. But before these thematics can be explored, an overview of *Battlestar Galactica* is required.

**Space Ships, Killer Robots and the End of Worlds**

Any analysis of *Battlestar Galactica* must begin with the original television series of the same name. The original series had a short run of seventeen episodes during 1978 and 1979 with a dismal spin off, *Galactic 1980* (1980), which lasted for ten one-hour episodes. Critics condemned the original series as a cheesy *Star Wars* rip-off, a point taken up by George Lucas who commenced proceedings. In contrast, the reimagined series ran for four seasons, comprising a mini-series/pilot (2003), a thirteen-episode first season (2005), a twenty-episode second season (2005–06), a twenty-episode third

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10 *Twentieth Century-Fox Film Corp v MCA, Inc* 715 F.2d 1327 (9th Cir. 1983); Hughes (1999), p 950.
series (2006–07)\textsuperscript{14} and a twenty-two-episode final fourth series (2007–09),\textsuperscript{15} which included the telemovie \textit{Razor} (2007)\textsuperscript{16} and a stand-alone telemovie \textit{The Plan} (2010).\textsuperscript{17} It was a ratings and critical success,\textsuperscript{18} inspiring a prequel spin-off, \textit{Caprica} (2010– ).\textsuperscript{19} Unlike its predecessor, the new series also received widespread mainstream acclaim, being ranked as the top television series by \textit{Time Magazine} for 2005.\textsuperscript{20}

The basic framework of \textit{Battlestar Galactica} remains faithful to Glen A. Larson’s original, with images and narratives from post-apocalyptic science fiction mixed with space opera. The post-apocalyptic elements form the backbone of the story; H.G. Wells’ \textit{War of the Worlds} is there in its mega text. Human society lived in a federation of ‘colonies’ on twelve planets. All the colonies are destroyed in a sudden attack, leaving a band of refugees to form a ‘ragtag fleet’ of spaceships led by the sole surviving battleship/aircraft carrier, the Battlestar \textit{Galactica}.\textsuperscript{21} The surrounding imagery is space operatic. The destructive enemy are malignant robots, the Cylons. The backdrops are planets, stars and mile-long spaceships, offering plenty of scope for \textit{Star Wars}-style space combat action.\textsuperscript{22} There are top-gun pilots with attitude straight from the pages of Robert

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    \item \textsuperscript{14} Mimica-Gezzan, \textit{Occupation: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 6 October 2006); Rymer, \textit{Crossroads Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 25 March 2007).
    \item \textsuperscript{15} Rymer, \textit{Daybreak Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 20 March 2009).
    \item \textsuperscript{16} Alcalá, \textit{Razor: Battlestar Galactica} (Sci Fi Channel/Universal Studios Home Entertainment, 24 November 2007).
    \item \textsuperscript{17} Olmos, \textit{The Plan: Battlestar Galactica} (Sci Fi Channel/ NBC Universal, 10 January 2010).
    \item \textsuperscript{18} Dempsey ‘Sci Fi’s ‘Battlestar’ Shines Brightly’, \textit{Variety}, 11–17 April 2005, p 18; On critical fronts, there are three edited volumes devoted to the reimagined \textit{Battlestar Galactica}: see Eberl (2008); Potter and Marshall (2008); Hatch (2006).
    \item \textsuperscript{20} Poniewozik (2005).
    \item \textsuperscript{21} Sontag (2004), pp 40–47.
    \item \textsuperscript{22} See Woolnough, \textit{The Hand of God: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 11 March 2005); Nankin, \textit{Scar: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 3 February 2006); Nankin, \textit{The Passage: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 8 December 2006).
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A. Heinlein. And the initial myth that these refugee humans are in search of the thirteenth tribe of humanity on the lost planet of Earth conjures Erich Von Däniken’s ‘God is an Astronaut’ pop archaeology.

However, the reimagined *Battlestar Galactica* modifies these basics. Foremost, the Cylons are not the dim-witted, oscillating red-eye robots that they were in the original. While there are some Cylons – denigrated as ‘toasters’ by the humans – that resemble the shiny chrome originals, the reimagined series adds two twists. The first is the *Frankenstein*, but more precisely Karel Čapek’s idiom-forming *R.U.R.* (1923) twist that the Cylons are humankind’s own rebelled creations. The second is that the Cylons have ‘evolved’ new organic humanoid models, termed ‘skin jobs’ by the humans in an obvious borrow from *Blade Runner*. Stylistically, the two series are very different. The original presented Loren Greene’s ‘Moses’-style leader of Commander William Adama leading, to the rallying sounds of an orchestral score, a futuristic humanity from the brightly lit bridge of his spaceship. In contrast, the reimagined *Galactica* is a brooding ribbed beast, an old warship constructed 50 years earlier. Its poxed exterior mirrors the new Adama’s (portrayed by *Blade Runner* alumni Edward James Olmos) marked face. Its interior lacks the techno-lavish aesthetics usually associated with television spaceships. The *Galactica* is no *Enterprise*. Designed to fight an enemy that infected computer networks, its grey interior resembles a World War II military vessel with manual airlocks.

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24 On Larson’s debt to Von Däniken, see Muir (1999), p 5.
26 True fans of the original will point out that ‘humanoid’, evolved Cylons were in *Galactica 1980*: see Neufeld Jr, *The Night the Cylons Landed: Galactica 1980* (American Broadcasting Corporation/Universal Studios, 13 April 1980).
28 Ronald D. Moore, who was the chief creator of the reimagined series, was a long-term writer for the *Star Trek* franchise, and purposely conceived much of the aesthetics as a contrast to *Star Trek*: see Casey (2008), p 242; Everett (2008), p 192.
paper correspondence and a scurrying crew.\textsuperscript{29} In this universe, there are no lasers or advanced medical cures; spaceships shoot bullets, cancer kills after a long, painful decline, old equipment breaks down, and the weapons of mass destruction are nuclear bombs. Bear McCreary’s musical score is low key, featuring compositions by Philip Glass, Celtic chants, ethnic drumming and Bob Dylan’s cryptic ‘All Along the Watchtower’.\textsuperscript{30} The space battles are a quiet chaos of movement and explosions overlaid by the garbled radio communication of pilots swearing (the oft-heard ‘Frak/Fraking’), chimed with soft ethereal laments. Finally, the production values between the old and new diverge. The new series has a documentary style, hand-held cameras, rapid oscillations between characters and space battles where the camera itself is caught and flung about unable to track and zoom in on the action – all very unlike the sound stage scenes and static model spaceship shots of the original.

All this follows creator Ronald D. Moore’s desire that the new series takes the ‘opera out of space opera’.\textsuperscript{31} This is manifested in the inclusion of strong female characters, a challenge to the traditional sexism of the genre.\textsuperscript{32} Complicating Adama’s leadership of humanity is Laura Roslin (Mary McDonnell), the Education Secretary who is elevated to ‘President of the Twelve Colonies’ when the 42 higher-ranked members of the executive die in the Cylon attack. Also, much to the consternation of fans of the original,\textsuperscript{33} the charismatic swashbuckling hero character of Lieutenant Kara ‘Starbuck’ Thrace is a woman (Katee Sackhoff). So too the pilot, Lieutenant Sharon ‘Boomer’

\textsuperscript{29} Rymer, \textit{Battlestar Galactica Mini-series: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 8–9 December 2003).
\textsuperscript{30} On the score and sound effects in \textit{Battlestar Galactica}, see Papanikolaou (2008).
\textsuperscript{33} Dirk Benedict, the actor who originally played Starbuck, also was unimpressed: see Benedict (2004). On Benedict’s comments, see Kungl (2008).
Valerii (Grace Park), changes gender and is revealed as a Cylon (Number Eight). While the other major characters retain their gender from the original, they are presented in significantly more complex ways. Captain Lee ‘Apollo’ Adama (Jamie Bamber), Adama’s surviving son and *Galactica*’s chief pilot, is not the all-American hero of Richard Hatch’s original; indeed, Bamber is English. Even Richard Hatch returns, in a piece of brilliant casting, as the political prisoner and sometime Vice-President, Tom Zarek. Nor is Dr Gaius Baltar (James Callis) the outright human traitor personally commanding the Cylons in their genocide that he was in the original. 34 Instead, he begins the series as a lascivious, self-serving civilian scientist who worked for the Colonial military, and whose intimate cavorting with a Number Six Cylon (the blonde and leggy ‘Caprica Six’, played by Tricia Helfer) allowed the Cylons to infiltrate the human defences, facilitating the attack.

One element developed by Moore (and co-creator David Eick) was the religious elements that were part of the original series. 35 For critics, the one redeeming feature of the original was its borrowing from classical, Old Testament and Mormon mythology. 36 However, unlike the original, where Colonial society was a militant theocracy (Adama was military leader, religious leader and political leader), 37 in the new series the human civilisation of the ‘Twelve Colonies’ appears pluralistic, secular and remarkably similar to contemporary society. The cityscape of the planet Caprica, the capital of the colonies, possesses the familiar high-rise office blocks, Greco-roman public buildings and river

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promenades of a Western metropolis (Vancouver, to be precise), although there are hints that not all planets share this Western-style affluence. At the level of interplanetary government, the humans appear to enjoy a democracy with the features of liberal constitutionalism, including civilian control of the military. Religion is not a dominate feature, although some planets are ‘bible belts’. And when religion is involved, it is the pluralism of the Hellenistic pantheon that calls the humans’ devotion. In contrast to this liberal secular pluralism, the Cylon occupation of Caprica shows a hive of identical-looking duplicates going through the motions of being human, referencing the uncanny horrors of the clone canon. This sameness is reflected in the Cylons’ initial zealous monotheism, justifying their destruction of humanity as ‘God’s will’ to impose a divine sanction on the blasphemous and decadent humans.

As with the complexity of Dune, a full summary of *Battlestar Galactica’s* four seasons is difficult, although a touch of the monomyth can be discerned. Core to the series narrative is the destabilising of certainties. However, a clear distinction can be made between the mini-series and the first two seasons, and later episodes. The first half of the series possessed a predominately political emphasis involving fleeing humans, hunting robots and an emphasis on the politics of survival. However, the occupation of

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38 Spawning a tourist industry of *Battlestar Galactica* locations, see Brooker (2007), 427.
41 Although Klassen suggests that the polytheism of the Colonials is not tolerant of diversity. See Klassen (2008), pp 360-361.
42 Woolnough, *Downloaded: Battlestar Galactica*, (Sci Fi Channel/ NBC Universal, United States of America, 24 February 2006).
43 Kukkonen (2008).
44 A point observed by Charles (2008), p 451.
the human settlement of New Caprica for the opening four episodes of Season 3 marked a changing set of identifications, with a movement from the political to the metaphysical for the rest of Season 3 as the fleet jumped through various astrophysical events chasing the legend of Earth. This metaphysical turn was cemented in the finale of Season 3, with Starbuck returning from the dead and the revelation that four characters, up until then seen so obviously as human, were ‘final Cylons’. Season 4 continued this destabilising of certainties and metaphysical turn with the Cylon’s civil war, the reception of rebel Cylons into the Colonial fleet, the discovery that the sought-after ‘thirteenth colony’ of Earth consisted of Cylons and the realisation that the Colonial and Cylon survivors become the ancestors of the humans-that-are-us.

However, even while the macro-thematics moved to the metaphysical in Seasons 3 and 4, this was not at the expense of the political, which continued throughout the series. The seemingly obvious coding of a religious-based ‘clash of civilisations’ in the early seasons of Battlestar Galactica allowed critics and fans alike to celebrate the series as an allegory of contemporary global politics. Indeed, this was Moore’s and Eick’s

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45 Mimica-Gezzan, Occupation: Battlestar Galactica (Sci Fi Channel/NBC Universal, 6 October 2006); Mimica-Gezzan, Precipice: Battlestar Galactica (Sci Fi Channel/NBC Universal, 6 October 2006); Alcalá, Exodus Part I: Battlestar Galactica (Sci Fi Channel/NBC Universal, 16 October 2006); Alcalá, Exodus Part II: Battlestar Galactica (Sci Fi Channel/NBC Universal, 23 October 2006).


49 Moore, Disquiet Follows My Soul: Battlestar Galactica (Sci Fi Channel/ NBC Universal, 23 January 2009).

50 Nankin, Sometimes a Great Notion: Battlestar Galactica (Sci Fi Channel/NBC Universal, 16 January 2009).

51 Rymer, Daybreak Part II: Battlestar Galactica (Sci Fi Channel/NBC Universal, 20 March 2009).

52 Huntington (1996).

53 On critical readings of Battlestar Galactica as post-9/11 science fiction see Ott (2008).
express aim,\textsuperscript{54} made clear in the existence of ‘sleeper’ skin job Cylons who were activated and caused terrorist attacks;\textsuperscript{55} in the corridors that became spontaneous shrines to the dead from the cataclysmic attack;\textsuperscript{56} and in the picture on the wall of \textit{Colonial One}, the President’s ship, of an image of the attack remarkably similar to the iconic firefighter and flag photograph from 9/11. Both the Cylons and the humans used suicide bombers.\textsuperscript{57} Further, there were individual episodes that involved torture of terrorist suspects,\textsuperscript{58} the use of sexual violence against enemy combatants,\textsuperscript{59} embedded press reporters,\textsuperscript{60} incompetence in office,\textsuperscript{61} reformed terrorists as politicians,\textsuperscript{62} ethically motivated murders,\textsuperscript{63} rigged elections,\textsuperscript{64} strikes,\textsuperscript{65} contemplation of the use of biological weapons\textsuperscript{66} and, as in \textit{Dune}, the use of fear and religion to galvanise populations.\textsuperscript{67} There were \textit{coup d’états},\textsuperscript{68} mutinies,\textsuperscript{69} occupation\textsuperscript{70} and resistance.\textsuperscript{71} Indeed, all these themes, coupled

\textsuperscript{54} Basson (2005), p 12.
\textsuperscript{55} Hardy, \textit{Litmus: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 11 February 2005).
\textsuperscript{56} Greene (2006), p 9.
\textsuperscript{57} Mimica-Gezzan, \textit{Precipice: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 6 October 2006).
\textsuperscript{59} Rymer, \textit{Pegasus: Battlestar Galactica} (Sci Fi Channel/ NBC Universal, 23 September 2005);
\textsuperscript{60} Verheiden, \textit{Final Cut: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 9 September 2005).
\textsuperscript{62} Pate, \textit{Colonial Day: Battlestar Galactica} (Sci Fi Channel/ NBC Universal, 18 March 2005).
\textsuperscript{63} Rymer, \textit{The Woman King: Battlestar Galactica} (Sci Fi Channel/ NBC Universal, 11 February 2007).
\textsuperscript{64} Rymer, \textit{Lay Down Your Burdens Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 10 March 2006).
\textsuperscript{66} Eagles, \textit{A Measure of Salvation: Battlestar Galactica}, (Sci Fi Channel/ NBC Universal, United States of America, 10 November 2006).
\textsuperscript{67} Hardy, \textit{The Farm: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 12 August 2005); Rymer, \textit{The Road Less Traveled: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 2 May 2008).
\textsuperscript{68} Rymer, \textit{Kobol’s Last Gleaming Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 1 April 2005).
with the continual tensions in the Colonial military, between elements within the civilian fleet, the politics within the Cylons, and reigning over it all the seemingly endless opportunism of Baltar, led one Battlestar Galactica commentator to describe the series as ‘the West Wing in space’. With this clear coding of politics, it is unsurprising that a politically focused secondary literature has emerged. Indeed, following the type of analysis done on Dune, Jason P. Blahuta has examined Battlestar Galactica in Machiavellian terms. Therefore, the place to begin is with the political, and particularly the politics of the exception in Carl Schmitt.

Schmitt in Space

Following MacNeil’s method of reading popular texts jurisprudentially, analysis of Battlestar Galactica as technical legality needs to begin with an acknowledgment that, as with Dune and science fiction generally, there seems to be little law in Battlestar Galactica. Early in the first season, Adama responds to a series of terrorist attacks aboard the Galactica by allowing an ‘independent tribunal’ to investigate. When the direction of that investigation leads back to Adama, he shuts it down. In another episode, viewers are never shown the working of the colonial military justice system that led to the death

70 Rymer, Lay Down Your Burdens Part II: Battlestar Galactica (Sci Fi Channel/NBC Universal, 10 March 2006).
71 Mimica-Gezzan, Occupation: Battlestar Galactica (Sci Fi Channel/NBC Universal, 6 October 2006); Mimica-Gezzan, Precipice: Battlestar Galactica (Sci Fi Channel/NBC Universal, 6 October 2006); Alcalá, Exodus Part I: Battlestar Galactica, (Sci Fi Channel/NBC Universal, 16 October 2006); Alcalá, Exodus Part II: Battlestar Galactica (Sci Fi Channel/NBC Universal, 23 October 2006).
73 See, for example, Johnston-Lewis (2008); Ott (2008); King and Hutnyk (2009); Hagelin (2007), Ip (2009), pp 64–72.
74 Mulcahy (1996); Minowitz (1997).
75 Blahuta (2008).
76 ‘Hardy, Litmus: Battlestar Galactica (Sci Fi Channel/NBC Universal, 11 February 2005).
sentence being imposed on two of *Galactica*’s crew.  

Of these episodes show scenes of individuals claiming the protection of rights and those claims being brushed aside. Starbuck justifies her torture of the Cylon Leoben Conoy/Number Two (Callum Keith Rennie) because, ‘It’s a machine, Sir, there are no limits to the tactics I can use.’

Talk of establishing a tribunal system in the Fleet through ‘Executive Order 112’ becomes clouded in politics between Roslin, Apollo and Zarek. At one point in Season 4, the rebel Cylons ask for extradition of the Cylon Boomer from *Galactica*, but action and politics prevent this transfer. There are occasional references to legal documents, the constitutional ‘Articles of Colonisation’ or the colonial military regulations, but the precise wordings and concepts are left unsaid.

The two representations of courts in the series – Baltar’s trial at the end of Season 3 and Adama’s trial by the mutineers in Season 4 – are both farce. Baltar’s trial for his actions as President when collaborating with the Cylons on New Caprica, unexpectedly given its ‘political show trial’ pretence, finds him not guilty. The court becomes a stage for airing of the recriminations from occupation, and Baltar’s ‘innocence’ is won not so much by the weight of evidence as through the skills of his

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80 Nankin, *Someone to Watch over Me Battlestar Galactica* (Sci Fi Channel/NBC Universal, 27 February 2009).
lawyer, Romo Lampkin (Mark Sheppard), in bringing the murky compromises of living and resisting occupation out into the open. Adama’s trial by the mutineers, with the chief mutineer Lieutenant Felix Gaeta (Alessandro Juliani) as prosecutor, and with his co-conspirator Tom Zarek as judge, is not a trial but a conclusion – even with Lampkin as defence attorney.\textsuperscript{84} In providing a lawyer as a character – admittedly a minor one – \textit{Battlestar Galactica} does go further than most science fictions in providing some substance for a law \textit{in} literature analysis. However, as was observed in Chapter 1, Lampkin is less a lawyer and more a knower of characters. Hiding his eyes behind sunglasses, Lampkin is portrayed as deeply flawed. He is a kleptomaniac, egotistical and cynical (‘Lampkin’s First Rule of Legal Dynamics: When an irresistible force meets a moveable object, stand aside and wait for the class action’)\textsuperscript{85} yet, against his better judgment, he is also empathetic and caring\textsuperscript{86} – traits that leave him as President of the Colonies in the ultimate finale.\textsuperscript{87}

So, notwithstanding that, when asking Adama to sign ‘writs of forfeiture for the ships he was borrowing’ to search for Roslin and the rebel Cylons in Season 4 Lampkin makes a cynical mention that ‘one of the less ennobling features of a legal culture, no one wants to take responsibility’,\textsuperscript{88} \textit{Battlestar Galactica} does not consistently show this legal culture ‘boarding a wagon train to the stars’.\textsuperscript{89} Nor does it present a ‘state of nature’, as

\begin{flushleft}
\textsuperscript{84} Rose, \textit{Blood on the Scales: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 6 February 2009).
\textsuperscript{85} Hardy, \textit{Sine Qua Non: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 27 May 2008).
\textsuperscript{86} Notwithstanding whinging, he cares for and about his deceased wife’s cat ‘Lance’ (Young, \textit{The Son Also Rises: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 11 March 2007); Hardy, \textit{Sine Qua Non: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 27 May 2008) and he helps Starbuck with a wounded Sam Anders (Michael Trucco) in Rose, \textit{Blood on the Scales: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 6 February 2009).
\textsuperscript{87} Rymer, \textit{Daybreak Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 20 March 2009).
\textsuperscript{88} Hardy, \textit{Sine Qua Non: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 27 May 2008).
\textsuperscript{89} Peltz (2003).
\end{flushleft}
does some post-apocalyptic science fiction, as the precursor for a retelling of the social contract.\textsuperscript{90} Life is nasty and brutish for the refuges in the Fleet, particularly for the civilians crammed into ‘Dogsville’ on \textit{Galactica}’s lower decks,\textsuperscript{91} but there are forms of order – self-generated by factions and cults,\textsuperscript{92} augmented and imposed by the military.\textsuperscript{93} Further, there is little evidence of concerns with techniques of surveillance and control to manage populations, as is regularly featured in dystopian science fiction.\textsuperscript{94} Indeed, the few attempts by the \textit{Galactica} to control civilians end not with the use of technique to govern, but with death.\textsuperscript{95}

And death is what there is in \textit{Battlestar Galactica}. Chapter 6 exposed the place of death in modern legal forms, and if \textit{Dune} and \textit{Battlestar Galactica} share anything, it is a particular emphasis on death. The series is set after the death of the human home worlds in the Cylons’ nuclear holocaust. In the opening sequence of each episode, a figure is flashed on to the screen showing the total number of human survivors – they are fewer as the series goes on.\textsuperscript{96} This death is not abstracted. Bodies are thrown into space from exploding spaceships and humans kill one another with monotonous regularity; a would-

\textsuperscript{90} Tranter (2003), p 69.
\textsuperscript{91} Rymer, \textit{The Woman King: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 11 February 2007).
\textsuperscript{92} Rymer, \textit{He that Believeth in Me: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 4 April 2008); Olmos, \textit{Escape Velocity: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 25 April 2008).
\textsuperscript{93} Young, \textit{Deadlock: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 20 February 2009).
\textsuperscript{94} Sisk (1997), p 2.
\textsuperscript{95} Kroeker, \textit{Resistance: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 5 August 2005).
\textsuperscript{96} Season 1 begins with a survivor count of 47,973: Rymer, 33: \textit{Battlestar Galactica} (Sci Fi Channel/NBC Universal, 14 January 2005). The count at the end of Season 2 was 49,550 (Rymer, \textit{Lay Down Your Burdens Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 10 March 2006). The increase comes from the fleet finding the ‘Battlestar Pegasus’ halfway through season two. Aside from this one-off increase, the numbers decrease each week. By the finale it is down to 38,516: Rymer, \textit{Daybreak Part I: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 13 March 2009).
be assassin is found dead in his cell; hostage situations end with numerous bodies; Gaeta’s and Zarek’s mutiny has the civilians and the military killing each other throughout *Galactica*. This killing goes beyond war casualties or unfortunate policing to official ex-judicial killings; Apollo’s ad hoc murder investigation climaxes with him summarily executing a crime boss. Once rescued by Adama, the New Caprica resistance leaders start executing those they see as collaborators. The Quorum of Twelve is executed by the mutineers. President Roslin disposes of Starbuck’s tortured Cylon by flushing him out an airlock, and Gaeta’s and Zarek’s mutiny ends with their execution by firing squad. Seemingly the rule of law, the bedrock for liberal accounts of legality, the interlinking of roles and offices with the judicial utterance of ‘the law’ at its apex, is problematically manifested in *Battlestar Galactica*.

However, this order of death is still an order. It is an order of uniforms and salutes, of titles (Sirs, Commander, Lieutenant, Madam President), of pilot call signs (Starbuck, Apollo, Boomer, Helo, Hot Dog, Race Track …), abbreviations (CAG – Captain of Air Group; CIC – Command, Intelligence, Control), of briefings, and a life of booze and card games interrupted by the adrenal rush of action. It is, in short, military order. The series only occasionally depicts the civilian society aboard the fleet – the
crowds scared and huddled in freighters or in Dogsville, the wealthy living it up on the luxury liner *Cloud Nine* before its destruction, the black market aboard the *Prometheus*, the grubby proletariat on the refinery ship *Hitei Kan*.105 The focus is on the military, and the relationships between the military and the civilian order.106 This is visualised whenever the *Galactica* is shown. It is rarely pictured in its entirety; usually just its ‘alligator’ shaped snout fills the screen, dwarfing any of the civilian ships, including the Presidential *Colonial One*. The image is of an apex predator scattering lesser beasts. The message seems to be that at the point of the annihilation of a society, the brute violence of the military is called to the fore. The back-story makes this clear with Adama’s father being a lawyer;107 in an age of enemies and annihilation, the lawyer’s children are warriors.

This usurpation of the rule of law to military order in a time of enemies and annihilation reminds of Carl Schmitt. *Battlestar Galactica* presents a people on the brink of extinction facing an indefatigable and mechanical foe – similar sentiments to Schmitt and other Weimar conservatives in their fear of Stalin’s Soviet Union.108 The civilian population is represented as impulsive and fractious; at various stages, the political leadership is under threat from a variety of opposing sentiments clustered around Tom Zarek:109 a movement violently demanding peace with Cylons,110 a movement violently

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106 Dellamonica (2006), p 166.
demanding the execution of Cylon prisoners,\textsuperscript{111} vocal moral conservatives,\textsuperscript{112} organised crime\textsuperscript{113} and, by the fourth season, religious cults competing for resources and authority throughout the Fleet.\textsuperscript{114} Baltar’s pre-occupation presidency on New Caprica was marked by industrial disputes.\textsuperscript{115} All this suggests Schmitt’s feared demise of the state in street-level anarchy.\textsuperscript{116} The episodes dealing with the political workings of the civilian government reflect Schmitt’s attacks on parliament as involving much talk but little action.\textsuperscript{117} The final episode of Season 1, ‘Kobol’s Last Gleaming Part II’, manifests these themes.\textsuperscript{118} The fleet has found the origin of humanity, the planet Kobol. Roslin, suffering from advanced cancer, has had religious-inspired visions concerning how it should be explored. Adama disagrees; in his opinion, Roslin’s preferred course of action involves too much risk. Roslin’s position creates divisions within \textit{Galactica}, leading to Starbuck mutinying. This triggers Adama to send in the marines, who take Roslin into custody.\textsuperscript{119}

\textsuperscript{111} Villalobos, \textit{Sacrifice: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 10 February 2006).
\textsuperscript{112} Mimica-Gezzan, \textit{The Captain’s Hand: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 17 February 2006).
\textsuperscript{113} Head, \textit{Black Market: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 27 January 2006).
\textsuperscript{115} Rymer, \textit{Lay Down Your Burdens Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 10 March 2006); Reiterated in Hardy, \textit{A Day in the Life: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 18 February 2007).
\textsuperscript{116} Schmitt (1932a), p 32.
\textsuperscript{117} Pate, \textit{Colonial Day: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 18 March 2005); Nankin, \textit{The Ties That Bind: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 18 April 2008). ‘The essence of parliament is therefore public deliberation of argument and counterargument, public debate and public discussion, parley, and all this without taking democracy into account.’ Schmitt (1923a), pp 34–35. Schmitt’s theory of democracy is not the liberal norm of representative democracy, and with it majorities and minorities, but the metaphysical affirmation of the leader by the nation: Kennedy (1987), p 38.
\textsuperscript{118} Rymer, \textit{Kobol’s Last Gleaming Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 1 April 2005).
\textsuperscript{119} Rymer, \textit{Kobol’s Last Gleaming Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 1 April 2005).
Adama, faced with division at home, an implacable external enemy and poor political leadership, declares an exceptional circumstance and ousts the civilian government.\textsuperscript{120}

It is tempting to read Adama as Schmitt’s preferred Hindenburg, although it glosses much of Schmitt’s discussion of the legitimacy of dictatorship called forth by the exception. However, there is some support within Schmitt for a military \textit{coup d’état} as a legitimate basis for dictatorship.\textsuperscript{121} In the rapid progression of work during Weimar, Schmitt appears to move from an affirmation of a ‘classical’ form of a limited dictator appointed by the ordinary political process in times of crisis\textsuperscript{122} to a more radical account of the ‘sovereign’ who \textit{represents} the people, and in that representing can decide between the ordinary and exceptional;\textsuperscript{123} and who, through that fundamental decision, can recast the political machinery of the nation.\textsuperscript{124} In announcing to Roslin that her ‘Presidency is terminated’,\textsuperscript{125} Adama appears to be motivated by the belief that he possesses ‘reserve’ sovereign powers to preserve the nation. However, any affirmation that in this decision he ‘represents’ the nation is uncertain. Minutes after he is shot, and for the following few episodes of Season 2, he is unconscious and critically wounded in sickbay.\textsuperscript{126} His

\begin{itemize}
\item Adama repeats this in Season 4. Having come to a very different relationship to Roslin, her unexpected ‘kidnapping’ by the rebel Cylons constitutionally leaves Zarek as Vice-President in charge. Unable to work with Zarek, and not prepared to allow Zarek stirring up opposition in the Fleet, he has Zarek arrested to allow for his son, Apollo, to become Acting President; Hardy, \textit{Sine Qua Non: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 27 May 2008).
\item Böckenförde (1998), p 44. Piccone and Ulmen suggest that in the halcyon days of 1933, Schmitt was encouraging the army to seize power as an alternative to Hitler; Piccone and Ulmen (2002), p 16. However, one of Schmitt’s biographers seems to suggest otherwise: Bendersky (1983), p 28. See McCormick (1997), pp 122–133; an alternative account of the relation is provided in Agamben (2005), p 35.
\item McCormick (1997), p 147, commenting on Schmitt (1932b), p 69.
\item Rymer, \textit{Kobol’s Last Gleaming Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 1 April 2005) (Adama).
\end{itemize}
leadership is left to his drunken Executive Officer (XO), Colonel Saul Tigh (Michael Hogan) who, in his own assessment ‘Fraks things up good’ to the point that most of the crew is about to revolt, while most of the civilian ships actually have done so.\footnote{127}{Hardy, \textit{The Farm: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 12 August 2005).}

However, \textit{Battlestar Galactica}’s animation of Schmittian concepts reveals a problem. Schmitt’s fundamental orientation, the basis for his distinction between normal and exception and his account of sovereignty,\footnote{128}{Schmitt (1922), p 5; Kalyvas (2000), p 1535.} lie in his infamous notion that ‘the specific political distinction to which political actions and motives can be reduced is that between the friend and enemy’.\footnote{129}{Schmitt (1932a), p 26.} The friend/enemy distinction as the delineation of what is political, and its warehousing of law to the normal, unexceptional order has been a clarifying concept for recent thinking about law in this ‘Age of Terror’.\footnote{130}{Agamben (2005); Tushnet (2005), pp 39–54; Ackerman (2004), p 1045; Johns (2005); Dyzenhaus (2006); Dyzenhaus (2005), pp 65–89. Müller has pointed out that while Schmitt’s thought seems readily applicable to terrorism, as evidenced by his Anglo-American revival post 9/11 and his earlier revival within European thought during the terrorism of the 1970s, Schmitt did not theorise terrorism: Müller (2003), pp 181–182.} For Schmitt, the ability to distinguish between friend and enemy is a public act:

The friend and enemy concepts are to be understood in their concrete and existential sense, not as metaphors or symbols, not mixed by economic, moral, and other conceptions, least of all in a private-individualistic sense as a psychological expression of private emotions and tendencies … An enemy exists only when, at least potentially, one fighting collectivity of people confront a similar collectivity. The enemy is solely the public enemy.\footnote{131}{Schmitt (1932a), p 28.}
He continues: ‘In its entirety the state as an organized political entity decides for itself the friend/enemy distinction.’\(^{132}\) Schmitt, like Hobbes, regarded the political as emerging from the possibility of war.\(^{133}\) However, unlike Hobbes, where the individual, vulnerable and alone, contracts to form the sovereign,\(^{134}\) Schmitt presents an \textit{a priori} nation declaring which other nations are friends or enemies. The key elements are summarised by Chantal Mouffe: ‘[T]his involves the creation of a “we” which stands in opposition to a “them”, and this is located, from the outset, in the realm of collective identifications.’\(^{135}\) This seems quite acceptable within \textit{Battlestar Galactica}. In science fiction, what can be more ‘collective enemy’ then swarms of evil robots?\(^{136}\) However, in its paralleling of Schmitt, the series identifies the limits of the friend/enemy distinction.

The Cylons do not all present as killer toasters. The skin jobs not only look human, but as the series progresses they manifest all the vagaries, emotions and individuality displayed by the humans. Not only are the viewers drawn into sympathy with individual Cylons – the tortured Gina/Number Six, the Number Eight who becomes known as Athena when her child ‘dies’,\(^{137}\) Caprica Six when she miscarries\(^{138}\) – but increasing so are individual characters.\(^{139}\) By Season 4, the deaths of rebel Cylons allied

\footnotesize{\(^{132}\) Schmitt (1932a), pp 29–30.  
^{133} Howse (1998).  
^{134} Robin (2004), p 42.  
^{135} Mouffe (1992), p 132.  
^{137} Woolnough, \textit{Downloaded: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 24 February 2006).  
^{138} Young, \textit{Deadlock: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 20 February 2009).  
^{139} In ‘Nankin, \textit{Flight of the Phoenix: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 16 September 2005), Adama begins to ‘trust’ Boomer. By the season finale, Boomer takes part, relatively unguarded, in the rescue mission of the remnant resistance fighters on Caprica: Rymer, \textit{Lay Down Your Burdens Part I: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 3 March 2006). By Season 3, Boomer has taken on a different call sign, ‘Athena’ (to distinguish her from the other model eight Cylons – de Segonzac, \textit{Torn: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 3 November 2006) – and becomes a trusted and essential member of \textit{Galactica}’s flight crew.}
with the humans, whether in Doctor Cottle’s (Donnelly Rhodes) sickbay or shot in battle or vented into space from explosions from *Galactica*’s increasingly dilapidated hull are poignant moments. The Cylons themselves are shown to be growing ambivalent with the direction of their extermination of humanity, the reason for their attempt at ‘coexistence’ on New Caprica, the failure of which leads to their own civil war. What this means is that the obvious imaging of friend and enemy breaks down. For all his polemic about the public national character of the friend/enemy distinction, what Schmitt is actually suggesting is that it is the sovereign leader who holds the deciding power of friend and enemy. The friend/enemy distinction, like the exception, is another manifestation of Schmitt’s decisionism. While not necessarily a subjective decision for the public – indeed, according to Schmitt individuals can ‘love your enemy’, something that Baltar represents a bit too literally – the distinction is rendered personal and an ongoing responsibility of leadership. Repeatedly in *Battlestar Galactica*, Adama and Roslin are seen to be making this call, ordering the destruction of the *Olympic Carrier* due to a suspicion that it has been overtaken by Cylons, and deciding that Admiral Helena Cain (Michelle Forbes), the commander of the found Battlestar

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140 Nankin, *Someone to Watch Over Me Battlestar Galactica* (Sci Fi Channel/NBC Universal, 27 February 2009).
142 Nankin, *Someone to Watch over Me Battlestar Galactica* (Sci Fi Channel/NBC Universal, 27 February 2009).
146 Hurst (1999).
147 Schmitt (1932a), p 29.
Pegasus, must be executed as an ‘enemy’ of the fleet.\textsuperscript{149} This decision of friend and enemy also goes the other way. Roslin and Adama decide, against the popular mood of the people, that the rebel Cylons should be allies,\textsuperscript{150} eventually deciding that they should be fully ‘friends’ as citizens with representation on the new Quorum.\textsuperscript{151} Battlestar Galactica suggests that ‘friend’ and ‘enemy’, in ‘their concrete and existential sense’,\textsuperscript{152} do not originate in the nation, but rather reside within the person of the leader.\textsuperscript{153}

Battlestar Galactica manifests how the friend/enemy distinction discloses a focus on the person of the leader in its emphasis on Adama. Adama’s relationships with his sons and with the Colonial military tradition are shown to influence his decisions, particularly the decisions to reunite the Fleet, to ‘reinstate’ Roslin as President,\textsuperscript{154} and to prevent Roslin and Tigh from rigging the presidential election.\textsuperscript{155} In this, Admiral Cain of the Pegasus is Adama’s foil.\textsuperscript{156} Like Galactica, the Pegasus attracts a fleet of civilian ships in the aftermath of the Cylon attack.\textsuperscript{157} While Adama makes the reluctant choice to flee the conquered homeworlds to protect the civilian fleet,\textsuperscript{158} Cain feeds her civilian fleet

\begin{itemize}
\item Rymer, *Resurrection Ship Part II: Battlestar Galactica* (Sci Fi Channel/NBC Universal, 13 January 2006).
\item Rymer, *Revelations: Battlestar Galactica* (Sci Fi Channel/NBC Universal, 13 June 2008).
\item Olmos, *Islanded in a Stream of Stars: Battlestar Galactica*, (Sci Fi Channel/NBC Universal, 6 March 2009).
\item Schmitt (1932a), p 28.
\item Howse (1998): ‘The higher men determine the antagonisms that justify obedience from the lower men.’
\item Woolnough, *Home Part II: Battlestar Galactica* (Sci Fi Channel/NBC Universal, 26 August 2005).
\item Rymer, *Lay Down Your Burdens Part II: Battlestar Galactica* (Sci Fi Channel/NBC Universal, 10 March 2006).
\item Mulligan (2008), p 54.
\end{itemize}
– both ships and people – to her war machine so as to maintain her offensive.\footnote{Rymer, \textit{Resurrection Ship Part I: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 6 January 2006); Alcalá, \textit{Razor: Battlestar Galactica} (Sci Fi Channel/Universal Studios Home Entertainment, 24 November 2007).} Cain, the younger, more ambitions and more senior officer, makes a very different decision to that made by the older war veteran and world-weary commander.

Furthermore, \textit{Battlestar Galactica} exposes another tension within Schmitt’s account of the friend/enemy distinction. Schmitt’s critique of liberalism was that it ‘neutralised’ the life and death of politics into mere subjectivity – questions of economics or debating.\footnote{Schmitt (1932a), p 28.} Schmitt attempted to respond to this privatisation of politics through a valorisation of the public, as revealed in his metaphysical account of the state, and the idealisation of the German people as a unified \textit{Volk}.\footnote{Schmitt (1922); McCormick (1997), p 194.} However, he distanced this ideal from the actual manifestation of the Weimar population, whose individuality had been dangerously freed by liberalism.\footnote{Schmitt (1930), p 309.} In this, Schmitt parallels Heidegger’s disgust of the ‘das Man’ of modernity.\footnote{Heidegger (1996), p 112; Rockmore (1992), pp 187–205.} Schmitt presented an ambiguous account of the public, as the collective entity manifesting in the state, and also a fractious rabble threatening the state.\footnote{Kennedy (1998), p 103.} Giorgio Agamben has observed that this dualism occupies a significant space within the Western political tradition in his account of people/People – people being the population governed by a sovereign, while People accounts for the sovereign-forming collective.\footnote{Agamben (1998), pp 176–179.} For Agamben, the people/People distinction grounds a sovereignty directed to the transmutation of people for People; however, this is a perverse transmutation as it
leads to a denial of human existence as anything other than bare life.\textsuperscript{166} What \textit{Battlestar Galactica} does is show a population not playing its role according to this logic. In this, the series could be \textit{Polis Galactica}, more Aristotle than Hobbes’ modern legacy, for in response to the sovereign emergency, the people express a flowering of politics, calls for elections, formation of interest groups, the throwing up of rival leaders and resistance to marshal law. Even while continually being killed, the people refuse to be \textit{homo sacer},\textsuperscript{167} and they also refuse to play Schmitt’s allocated representative public role of mass politics.

A Schmittian response would be to emphasise that this ‘failure’ of the people, like the failure of the German people during Weimar, manifests the terminal stages of liberalism: rapid individualism eroding clear collective thinking about who is a friend and who is an enemy. Alternatively, this steadfast representation of a politicised civil society could be explained as Moore’s and Eick’s residual liberal arts college education,\textsuperscript{168} projecting Frances Fukuyama not just to the end of history, but to the end of worlds.\textsuperscript{169} However, these alternatives – an adherence to metaphysical totalities or a triumphant affirmation of liberal individuality – fail to capture the complexity presented by \textit{Battlestar Galactica}. In the series, collectives organised according to the friend/enemy distinction are powerfully represented. However, what is also shown is that these collectives are occupied by subjects. The category ‘leader’ is occupied by an embodied person whose personality and role mingle when called to decision. Similar, the category ‘people’ comprises a collective unified through fleeing an enemy that seeks their

\begin{footnotesize}
\begin{enumerate}
\item[166] Agamben (1998), p 123.
\item[169] Fukuyama (1992).
\end{enumerate}
\end{footnotesize}
annihilation, yet is also a multitude of subjects clamouring for a say over their destiny. Addressing Schmitt, what *Battlestar Galactica* highlights are the problems within his metaphysics of leader and people for, to use one of his preferred terms, the ‘concrete’. Questions of embodied existence, agency or subjectivity are theorised out by Schmitt; indeed, preoccupations with such concepts become politicised as liberal distractions.

In summary, *Battlestar Galactica* offers enticing parallelisms for thinking about Schmitt. However, in animating the friend/enemy distinction, it also shows some of Schmitt’s limits. Projected into a fleet of space ships, Schmitt’s abstractions of friend and enemy give way to ‘the leader’ and ‘the people’, which are not abstractions but embodied subjects. It shows the tension between category and existence, between metaphysics and embodiment, that follows from Schmitt’s denigration of the ‘individual’ as liberal detritus. In opening Schmitt to the subject, the next part shows how *Battlestar Galactica* opens the subject to essence.

**Starbuck as Post-Feminist**

*Battlestar Galactica* offers a reflection on the tensions within Schmitt posed by subjectivity because at another level the series allegorises concerns with identity. The series is successful in presenting a world that, at least initially, appears to enact substantive gender equality. The starting point is simply that Starbuck appears as a post-feminist pin-up.

The society presented in *Battlestar Galactica* seems to be post-feminist in its substantive gender equality. Women can be President and priests, and in the military

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172 The character of Elosha (Lorena Gale).
women can be admirals and front-line fighter pilots. Starbuck begins the series respected as *Galactica*’s ‘top gun’. She is not the subject of harassment and intimidation for achieving this status. Indeed, it is only when her confidence fails in the second season that disparaging begins.\(^{173}\) This respect for women not playing traditional women’s roles is paralleled in Roslin as President. Roslin’s gender is not a topic of concern. Rather, discontent initially relates to her junior cabinet status and professional background as a school teacher,\(^{174}\) and later her too-close association to Adama and her illness.\(^{175}\) Post-feminism is also projected by the series in a further sense.\(^{176}\) Starbuck does not pilot her Viper in a ‘different voice’.\(^{177}\) In the mini-series and Season 1, she is arrogant, disrespectful of senior officers, capable of taking spectacular risks, cigar smoking, hard drinking/fighting/gambling and bed hopping – in summary the archetype top gun pilot.\(^{178}\) In this, Starbuck’s foil is Apollo. Apollo begins the series as less of a risk-taker and more concerned with relationships:

STARBUCK: You’re the CAG, act like one.

APOLLO: What the hell does that mean?

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\(^{177}\) Conly (2008), p 234.

\(^{178}\) Wolfe (1980); Konas (1994).
STARBUCK: It means that you’re still acting like you’re everyone’s best friend. \(^{179}\)

It is tempting to read Starbuck’s ‘masculinity’ and Apollo’s ‘femininity’ – his concern with others – as a visioning of radical feminism’s desire of the negation of the biological. \(^{180}\) In *Battlestar Galactica*, it seems that gender does not relate to identity or social roles. There are some female characters who occupy more traditional female roles. Lieutenant Anastasia ‘Dee’ Dualla (Kandyse McClure), *Galactica*’s communications officer, rather aptly is concerned with supporting and encouraging dialogue and is also the focus of a love contest between Apollo and Billy Keikeya (Paul Campbell), Roslin’s initial personal assistant, while Ellen Tigh (Kate Vernon), Saul Tigh’s wife, is – at least until Season 4 – a behind-the-scenes jezebel, manipulative and self-promoting. \(^{181}\) However, the impression gained from *Battlestar Galactica*, especially from the four main characters, is the marginal place of gender when it comes to identity. These characters are shown to be driven by conflicts, past traumas and their relationships – there is no simplistic gender determinism. Adama’s serious engagement with the military tradition and its dictates of leadership and loyalty gives him conflicting responsibilities to his ‘family’ – both his son and his crew. Roslin’s mortality and disarming countenance contrast with her skill in political manipulation and her confidence in decision-making – ‘The interesting thing about being President is you don’t have to explain oneself to

\(^{179}\) ‘33’ *Battlestar Galactica* (Sci Fi Channel/NBC Universal, 14 January 2005).

\(^{180}\) Firestone (1970), p 270.

anybody. Starbuck’s macho-nihilism is explained as a combination of her guilt in contributing to the death of Adama’s other son, Zak, and her upbringing as the daughter of a deserted, military-obsessed mother. Apollo lives in the shadow of his father; he is initially hostile and distant, but as the series progresses he evolves more in his father’s image to an unhappy acceptance of the responsibility of military leadership, which he breaks out of by resigning his commission and taking to civilian politics. These characters are highly fallible: Adama stages a coup after continually insisting on the primacy of civilian government; Roslin starts believing the hallucinations associated with her cancer treatment are divine messages; Starbuck, in common with her ‘enemy’ Tigh, turns too much to the bottle; and Apollo, who supported the established legal order in resisting his father’s coup, executes a civilian in cold blood. It is these characters as believable humans that allow Battlestar Galactica to show the absence of the subject in Schmittian jurisprudence.

However, if Battlestar Galactica seems to represent progressiveness concerning gender, it is not as progressive concerning race. Following Gene Roddenberry’s template, Battlestar Galactica attempts to ‘white’ out race. In doing so, it animates criticisms of positive discrimination made by critical race theorists. There are different races aboard Galactica – Boomer/Athena/Number Eight (Asian), Dee (African) and

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184 Nankin, Maelstrom: Battlestar Galactica (Sci Fi Channel/ NBC Universal, 4 March 2007).
185 Hemingway, Six of One: Battlestar Galactica (Sci Fi Channel/ NBC Universal, 11 April 2008).
188 Bell (1992).
Gaeta (Hispanic) – but they are token representatives within a sea of Caucasians. Race, it seems, does matter in this galaxy. This is particularly so regarding Africans. Aside from Dee, the only other Africans are the marine who guards Roslin during her arrest and the representative from the planet Picon. These two are shown as the most religious of all the humans within a secular and rational society, channelling old prejudices of Africans as superstitious.

In contrast, amongst the Cylons, when it comes to diversity the skin jobs seem to be more progressive regarding race. The African Cylon, Simon/Number Four (Rick Worthy), at least was allowed to play a doctor (Galactica’s chief medical officer, Doctor Cottle, is Caucasian). The sour note is that the Cylons have other types. The chrome toaster variety, the Centurions, are initial treated as disposable by the skin jobs: ‘Those older models they have their uses,’ Number Six tells Baltar in the mini-series. The Cylon space fighter, the Raider – revealed as a sentient biomechanical being – is explained by Boomer as she lovingly strokes it:

It’s not really a thing, you know. It’s probably a Cylon itself. [Pause] More of an animal maybe than the human models. Maybe they genetically design it to perform a task. To be a fighter. Can’t treat it like a thing and expect it to respond. You have to treat it like a pet.

Also the Cylon Baseship, again a sentient biomechanical being personalised by a controlling hybrid – a human-like being in a fluid filled bath – is not given a franchise to

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189 Although Edward James Olmos is well regarded as a Hispanic actor, he presents as ‘white’ in *Battlestar Galactica.*
190 Deis (2008), pp 164–166.
vote by the skin jobs when it comes to political and tactical decisions. The Cylons, like
the humans, seem to account for physical diversity through the imposition of hierarchy,
with this very hierarchy a central cause of their own civil war.\(^{194}\)

This hierarchical ordering of difference within *Battlestar Galactica* returns,
rendering problematic its treatment of gender. Among the skin job Cylons, there are three
females: Boomer/Athena/Number Eight; Caprica Six/Shelly/Gina/Natalie/Number Six;
and D’anna Biers/Number Three (Lucy Lawless). The problem originates in how the
Number Eights and Number Sixes are represented. They are consistently represented as
sexual beings,\(^ {195}\) both the subject of seemingly consensual sex and also sexual violence.

In the scenes depicting consensual sex, there is misogynist undercurrent that the Cylon
women are using intercourse as an instrument of manipulation.\(^ {196}\) This misogyny is
rendered explicit in the episode ‘Pegasus’.\(^ {197}\) In that episode, Baltar, as *Galactica*’s
Cylon expert, is sent to investigate *Pegasus*’s captured Cylon. He finds Gina/Number Six
chained to the floor and lying comatose. It is revealed that her interrogation was to be
repeatedly gang raped. Further, the chief perpetrator, a senior officer from *Pegasus*, is
interrupted while attempting to rape *Galactica*’s interned Boomer. The gender equality
initially projected is negated by these scenes: women are reduced to biological beings
located within a sexualised regime of violence, powerlessness and vulnerability.

This sexual violence of human towards Cylon is reciprocated. When Starbuck
returns to Caprica, she is shot in a Cylon ambush.\(^ {198}\) When she awakes, the Cylon Simon

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\(^{196}\) See, for example, Nankin, *Someone to Watch Over Me Battlestar Galactica* (Sci Fi Channel/NBC
Universal, 27 February 2009); Kamir (2001), p 41.
\(^{198}\) Rymer, *Kobol’s Last Gleaming Part I: Battlestar Galactica* (Sci Fi Channel/NBC Universal,
25 March 2005); Rymer, *Kobol’s Last Gleaming Part II: Battlestar Galactica* (Sci Fi
convinces her that she is in a resistance run-hospital. She is then subjected to numerous undisclosed operations on her lower abdomen. In the episode ‘The Farm’, during her escape from the hospital Starbuck finds, in the other wards, the familiar science fiction/horror image of the ‘robot rape’: rows of drugged women obscenely connected to various machines. The Cylons, it appears, are not content with their mass production of skin job Cylons, but need to ‘fulfil God’s command to multiply’ through mastering sexual reproduction. This has two effects. The first is that Starbuck is forcefully reallocated; she is shown not as a stand-in male fighter pilot, but as female, as possessing a body intimately connected with reproduction. The second relates to redefining the series’ survival theme. Adama, during Galactica’s decommission ceremony early in the mini-series, poses this question concerning the worthiness of a people to survive:

You know, when we fought the Cylons we did it to save ourselves from extinction. But we never answered the question, why? Why were we as a people worth saving? We still commit murder because of greed, spite, jealousy. And we still visit all of our sins upon our children. We refuse to accept the responsibility for anything that we’ve done … Sooner or later, the day comes when you can’t hide from the things that you’ve done any more.

‘The Farm’ recasts Adama’s introspection that, prior to any ethico-political evaluation concerning survival, there is the more basic question of reproduction. What is presented
is the claim that before culture, and with it memory and justice, there is biology. Reproduction is the core theme of Season 2. That season not only has the return to the biological in its depictions of sexual violence towards women, but has Roslin – contrary to her past as an advocate for women’s rights – banning abortion on the grounds that all pregnancies must be carried to term to boost population numbers.202 This call for reproduction can be seen in the finale of Season 2, where several characters appear pregnant.203 This can also been seen in the heteronormativity of the series. Like Star Trek, Battlestar Galactica does not go beyond the final frontier in having gay characters, notwithstanding all its men in uniforms.204 The closest it comes is the suggestion in the retelling of the Pegasus story arc in the Razor telemovie that Admiral Cain had a relationship with Gina/Number Six before the Cylon attack.205 Given Cain’s function as a foil to the heterosexual and worthy Adama, this – like Baron Harkonnen in Dune – is not a progressive representation.

The concern with reproduction becomes stronger as the series progresses. Starting in Season 2, more is revealed of the Cylons’ process of cloning the skin job models and the ‘downloading’ of memories into new bodies.206 On New Caprica, Leoben keeps a captured Starbuck in an apartment, playing out a grotesque charade of happy family, complete with a young child named ‘Kacey’, allegedly Starbuck’s daughter, the product

203 Rymer, Lay Down Your Burdens Part II: Battlestar Galactica (Sci Fi Channel/NBC Universal, 10 March 2006).
205 Alcalá, Razor: Battlestar Galactica (Sci Fi Channel/Universal Studios Home Entertainment, 24 November 2007).
206 Rymer, Resurrection Ship Part I: Battlestar Galactica (Sci Fi Channel/NBC Universal, 6 January 2006); Rymer, Resurrection Ship Part II: Battlestar Galactica (Sci Fi Channel/NBC Universal, 13 January 2006); Woolnough, Downloaded: Battlestar Galactica (Sci Fi Channel/NBC Universal, 24 February 2006).
of violations of ‘The Farms’. For the Cylons, reproduction becomes increasing more significant, with mortality coming mid-way through Season 4 with the destruction of their ability to ‘resurrect’. This leads to a false hope that Caprica Six’s pregnancy might open the way for Cylon sexual reproduction. When that does not eventuate, the promise return of resurrection technology by the misnamed ‘Final Five’ Cylons to the Cylon leader John Cavil/Number One (Dean Stockwell) halts the bloodshed during the Galactica’s assault on the Cylon’s Colony in the ultimate finale. All this emphasis on reproduction prioritises the biological, sketching a world of essence.

The capstone of this emphasis on essence is the birth of the child of Capria Boomer (Athena) and Lieutenant Karl C. ‘Helo’ Agathon (Tahmoh Penikett), the Human-Cylon hybrid, Hera. However, the birth of a human-toaster destabilises the focus on reproduction. Hera points towards something much more radical. In Seasons 3 and 4, Hera becomes an embodied symbol of reproductive security for both Cylons and humans, and is repeatedly kidnapped and then rescued. Rosi Braidotti has attempted to think through the dilemmas in feminist theory offered by the binary alternatives of

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207 Mimica-Gezzan, Precipice: Battlestar Galactica (Sci Fi Channel/NBC Universal, 6 October 2006). On this, see Conly (2008), p 123.
209 Moore, Disquiet Follows My Soul: Battlestar Galactica, (Sci Fi Channel/ NBC Universal, United States of America, 23 January 2009); Horder-Payton, No Exit: Battlestar Galactica (Sci Fi Channel/NBC Universal, 13 February 2009); Young, Deadlock: Battlestar Galactica (Sci Fi Channel/NBC Universal, 20 February 2009).
211 Alcalá, Exodus Part II: Battlestar Galactica (Sci Fi Channel/NBC Universal, 23 October 2006) (taken by the Cylons); Rymer, Rapture: Battlestar Galactica (Sci Fi Channel/NBC Universal, 21 January 2007) (rescued by Athena using resurrection technology); Nankin, Someone to Watch Over Me Battlestar Galactica (Sci Fi Channel/NBC Universal, 27 February 2009) (kidnapped by Boomer posing as Athena); Rymer, Daybreak Part II: Battlestar Galactica (Sci Fi Channel/NBC Universal, 20 March 2009) (rescued in the assault on the Cylon colony).
essence and anti-essences.\textsuperscript{213} For her, feminism has remained at core anti-essential, believing in culture over nature, yet in doing so it has remained problematically engaged with essences.\textsuperscript{214} This seems to be animated in \textit{Battlestar Galactica}’s projected failure of post-feminism; images of equality and the freeing of the subject from gender and race are undermined by concrete biology. In response, Braidotti draws inspiration from the recent discovery of transposition in the biological sciences, which has diminished DNA’s status as the location for essentialism in revealing how organisms can influence DNA sequences.\textsuperscript{215} Her motivation lies within the challenge of the technical for critical theory. She accepts that contemporary technology should properly be understood in the conflating of nature and culture, and she follows Bruno Latour’s founding observation that the West’s technologically mediated life is marked by the proliferation of ‘hybrids’, which are not capable of being consigning to either ‘nature’ or ‘culture’.\textsuperscript{216}

Within \textit{Battlestar Galactica}, Hera – the combination of nature (biology) and culture (technology) – imagines this wider thematic. With her birth, the prioritising of essential biological nature by the emphasis on reproduction is undone. ‘Tranposing’ the essence is the Cylon, the technological object. In this, \textit{Battlestar Galactica} gestures beyond the limit that Chapter 4 exposed in \textit{Nemesis}. Ultimately, in \textit{Nemesis}, essence returned totally in the promised resurrection of Data, as it did in the 2006 reimagining of the \textit{Prohibition of Human Cloning for Reproduction Act 2002} (Cth). However, in \textit{Battlestar Galactica}, essence – as well as also non-essence – appears to lose essentiality.

\textsuperscript{213} Braidotti (1994), p 177.
\textsuperscript{214} Braidotti (1994).
\textsuperscript{216} Braidotti (2006), pp 37–38.
In summary, the subject – on the surface, post-feminist in its commitments – seems to be terrorised by biology. However, with Hera’s birth *Battlestar Galactica* suggests that biology is technically mediated. What is natural and what is artefact becomes blurred. This presents *Battlestar Galactica* as a text focusing on technology as opening a place between essence and anti-essence, and this prophetically heralds the next section on the metaphysics of technology.

2. The Metaphysics of Technology

This section argues that *Battlestar Galactica* rethinks the metaphysics of technology. The blurring of what is natural and what is artefact that was raised in the conclusion of the previous section can be read as the story of Western technology. In this reading, *Battlestar Galactica* seemingly performs the ‘end’ of Western metaphysics in the occupation of Being by Enframing. However, in this very defeat lies redemption. *Battlestar Galactica* suggests that living remains after the end. The occupation of Being by Enframing can lead to technological Being-in-the world and free responsibility for becoming. The place to begin is with the representations of technology in *Battlestar Galactica*.

**Representations of Technology in Battlestar Galactica**

Writing concerning the original *Battlestar Galactica*, Lane Roth, drawing on the clone canon, argues that it explored the relations between humanity and technology:

The Cylons can be best understood as *doppelgängers* of the humans, and the real struggle in *Battlestar Galactica* takes place in an inner, not outer, space
… The Cylons are only a hypostatization of man’s tendency to rely on tools and weapons.²¹⁷

Roth’s analysis contains two directions: a focus on the representation of the relationship between humans and machines; and a metaphysical construction of the proper relations between humanity and technology.

Following Roth’s first direction, the new Battlestar Galactica provides a wealth of images of the relations between humans and machines. At a primary level, the series presents images of mundane technological objects. In not being about the Enterprise, the visible technologies in Battlestar Galactica are recognisable as familiar domestic instruments. There is a comfortable oldness to the form – Adama’s and Roslin’s ‘cut corners’ paperwork and the chunky, corded telephones. This continues to the humans’ spaceships. They are just objects. The series, at this level, follows the Star Wars tradition of technological representation, for the ships are used, lived in and junked.²¹⁸ The Galactica and her complement of ageing Vipers are analogous to old motor vehicles – simple, lasting designs, endearing in their mechanical quirks.²¹⁹ These images of humans using domestic technology are complemented by more industrial iconography. The interior scenes of the Galactica, with humans pushing Vipers, manhandling airlocks, and repairing and dismantling ships with manual tools, suggests a heavy industrial workplace. Another representation of technology in Battlestar Galactica lies in the relations between individual characters’ sense of self and specific machines: Adama’s affection for

²¹⁷ Roth (1983), p 86.
²¹⁸ On this technological aesthetics in Star Wars as a manifestation of relations with ageing motor vehicles, see Sobchack (2004), p 150. Even Adama makes the decision to abandon the Galactica in Season 4, when it become obvious that its structural faults are terminal: see Olmos, Islanded in a Stream of Stars: Battlestar Galactica (Sci Fi Channel/NBC Universal, 6 March 2009).
²¹⁹ On this particularly male relationship to motor vehicles, see Walker (1998).
Galactica and Starbuck’s relationship with the captured Cylon fighter.\textsuperscript{220} These multiple images combine to present the human society of Battlestar Galactica as a thoroughly technological one – technology is not external, the monster to be banished, the Cylon to be fought, but integral. Even at the level of keeping technology as things and humans as beings, Battlestar Galactica presents a technological society composed of human–machine interactions. The message seems to be that there is no nature aboard spaceships, just human life fundamentally involved with machines.

However, Battlestar Galactica interrupts these images of technological society. It does not keep technology as things and humans as beings. The supposed external robotic enemy turns out to be very natural. Not only are the skin job Cylons flesh and blood, but the Cylon spaceships are organic beings; the insides of Cylon Raiders are brain and ooze,\textsuperscript{221} and the interior of Cylon Baseships are a mess of metal, red graphics, water, membranes and ligaments. While the representations of technological society in Battlestar Galactica notice human–machine interaction, the Cylons present the intimacy of humanity and technology. This seems to be manifested in the relationship between Baltar and what the Battlestar Galactica secondary literature has termed ‘Inner Six’. Baltar begins the series haunted by Caprica Six, who sacrificed herself to save him in the nuclear destruction of Caprica.\textsuperscript{222} Throughout the series, she is often shown accompanying him, making cynical comments, telling him what to say and distracting

\begin{footnotesize}
\textsuperscript{220} In Nankin, Flight of the Phoenix: Battlestar Galactica (Sci Fi Channel/NBC Universal, 16 September 2005), this is emphasised through the construction of a new fighter which boosted the morale of the crew.

\textsuperscript{221} Mimica-Gezzan, You Can’t Go Home Again: Battlestar Galactica (Sci Fi Channel/NBC Universal, 4 February 2005).

\textsuperscript{222} Rymer, Battlestar Galactica Mini-series: Battlestar Galactica (Sci Fi Channel/NBC Universal, 8–9 December 2003).
\end{footnotesize}
him, causing his behaviour to perplex other characters.\textsuperscript{223} It is the Baltar/Inner Six interaction that often provides the moments of humour in what is otherwise a grungy, serious text.\textsuperscript{224} Up until the final epiphany as to Inner Six’s nature, the series is ambiguous about whether she is ‘actually’ there, the personification of a link between Baltar and the Cylons, or whether she is a symptom of psychosis. The suggestion is that Baltar is infected by technology; his love of a ‘machine’ has internalised the machine. But the series also goes the other way. Resurrected in body towards the end of Season 2, Caprica Six is shown as possessing an ‘Inner Baltar’, who functions in the same way as Inner Six – commenting, advising and counselling her.\textsuperscript{225} In this, the love for a human haunts the machine. However, it gets even more complicated when by Season 4 Inner Baltar joins Inner Six in Baltar’s increasingly crowded delirium.\textsuperscript{226}

In other words, what is ‘human’ and what is ‘technology’, already under pressure with the existence of the skin job Cylons, gets increasingly confused as the series progresses. Indeed, by Season 4 identification of human from Cylon or Cylon from human becomes near impossible. The rebel Cylons, the mortal remainders of the Number Twos, Number Sixes and Number Eights along with their liberated Centurions, Raiders and Basestar, are incorporated into the human fleet. They are referred to as ‘people’.\textsuperscript{227} Cylon pilots and Heavy Raiders join Galactica’s Vipers to form the Fleet’s CAP

\textsuperscript{223} See, for example, Woolnough, The Hand of God: Battlestar Galactica (Sci Fi Channel/NBC Universal, 11 March 2005). On speculation as to Inner Six and what her and Baltar’s interaction might mean for relations with technology, see George (2008), p 166.

\textsuperscript{224} Jowett (2008), p 66.

\textsuperscript{225} Beginning with Woolnough, Downloaded: Battlestar Galactica (Sci Fi Channel/NBC Universal, 24 February 2006).

\textsuperscript{226} Hemingway, Six of One: Battlestar Galactica (Sci Fi Channel/NBC Universal, 11 April 2008). Causing the Baltar, played by Briton James Callis to exclaim ‘oh my giddy aunt’ – paraphrasing another science fiction character who sometimes appeared to himself, the Second Doctor (Patrick Troughton) from BBC’s Doctor Who.

\textsuperscript{227} Rose, Guess What’s Coming to Dinner? Battlestar Galactica (Sci Fi Channel/NBC Universal, 16 May 2008) (Adama).
(Combat Air Patrol). This blurring is epitomised in the very structure of the *Galactica*. In the mini-series, the aged *Galactica* just prior to the destruction of the Colonies was being decommissioned to be turned into a museum. In the following four years, it sustains significant damage – especially during the mission to rescue the civilians in the failed settlement of New Caprica. By Season 4, it is falling apart, with cracks and rust appearing throughout the superstructure. To save his terminal ship, Adama agrees that Cylon resin (a smelly biological glup) be applied; the outcome is that the ship is no longer an industrial human-made robot destroyer, but begins to show some of the same functionality as the Cylon Basestar.

However, not only does the simple-ish human tool that is the *Galactica* take on a more complex technological hybridity at the end of the series, but discovery of the Final Five Cylons and their revelations about Earth complete the confusion. In the finale for Season 3, ‘Crossroads, Part II’, after some build-up, four of the Final Five Cylons – XO Saul Tigh, Chief Galen Tyrol (Aaron Douglas), Sam Anders (Michael Trucco) and Tory Foster (Rekha Sharma) – are ‘switched on’ by ‘All Along the Watchtower’ within the ‘Ionian Nebula’. This is a confounding revelation. Tigh’s alcoholism, his fractious relationship with Ellen, his relationship with Adama and his blunt military

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personae had all suggested, up to ‘Crossroads Part II’, that he was flawed but very human; so too Senior Petty Officer Tyrol, Galactica’s deck ‘Chief’ responsible for maintenance and repairs, had come across as very human. The genuineness of Tyrol’s life – from his caring leadership style, his lack of emotional control, his marriage to Cally (Nicki Clyne) and the mundane pressures of their life together with a young child – strongly contrasted with the calculated duplicity that characterised the ‘human’ lives of Caprica Six and Boomer. A further irony was that Tigh, Tyrol and Anders formed the leadership of the resistance on New Caprica, with Tigh even losing an eye in a Cylon interrogation, while Foster was shown as an active member. Also, Anders was introduced in Season 2 as leader of the resistance movement on Caprica. To have these characters – especially Tigh and Tyrol – revealed as Cylons means that any demarcation between human and machine, between being and thing, has become impossible.

This is reinforced further by the humanising of the Cylons. The resurrected Boomer and Caprica Six, the two who had lived among and loved humans, are the two that begin the questioning of the Cylon destruction of humanity. The movements of the

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236 Yelling at Tigh’s decision to vent the burning Galactica after it is hit by a Cylon nuclear missile during the destruction of the colonies: Rymer, Battlestar Galactica Mini-series: Battlestar Galactica (Sci Fi Channel/ NBC Universal, 8–9 December 2003); see also his relationship with Adama in Young, Unfinished Business: Battlestar Galactica (Sci Fi Channel/NBC Universal, 1 December 2006).
237 Hardy, A Day in the Life: Battlestar Galactica (Sci Fi Channel/NBC Universal, 18 February 2007).
238 Mimica-Gezzan, Occupation: Battlestar Galactica (Sci Fi Channel/NBC Universal, 6 October 2006).
239 Alcalá, Exodus Part I: Battlestar Galactica (Sci Fi Channel/NBC Universal, 16 October 2006).
241 Gumpert (2008), pp 144–146.
242 Woolnough, Downloaded: Battlestar Galactica (Sci Fi Channel/NBC Universal, 24 February 2006). This was mirrored in The Plan. Galactica One (Cavil) remains aloof from the humans, even killing the child who befriended him as he plots the attacks in the Fleet that were told in Seasons 1 and 2; while Caprica One, who had infiltrated Sam Anders resistance movement, reassesses
rebel Centurions in the final assault on the Colony are much more human, with their subtle hand movements to signal to their allies, than the stiffly robotic ‘first-generation’ Centurion defenders. However, this conflating of human and technology can ultimately be discerned in the back-story of the Final Five and Earth. The finding of Earth in the mid-season finale of Season 4 was a profound disappointment. A nuked wasteland, Earth turned out to be a settlement of Cylons. What comes to light was that the colonial mythology from the ‘Book of Pythia’ of a lost thirteenth tribe of humanity was not quite accurate. The destruction of the human origin world Kobol was because of a familiar robotic uprising, which also involved a familiar evolution of machines to organic humanoid models. It was these humanoid models that settled on earth, eventually losing the knowledge to resurrect, and – continuing the reproduction theme – acquiring natural procreation. After a thousand years, these natural Cylons are destroyed by their own ‘lesser’ machines. The survivors Tigh, Tyrol, Anders, Foster and the last of the Final Five, Ellen Tigh, having re-engineered resurrection, are reborn on an orbiting ship and then rush to warn the humans. Arriving at the Twelve Colonies, they halt the Cylon War through offering to help the first-generation Centurions with the development of humanoid Cylons. In turn, they are ‘boxed’ by their first-born, John Cavil/Number One, and then released over a 30-year period into the Colonies with false memories in a

humans through witnessing the relationship between Anders and Starbuck, while a previously unknown Number Four commits suicide, rather than follow Cavil’s orders to destroy his ship (and with it his human wife and step-child). Olmos, The Plan: Battlestar Galactica (Sci Fi Channel/NBC Universal, 10 January 2010). Rymer, Daybreak Part II: Battlestar Galactica (Sci Fi Channel/NBC Universal, 20 March 2009); Gosling (2009), p 124.

243  Rymer, Revelations: Battlestar Galactica (Sci Fi Channel/NBC Universal, 13 June 2008).

244  Nankin, Sometimes a Great Notion: Battlestar Galactica (Sci Fi Channel/NBC Universal, 16 January 2009).


246  Horder-Payton, No Exit: Battlestar Galactica (Sci Fi Channel/NBC Universal, 13 February 2009).
complicated – indeed Machiavel-like – plot by Cavil to show the creators of the skin jobs the mistake of making machines in the image of humans.\textsuperscript{248}

This chunky back-story of science fiction clichés allows explanations for many of the anomalies that accompanied \textit{Battlestar Galactica}’s metaphysical turn in Seasons 3 and 4.\textsuperscript{249} However, this myth of successive creation and usurpation, of the indistinctiveness of humans and technology, in itself holds ontological significance. At one level, this story parallels the fate of the \textit{Frankenstein} myth, of inhuman technology threatening the human, but ultimately the ‘human’ implodes into technological totality. In \textit{Battlestar Galactica}, the representations of technology move from the human (beings) using machines (things) to a disorientating conflating of being and thing. This disorientation is given in a wonderful moment, following the public revelation of their Cylon heritage, with Tyrol and Tigh discussing the use of Cylon technology to upgrade the Fleet:

\begin{quote}
TYROL: Their technology … our technology, is way ahead of ours. Yours.

TIGH: Maybe you’d like a chart to keep it all straight?\textsuperscript{250}
\end{quote}

This glimpsing of the technical in the essence of the modern human is not as radical as the \textit{Frankenstein} myth suggests. Indeed, such a perspective can be gleamed in Roth’s observation on the original series that: ‘The Cylons are only a hypostatization of man’s

\begin{footnotesize}
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\item \textsuperscript{248} Horder-Payton, \textit{No Exit: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 13 February 2009); Olmos, \textit{The Plan: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 10 January 2010).
\item \textsuperscript{250} Moore, \textit{Disquiet Follows My Soul: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 23 January 2009).
\end{itemize}
\end{footnotesize}
tendency to rely on tools and weapons.\textsuperscript{251} What can be seen in \textit{Battlestar Galactica} is an animation of the end of Western metaphysics as Enframing. This opens to another Weimar conservative’s foundational and influential engagement with technology: Martin Heidegger.

\textit{Heidegger’s Last Gleaming}\textsuperscript{252}

Unlike Schmitt’s youthful foray into science fiction with ‘Der Buribunken’, discussed in Chapter 3, there is no evidence to suggest that Heidegger engaged with science fiction. Given Heidegger’s well-documented abhorrence of cultural modernism,\textsuperscript{253} he probably would have regarded science fiction as \textit{Scheiße!}\textsuperscript{254} Science fiction studies has generally replicated his presumed aversion; there is little literature bathing science fiction in a Heideggerian light.\textsuperscript{255} Similarly, Heidegger has had minimal impact on legal theory,\textsuperscript{256} where his influence has generally been limited to studies that have attempted to make connections between hermeneutics and the Anglo-American legal tradition.\textsuperscript{257} These absences are a bit surprising.\textsuperscript{258} Science fiction studies, with its obvious emphasis on the technical, and anxieties in legal theory of the denigration of law into technology, both suggest the place of technology in Heidegger’s thought.\textsuperscript{259}

\textsuperscript{251} Roth (1983), p 86. It also has been made by commentators on the new series. See Giardina (2006), p 50; King and Hutnyk (2009), p 249.

\textsuperscript{252} Paraphrasing Season 1’s two-part finale, ‘Kobol’s Last Gleaming’. Rymer, \textit{Kobol’s Last Gleaming Part I: Battlestar Galactica}, (Sci Fi Channel/NBC Universal, United States of America, 25 March 2005); Rymer, \textit{Kobol’s Last Gleaming Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 1 April 2005).

\textsuperscript{253} Steiner (1978), p 148.

\textsuperscript{254} Although note Zimmerman’s comments on Heidegger, drawing upon Ernst Jünger’s ‘fictionalised’ dystopian vision of 1930 industrial relations: see Zimmerman (1990), p 64.

\textsuperscript{255} Notable exceptions are Roberts (2009) and Holdern (2009). Some other exceptions are Del Rio (2001) and Telotte (1995).

\textsuperscript{256} Minkkinen (1996), p 66.


\textsuperscript{258} See Roberts on the possibilities of Heidegger affords science fiction studies, Roberts (2005), p 12.

\textsuperscript{259} In law, one theorist who has taken up Heidegger on technology is Louis E. Wolcher (2008, 2004).
According to Heidegger, the Western metaphysical tradition had forgotten the question of Being.\textsuperscript{260} That is, the ontological task of thinking about being an entity disclosed to its own existence\textsuperscript{261} had been passed over in favour of ‘pragmatic’ abstractions.\textsuperscript{262} Technology was important to Heidegger, not because of its monstrous violence but because, in its holding sway, the forgetting of Being was absolute.\textsuperscript{263} As such, Heidegger’s grappling with technology belongs within a project to find a ‘restorative surmounting of the essence of technology’.\textsuperscript{264} For Heidegger, technology did not just amount to machines, but was a fundamental way of revealing the world as is:

The revealing that rules throughout modern technology has the character of a setting-upon, in the sense of a challenging-forth. That challenging happens in that the energy concealed in nature is unlocked, what is unlocked is transformed, what is transformed is stored up, what is stored up is, in turn, distributed, and what is distributed is switched about ever anew.\textsuperscript{265} This led Heidegger to name the essence of technology ‘Enframing’.\textsuperscript{266}

Enframing means the gathering together of that setting-upon which sets upon man, i.e., challenges him forth, to revel the real, in the mode of ordering, as standing-reserve. Enframing means that way of revealing which holds sway in the essence of modern technology and which is nothing technological.\textsuperscript{267}

This quote suggests three elements concerning the essence of technology. The first is that technology ‘revel[s] the real’ – that is, occupies the very essence of humanity. For

\begin{footnotes}
\item Heidegger (1996), p 1.
\item Heidegger (1996), pp 10–11, 40–42.
\item Zimmerman (1990), p 152.
\item Heidegger (1977a), p 116.
\item Heidegger (1977c), p 39.
\item Heidegger (1977b), p 16.
\item Heidegger (1977b), p 19.
\item Heidegger (1977b), p 20.
\end{footnotes}
Heidegger, to be human means to be ‘thrown’ into the world, and human fate is to come to a dwelling in this finite totality. Second, in their ‘thrown-ness’ humans are gifted with the responsibility towards truth: ‘man is given to belong to the coming-to-pass of truth’. Heidegger’s use of truth was not to invoke correspondence, but rather a pre-Socratic notion of ‘truth’ (alētheia) concerned with how the world is revealed. The destiny of humanity is in bringing forth what is undisclosed. Third, Heidegger understood technology as a way of revealing, allowing him to situate technology within Being: ‘Technology is a mode of revealing. Technology comes to presence in the realm where revealing and un-concealment take place, where alētheia, truth, happens.’

Having located technology within Being, Heidegger sets out the ontological commitments of such a Being. Enframing involves ‘setting upon’. Rather than letting beings reveal themselves to humanity, humanity imposes a technological ‘truth’ on to entities. This truth is as a ‘standing-reserve’ in a stockpile, ready at hand to be deployed. The fate of the world is it becomes atomised, abstracted and commensurable. There is a danger in this:

As soon as the unconcealed no longer concerns man even as object, but does so, rather, exclusively as standing-reserve, and man in the midst of the objectlessness is nothing but the orderer of the standing-reserve, then he

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269 Heidegger (1977b), p 32.  
270 Heidegger (1977a), p 127.  
271 Heidegger (1977b), p 32.  
comes to the very brink of a precipitous fall; that is, he comes to the point where he himself will have to be taken as standing-reserve.\textsuperscript{276}

This loss in standing-reserve discloses an even greater danger: ‘Where this ordering holds sway, it drives out every other possibility of revealing, Above all, Enframing conceals that revealing which … lets what presences come forth into appearance.’\textsuperscript{277} The challenging-forth of Enframing blocks more original bringing-forth of things in-themselves. The supreme danger then is that Enframing conceals the very possibility of revealing, removing humanity from $\alpha\ell\varepsilon\theta\epsilon\iota\alpha$.\textsuperscript{278}

Heidegger seems to be capturing the conflating of human and technology animated by the confusion in \textit{Battlestar Galactica}. Heidegger does not place the essence of technology in a material thing, the hydroelectric plant on the Rhine,\textsuperscript{279} a decrepit spaceship or shiny robots; rather, it occupies Being: ‘Machine technology remains up to now the most visible out-growth of the essence of modern technology, which is identical with the essence of modern metaphysics.’\textsuperscript{280} Technology \textit{is} the way in which the ‘unfolding’ of Western metaphysics has led the West to conceiving the world as a stockpile of resources. And while this extends to the way of seeing humans themselves, the ultimate concern is that technology in occupying this place within modern existence deprives Being from seeing the ‘truth’ of the world. The universe becomes a realm of ‘ends’, of resources to be accumulated and used. In short, this is what being human has become in the West. In \textit{Battlestar Galactica}, the humans who resisted the integration of

\begin{thebibliography}{99}
\bibitem{276} Heidegger (1977b), pp 26–27.
\bibitem{277} Heidegger (1977b), p 27.
\bibitem{278} Heidegger (1977b), p 28.
\bibitem{279} Heidegger (1977b), p 16.
\bibitem{280} Heidegger (1977a), p 116.
\end{thebibliography}
the rebel Cylons, Gaeta and Zarek, die.\textsuperscript{281} In a similar way when it comes to the Cylons, Cavil/Number One with his continual desires to be more like a machine – ‘I don’t want to be human. I want to see gamma rays, I want to hear X-rays, and I want to smell dark matter … I could experience so much more, but I’m trapped in this absurd body’\textsuperscript{282} – commits suicide as the remaining ‘true’ Cylons on the exploding Colony are sucked into a black hole.\textsuperscript{283} The message seems to be that attempts to maintain the distinction between human and technology end in destruction. In confounding the human and technological, in repeated representations of their mingling, this appears to be the essential message of \textit{Battlestar Galactica}: that Being has been occupied by technology.

This has immediate implications for technical legality. At first it exculpates the law and technology enterprise’s tendency to law as technology, as well as explaining the technical law called forth by technology that was documented in Chapters 4 and 5. Where ‘the coming to presence of technology … is Being itself’,\textsuperscript{284} such a mode of law is consistent with the founding ontology of the ‘age’.\textsuperscript{285} Indeed, Heidegger expects nothing more from ‘research man’.\textsuperscript{286} Further, Heidegger offers an epical location for the account of sovereignty and positivism narrated in Chapter 6: as the challenging forth of law into a malleable standing-reserve ready to be deployed.\textsuperscript{287} The conclusion from the analysis of Chapter 6 was that sovereignty disclosed an impoverished Being; a turning to death within an omnipresent future frame seems consistent with Heidegger’s Enframing as the

\begin{itemize}
\item \textsuperscript{281} Rose, \textit{Blood on the Scales: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 6 February 2009).
\item \textsuperscript{282} Horder-Payton, \textit{No Exit: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 13 February 2009) (Cavil/Number One).
\item \textsuperscript{283} Rymer, \textit{Daybreak Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 20 March 2009).
\item \textsuperscript{284} Heidegger (1977c), p 38.
\item \textsuperscript{285} Heidegger (1977a), p 115.
\item \textsuperscript{286} Heidegger (1977a), p 125.
\item \textsuperscript{287} Nonet (1990), p 686.
\end{itemize}
end of metaphysics. In this, Heidegger’s technology writings possibly allow for another approach to the maligned task of an ontology, or at least a regional ontology,\textsuperscript{288} of law.\textsuperscript{289}

However, it is in technology studies that the claim of the occupation of Being by technology has had a decisive influence. Herbert Marcuse,\textsuperscript{290} Jacques Ellul\textsuperscript{291} and more recently Albert Borgmann\textsuperscript{292} and Francis Fukuyama\textsuperscript{293} can be seen as grounding their critiques of modern technology on metaphysical foundations. There is a tragic aura surrounding this tradition.\textsuperscript{294} The absolute of technology, and Heidegger’s charting of the decline of a more authentic Being, mean that it is difficult to theorise strategies for overcoming technology.\textsuperscript{295} Indeed, there is a tendency to pastoral romance, as seen in the yearning for simpler ‘human-scaled’ technologies in Borgmann\textsuperscript{296} or Hannah Arendt’s observation that the space program, in turning away from the Earth, diminished humanity.\textsuperscript{297} It can also been seen in much environmental theory that takes, knowingly or not, Heidegger via Marcuse as its ontological grounding.\textsuperscript{298} Battlestar Galactica appeared to also have purchased this way out of its confounding of human and technology. Having found ‘New Earth’, the inhabitants of the Fleet follow Apollo’s suggestion to abandon technology and begin life on the new planet in a state of primitive agrarianism.\textsuperscript{299} With the rebel Centurions freed and jumping away with the Basestar, the Galactica and the rest of the ships of the Fleet are sacrificed to this new start in being

\begin{thebibliography}{99}
\bibitem{Tontii2004} Tontii (2004), p 82.
\bibitem{Minkkinen1996} Minkkinen (1996), p 84.
\bibitem{Norris2006} Norris (2006), p 344.
\bibitem{Arendt1977} Arendt (1977), pp 265–280.
\bibitem{Rymer2009} Rymer, \textit{Daybreak Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 20 March 2009).
\end{thebibliography}
piloted into the sun. However, the images of African plains and flocks of herbivores that accompany Roslin’s death and Adama’s description of the view from his cabin-to-be to her stone grave give way to two other images. The first is the child Hera playing in the light; the second is a lurch of 150,000 years to the present day. In this scene, Inner Six and Inner Baltar, now to be understood as celestial beings, stroll the streets of New York City. In their banter, it is confirmed that the busy humans of this technological metropolis, whose screens flash images of contemporary real-world robots, are the descendants of the human and Cylon settlers. This penultimate scene suggests that the pastoral solution to technology would only delay the inevitable cold flowering of Enframing.

But to quote the Cylons’ favourite Dylan track, ‘There must be some kind of way out of here.’300 The images of New York City resemble the images of doomed Caprica City from *Battlestar Galactica*’s opening montage, and Inner Caprica and Inner Baltar pointedly note that the streetscapes remind them of the Twelve Colonies before their technological annihilations.301 Inner Caprica suggests that history might not repeat, offering simple epistemological (‘When a complex system repeats itself something new is bound to happen’) and theological (‘It is also part of god’s plan’) justifications. However, a more satisfying ‘way out’ can be gleamed in Heidegger.

Heidegger’s way out begins at the first instant with the paradoxical step that the ‘saving power’ is to be found in thinking of the essence of technology itself.302 This turns out to be the motivation for Heidegger’s exposition into the essence of technology, to

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light the way towards a free relationship with technology and a return of humanity to its essence:

For the saving power lets man see and enter into the highest dignity of his essence. This dignity lies in keeping watch over the unconcealment – and with it, from the first, the concealment – of all coming to presence of this earth. It is precisely in Enframing which threatens to sweep man away into ordering as the supposed single way of revealing, and so thrusts man into the danger of the surrender of his free essence – it is precisely in this extreme danger that the innermost indestructible belongingness of man … may come to light, provided that we for our part, begin to pay heed to the coming to presence of technology.  

In this paragraph, Heidegger, in a characteristic move, has shown the clearing of the saving power, but has not shown the way. For Heidegger, meditation on the essence of technology reminds of technology’s ancient sibling. Referring to pre-Socratic Greece, he observes that once ‘there was a time when the bringing-forth of the true into the beautiful was called technē. And the poēsis of the fine arts also was called technē.’ He suggests that ‘revealing lays claim to the arts most primally, so that they for their part may expressly foster the growth of the saving power’.  

Heidegger’s affirmation of art as the place that has kept alive alternative modes of revealing is contested. Walter Benjamin suggests that in art the combination of art and technique is inseparable; art anticipates technology, and the technicality of art demarks

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303  Heidegger (1977b), p 32.
304  Heidegger (1977b), p 34.
305  Heidegger (1977b), p 35.
‘humanity’s entire mode of existence’. Benjamin can be seen as pointing towards an alternative direction from Heidegger: a turning away from metaphysics, and also a turning away from romantic attachments to an idealised past of authentic Being. This is what is suggested by Inner Six’s and Inner Baltar’s street-side revelation that the humans-that-are-us are precisely Hera’s descendants. There are toasters on our maternal line, which means authentic Being is already technological. In this revelation, the art that Heidegger regarded as ‘fine’ and his exemplar, a hand-wrought silver chalice, along with the cloned embryos from Chapter 4, a Model T Ford from Chapter 5 and the sovereign’s plastic law from Chapter 6 exist in continuity. They, Battlestar Galactica suggests, are all technē – different manifestations of the same Being-in-the-world.

In Battlestar Galactica, Starbuck ends with being the Angel of Death; having ‘returned from the dead’ in the Ionian Nebula, she finds her rotting corpse in a crash site on earth. Rather than a bloody Samael, the prophesied doom to which she leads the Fleet is the end of their journey with New Earth. In Starbuck, the end marked a beginning – a possibility for Hera’s children to escape the destructive cycle of human and technology that doomed Kobol, Earth and Caprica. What can be gleamed from reading Heidegger in Battlestar Galactica’s wake is ‘technological Being-in-the-world’, the concern not with metaphysics and essences but with life – and that means life with

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306 Benjamin (1968), p 222.
307 Rymer, Daybreak Part II: Battlestar Galactica (Sci Fi Channel/NBC Universal, 20 March 2009).
308 Heidegger (1977b), p 35.
310 As heralded by the hybrid in Razor. Alcalá, Razor: Battlestar Galactica (Sci Fi Channel/Universal Studios Home Entertainment, 24 November 2007).
312 Nankin, Sometimes a Great Notion: Battlestar Galactica (Sci Fi Channel/NBC Universal, 16 January 2009).
313 Rymer, Daybreak Part II: Battlestar Galactica, (Sci Fi Channel/NBC Universal, 20 March 2009).
technology – in the here and now. This was why sustained talk of essences and essential nature was not possible within *Battlestar Galactica*, as was anticipated when it became clear that its presentation of the subject suggested a technologically mediated hybridism of nature and culture, which in turn opened to the conflating of human and technology. In animating the occupation of Being by technology, *Battlestar Galactica* shows many falls, but not Heidegger’s fear of a primal ‘precipitous fall’. Instead, it signs an invitation to move from the watchtower guarding essence and to join company with ‘the joker and the thief’. In technology studies, this post-Heideggerian strand can be identified in Donna Haraway. 

**Earth**

That *Battlestar Galactica* as technical legality ends with Haraway is perhaps unsurprising. Unlike Heidegger, Haraway forms a central foundation for contemporary science fiction studies. However, what *Battlestar Galactica* – a text whose surface concerns endangered humans and hunting machines but ultimately suggests the occupation of Being by technology – allows is appreciation of the anti-ontology of Haraway, and the opportunities for the free responsibility for becoming in technological Being-in-the-world.

Haraway expressly rejects metaphysical approaches to thinking about technology. She does not manifest either the tragedy or the romance that marks metaphysical accounts of technology. As such Haraway can be seen as grappling with a materialist

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314 Heidegger (1977b), p 27.
account of what it means to be human at the particular moment when technology has undermined the past certainties of existence.\(^{319}\) Her project is orientated towards the search for political engagement in a world where it must be accepted that technology has destabilised old binaries – male/female, nature/culture – that orientated past political action.\(^{320}\) In short, ‘[t]he cyborg is our ontology’.\(^{321}\) In this, Haraway can be seen to reiterate Heidegger’s declaration of the occupation of Being by technology. Haraway’s polemics of cyborgs can be distracting, conjuring 1980s imagery of obvious prosthetic augmentation rather than the intimate and invisible location of technology that was her focus: ‘Our best machines are made of sunshine.’\(^{322}\) Unlike Heidegger, Haraway does not talk of the saving power of art, but affirms active engagement with the contemporary ‘informatics of domination’.\(^{323}\) The issue is staking a life, and politics, from ‘inside the belly of the monster’\(^{324}\) of modern technological existence. Braidotti, in recognising the influences of Michel Foucault and Gilles Deleuze in Haraway’s cyborg, has argued for the ‘embodied, materialist foundations of the subject in a non-essentialist yet accountable manner’.\(^{325}\) In doing so, Braidotti affirms that this approach takes as its orientation Heidegger’s recognition that the horizon of humanity rests in being thrown into the world, yet it avoids his metaphysics.\(^{326}\) For Braidotti, technological Being-in-the-world must ground development of ‘new cosmologies … that are appropriate to our own high level of technological development’.\(^{327}\)

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\(^{322}\) Haraway (1985), p 70.

\(^{323}\) Haraway (1985), p 79.

\(^{324}\) Penley and Ross (1990), p 12.

\(^{325}\) Braidotti (2006), p 137.

\(^{326}\) Braidotti (2006), p 142.

\(^{327}\) Braidotti (2006), p 272.
The call that emerges from Haraway for a ‘taking responsibility for social relations of science and technology … means embracing the skilful task of reconstructing the boundaries of daily life’;\(^{328}\) is the lasting message of *Battlestar Galactica*. In moving from a ‘demonology of technology’;\(^{329}\) to use Haraway’s description, to the revelation of the occupation of Being by technology, *Battlestar Galactica* returns both to life and responsibility. The redemption of Gaius Baltar confirms this point. Baltar, the very human scientist and opportunist – the personification of *technē*, the user of techniques to organise the world around him to his will – has a charmed existence through the series. He is often threatened with exposure or death, but luck – or, as Inner Six regularly intones, ‘God’s plan’ – intervenes to save him.\(^{330}\) However, in Season 4, while taking on the mantle of monotheistic prophet to a group of willing women,\(^{331}\) Baltar begins to feel responsibility towards his flock, culminating in his ‘one selfless act’ in choosing to stay on *Galactica* and participate in the assault on the Cylon Colony to rescue Hera.\(^{332}\) In this, the other major characters reflect this responsibility to life in the wake of the technological collapse of metaphysics. Roslin, Adama, Apollo and Starbuck, flawed humans with different orientations, share with the redeemed Baltar high technical skills – Roslin in politics; Adama, Apollo and Starbuck in military leadership and tactics – but this *technē* is accompanied by a responsibility to life, a life precariously represented by the declining survivor count. Their worlds have ended, the divisions between friend and enemy, nature and culture, human and machine are evaporating, yet for Roslin, Adama,

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\(^{328}\) Haraway (1985), p 100.

\(^{329}\) Haraway (1985), p 100.

\(^{330}\) Loftis in 2008 wrote that Baltar’s pathetic opportunism represented true evil in a real sense: see Loftis (2008), p 38

\(^{331}\) Rymer, *He That Believeth in Me: Battlestar Galactica* (Sci Fi Channel/NBC Universal, 4 April 2008).

\(^{332}\) Rymer, *Daybreak Part II: Battlestar Galactica* (Sci Fi Channel/NBC Universal, 20 March 2009).
Apollo and Starbuck and the people of the Fleet, life continues. Politics remains, hardship remains, personal failings remain, guilt from the past remains and grief over loss remains, but also love happens, faith is found, loyalty is affirmed and tremendous heroism, bravery and sacrifice occur. In *Battlestar Galactica*, ‘Technicity is not a perversion but a fatality, a fatality that we should not approach reactively, but amorously, that is affirmatively.’

Life remains after the end. It might be a difficult life where there can be ‘great human satisfaction, as well as a matrix of complex dominations’, but it is a life that possesses the possibility to freely be responsible for becoming.

Braidotti’s mention of ‘new cosmologies’ comprehends the place of religion and myth in *Battlestar Galactica*. Unlike Dune, *Battlestar Galactica* is not cynical about divine; Roslin believes her prophecies, just as the skin job Cylons, with the exception of Cavil/Number One, earnestly believe in God, while Inner Six, Inner Baltar and Season 4 Starbuck are ultimately revealed as divine beings. This is a text that, at one level, demonstrates how technology collapses Western metaphysics, while at another level seriously suggests a counter-theology. The myth of Earth – initially a cynical ploy by Adama to galvanise a distraught humanity – becomes real. While the reality of Earth in the back-story disappoints, the Fleet – with divine guidance – does find sanctuary and a future on New Earth. In this, *Battlestar Galactica* suggests that to be freely responsible for becoming requires a touch of the creator.

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333 Critchley (1999), p 176; italics in original.
335 Drawing upon a similar set of theoretical resources, Anne Cranny-Francis has adopted the phrase ‘contemporary embodiment’. See Cranny-Francis (2007), pp 167–168.
337 Cavil as cynical atheist has been well documented by Marshall and Wheeland (2008), p 99.
Haraway would ‘rather be a cyborg than a goddess’. However, she has no such qualms with the trickster. The trickster, at once the destroyer but also the creator, is, unsurprisingly, embodied by Baltar in *Battlestar Galactica*. Leaving to one side the heavy deployment of Christological iconography around Baltar and also his trickster-like sexuality, Baltar spends the series creating. While Roslin and Adama preserve, Apollo communicates and Starbuck guides, Baltar makes. He was the ‘traitor’ who facilitated the Cylon destruction of the Twelve Colonies, unwittingly making the Fleet. He builds the Cylon detector, he attempts to raise a civilisation on New Caprica, ‘Baltar’s earth turning ceremony’ is seen during the occupation as the image of a lost future, he ferments tensions within the Cylons that eventually lead to the civil war, and through his cult he builds hope and a civil society in the Fleet. In every situation – as scientific adviser to the President, stranded on Kobol, as President of the Colonies in occupation, prisoner of the Cylons, cult leader – Baltar, as the trickster causes change: whether personally, or through his political writings or broadcasted sermons. It is Baltar who, on New Earth, confirms that the observed higher bipedal mammals are genetically human and promises to bring farming to the planet; his *technē* fathers both the future race

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342 Apollo’s association with communication can be seen in his claim that the humans and Cylons from the Fleet can give the primitive humans of New Earth language: see Rymer, *Daybreak Part II: Battlestar Galactica* (Sci Fi Channel/NBC Universal, 20 March 2009).
345 Young, *Deadlock: Battlestar Galactica* (Sci Fi Channel/NBC Universal, 20 February 2009).
that ‘inherits the Earth’ and the Neolithic jump to agriculture.\footnote{Rymer, 
\textit{Daybreak Part II: Battlestar Galactica} (Sci Fi Channel/NBC Universal, 20 March 2009).} Finally, Baltar is in the shared hallucination of Athena, Caprica Six and Roslin that recurs through the series. In the hallucination it is Baltar who takes the child Hera out of the Kobol opera house and into the light. In this, Baltar is shown to be not just as a trickster character, but to occupy a fundamental mythic role in the escape from metaphysics to earth. In many respects, this reading becomes affirmed in the penultimate scene of Inner Six and Inner Baltar in New York City. When Inner Baltar suggests that the God of the \textit{Battlestar Galactica} universe ‘doesn’t like that name’, a stare from Inner Six provokes him to utter the final lines of the series, the cryptic and seemingly self-referral, ‘Silly me. Silly, silly me.’\footnote{Rymer, \textit{Daybreak Part II: Battlestar Galactica}, (Sci Fi Channel/NBC Universal, 20 March 2009) (Inner Baltar).}

Baltar as trickster, along with the series’ respect for the divine, highlights that technological Being-in-the world, the inescapability of \textit{technē}, discloses that to be freely responsible for becoming ultimately calls to the spiritual. For Braidotti, whose concerns lie with living well in ‘our strange times’,\footnote{Braidotti (2006), p 10.} this disclosure grounds a ‘nomadic post-secular spirituality … beyond metaphysical life-insurance policies. It enjoys gratuitous acts of kindness in the mode of a becoming-world of the subject.’\footnote{Braidotti (2006), pp 258–259.} A similar anti-metaphysical grounding of the inescapability of technology leading to the possibility of being freely responsible for becoming can be seen in Agamben’s \textit{State of the Exception} (2005). Agamben exposes the fundamental function of the exception within the Western ‘juridico-political machine’ as ‘instituting a threshold of undecidability between anomie
and nomos, between life and law, between auctoritas and potestas\textsuperscript{354}. Agamban suggests that once the exception is properly located, it can be realised:

There are not first life as a natural biological given and anomie as the state of nature, and then their implication in law through the state of exception. On the contrary, the very possibility of distinguishing life and law, anomie and nomos, coincides with their articulation in the biopolitical machine.\textsuperscript{355}

This mirrors, in a different context, Haraway’s cyborg. Agamban presents an anti-metaphysical realm where techniques determine becoming. His conclusion follows Braidotti’s spiritualism in claiming that comprehending the material basis of exception opens the hopeful possibility of ‘deactivation of the device that, in the state of exception, tied [law] to life’\textsuperscript{356} and would ‘open a space for human activity’.\textsuperscript{357}

Notwithstanding their differences,\textsuperscript{358} Braidotti and Agamben share Haraway’s retelling of Heidegger’s end of Western metaphysics with technological Being-in-the-world as an opportunity to be responsible for becoming. Further, in its paralleling of this movement, Battlestar Galactica highlights something that was also clear in Braidotti’s spiritualism and Agamban’s hope: the necessity for the divine, for a higher purpose, to give meaning to free living. But where does this leave technical legality? It leaves it in search of myths, in search of earths that it can call home.

This thesis has charted the implosion of the Frankenstein myth. What Battlestar Galactica shows is that the Frankenstein myth’s ignorance of technological Being-in-the-

\textsuperscript{354} Agamben (2005), p 86.
\textsuperscript{355} Agamben (2005), p 87, italics in original.
\textsuperscript{356} Agamben (2005), p 88.
\textsuperscript{357} Agamben (2005), p 88.
\textsuperscript{358} For Braidotti, Agamben’s translation of zoe as bare life that can only be killed limits his contribution. Braidotti identifies that Agamben defers to the ‘Heideggerian legacy that places mortality at the centre of philosophic investigation’ (Braidotti 2006, p 247), and this closes his analysis to a vitalistic account of zoe that could ground a nomadic ethics (Braidotti 2006, p 39).
world means that its ontological grounding on being and thing leads to the irreducibility of being and thing. Instead of an essential humanity facing a non-essential technology, it seems that all that remains is technology. For law, Chapter 6 saw what was committed to when this occurs. It has been argued that *Battlestar Galactica*, notwithstanding the deaths and the jumps in time within the series, actually points elsewhere. In this, the decision gives way to the subject and the subject gives way to the technical – and this seems to be Heidegger’s doom for the West: the occupation of Being by Enframing. However, *Battlestar Galactica* goes beyond Heidegger; it shows that the inescapability of technē, of responsibility for becoming, continues regardless of the ontological health of the world. Haraway’s cyborg lives precisely because of concerns regarding the end of humanity, just as the Colonial society continues to live notwithstanding the nuclear destruction of the Colonies. Further, this responsibility for becoming glimpses the divine. Braidotti’s and Agamben’s stories end with spirit and hope, just as *Battlestar Galactica* ends with two ‘angels’ in lounge lizard attire on the streets of New York City.

That the divine – albeit a slightly tacky divine that doesn’t like the name ‘God’ – is the final image of *Battlestar Galactica* also suggests the end, or doom, of technical legality. With the occupation of technical legality by the law and technology enterprise, it was shown that this practical and positivist scholarship was grounded on science fiction, both in its fundamental articulation of the Frankenstein myth and also in individual literatures drawing upon specific speculative jurisdictions that beamed science fiction images, tropes and narratives directly into the law reviews. Technical legality, it turned out, was fundamentally a mythic discourse. Further, this was to be expected. If Being in the West has been given over to technology – or indeed, was always technological – and
this is not a disclosure to death, but responsibility for becoming, then the dwelling place of this saving is myth. Heidegger’s saving power of art turns out to be perceptive. It is from poet Friedrich Hölderlin that Heidegger draws the inspirational quote concerning danger and the saving power.\footnote{359} And it is the poetry of art that is, for Heidegger, ‘the setting-into-work of truth’.\footnote{360} For Heidegger, earth ‘is that which comes forth and shelters’;\footnote{361} then it can be said that \textit{alētheia} and \textit{technē} find their earth in myth.

For technical legality, this means an acknowledgment of its essential mythic task. It needs to tell stories about law and technology, to reach for \textit{alētheia} in comprehending technological Being-in-the-world. It is a task that it already does. However, the ready-at-hand for these journeys needs to come out into the open. Science fiction as mythform is already present, and has been presenting within this serious task. The joy for the task-to-come is a celebratory working through of the responsibility for becoming in the interface of law and technology through this newly forged confidence with myth.

\footnote{359} Heidegger (1977b), p 34.  
\footnote{360} Heidegger (1993), p 197.  
\footnote{361} Heidegger (1993), p 171.
8

Sojourn’s Ends

But when we consider the essence of technology, then we experience Enframing as a destin ing of revealing. In this way we are already sojourning within the free space of destin ing, a destin ing that in no way confines us to a stultified compulsion to push on blindly with technology or, what comes to the same, to rebel helplessly against it and curse it the work of the devil.

– Martin Heidegger, ‘The Question Concerning Technology’, 1953

1. Sojourning

Chapter 7 ended with the boon from the metaphysical realm different from what might be expected. In the monomyth, the hero restores the rightful order. Paul concludes Dune ascending the Lion Throne, the injustice of his father’s death avenged and his lost titles restored with supreme galactic interest. In Battlestar Galactica, the invoker of justice, Cavil/Number One, is dead as his exploding empire spirals into a black hole, Adama is left dwelling on a hillside beside Roslin’s cairn, and the trickster strolls New York City. The world is not restored, but changed.

The Frankenstein myth, with its categorical commitments to a vulnerable humanity, amoral technology and saving supplement, has been pursued by this thesis. The starting claim was that to think technical legality, the interface of law and

\[\text{Heidegger (1977b), pp 25–26.}\]
\[\text{Campbell (1968), pp 229–260.}\]
technology, necessarily involved taking myth seriously. This thinking disclosed three stages.

The first stage involved an immediate dealing with what was at hand: the towering library of legal scholarship on technology. In Chapter 2, it was noted that lawyers – especially since the 1950s – have written excessively about technology. Further, it was suggested that most of this scholarship was grounded on a common framework. In examining three specific legal literatures that responded to three different technological crisis events – Sputnik, IVF, virtual-worlds – it was argued that, notwithstanding differences in time (1950–60, 1970–80, 2002–08) and technologies (space technologies, artificial human reproduction, virtual reality), the legal literatures manifested a common structure: the law and technology enterprise. The elements of this structure were problematic technological futures that called for law, disclosing the task of the lawyer-scholar as being to describe existing laws, find gaps and document how policies – generally decided elsewhere – might address perceived problems. The foundational theory of law was positivism and the reigning motif was practicality through prudent planning. While this technical discourse on legal engagement with technology can be seen as occupying technical legality, excesses were identified. First, the basic structure of the law and technology enterprise – as a thoroughly rational, indeed modern, discourse – disclosed the Frankenstein myth. Technology was outside of human society and needed to be controlled to maximise promises and minimise perils. Here was myth at the heart of a self-proclaimed, in its referencing of practicality, myth-less discourse. This in turn opened to other excesses. There was the hint of a duplicitous shadow in the law
and technology enterprise’s saving law. The technical could be glimpsed in the ascendant positivism.

Another excess identified in the occupation of technical legality by the law and technology enterprise was the acknowledged location for the legal imagining of technological futures in science fiction. There was myth not only at the level of structure, but in its substance. In Chapter 3, it was shown how science fiction formed the speculative jurisdiction for the law and technology enterprise. Science fiction was the storehouse of images, narratives and tropes that informed and gave structure to Western lawyers’ imagining of technological futures. Chapter 3, then, suggested that this function of science fiction was only to be expected – that science fiction in modernity forms the Western mythform. It is the place where the modern West tells stories of its technological future. This broke into two registers. Science fiction as mythform concerned the structures of knowable futures, projections of technologies and social forms. This epistemological register disclosed deeper considerations. Not only did science fiction imagine and consider the external structures of future lives; it concerned the future Being of these lives. This ontological register opened to a fundamental task of thinking what it would mean to live in these futures. Science fiction forms the Western mythform precisely because it locates both modes of thinking. In turn, this marked the next stage of this thesis: taking science fiction’s epistemological register seriously, and in so doing drawing upon law and popular culture methods concerned with law as a cultural text to be used in conjunction with other cultural texts to explain historical moments.

Chapters 4 and 5 presented two worked examples of this method deployed to make sense of moments in Australia when law was called forth by an emerging
technology. Chapter 4 concerned the making and remaking of the *Prohibition of Cloning Act 2002* (Cth) and Chapter 5 considered the movement into law of the *Motor Car Act 1909* (Vic). Both examined the archive surrounding each law-making event – newspapers, parliamentary debates, reports and correspondence – to observe that these mainstream sources for historical analysis failed to disclose why the *Prohibition of Cloning Act 2002* (Cth) hysterically prohibited the clone and yet embraced it with the amended *Prohibition of Cloning for Human Reproduction Act 2002* (Cth) four years later. Similarly, the mainstream sources failed to construct an acceptable narrative to explain why a society seemingly antagonist to motor vehicles enacted the pro-motorist *Motor Car Act 1909* (Vic). It was argued that these laws were comprehensible via their mythform. The *Prohibition of Cloning Act 2002* (Cth) made sense in the light of science fiction’s clone canon, specifically the animation of the anxieties of the clone by *Star Trek: Nemesis*. *Nemesis* explained why, in 2002, the clone was to be prohibited; however, the film’s return to essence also explained the rehabilitation of the clone in the 2006 amendments. For the *Motor Car Act 1909* (Vic), its securing of a technological future through executive mechanisms of registries and licensing made sense in the light of H.G. Wells’ scientific romances. The image in Wells’ texts of a responsible humanist using techniques to secure a desirable future manifested directly with the establishment of legal and political machinery through which technocrats could secure the future through the management of society in the present.

However, both Chapters 4 and 5 concluded, like Chapter 2, with excesses. Behind the cultural historical analysis informed by science fiction’s epistemological register, something was amiss. The law that was called forth was ‘neutral’ in Carl Schmitt’s sense.
These laws were forms with substantial portions of their operational content empty, waiting to be filled by the decision-makers in the course of daily administration. Further, there was something mechanical in the production of these laws, especially the *Prohibition of Cloning Act 2002* (Cth) and its amendments. Recommendations in reports by experts became law notwithstanding the surface bluster of politics and decision that characterised the parliamentary debates. For Schmitt, this neutralised, self-generated law of executive regulation was the fate of law in the modern West, disclosing that law itself had become technological.

This fairly mundane observation by Schmitt has fundamental implications for technical legality. It dissolves legality to leave just the technical. This is the implosion of the Frankenstein myth: the saving law to secure the human against the monster is the monster in disguise. The resulting singularity marked the limit of science fiction’s epistemology register for technical legality. However, this paved the way for science fiction’s ontological register to think the residue oscillating on the event horizon of the imploded *Frankenstein* myth: what does it mean that, in modernity, law is technology?

Chapter 6 answered this directly. By following William P. MacNeil’s method of reading cultural texts jurisprudentially, it was argued that Frank Herbert’s *Dune* cycle, notwithstanding the impressive weight of scholarly opinion suggesting that *Dune* concerned messiahs, Machiavelli, ecology and Western Buddhism, disclosed the essential commitments of sovereignty. *Dune* not only animated Hobbes, but cut through the mortal god to reveal the alchemy of death and time out of which sovereignty was conjured. To be sovereign, to be the maker of law, it was revealed in *Dune*, was to be the maker of worlds. To make the world meant closing off forms of life. It entailed the sacrificial
cutting off of certain forms of life to secure a future. The true monstrousness of the mundane-sounding law as technology was in this consumption of bare life in time. The world projected by this ontology was, aptly, a dry harsh desert – an impoverished life turned towards death under the rule of the two monsters that are one: law and technology.

Chapter 7 continued with science fiction’s ontological register and MacNeil’s method of reading popular texts jurisprudentially to explore Being in this monstrous epoch. Reading Battlestar Galactica jurisprudentially disclosed concerns with the exception. However, Battlestar Galactica confounded Schmittian metaphysics. Schmitt’s attempt to postulate a leader and a people were interrupted in Battlestar Galactica by embodied agency. This emphasis on agency, specifically identity, was also problematic. For terrorising the subject in Battlestar Galactica was the biological. This return to essence – unlike in Nemesis – was short-lived, for transposing essence was the Cylon, the technological object. This disclosed a profound blurring within the series; the category of human and the category of technology become confounded as the series progressed. This bringing of the technical within the human is what imploded the Frankenstein myth. It is also the essential story of technology told by Heidegger. Heidegger charted the occupation of Being in the West by Enframing, seeing the truth of the world in terms of standing reserve for future deployment. For Heidegger, the movement of technology into the essence of humanity that was animated by Battlestar Galactica was the doom of the West. However, Heidegger did not exhaust Battlestar Galactica. While Chapter 6 might suggest that living in a universe given over to Enframing is marked by death and future, Battlestar Galactica gestures elsewhere. It shows living at the end, a presence-ing and a responsibility to becoming, outside of the
metaphysical frame. This preference for Haraway over Heidegger, life over death, plays out a final commitment in *Battlestar Galactica*: that the inescapability of *technē* requires myth to manifest a free responsibility for becoming.

### 2. The Free Space of Destining

The conclusion in Chapter 7 of a finding of a dwelling, an earth, in the unity of *technē* and myth returns to the opening statement of this thesis: that technical legality exposes the mythic of modernity. Indeed, the implication of technological Being-in-the-world is the importance of myth to the free task of responsibility for becoming. As this is the fate of the West, then the identification of the persistence of myth in modernity is to be expected. What this thesis’s pursuit of technical legality has exposed is the poverty of modernity’s myths.

The denial of the mythic has been shown to be self-defeating. Reason has not triumphed myth; rather, in its denial, myth has triumphed reason. A world revealed as ready at hand, as standing reserve, is itself a story of fate and beings, of a corruption of an original coming to truth through art. However, if *technē* is truly what it means to be human then the residual romance in this story becomes assimilated with the cyborg-that-is-us. Pure technical engagement has to be given meaning. Max Weber identifies as much:

> Natural science gives us an answer to the question of what we must do if we wish to master life technically. It leaves quite aside, or assumes for its
purposes, whether we should and do wish to master life technically and whether it ultimately makes sense to do so.\footnote{Weber (1948), p 144.}

In leaving ‘quite aside’ myth which natural science stripped from the material world, myth came back with a vengeance. For Michael E. Zimmerman, Ernst Jüger’s attempt to develop a mythos that could support a worthwhile industrial society holds within it the germ of Nazism.\footnote{Zimmerman (1990), p 63.} Indeed, the history of the twentieth century, under the guise of ideology, was a struggle for narrating meaning about the technological world into which the beings of the modern West have been thrown. Theodor Adorno and Max Horkheimer saw modernity as the merging of the mythic and the profane, and rather than the negation of myth, modernity represented a freeing of myth from the sacred to the everyday.\footnote{Adorno and Horkheimer (1972), pp 27–29.} Modernity might claim to be beyond myth, yet what emerged was a space for the free creation and circulation of myth.

This flows to the pragmatics of technical legality. The law and technology enterprise, the primary modus through which technical legality has been thought, researched and written about, has been revealed as sustained and nurtured by myths. Both the metaphysics narrated by the Frankenstein myth and the images of technological futures from the mythform sourced speculative jurisdiction. The narrative arc of this thesis is that the \textit{Frankenstein} myth in particular need not remain sacred. It limits technical legality. Indeed, it reduces law to technology, humans to technology and technology to Enframing, leaving a residue of death and time. As such, it closes free thinking in relation to the engagement of law with technology. Science fiction, as shown
with *Battlestar Galactica,* can tell counter, and perhaps counter-intuitive, stories of life and living beyond ‘[t]echnicity … [as] the destiny of metaphysics and its completion’.367

This liberating of technical legality can be appreciated in several directions. The first can be a thinking through of the *is* of technical legality, the empirical moments when law engaged with technology. Chapters 4 and 5 of this thesis demonstrated this way of engaging with technical legality. In Chapter 2, it was suggested that there was a minority literature, ‘law, technology and society’, that approached technical legality by utilising social scientific methods to gain a way of knowing how a specific cultural moment received, thought and legislated for a specific technology. This research is undertaken under an epistemological guise, a mapping of the threads of a complex lived moment. Sustenance for this approach can be found in Donna Haraway’s desire that:

> Any interesting being in technoscience, such as a textbook, molecule, equation … can – and often should – be teased open to show the sticky economic, technical, political, organic, historical, mythic and textual threads that make up its tissues.368

Notwithstanding her disagreement with Bruno Latour,369 Haraway’s task seems analogous to Latour’s actor network theory. While Latour considers actors from within a scientist’s research community, and political, media and economic actors, his insight is that machines and objects also should be treated as actors within his sociology of networks.370 In *Aramis or The Love of Technology* (1996), Latour traces how mundane and often haphazard political, economic, social and technical factors, and the

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368 Haraway (1997), p 68.
personalities of agents, including the personality of the technology itself, interacted over an eighteen-year period, and led to the abandonment of an alternative public transport system for Paris.\textsuperscript{371}

This type of research maps the complexities of culture and personalities, and the more ‘abstract’ political, economic and legal contexts. It shows how law and technology are not only joined at the site of law regulating a technology, which was the focus of the law and technology enterprise, but have multiple intersections.\textsuperscript{372} Notwithstanding Latour’s passing reference to law as a ‘modest technology’,\textsuperscript{373} law has not been strongly considered by technology studies. When Latour writes about the red light flashing in his motor vehicle insisting that he fasten his seat belt,\textsuperscript{374} it is a machine animated by 90 years of legal argument concerning who carries the liability for motor vehicle safety – the state, the manufacturer or the driver? Also, this form of scholarship, in building an archive of how actual laws – or even actual non-laws (movements towards law that were scuttled) – can provide a basis for technical legality to continue the law and technology enterprise’s desire to advise about law and technology. It shows responsibility for becoming by seriously ordering the past of technical legality.

An alternative to this historical direction is to examine the everyday goings on of technical legality. Such an approach can be seen in the anthropological work of Marilyn Strathern, who undertook ethnographic studies of IVF technologies to identify Western notions of kinship.\textsuperscript{375} Technological Being-in-the-world rarely imposes itself as

\textsuperscript{371} Latour (1996).
\textsuperscript{372} See, for example, Caudill (2002a, 2001).
\textsuperscript{373} Latour (1996), p 45. Latour has written about the courtroom from his perspective of the production of ‘facts’ in a laboratory. However, the traces of law on technology have not been pursued thoroughly. See Latour (2004).
\textsuperscript{374} Latour (1992), p 226.
\textsuperscript{375} Strathern (1992); see also Strathern (2005).
Enframing. Technology and law are part of the background of the activities of daily life – something Langdon Winner emphasises about technology.376 Mundane tasks such as driving a motor vehicle involve a kaleidoscope of legal and technical considerations and interrelations. A human driving involves legal regimes of licensing, criminal laws relating to motor vehicles, of torts and insurance law and of contract, consumer protection and property, and reliance on the multiple technical apparatus of the motor vehicle, which in turn are influenced by laws relating to, for example, safety and fuel consumption. However, in the task of driving, the driver remains ignorant of these and their multiple interactions. Drawing upon Latour’s later work, it can be said that technological objects and humans jointly form a culture which structures particular forms of relationships (between objects and objects, objects and humans, humans and humans), and within which some relationships possess particular characteristics that allow them to be regarded as profane, ethical or legal.377 This approach to technical legality examines the contours of contemporary culture, locating the relations of law and technology in the realm of becoming. This is a direct engagement with myth. Contrary to the romantic tradition in technology studies concerning the inescapable tragedy of technology, contemporary Western culture can be seen to provide sufficient resources for many Westerners to live, by their own accounts, well, within technological society and to adapt to technological changes.378

In this, science fiction as mythform returns. In Chapter 3, it was emphasised how science fiction as Western mythform is the storehouse for images, narratives and tropes for both the task of living in the modern West and also for the policy task of thinking and

378 This was suggested by Turkle in recognition of the adoption of computers. See Turkle (2004).
legislating for technological futures. The law and technology enterprise’s speculative jurisdiction is rooted in well-known and celebrated images, narratives and tropes. As mentioned in Chapter 4, the mainstream dystopian images of cloning have been reimagined and negated in feminist science fiction. Confidence with myth entails a drawing deeper into the mythform in the framing of technical legality. As technological Being-in-the-world discloses a form of existence where myth and technē dwell together, an invitation remains for law and culture to discover science fiction, not only to comprehend the ways in which Western life continues to exist, but as essential work in being freely responsible for becoming.

In conclusion, the byline that ‘technical legality discloses the mythic of modernity’ signifies hope. The coming to pass of Enframing marks an end of metaphysics, but not life. This means that the sacred and the profane collapse, freeing myth to comingle with technē in technological Being-in-the-world. Free of metaphysics, this being – the essential Being in the modern West – is free to be responsible for becoming. This is confidence with myth. While this does entail a ‘make it so’, as is regularly uttered by Picard to his crew in Star Trek: The Next Generation, it also discloses the more playful offering of jelly babies by the Fourth Doctor in Doctor Who. The freedom to quest like Paul from Dune goes with the passive opportunism of Battlestar Galactica’s Baltar, and the serious responsibility of Adama. For scholars of technical legality, technological Being-in-the-world means that our future is ours, and the scholar’s task is the serious, creative, playful task of identifying, questioning and
critiquing the stories that infuse this mythic-technical epoch. Scholars need to guard the ‘free space of destining’\textsuperscript{379} so the West can freely be responsible for becoming.

\textsuperscript{379} Heidegger (1977b), p 25.
## Appendix 1: Table of JOLTs and JOLSTs

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1. Sources: Westlaw; Hein Online; and the Australian Research Council ranking of journals produced as part of the Excellence in Research for Australia exercise, available at www.arc.gov.au/era/journal_list.htm (as at 23 April 2009). Magazine-style ‘trade’ journals were excluded. No claim is made that the list is entirely comprehensive.

2. The following categories were used: ‘General’ refers to JOLTS; ‘Aeronautics’ refers to air and space technologies; ‘Biotech’ refers to biotechnologies; ‘Health’ refers to health-related technologies; ‘IT’ refers to information technologies. Specialist health law journals were included as these journals publish a steady stream of research concerning health technology and biotechnology. Specialist intellectual property journals were included as these journals also publish a preponderance of research concerning information technology and biotechnology.
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Appendix 2: Norman Bayles MLA (Toorak) and his Family

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