‘Turning Around’ to the Affordances of Digital Games: English Curriculum and Students’ Lifeworlds

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Abstract: The need for English and literacy curriculum to connect with young people’s lifeworlds to build bridges and frames of reference that connect traditional English curriculum with digital texts and literacies, are increasing priorities in curriculum frameworks in Australia and elsewhere. This paper reports on a project in which the authors worked with teachers and students in five secondary schools to research the ways in which digital games might be incorporated into the English curriculum. Central to this endeavour was ‘turning around’ to the affordances of digital games and their paratexts to understand how they can be understood as text and action. Drawing on classroom observations and literature in Games Studies and English curriculum we present a timely model and innovative heuristic that we argue facilitates teachers incorporating digital games into their English classrooms. We illustrate how each assists teachers in ‘turning around’ to digital games to make their English classrooms more relevant to students’ lifeworlds.

Introduction
A central challenge for education in our shifting technological landscape is the need to both strengthen and consolidate traditionally valued skills, culture and forms of knowledge, and to anticipate, conceptualise and action ‘a curriculum built for change’ (Kress, 2000) – a curriculum that acknowledges and responds to the uncertainty and instability of the early 21st century. A ‘curriculum built for change’, by its very nature, prepares children and young people for both present and future worlds and takes into account the ways in which globalisation, technology and the digital age are transforming experience and familiar communicative forms. This challenge is further intensified by unprecedented social and technical changes (Facer, 2011) and tremendous, even risky, examples of technology transforming human existence (Craft, 2012).

These challenges have unprecedented and critical implications for disciplinary knowledge and the organisation of school subjects. Teachers must skilfully navigate the relationship between past, present and future forms of text and knowledge and the ways they are valued, with respect to form and content; curriculum, pedagogy and assessment. While
radical change surrounds us, within such a context, ‘what remains constant is the fundamental aim of all serious education: to provide those skills, knowledges, aptitudes and dispositions which would allow the young who are experiencing that curriculum to lead productive lives in the societies of their adult periods’ (Kress, 2000, p. 134). Confronted with two competing discourses regarding children and young people: one that views them as vulnerable and ‘at risk’; the other as capable and proficient (Craft, 2012) when it comes to their engagement with digital games, the work we describe in this paper rejected the former and ‘turned around’ (Comber & Kamler, 2005; Walsh & Kamler, 2013) to capitalise what young people’s engagement with digital games allows them to do. We were keen to explore the kinds of literacies their engagement called upon and enabled, and the ways their new multimodal literacy practices – as a result of their deep engagement with gaming culture – supported them in achieving a range of improved literacy outcomes (Beavis et al., 2009).

Consistent with this imperative to ‘turn around’ to children and young people, the project’s teachers worked to explicitly connect with students’ lifeworlds (Zipin, 2009), using ‘real world’ research and connections with students’ lives and home communities (Comber, 2014; Moll et al., 1992). Incorporating digital games into the curriculum allowed students to playfully draw on meaningful experiences from their lifeworlds, validating their out of school literacy texts and practices and enabling them to become both creators and producers of popular culture and digital media. Viewing literacy texts and practices as inclusive of print, digital and multimodal forms, (New London Group, 1996; Alvermann, 2010), the project emphasised the critical social and cultural significance of engagement with digital games in young people’s lives.

**Literacy in the digital world of the 21st century**

The project *Literacy in the Digital World of the Twenty First Century: Learning from computer games* (Beavis, Bradford, O’Mara & Walsh, 2007–2010) set out to learn more about digital games and young people’s engagement with them and about the ways in which games themselves functioned as textual/literate forms. Funded by the Australian Research Council, with Industry partners the Department of Education and Early Childhood Development (Victoria), the Australian Centre for the Moving Image, and the Victorian Association for the Teaching of English, this three-year project worked with five secondary schools in Victoria. We worked in collaboration with two urban secondary state colleges, one metropolitan Catholic secondary boys college, one regional Catholic secondary boys college and one co-educational Independent Melbourne School. The project explored:

1. video and other forms of digital games as cultural artefacts, new forms of narrative and multimodal contemporary textual forms;
2. young people’s knowledge of, and engagement with, the world of digital games and what might be learnt from that knowledge and engagement to support the learning of new and traditional literacies in school and
3. the challenges and opportunities teachers face in reconceptualising the curriculum subject English (and related subjects or concepts, particularly literacy) to include the creation, use and/or analysis of digital games in the classroom.

Over the course of the project, teachers productively explored various aspects of digital games and the implications and possibilities raised for their incorporation into the curriculum. This included developing school-based units, reflecting on the kinds of literacies and understandings fostered as students made, played or studied games and the relationship of the games as text and literacy to more traditional forms and expectations in English, Drama, Literacy and Media and IT.

**Turning around to digital games**

Paying close attention to what their students could do – when it came to their engagement with digital games and digital game culture – project teachers redesigned selected aspects of their English and literacy curriculum to ‘turn around’ student literacy achievement and engagement (Comber & Kamler, 2005). They did this by incorporating digital games as authentic texts worthy of study. They believed redesigning selected aspects of the English curriculum would not only better connect with students’ lifeworlds, but also better connect students with literacy. Turning around to the affordances of digital games was particularly relevant for those teachers in the project who worked with students who struggled with more traditional school-based literacies. These same students often had highly proficient out-of-school digital literacy knowledge and practices as a result of their deep immersion in gameplay and digital game cultures.

In the next section we present six case studies...
that succinctly illustrate teachers leveraging students’ interest in digital games and the culture of gaming to strengthen existing school-based literacies and identify new forms of literacy practice to design curriculum units ‘built for change’. The units show teachers turning to the affordances of digital games to turn around student literacy achievement.

Incorporating digital games into the curriculum
Teachers’ research projects were diverse. The types of digital games they incorporated into their classrooms included genres ranging from narrative, quest-based epics to sandbox, serious and fantasy sports games. In the six case studies that follow we briefly illustrate how by turning around to the affordances of digital games, teachers transformed their classrooms into vibrant and motivating environments where students engaged in both print and digital literacy practices through digital gamed based writing and research, drama and game design (Apperley & Beavis, 2011; Apperley & Walsh, 2012; Beavis, O’Mara & McNeice, 2012; Walsh 2010).

Becoming game designers
The first project researched an already well-established college, where Year 7 boys made their own computer games using GameMaker: Studio, a free game design software. One game ‘went viral’, with boys playing tournaments of this game even after the project ended. Once the ‘school project’ side of the game making was over, the game designer and his friends added other levels to the game, and boys copied the game onto their USB sticks so they had access to play the game everywhere. Becoming game-makers gave the boys an independence from games as consumer products, and a clear sense of how commercial games were constructed. Rather than being just implicit consumers of games, the boys became skillful game collaborators and designers.

Dramatising gameplay
Also at the boys’ Catholic Regional College, a second, smaller project used Drama to explore a series of issues and aspects of digital games. Boys role-played videogame characters coming to life on Christmas day, and their parents’ mock horror reactions to videogames, with caricatures of the players themselves lost to the game and entirely out of control. This drama work used naturalistic and non-naturalistic forms, which enabled the boys to symbolise some aspects of their views and experiences. The unit began with a focus-group discussion of videogame characters, and this was used to develop the drama work, with the questions and ideas raised by the boys providing the framing for the drama. The boys described their understandings of character, analysed how game narratives were constructed and critiqued the realism of characters through drama explorations of their experiences. The boys developed high levels of critical awareness about how they are positioned inside games by the game structures themselves. They were also very aware of how society positioned them as young male gamers. The boys actively subverted and played with these stereotypes in their drama work (O’Mara & Lees, 2012).

Positioning students as researchers of digital games and gameplay
In the third project, at the urban Catholic boys school, a Year 9 English class studied representations of violence in videogames. They began by surveying students about their own playing of console games. From there, students undertook a comparative critical analysis of games aimed at differing audiences including the Simpsons Hit and Run and Grand Theft Auto IV, and compared representations of violence on TV, in print newspapers and in videogames. Students accessed and read game reviews from the GameSpot website, and authored their own following the genre's format. The unit encouraged critical understanding of the codes and conventions of particular types of games designed for specific audiences, critical interrogation of representations of violence in computer games along with possible social ramifications and finally, critical analysis of specific textual genres common in the gaming world (Cuddon 2012; Gutierrez & Beavis, 2010).

Convergence through gameplay
The fourth project, a Year 11 Media class, centred around the notion of convergence (Jenkins et al. 2006), particularly focusing on fantasy sports games. Students investigated online communities and convergence through the AFL SuperCoach game, tapping into a major interest area amongst students. Students reflected on the kinds of life skills they were forming through gameplay (such as numerical skills, reading of statistics and critical reading of media), along with the ways their participation, consumption and production in and around the online game, and the various media sources they consulted, converged to create a particular
online AFL game community. Discussion surrounding the play of the computer game also led to discussion of how the identity constructed online is not necessarily linked to or indicative of the students' physical body, in that the students may not participate in sport themselves but rather use SuperCoach as a viable replacement of the physical sporting experience. This project provided an important springboard for considering notions of gaming capital (Consalvo, 2007) and crossovers between physical and virtual worlds (Gutierrez & Beavis, 2012).

Mobilising the 4 Resources Model to research and present gameplay

The fifth project focused on Year 7 students who were not particularly interested in the traditional school literacy learning on offer, but were highly motivated game players. Students attended the Game On! exhibition at ACMI as researchers engaging in fieldwork. The digital game exhibit was used to motivate students to conduct a specific inquiry on digital games, about a topic they cared about. Students engaged in gameplay and reflected on the experience by describing the games they played, aesthetics of game characters (avatars), the actions avatars could do and the environment (space) of the game. Students gathered enough data to start a research project on a digital game of their choice. The curricular texts of the English classroom shifted to gaming reviews, FAQs, print and film walkthroughs, advertisements, gaming magazines, strategy guides and online cheat websites, or sites where students could go to learn cheat codes for popular games. The project's final assignment required the students to take up the four roles of the reader (code breaker, text user, text participant and text analyst, Freebody & Luke, 1990) in their research and presentation of a digital game of their choice (Walsh, 2010).

Game-O-Rama

The sixth project centred on Game-O-Rama, a student designed and maintained wiki that showcased and organised students’ research and argumentative writing on digital games as well as the design of their own digital games using PowerPoint software. Game-O-Rama was a welcomed virtual, password-protected space, where a class of Year 7 boys who struggled with literacy could draw not only on their out-of-school digital literacies, but also their proficiencies as gamers. The catalyst for this project was also the Game On! exhibit at ACMI. As with case study 5, students similarly took on the role of researchers and engaged in a type of ‘standpoint research’ (Thomson & Gunther, 2007). The previously marginalised topic of digital games enabled students to call on their gamer subjectivities, making literacy teaching more relevant to their lifeworlds. Students identified the distinctive features of digital games and their narrative elements such as genre, plot, character development, point of view and elements of design involving print, iconography, colour, movement and sound. Using school-based literacy features and practices, including character webs and Venn diagrams, students compared the digital games in terms of their form, structure, language, purpose, action and reader/user engagement with Disher’s (2002) novel, The Apostle Bird.

Digital game paratexts

A central component in many of the curriculum units were ‘paratexts’. Paratexts, as Consalvo (2007) uses the term, are the system of media products that emerge on and about digital games that work to frame their consumption. They include a wide, and easily accessible, variety of print and digital texts made by the digital game industry (guidebooks, commercials, previews, trading cards, clothes), specific paratextual industries which exploit the digital game industry (Cheatbooks and Mod chips), and by gamers (e.g. students) themselves (Fan fiction, art and music, FAQs, Walkthroughs and maps, Glitch Lists, YouTube videos.

‘Paratexts’ played an important role in connecting digital gameplay and game cultures to tangible literacy outcomes (Apperley & Walsh, 2012) in each of the projects described above. When teachers sanctioned the consumption and design of digital game paratexts, they brought a variety of new texts into the classroom immediately relevant to many of their students’ lifeworlds. This was, in a sense, a game changer for the project. Incorporating digital games’ paratexts into the English classroom proved to not only be a generative and engaging way for students to connect their in- and out-of-school knowledge to the English and literacy curriculum, but it also provided useful way in for teachers, as paratexts often mirror more traditional print-based texts. Digital game paratexts also helped teachers familiarise themselves with the wide ranging print and multimodal texts that circulate in the digital gaming cultures many of their students participate in outside of school. Their use of paratexts explicitly enabled ‘turning around’ to the affordances of digital games.
While some teachers were initially reluctant to incorporate digital games into their classroom, this was not the case with paratexts. In addition to the actual ‘reading’ and playing of games, or discussions of out of school play, students read and interacted with paratexts, including walk-throughs, league tables, box covers, game reviews and newspaper opinion pieces on popular culture and videogames. They created paratexts of their own, ranging from game reviews and critical analysis through to their own multimodal presentations about digital games and game play.

Paratexts, then, provided a strategic starting point in providing teachers thinking about changing their curriculum in this way with a practical means to do so. Most digital game paratexts emerge from traditional literacy practices, and as such, are recognisably part of traditional English/literacy curriculum. Creating paratexts might involve students putting together a print-based or digital video FAQ or walkthrough, or developing the more technology oriented skills that are required to search for glitches and bugs, design Mods, or learning how to use different software to design games from scratch (YoYo Games, GameMaker, Machinima, Gamestar Mechanic, etc.). Recognising the relevance of paratexts in students’ out-of school lives also entails recognising that many students who struggled with school literacy are actually reading, and at times producing, complex expository and procedural texts, that may be well above their year level.

Collectively, with the teachers we were working with, we came to understand that digital game paratexts explicitly demonstrate where and how digital games and literacy are related. This understanding opened up new ways for the English and literacy curriculum to be relevant to students’ lifeworlds. Students were speaking about and listening to each others’ gameplay talk, and writing, reading and designing a wide variety of digital game paratexts. This work suggests that digital games and their paratexts are worthy of academic inquiry in schools and have the potential to shift the field of literacy in a direction that does not view researching and playing games as something potentially negative, as an activity that takes students away from reading; or as being in direct competition with more familiar school-based literacy practices.

In the following section we introduce two models for working with Digital games and English/literacy that emerged from this project. The first presents a framework for understanding games as both text and action, the Games as Text/Games as Action model. The second presents a heuristic for understanding gaming literacy (HUG). We illustrate how each incorporates digital game paratexts and facilitates bringing digital games into the English classroom.

Games as text and action
The starting point for the project was thinking of games in terms of text and narrative, as emergent cultural forms with new and complex ways of telling and making stories, positioning players, calling on and evoking ideological values and positions and so on, in multimodal form. As Bradford notes:

Like all texts incorporating narrative, games embody and construct worldviews and ideologies, in that they are informed by discourses dominant in the cultures in which they are produced. Just as the ideological content of novels and films resides in the ‘how’ of narrative rather than the ‘what’ of storylines, so the ideologies and world views of games are manifested through the ‘how’ of representation and game narratives (Bradford, 2012, p. 119).

However, games are not straightforwardly narrative:

Games are hybrid products which incorporate narrative and game elements while engaging players in energetic action and (in many cases) interpersonal and social processes. As complex, evolving forms, they invite analytic strategies which take account of the multifarious ways in which they produce meaning and create subject positions for players (Bradford, 2010, p. 54).

Games quintessentially require action; they come into existence only through play; action – interactivity – lies at the heart of game design, and of the way they are experienced and driven. However, this presents challenges. As games scholar Apperley explains:

One of the key difficulties facing teacher practitioners using interactive media such as videogames in the English and literacy classroom is identifying, describing and conceptualising the role that interactivity has in the process of consuming the media, while still remaining relevant to the more literary concerns of the curriculum. (Apperley, 2010, p. 12)

He calls on three core notions from games studies to illuminate ‘interactivity’:

The first notion, ergodicity, is important for conceptualising the actual effort or work that students put into enacting the computer game. The second notion, encoding/decoding, draws on Hall’s (1973) model to examine how the ergodic process intersects with students’ imaginations and interpretations of the game. The final notion, ludology, one of Games Studies’ founding concepts, is
To bring together these two related but distinct ways of thinking about games in the English/literacy context, we developed the ‘games as text/games as action model’ to support curriculum design, and the observation and analysis of games curriculum and gameplay. Envisaged as a spinning pinwheel, with any activity entailing elements from both layers, we created a model with two overlapping layers. At the centre, the ‘Games as Action’ layer was organised into three segments – design, situation, and action – reflecting the core notions from Games Studies that Apperley describes. The second layer, ‘Games as Text’, was designed to reflect approaches to text and text analysis from the English and Literacy fields – ‘Learning through games’, ‘Knowledge about games’, ‘The world around the game’, and ‘Me as games player’. Notions common across both layers, such as the situatedness of any action, or the centrality of design, reflect the integrated and interwoven nature of activities present in digital games.

This model acknowledges that digital games are both deeply textual in the multimodal sense, and also enacted and instantiated in a manner that is substantially different from other multimodal texts (Apperley & Beavis, 2011; Beavis & Apperley, 2012). Expanding the repertoire of texts used in the English/Literacy classroom to include digital games would not be as effective without also considering and accounting for such matters as: the algorithmic nature of games; the embodied and disembodied situatedness of participation and construction; the differing physicality of gameplay; and how the game-text is produced through the interplay between players, software and hardware (see Aarseth, 1997; Galloway, 2006; Gee, 2003). The model has two inter-related layers, one which examines the connections between games and literacies (games-as-text) and one which examines the process of play (games-as-action).

The games-as-text layer presents four dimensions that connect digital gaming to critical literacy approaches. ‘Knowledge about games’ focuses on the narrative and aesthetic aspects of games and gameplay. While ‘Me as a game player’ takes a reflexive approach to how players are positioned by the game. ‘The world around the game’ highlights the broader local and global contexts in which games and gameplay takes place. Finally, ‘Learning through games’ takes a meta-learning approach, encouraging students to evaluate the capacity of games to teach or impart information. This layer of the model is intended to provide a framework for planning games-based curriculum and pedagogy, whilst still considering the implications of games-as-action.

Games-as-action focuses on the physical dynamic process on enacting digital games. It includes two related areas: design and situation. The former includes: the elements of creation and production within digital games; the process of multimodal meaning-making and design that is involved in re-presenting and recon-contextualising game information through the creation of paratexts; and the process of designing and redesigning games. The situation refers primarily to the context of digital play. Context emphasises the informal learning and sociality that takes place during the experience of gaming, and how gaming is connected with – and a part of – other mundane daily activities (Apperley, 2010).

‘Games-as-action’ maps dimensions of play almost ethnographically, observing the interrelationships in how games are played. This mapping provides a guide for developing curriculum that both mirrors the out-of-school nature of gameplay and capitalizes on the informal learning taking place in out-of-school literacy practices. The two layers speak to each other in multiple ways. Different contexts, classrooms, students and curriculum mandates will result in the model being used in various ways. What is essential for the viable and productive inclusion of digital games in the...
A heuristic to understanding gaming literacy (HUG)

An important principle in this project was to not only incorporate digital games and digital games’ paratexts into the classroom, but to also acknowledge students’ gaming literacy in ways that help them acquire the traditional print-based literacies still needed for academic success. This required teachers and project team members to carefully examine what digital games and literacy have in common, particularly the complementary print-based and multimodal literacy practices required by both. Examining this intersection helped us establish what teachers need to know about children and young peoples’ gaming literacy – that primarily emerges from their out-of-school digital literacy practices – to effectively incorporate digital games into classroom literacy activities. This led us to conceptualise a heuristic for understanding gaming literacy (HUG). We believed a ‘HUG was needed’ to assist teachers in understanding what knowledge and language they could leverage to successfully incorporate digital games and their paratexts into the English and literacy classroom (Apperley & Walsh, 2012).

The HUG provides a mechanism that makes visible students’ gaming literacy so that diverse aspects of gameplay and game cultures can be introduced into English and literacy teaching, learning and assessment practices. The heuristic explicates the knowledges about digital games and the metalanguage needed to connect students’ out-of-school digital gameplay practices with school-based literacy practices. The HUG (Figure 2) charts the dynamic complimentary intersections between unofficial, informal, out-of-school gaming literacies and formal school-based literacies across four quadrants: actions, designs, situations and systems.

The HUG offers an informed explication of digital games on their own merit and provides teachers with a coherent and legitimate way of talking about digital games with their students. With this knowledge and understanding, teachers can authentically acknowledge young peoples’ gaming literacy and proficiencies with confidence. Additionally, the HUG assists teachers in conceptualising, developing and providing informed feedback on classroom tasks and assessments when researching digital games or incorporating the
consumption and design of digital game paratexts into the literacy curriculum. The heuristic can be used for effective professional development because it assists in identifying the elements of gameplay appropriate to the demands of the English and literacy curriculum. It traces gaming literacy across the quadrants of actions, designs, situations and systems to provide teachers and other practitioners with a knowledge of gameplay and a metalanguage for talking about digital games:

The HUG provides important knowledge and supports teachers in capitalising on students’ existing gaming literacy by connecting their out-of-school gaming literacy practices to the literacy and English curriculum:

Like the ‘Games as Text/Games as Action’ model, the HUG acknowledges first and foremost that digital games are played as well as ‘read’. This debate has been central to the discipline of game studies. This debate often centres on the difference between narrative understandings of games and how they might otherwise be understood in terms of actions, algorithms, coded rules, designs, and systems. The narrative of a digital game (what is happening when one looks at the screen) is the result of a process of playing the game that involves actions both from the player (by pressing buttons, for example) and the hardware/software of the game system. In response to this debate the HUG acknowledges both the ‘narrative’ and the ‘play’ of digital games and demonstrates how their interplay produces gameplay experiences. The aim of the heuristic is to make visible the complexity of the literacy practices that students use during gameplay, drawing attention to the unique opportunities that digital games and their paratexts provide for connecting the literacy curriculum to texts and practices significant to students’ lifeworlds (Apperley & Walsh, 2012).

What do the model and heuristic assist English teachers in achieving?

Both the Games as Text/Games as Action model, and the Heuristic for Understanding Gaming (HUG) model arose out of our work with teachers and students in this project, as a consequence of explorations taken collectively into ways in which digital games and literacy can work together in curriculum pedagogy and classroom practice. Both address the importance of action, gameplay and meaning making in this multimodal context; both provide tools for conceptualising relationships between core elements of action, design and situatedness, lifeworlds and English/literacy pedagogy and curriculum; and both provide a framework for critical analysis and curriculum ‘built for change’.

Though closely related, they differ in their emphasis. The ‘Games as Text’ layer in the ‘Games as Text/Games as Action’ model, links closely to models for thinking about language learning and literary analysis familiar in Australian schools – Halliday’s three part approach for literacy learning: learning literacy, learning about literacy and learning through literacy (Halliday, 1993),

<table>
<thead>
<tr>
<th><strong>Actions</strong></th>
<th>Action in digital games requires teachers and practitioners to get students to consider what they do when they are playing digital games. Action marks a key difference between digital games and other media. Actions define both the characters – in terms of the type and variety of the actions that the avatar can perform – and the virtual spaces of the digital games. Actions define how the space(s) and the objects in it will be used by the players.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Designs</strong></td>
<td>Designs embrace several crucial related meanings: the process of multimodal meaning-making and design that is involved in representing and recontextualising game information through paratexts; the elements of production within digital games that players encounter and interact with during the course of play; and the process of redesigning games. For practitioners the concept of designs links digital game paratexts with both playing and designing games. To understand the significance of designs it is necessary to consider how, through gameplay, a virtual gameworld is produced in a continuous, iterative reciprocal process of interaction between player and hardware.</td>
</tr>
<tr>
<td><strong>Situations</strong></td>
<td>The situations of gameplay quadrant is about understanding the spaces and/or contexts where digital games are enacted. When anyone plays a digital game, it happens in a certain space and that situation is integral to understanding the learning and sociality that takes place during the experience of gaming (Gee 2003). For example a teacher may play a digital game and not be fully able to ascertain its possible relevance to literacy education without questioning where and with whom the game is usually played.</td>
</tr>
<tr>
<td><strong>Systems</strong></td>
<td>Digital games are systems that engage players through rules and delineate particular actions, designs and situations. These systems are dynamic, recognising the actions of the player(s) and respond to accommodate those actions. If players both ‘read’ and play games, then what they have learned through game play and the reading, writing and design of digital game paratexts is how the system or set of rules within the game operates.</td>
</tr>
</tbody>
</table>

Table 1. The Four Quadrants of HUG
and poststructural models of literary analysis (Misson & Morgan, 2006). It reflects the starting point for the project in seeing games as (literary) multimodal texts – ‘digital games as texts in the English classroom’. It provides a framework for approaching games in this way, while taking planning beyond envisaging games solely as textual forms, to embrace intersections with action. The juxtaposition of the ‘Games as Text’ layer with the ‘Games as Action’ layer, derived from Games Studies, shifts the ways games are conceptualized, to underline the quintessentially active nature of play, while also foregrounding core dimensions of socially situated understandings of literacy and new literacies/Multiliteracies frameworks (Street, Pahl & Rowsell, 2009; Gee, 2012) and the centrality of situation and design. In doing so, it provides a toolkit for adapting and reconceptualising English/literacy curriculum in connection with digital games, deriving from these two areas.

The Heuristic for Understanding Gaming takes multimodal meaning making as its provenance and starting point, and the role of paratexts in building links between game play, literacy and lifeworlds. The HUG is intended as a starting point for curriculum projects that teachers can develop according to their own contexts and circumstances. Understanding students’ gameplay on its own is important, but understanding how the actions, designs, situations and systems affect gameplay and contribute to individuals’ gaming literacy is entirely more complex. While the heuristic illustrates the strong connection between the educational value of paratexts and gameplay itself, it remains important for teachers to continue to explore the dynamic seques between digital games and paratexts in the contexts of curriculum guidelines, their own classrooms, and their own students’ experience and life worlds.

Conclusion
We have argued that digital game paratexts are a practical starting point for introducing digital games and gaming literacies into the English curriculum. They require less experiential and technical knowledge of digital games to teach than may be demanded by the actual introduction of game play, and provide a practical vehicle for teachers, unfamiliar with or distances from the cultures of digital gaming, to integrate this into a ‘curriculum built for change’. Second, many students are already familiar with digital game paratexts, either as consumers or producers, from their immersion in gameplay practices and digital gaming cultures. Drawing on the knowledge presented in the Games as Text/Games as Action Model and the HUG, provides scope to focus not only on paratexts, but also on the elements of gameplay and gaming cultures that are appropriate for the demands of the English curriculum and assessment regimes. This last point is particularly important for teachers and other practitioners who work with students who are at the greatest risk of literacy failure. It is often the case that these students, through their everyday gameplay practices, have also acquired sophisticated gaming literacy practices that are complementary to the print-based and multimodal literacies still needed for academic success.

By turning around to affordances of digital games, teachers are well placed to turn around histories of student failure and disengagement by making their teaching visibly connected and explicitly relevant to their students’ lifeworlds. Researching, playing and designing digital games places students into new literacy domains that are positioned outside traditional reading, writing and multimodal design practices, because games are enacted through gameplay (actions) in virtual and non-virtual worlds (Walsh, 2010). Teachers in this project exemplified critical and transformative pedagogical principles when they redesigned their English and literacy curriculum to exemplifying authentic curricula ‘built for change’ (Kress, 2000). Project teachers initiated research around topics that matter to their students. They also leveraged the joy of gameplay to build students’ literacy proficiency over time. Rather than buying into deficit discourses, they focused on what students could do and invited them to take on the role of researchers by legitimising digital games as texts worthy of study. This in turn expanded students’ capacity to consume and produce print and multimodal texts that evidenced their curricular learning and improved literacy proficiency as a result of their teachers’ changed practices. Finally, each participating teacher enacted or designed virtual and/or real-time environments where students could not only produce and critique texts, but also expertly disseminate their multimodal designs both within and beyond their schools (Walsh, 2009).

When project teachers included digital game paratexts in their English, Media, ICT, Drama and Literacy curriculum, they made strong conceptual links between them as legitimate texts and the kinds of print-based literacy practices that are assessed through tests such as NAPLAN and the assessment requirements
of curriculum. In doing so, they demonstrated ways in which schools can leverage students’ interest and affinity with digital games and their paratexts to provide opportunities for them to experience success with school sanctioned literacy practices, and extend contemporary curriculum in step with digital times.

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References
Baltimore: Johns Hopkins University Press.
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