The Empire Strikes Back: Or Does It?

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Abstract

This paper explores the tensions between those in government and business who wish to control the internet and those who wish to use its capabilities to introduce new types of services, and also between those who lessen the power of the individual and those who create synergisms between individuals and groups. The authors have provided an eclectic set of examples of initiatives which illustrate both trends. The paper concludes that while a conspiracy theorist might see a general pattern emerging, in fact these represent, on the one hand actions of large institutions which are attempting to retain their pre-internet business and governmental models, and on the other hand, the actions of individual groups trying to preserve the original spirit of the internet.

Introduction

The internet was founded in a spirit of cooperation: the creation of new knowledge was based on free access to existing knowledge. If we carry forward the original metaphor of the "superhighway", then the internet interprets censorship as damage and "routes" round it. This is exemplified by the Open Software Movement, GNU and Linux in particular, and the Open Archives movement. Media organisations and governments, on the other hand, are trying to reassert control-- as they have done in the past-- with commercial controls and government restrictions on access to information. However the whole view of the internet as just another media and as a commercial opportunity rejects the core values that the founders of the internet maintained.

Is there currently a systematic attack on the freedom of the net?

Intellectual Property

Academic information

Journals used to be physically housed in libraries, where anybody could see them. Now online access is only available in many cases if a license is paid. Therefore despite the fact that new technologies should be making such materials more readily available, many valuable resources are in fact behind database "walls" or available only on a user-pays basis [HREF5]. As has been noted in a joint issues paper produced by the Council of Australian University Librarians and the National Library of Australia [HREF6], some of the key issues in information access, use and delivery affecting higher education include: cost of purchasing or licensing information, duplication of resources by institutions, establishment of benchmarking and quality assurance measures, digital rights management and the cost of using copyright material. At the time of writing this paper, a landmark agreement has just
been reached between the Australian Vice-Chancellors Committee (AVCC) and the Copyright Agency Limited (CAL), in which universities will pay for the right to store, copy and communicate electronic materials--in addition to the existing right to photocopy print copyrighted materials [HREF7].

**Patents**

The law has become ridiculous. WIPO (World Intellectual Property Organization) is pushed by big companies: patenting genes, seeds and algorithms. People will die as a consequence of moves to protect the income of big multinationals, eg AIDS. It was ever so. We are now seeing the cornering of the market for knowledge and culture as intellectual property.

In his opening keynote at the Eleventh World Wide Web Conference, Tim Berners-Lee [HREF8] has made a strong appeal for the development of the web to continue unencumbered by patent royalties. He outlined how important it was that today's web technology specifications remain open and freely implementable. It is noteworthy that his support of royalty-free licensing for web technology is a position that does not meet universal approval within the W3C.

**Copyright**

**Reverse engineering**

The Regional Playback Control (RPC) system divides the world into six zones, with only discs bought in the same region able to be played on locally bought DVD players. A Norwegian newspaper, Aftenposten Nettutgaven, reported that Norway's 'white collar crime unit' had arrested 18-year old Jon Johansen for writing the DeCSS utility which bypasses DVD copy-protection [HREF9]. As a 15-year -old Linux user, he found he was unable to view DVDs on his computer because the DVD Copy Control Association does not support that operating system. Johansen subsequently became part of an open source development project designed to build a DVD player for Linux. Robin Gross, an attorney with the Electronic Frontier Foundation, expressed extreme disappointment that Johansen was being made an example of by the Motion Picture Association of America; in Gross' words, the teenager "is someone who broke into his own property".

More amusingly a T-shirt has attracted the wrath of the DVD Copy Control Association [HREF10] which controls the use of this scheme. The $15 T-shirt, from Copyleft [HREF11] has the DeCCS source code printed on the back. The Association says this is an infringement of a trade secret. Copyleft say it's not and call it a "wearable circumvention device" justified under free speech [HREF12].

Yet this copy-protection is regarded as a potential restraint of trade in Australia as it segments the world into regions where regional players will only play material coded for their region. It is being investigated by the ACCC. Alan Fels said: "The ACCC is currently considering the contention that the RPC system enables copyright owners to charge higher prices in some regions than in others. The RPC system may be used to prevent cheap imports in countries where there exists limited domestic competition, thereby enabling the movie studios to charge Australian consumers higher prices. Such a situation existed with music CDs prior to the repeal of parallel import restrictions in July 1998." [HREF13]
Earlier this year in Australia, Warner Home Video argued that DVD movies constitute "computer programs" under the Copyright Act 1968. They were taken to court by the Australian Video Retailers Association and nine video rental companies over its two-tier pricing structure for DVD movies where they charged more for copies used for rental than those for home use. The content was the same. Warner threatened to sue any video store caught renting the wrong disc, arguing that DVDs fell within the Act's definition of "computer program" and therefore it was an infringement of copyright to rent an unlicensed Warner DVD. In his judgement, Justice Emmett said a DVD contained computer programs that allowed the film to be played, but the film itself was not a computer program: "If I hire a book from a lending library, the subject matter of the hire is the paper and cardboard with markings in printers ink," he said. "The essential object of the hire, however, is to be able to read the contents of the book." [HREF14]

British Telecom and hyperlinks

British Telecom found an old patent from 1976--which it had apparently forgotten--for hyperlinks which predated the web, and spoke of trying to enforce it. This is despite "prior art" being obvious in Ted Nelson's Xanadu project. One would imagine that the potential revenue from every web site in the world sounded extremely attractive. It has filed suit against access provider Prodigy seeking damages. British Telecom is now looking for licenses and royalties in the US (the only country to give it a patent) [HREF15]. This matter is currently being considered in a US Court. An initial ruling by the judge has narrowed what British Telecom can say to prove its claim to have invented hyperlinking [HREF16].

Copy protection in hardware

In a letter in the Washington Post [HREF17], Motion Picture Association CEO Jack Valenti calls for PC makers to build copy-protection into the hardware. He suggests that computer and video-device companies need to sit at the table with the movie industry and agree on the ingredients for creating strong protection for copyrighted films and then swiftly implement that agreement to make it an Internet reality.

The 4C Entity, a coalition of high-tech firms IBM, Intel, Toshiba, and Matsushita Electronic, has asked a subcommittee of the National Committee for Information Technology Standards (NCITS) to include code in the next ATA standard that would facilitate the coalition's content-protection technology. The coalition wants the ATA standard, which governs communication between a PC and its storage devices, to allow its Content Protection for Recordable Media (CPRM) technology. CPRM would prevent copyrighted content from being copied to storage devices. Opponents of the coalition's proposal say it would greatly restrict individual users' access to content and could soon lead to the end of free Internet content. The coalition maintains that its opponents are overstating the technology's reach. Coalition officials explain that CPRM is meant for removable storage media, not PCs and hard drives. [HREF18]

Royalties and payment

In February of this year, the U.S. Copyright Office's Copyright Arbitration Royalty Panel (CARP) delivered a report containing its recommendations on royalty terms for webcasters [HREF19]. The report details how much money the U.S. Government expects people who stream music over the Internet to pay to those who own the copyrights to the music being
streamed. The result of all this is a strengthening of power in the hands of larger radio broadcasters and record companies. And this should not be a surprise when it becomes clear that big broadcasters and big record companies comprised most of the content-side team that negotiated with CARP. So webcasters are switching to all-talk and all-news formats at the expense of music. Reporting on this decision, Robert Cringely writes: "Frankly, I think most of this is good. Copyright holders deserve to be compensated, and this system will make that happen. Big webcasters with ad revenue streams will simply adjust to the new reality while small webcasters probably won't survive. But the most important reason why this CARP document is good is that it will force the Internet to continue evolving, to create new methods of music distribution, rather than just emulating older technologies."

A recent British headline [HREF20] ran as follows: "Two-thirds of websites to charge for content inside 12 months". The article went on to state that sixty-six per cent of interactive publishers in the UK would start charging for online content in the near future in a bid to battle falling advertising revenue. These statistics were based on a report from the Periodical Publishers Association Interactive (PPAi), which followed news that one of its key members, FT.com, would introduce fee-based content within the year. The survey found that online publishers were more concerned with how to charge, rather than whether to charge, with some debate over different types of micro-payment and SMS marketing. FT.com, the latest in a line of UK publishers to introduce charges, is planning to charge up to 100 pounds (UK) a year for specialised analysis content. Just 26 per cent of the PPAi members surveyed said that they had no plans to make users pay for content.

At the same time, at the FT New Media and Broadcasting conference in London, for-profit broadcasters dismissed the internet as an impossible business model [HREF21]. Peter Chernin, president and chief operating officer of News Corporation said that there was "no viable business model that works" for the internet, and said he viewed the sites run by the company's UK newspapers as nothing more than adjunct, promotional vehicles for the newspaper. Similarly, Juergen von Schwerin, chief finance officer of SBS, the pan-European television broadcaster, said his company had sold out of its internet activities, as these were "not feasible" for the company.

Microbilling in Norway [HREF22]: in March of this year we were informed that Norway's media industry is embarking on a mass drive to charge for content on their online sites. The move comes at a time of falling Net advertising revenues in the country. The media companies last year commissioned a microbilling system devised by e-Solutions, an Oslo-based software house, as a way of sidestepping purportedly inequitable revenue splits with telcos, which provide internet access and hosting.

For the first time since 1995, the internet shrank in December. The research firm Netcraft recorded 36 million Web sites, 182,142 fewer than the previous month [HREF23]. Netcraft said abandoned Web addresses and domain names not being renewed were to blame. Recent stories abound of people discovering that information which they had been hosting for free [travel pictures, e-zines] had suddenly disappeared without any prior warning. Many of these unsuspecting souls had not backed up their material. Internet users worldwide have experienced the phenomenon of the "disappearing Web". Free news, music, hosting, greeting and email were among the first to go, sometimes completely, in other cases to be replaced by a user-pays version. An analyst with Jupiter Media Metrix, David Stewart-Hunter, said consolidation would continue in 2002 as commercial Web sites needed to draw a significant audience to remain viable.
W3C retreats from royalty policy [HREF24]: earlier this year the World Wide Web Consortium (W3C) retreated from a proposal that would have allowed companies to claim patent rights and demand royalties for technologies used in its standards. That proposal met with a firestorm of criticism, particularly from advocates of the open-source and free software movements. Daniel J. Weitzner, chair of the Patent Policy Working Group at the W3C now says: "What we're proposing in [a new] draft is to add a legally binding commitment on the part of anyone who participates in a standard that any patents they have will be available royalty free."

Tasini case

Here we have the issue of freelance material excised from databases. The debate made headlines last summer when the U.S. Supreme Court decided the Tasini case [HREF25]. In the suit, Mr. Tasini and other freelance writers said that, under the copyright law of 1978, traditional publishers did not have the right to republish freelance work in online databases; such use was infringement because it significantly altered the original work, the writers said, and thus the publications owed them money. Lawyers for the publications, in turn, argued that producing and selling online versions did not constitute infringement. They said that if the court ruled against them, the public would lose access to many online articles, as the publishers would begin taking material offline. The Supreme Court ruled in favour of the writers; as a result publishers have conducted vast purges of newspaper databases, rendering them unreliable for many scholars. Scholars worry that they might find holes in their research. No one in academe seems to know how many articles, and which ones, are missing from the databases.

Privacy

UK Government plans to archive all internet traffic and e-mail has been singled out for a controversial award at this year's Big Brother Award ceremony [HREF26]. The awards -- established in 1998 by Human Rights watchdog Privacy International-- are designed to expose the state erosions of privacy as well as honouring those that have made an outstanding contribution to preserving privacy. The plan to store all communication data won in the Most Appalling Project category. The scheme was the brainchild of the National Criminal Intelligence Service and is outlined in the government's Anti-Terrorism Act.

Speaking at the Big Brother Award ceremony at the London School of Economics, head of Privacy International, Simon Davies, said the erosion of privacy, often using technology, alarmed him. "During the judging process, it has become clear that government agencies and companies have stooped to an all-time low in the wilful violation of our privacy. We have been almost overwhelmed this year by a flood of new entries, many of which involve technologies and techniques that are beyond the control of law, and outside of the comprehension of policy makers."

Regulation

Gambling

The Australian government has introduced a freeze on internet gaming while it works out its policy. At the same time there is no limitation of the TAB (which generates government
revenue) nor gambling on the stock market. Australia is a leader in the technology of online gaming and the effect of this legislation will be to drive business to offshore sites where it will still be available. They have also contemplated introducing legislation to enable punters to repudiate payments made by credit card to online casinos, even those overseas. It appears this whole question is still in the "too hard basket".

Censorship

The Broadcasting Services (online content) Act created great heat and controversy, with Electronic Frontiers Australia leading the main campaign against it [HREF27]. The Australian Broadcasting Authority [HREF28] administers the legislation, which so far seems to have been a non-event. A handful of Australian sites have been banned; most have just moved offshore. A handful of overseas sites have been deemed offensive and filtering software companies informed. The list of these sites is unavailable! Filtering software which was to be made available by ISPs to their clients seems to have been ignored by most of them and there continues to be clear evidence that such software leaks like a sieve and inadvertently blocks material which it should not. Penfold has recently surveyed Australian ISPs with regard to the legislation. The results of the survey [HREF29] point out how ineffective it has been.

Codes of practice

The Internet Industry, working hand in hand with government and hoping to avoid further regulation, has developed a code of practice [HREF30]. However it seems not to have made a great deal of difference to the way ISPs operate, as shown in the survey above. As part of the scheme the States have, or are introducing, complementary legislation to support restrictions under state law as well as Commonwealth. It will be interesting to see if this changes anything. The cynics suggest that this whole edifice of legislation and regulation came about to secure the votes in the Senate of Senator Harradine, the most vocal supporter of censorship, and to silence conservative critics by seeming to do something.

Removal of material post September 11

After the terrorist attack the US government removed a range of material which they thought might assist terrorists. This is despite the same material being available in print form with no restrictions. Publication on the net is seen as more "open" than print publishing. It represents a mind set which grudgingly provides information but wants to make access only available to those who know where to look and have funds and the time and energy to search (such as terrorists!).

The same attitude was seen in Australia in 1996 when summaries of Family Court cases were published on AustLII. Even though these summaries had been publicly available on paper from the court, many felt that publication via the internet introduced something of a new dimension.

The "War on Terrorism"

Since September 11th the US and its allies such as Australia have been engaged in a "war on terrorism". As part of this, legislation has been introduced which restricts freedoms and creates new classes of crime and penalties. Part of this has been directed at control of the
internet, which is seen as being a vital communication medium for terrorist movements. In Australia the government is attempting to pass legislation to reclassify SMS and emails as "non-communication" so that it doesn't need a warrant to read them and which will require ISPs to assist security agencies to provide access to private email.

The Senate Legal and Constitutional Committee has now tabled its reports into this proposed legislation, the "Inquiry into the Security Legislation Amendment (Terrorism) Bill 2002 [No.2] and Related Bills [HREF31] and the submissions to the enquiry [HREF32], also the "Inquiry into the Provisions of the Criminal Code Amendment (Espionage and Related Offences) Bill 2002" [HREF33] and submissions [HREF34].

At the time of writing these bills do not have the support of the Labor Party, the Greens or the Democrats and so are unlikely to pass. However given its record during the last election, the Labor Party could well be agreeable to a compromise.

**Extraterritoriality of laws**

Dmitri Sklyarov, a programmer for Russian software company ElcomSoft, was visiting the United States for a convention to give a talk on the often-flawed security of e-books, including details of how he was able to break Adobe's encryption. His action, which took place in Russia, was legal there; however once in the US the FBI arrested him. ElcomSoft argue that their software added capability to e-books and amounted to enabling fair use. Adobe said the software enabled piracy. Prior to Sklyarov's arrest the company had agreed not to distribute the product. In any case the Russian was arrested for 'trafficking' and jailed without bail. The furor this caused made Adobe withdraw its complaint and request Sklyarov's release [HREF35]. The US Attorney General's Office has continued with the case.

The Electronic Frontier Foundation [HREF36] has naturally been following this case in detail as has the Politech site [HREF37].

Sklyarov is now out on $50,000 bail but his passport remains with the US Attorney's Office and he has been ordered to stay in California rather than return home to Russia [HREF38]. A Russian official [HREF39] is quoted as saying, "If this case was being reviewed in Russia, we would have nothing against Dmitri Sklyarov. No crime falling under current Russian law has been committed."

One of the interesting polemics which has arisen as a result of this case is whether the internet is a physical space. Joseph Burton, ElcomSoft's attorney, [HREF40] has argued that the internet is an international, "ambient" realm, meaning that it is "everywhere and nowhere" and that it "transcends the idea of being only physical." Therefore, he said, conduct that occurs on the internet is "extraterritorial" of U.S. laws, specifically the Digital Millennium Copyright Act, the 1998 law that ElcomSoft is charged with violating. The DMCA, Burton added, was not meant to apply extraterritorially -- that is, Congress only intended for the act to apply within the United States.

**Restrictions on Newsgroup**

If the early internet had a "heart", it might have been Usenet. The latter typifies the freewheeling, rambunctious--even anarchistic--spirit which operated then. Compuserve was
early off the mark in censoring Usenet [HREF41], as was Prodigy. Admittedly amateur pornographers did frequently post material which would be illegal in most polities.

**Hate legislation**

Yahoo on its auction site provided little control over the content offered by its users. Some tried to sell Nazi memorabilia. This was deemed by a French court to be in breach of French "hate" legislation, even though the material was not being offered by Yahoo and the server was located in the US, not in France [HREF42]. Yahoo was fined $13,000. A year later a US court ruled that the French judgement could not be enforced in the US. That ruling is now being appealed by the two original plaintiff groups [HREF43]. Back in France a judge has refused to ban access to racist material on a Nazi site in the US [HREF44]. The continued confusion as to which laws apply and on what grounds may be amusing; however at the same time it raises serious concerns.

**Closing Networks**

A number of mechanisms are being used by service providers to try and steer or restrict their users to particular content and to track where they go.

**Cable**

In an effort to seal off a portion of the internet as its own private domain, the cable TV industry is pressing the FCC to classify the cable modem business as an "information service" [HREF45]. Part of the rationale is that since the internet is an "interstate service" [we're back to discussions again about territoriality], the cable modem industry should be treated the same and thereby be subjected to minimal regulation.

**Portals**

ISPs and other organisations provide portals which they encourage people to use as their home page. In this way content provided by the organisation of links on the site (for which the organisation may receive a commission) will be used preferentially via the portal rather than directly or by some other means. Often this may include a redirection mechanism at the site so that selections (and the interest shown in them) can be tracked, or --more worrying-- the habits of individual users tracked.

With respect to portals there is a conflict between two themes. That of control on the one hand and empowering the user on the other. Many commercial organisations see portals as a mechanism to "capture eyeballs" and keep people at the site for a sufficient length of time for their commercial purposes to be achieved. Service organisations on the other hand see portals as a way of empowering users to organise access to information in their own way and also give them access to internet resources which they can organise. Amazon is a good example of some of these tensions.

A report by statistics firm WebSideStory [HREF46] indicates that "the majority of Internet surfers worldwide are using direct navigation and bookmarks to locate Web sites, rather than relying on search engines and Internet links." The survey also suggests that possession of a recognisable or well-known domain name, such as Amazon.com, is more important than ever
for drawing viewers to a given website. According to studies, as a result of the advances in technology, particularly browsers, people are going directly to sites by typing in the web address or using a bookmark and finding this faster than starting at the portal home page.

AOL

AOL has a members-only area to tie users to its services. As the world's biggest ISP, this is worrying. Their restrictive practices are also apparent in their attempts to control instant messaging. This surfaced very clearly in February when AOL went to great pains to block Trillian users. Trillian is a program that lets you use one client across multiple instant-messaging services. So why has AOL been blocking access by Trillian's throngs of users? Since Trillian works by "spoofing" the services into believing their own software is logging in when it's actually Trillian calling, AOL considers this to be an attempt to hack its network. Trillian supporters, on the other hand, argue that the company is providing a service and that interoperability should be inevitable.

Resistance

What initiatives then are being taken to "fight back"?

EFF

The Electronic Frontiers Foundation has been very active in trying to prevent the freedoms currently enjoyed by net users from being eroded particularly in the areas of free speech, censorship and privacy.

The equivalent Australian organisation is Electronic Frontiers Australia which was very active in the debates on the Broadcasting Services (Online Content) Act and other regulatory matters.

Creative Commons

There is an age-old idea that society and the economy are better off when certain resources are protected and made freely available, eg public streets facilitate the transport of goods while providing a place for businesses to establish themselves, and hence the terms "the commons". Recently Lawrence Lessig, known for his works on computers, the internet and legal systems, has established a venture called Creative Commons: "[It] will make available flexible, customizable intellectual-property licenses that artists, writers, programmers and others can obtain free of charge to legally define what constitutes acceptable uses of their work. The new forms of licenses will provide an alternative; to traditional copyrights by establishing a useful middle ground between full copyright control and the unprotected public domain".

David Bollier (2002) has just written an excellent book on the enclosure and commercial exploitation of the commons, entitled Silent Theft: The Private Plunder of Our Common Wealth. The work describes the broad scope of the commons -- such as the environment, natural resources, our culture, genetic material, public spaces, government research -- and the corporate looting of it. The book focuses particularly on corporate plunder of intellectual property, the internet commons, and the privatisation of public knowledge and federal drug
and information resources. But it also has chapters on the commercialisation of culture and public spaces (including schools), and the academic commons.

Open Archives

The purpose of the Open Archives Initiative [HREF52] is to develop and promote interoperability standards that facilitate the dissemination of content. It has its foundations in efforts to enhance access to archives as a means of increasing the availability of scholarly communication. From this has evolved the development of an OpenURL Standard [HREF53]. As Herbert Van de Sompel writes: "Libraries are looking for ways to link across resources, irrespective of their providers, and have been pressuring providers to deliver solutions. The OpenURL framework provides a cost-effective manner for information providers to respond to this demand [HREF54]."

The Australian National University Eprint Repository has pioneered access on an institutional basis in Australia; it consists of an electronic archival database for research literature, specifically preprints accessible via the internet, ie "eprints". Eight major Australian universities have agreed to establish eprint archives at their respective institutions. The archive is running on freely distributable open archive software [HREF55].

GNU, Linux and Open Software Movement

The open software movement's success can be judged by the increasingly hysterical tone of Microsoft's attacks on it. This seems to have gathered momentum a year ago with a paper by Craig Mundie, Microsoft Senior Vice President, on "The Commercial Software Model" [HREF56]. More recently Bill Gates [HREF57] has attacked it. However the strongest criticism has come from Microsoft CEO Steve Ballmer [HREF58]: "Linux is a cancer that attaches itself in an intellectual property sense to everything it touches."

Peer to peer networking

At the time of writing Napster [HREF59] had just gone under. The story of how a central service which did not store copyrighted music material but provided an index to those who did being declared in breach of copyright is well known. Record companies spotting a central point to attack took them to court. But the story is not over yet; there are a number of other peer-to-peer networking schemes, such as Gnutella [HREF60], which lack a central organisational point against which leverage can be made and which can thus be shut down by the courts. Despite Napster's demise and foreshadowed legal attack on other file sharing schemes, the open source movement has retaliated with the "Content Addressable Web". This involves extensions to HTTP to allow users to perform secure distributed downloads. The aim is to allow the service to operate with standard browsers, servers and caches without requiring special software. Open Content Network [HREF61] will be developing the protocol in conjunction with the Creative Commons Group.

As DVD burners proliferate and these schemes extend their scope to any kind of files, in particular movies, we will see a great deal of conflict. At the moment it seems that the wishes of those who wish to copy are succeeding over those of traditional copyright owners. The future will be interesting.
Peek-a-booty

In early 2002 at the landmark CodeCon conference in San Francisco [HREF62], cDc developers launched Peek-a-booty [HREF63], censor-busting software designed to let surfers access sites blocked by government restrictions. Essentially a distributed proxy network, it uses a peer-to-peer model, masking the identity of each node. Not surprisingly cDc developers Paul Baranowski and Joey deVilla got a tremendous ovation from third day CodeCon attendees.

The Internet is for everone

Vint Cerf, the Internet pioneer, in an RFC [HREF64], has made a statement elaborating the Internet Society's slogan "The Internet is for Everone" where he expresses to views of those who built the internet and are hopeful for the future it might bring.

Conclusion

A Marxist would see the tensions between the actions of big organisations trying to protect their turf and the development of new communications models by non-commercial groups in revolutionary terms: capitalism versus the proletariat, thesis and anti-thesis looking for synthesis. A Darwinian might see the working out of a struggle between competing organisms or at least Darkin's "Memes" [2]. Perhaps it is chaos in action. The only thing of which we can be sure is that things will never be the same and that the control over information presently wielded by big business and government will be loosened. But by how much?

References


Hypertext References

HREF1

HREF2

HREF3

HREF4
http://www.bond.edu.au

HREF5

HREF6
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