

Innovation and copyright: not friends any more?

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Abstract

The traditional purpose of copyright in most countries is to provide an incentive for creation and innovation. But is copyright now just as much an obstacle or impediment to innovation and creativity? Developments in Australia and overseas have highlighted the role of copyright in stifling innovation and constituting a barrier to creativity and education. This paper examines the question in the title in the light of these developments.

In particular, the paper will consider a major new Australian report on innovation published in September 2008. The report, *Venturousaustralia* (the Cutler report) has a strong focus on open access, a sceptical approach to copyright, and a friendly view of the role of libraries in achieving openness. The report builds upon a wide range of developments which have widened access to government information, and the paper considers other developments in government thinking about the ways in which copyright may inhibit innovation and creativity, and about approaches which government may take to counter this.

The paper has a strong focus on open access and the role of public institutions, and in particular libraries, in facilitating access to works by reducing the barriers created by old-fashioned approaches to copyright. Finally, the paper looks at the ways in which government might ensure that copyright and innovation work together more effectively. The paper will draw particularly on the Australian copyright experience.

The author is an Australian university librarian, and is also involved in several national consultative groups on copyright in education, as well as being chair of the Australian Digital Alliance, a copyright lobby group.

Keywords: Copyright, innovation, open access

Part 1: Not Friends Any More

In his report *Venturousaustralia: building strength in innovation* Terry Cutler argues that property-like rights such as copyright and patents which have been created to encourage innovation can also obstruct it. Government has two objectives, Cutler suggests –

- to encourage innovation by rewarding innovators through regulations, property rights, standards and the terms of market interactions, and
- to promote good information flows and the maximum availability of information to the marketplace (Cutler 2008, p.83)

The origin of copyright lies in the desire to achieve those two kinds of objectives – encourage innovation and creativity by offering an incentive to create, and maximize the availability of the outcomes of creative endeavours by providing a wide range of rights for the users of copyright material to access and use it.

Although the ostensible reason for the extension of the scope of copyright over the last century has been the provision of incentives for innovation, there is a strong argument that this has not in fact been the case, as Coates and Fitzgerald (2008) among others suggest in their submission to the 2008 Review of the National Innovation System. Not only has the extension of copyright primarily been intended to maximize the rewards of copyright owners, but extension has worked against innovation by choking off the free flow of information to its potential users. In his history of copyright in Australia, Atkinson argues that

- “individuals, acting for institutions or corporations, made the modern law of copyright, for their own gain and for the benefit of the coterie they served or identified with” (p.5) and therefore
- “If regulation works to disseminate the output of creators and producers, it does so by accident rather than design.” (Atkinson, 2005, p.4)

Contemporary copyright has failed to recognize that innovation and creativity build on the work of others, and in a knowledge-based or creative economy, innovation is often driven by the “second mover” principle – new ideas come from existing ideas – and tight controls over intellectual property may thwart innovation (Flew 2005).

At the same time, the digital revolution has changed the landscape for copyright in a way which would once have been unimaginable. A wide range of activities has moved from being unregulated to becoming regulated by law. With a printed book, it is possible to read it, lend it to a friend, quote from it, put a copy in a library for everyone to use without direct charge. But with a digital publication, most of those activities involve making a copy, and they are therefore brought into the realm of copyright.

Fitzgerald has pointed out that Web 2.0 social networks which have arisen during the last decade have created (or reinforced) parallel worlds – one social and sharing, the other commercial (Fitzgerald 2008). It has also given rise to new forms of copyright, and in particular to standardized open licences – the most common being Creative Commons – by which most commonly the rights of the owner of copyright are given away, with the exception of two – the right to recognition and the right to make money from the copyright.

Copyright legislation in individual countries has steadily converged as a result of adherence to the central role of the World Intellectual Property Organisation (WIPO) and the Berne Convention. This has facilitated the dominance of copyright by the large corporations which own much of the world’s valuable intellectual property – publishers, music companies, movie corporations – and has also tended to bring about increasing uniformity. The incorporation of copyright in international trade agreements has reinforced this trend.

So let us take this for granted – copyright and innovation are no longer the friends they once were, and the role of copyright has extended way beyond what is required to support innovation and creativity, so much so that it often tends to stifle innovation. The move of most of the world’s information into digital form has reinforced this imbalance.

What can be done to restore the balance? This paper focuses on government policy and practice in Australia, and the developments which preceded Cutler Report published in September 2008.

Part 2: Australia’s Cutler Report

This paper does not deal with the whole area of copyright and innovation, but takes the Australian Cutler Report, *Venturousaustralia: building strength in innovation* (Cutler 2008) and examines some of the approaches to making copyright better serve innovation, and the potential role of government policy in better aligning copyright with strategies to foster creativity and innovation.

The Cutler Report has many antecedents, and it is a theme of this paper that governments have been moving in the direction of open content and open access for some time. Cutler himself (Cutler 2005) argued strongly several years ago that there was a major failure in public intellectual property policy which needed to be addressed.

When the current Australian Government came to office in November 2007, it came with plans to review the approach of government to innovation, the Review of the National Innovation System. It commissioned Dr Terry Cutler, a consultant working in the cultural and information technology industries, to review the role of government in fostering innovation. The Cutler Report was released by the Commonwealth Department of Innovation, Industry, Science and Research (DIISR) in September 2008.

The report outlines the importance of the information economy and includes a focus on the increasing importance of intellectual property. It notes in Chapter 7 (information and market design) that the development of IP is “cumulative” and “new knowledge can only be built on old knowledge”.

The Cutler Report has a specific focus on information generated or held by government, and makes few recommendations which bear on non-government intellectual property. But the overall approach is a radical one, as can be seen by the recommendation on the location in government of responsibility for IP policy.

In broad terms, the report made recommendations in six main areas.

Intellectual Property Policy

“IP policy is economic policy”, Cutler suggests (Cutler, 2008, p.86), and the report links it to competition policy, or trade practices policy, Copyright needs to move from being a specialist area of law to “an important front of micro-economic reform.” (p.85) Cutler therefore recommends that this

area of policy be moved from a law portfolio (currently the Attorney-General's Department) to an economic portfolio (unspecified).

National Information Strategy

Cutler proposed a National Information Strategy in broad terms. The basic role of such a policy is that it “optimizes the generation and flow of ideas and information in the Australian economy.” (p.94) In particular the policy should seek ways to “maximise the flow of government generated information, research, and content for the benefit of users (including private sector resellers of information).” Users, suggests Cutler, need to be able to search and interact with data and content, and there must be legal frameworks which facilitate this and make it possible.

Cutler’s comparison is with National Competition Policy (NCP) – the role of a National Information Policy (NIP) is explicitly parallel and complementary. In discussion at the Open Access and Research Conference held on 24-25 September 2008 Dr Cutler suggested that a new agency should be established to drive the information policy agenda (Cutler 2008-oar).

Government research, information and content

The report proposes making available government information of all kinds as widely as possible to both commercial and non-commercial entities. This includes information such as research funded by government, and information collected and held by government. The report uses the term “research, information and content” to describe in shorthand what information was intended – very broad terms. The argument is clear: the purpose of the proposal was to maximize the economic and social benefits arising from open access to government information. It was further argued that we are headed that way, and for good reasons. Cutler cited (p.93) econometric research by John Houghton (Houghton, Steele & Sheehan, 2006), and the trend to open access mandates throughout the world, albeit patchily in Australia.

Cutler addressed the state of open access to government material, and referred to spatial data as the leader in public access to public sector materials. The next section of this paper deals with some Australian developments, several of which Cutler alludes to. The clear conclusion – “Australia is behind many other advanced countries in establishing institutional frameworks to maximize the flow of government generated information and content.” (Cutler, 2008, p.94)

Forms of licence

Cutler did not dwell on the mechanisms by which government makes available its information. However, Recommendation 7.8 did refer to use of “a creative commons licence”, which was referred to in terms of “international standards of open publishing.” The Cutler Report itself has an Attribution-Non-commercial-No Derivative Works 2.5 Australia Creative Commons license, and increasing amounts of government information, are made available through Australian Creative Commons (CCA) licences (Creative Commons Australia 2009).

National collections

Cutler has a strong focus on what he described as “national collections”. Within this category he included repositories within universities and research institutes, as well as the cultural collections of libraries, museums, archives and art museums. He quoted the Australian physicist Michael Nielsen “Information not on the network can’t do any good” in his call for an open scientific culture (Nielsen, 2009)

Nielsen’s call, reflected in the Cutler report (Cutler, 2008, p.96), is a radical one. He argued for open licensing, “creative re-use and modification”, and a range of new services and applications which amount to a kind of “extreme openness”. Cutler added to this the importance of national collections of all kinds – cultural, geological, historical, zoological.

The section of the report dealing with national collections included recommendations for a series of actions – enhanced funding for cultural and scientific collections, specific funding for open access repositories, support for key state collections as well as national collections, access to contestable research funding programs for cultural and collecting agencies, and enhanced preservation of indigenous collections,

The Global public commons

As Cutler points out, what was once national commons is now global. Therefore “Australia should energetically and proudly maximize the extent to which it makes government funded content available

as part of the global digital commons.” (Cutler 2008, p.98) And Australia must encourage others to do the same. There is a clear focus in the report on global availability of Australian copyright material.

Outcomes of the Cutler Report

The Cutler Report sets a significant agenda – to reconcile copyright and innovation, at least to the extent that government policy can contribute to this. At the time of writing the Government was still developing a white paper in response. However, the Minister for Innovation, Industry, Science and Research, Senator Kim Carr, commented favourably on the Cutler Report soon after its appearance, and in particular said

“These are all recommendations dear to my heart.

It is my firm view that publicly funded research should be widely available to other researchers, industry and the general public.

That doesn’t just mean letting people search for keywords or abstracts.

It means full, open access to research data and outputs.

If we are serious about boosting innovation, we have to get knowledge and information flowing freely.”

The Minister also suggested

”The overzealous protection of intellectual property rights in this environment raises the cost of knowledge to the community. When that knowledge is created using tax-payer dollars, the community might reasonably feel that it has paid for it once already.” (Carr 2008)

This position, albeit deeply felt by the Minister, still needs to be argued in and be adopted by government. In the meantime, Dr Cutler continues to speak and write about innovation.

Part 3: Open access to research

Within the area of research, government policy and initiatives have since 2004 prefigured the work of the Cutler review of innovation. This has been documented extensively. For example, very recently Kennan and Kingsley (2009) conducted and reported on a survey of Australian institutional repository, and outlined the course of government support over the previous five years. In fact, support from the Australian Government for open access repositories goes back to the initial funding in 1997 of the Australian Digital Theses program; this is now fully mainstreamed in almost all universities, and has become Australasian (CAUL 2008).

The Accessibility Framework

Within the area of research, the Commonwealth Government and its predecessor have supported an Accessibility Framework which is defined as “the collective efforts by institutions, organisations and individuals to managing (sic) research outputs and infrastructure, including information infrastructure, so that they are discoverable, accessible and shareable, in order to improve the quality of research outcomes, reduce duplication and better manage research activities and reporting.” (DEEWR, 2004)

In another place, Terry Cutler (Cutler 2007) summed up the case for wide diffusion of the results of research:

“The more rapid the technology diffusion, the more rapid the take-up, the greater the externalities that arise from the wide-ranging penetration of new ideas and know-how. But that notion of realising the community benefits of the externalities is completely at odds with the notion of expropriating public sector funded knowledge into the micro-economic level of the firm and start-ups and so forth.”

The ASHER program

In support of this framework, the Commonwealth has provided, over the period 2007-2009, funding to universities to establish and populate repositories of research outputs, with the content to be available on open access to the extent possible. In most cases this funding has gone to the library, which is usually responsible for managing the university open access repository of research outputs. In addition to the A\$25.5 million allocated to creation of repositories through ASHER, the Commonwealth has funded a number of projects which have contributed to the development of repositories in Australian universities. (DIISR 2009)

Dr Alex Cooke, in a recent presentation, set out the current Australian Government open access agenda, at least in the area of research outputs. He suggested that the Accessibility Framework set out in 2004 applies not only to research publications but also to research data and other outputs. “The

provision of open access should include the curation and preservation of digital material including cataloguing, archiving, reproducing, safekeeping and media migration of research outputs”, says Cooke (Cooke 2008)

Research funding

Moreover, the funding rules of Australia’s major research funding bodies, the Australian Research Council (ARC) and the National Health and Medical Research Council (NHMRC) have been moving towards requiring deposit of publications arising from research grants in an open access repository – although this is only encouraged at present. The current statement (ARC 2008) at A1.3.3 is:

“The ARC therefore encourages researchers to consider the benefits of depositing their data and any publications arising from a research project in an appropriate subject and/or institutional repository. If a researcher is not intending to deposit the data from a project in a repository within six months of completion of the research, he/she should include the reasons in the project’s Final Report. . . .”

The Code for the Responsible Conduct of Research (NHMRC 2007) also has a strong focus on the obligation to make research findings public.

Legal framework

The Government has funded a major project – the Open Access to Knowledge Law (OAK Law) Project – which has worked to provide a legal framework for open access through a series of research reports and other publications. These provide an invaluable basis for the further development of practical toolkits and guides to copyright issues for researchers, and all are made available using Creative Commons licences, available for download from the OAK Law site. (OAK Law 2009) In particular, reports and guides on copyright and open access, and for research students, institutional repositories, authors, and others.

Part 4: The Digital Education Revolution and other approaches by government

The move to make government and government-controlled content much more open is now well-advanced in Australia. Coates and Fitzgerald (2008) use examples from many countries to show this trend, and to demonstrate recognition of “the economic advantages of enabling reuse of government information through open content licensing”.

In several fields, government has already moved ahead, as Cutler pointed out. Greenleaf (Greenleaf 2008, pp.80-82) canvasses the issue, as did a report on innovation by the Productivity Commission (2007) among others. Openness of government information is also increasingly coming under scrutiny in the general popular press – recent examples include the denial of government data on the location of toilets to a software developer who wished to make the information accessible on an iphone (Gans 2008) and lack of access through Google maps to bushfire location information (Braue 2009)

In other fields, the government has made little progress. The (now abolished) Copyright Law Review Committee reported on the issue of Crown Copyright in 2005, and its report was released in April 2005. However, there has (four years later) been no response from government.

In Australia the move to more open access is limited by the fact that there are eight state and territory jurisdictions in addition to the national (Commonwealth) government, so there are a lot of governments to deal with. In some cases, state governments are actively exploring options for greater accessibility of government information; Coates and Fitzgerald quote the Queensland Spatial Information Council estimate of 85% of government information suitable for release under a Creative Commons license.

But over many fields, government has made significant progress, and this is illustrated below.

Education

The Digital Education Revolution (DER) refers to the Australian Government policies in relation to technology in education. Fairly recently, AICTEC (the Australian ICT in Education Committee, the body which coordinates education provision by the Commonwealth and the eight state and territory governments) has established an Intellectual Property and Privacy in Technology Advisory Group (IPPTAG) (AICTEC 2009). The group has a focus on several issues, including the extent to which copyright law and practical realities inhibit the use of digital content in education, and the extent to which open licences can be used to maximize availability of educational resources.

Increasingly, government agencies involved in the development of curriculum materials are adopting or exploring open models for licensing. These models may focus on licensing for education, or more

open licences, or sharing arrangements such as the National Educational Access Licence for Schools (NEALS) (Curriculum Corporation, 2008). Legislative amendments to the Copyright Act 1968 at the end of 2006 also incorporated a new exception with significant benefits to education and libraries (Simes 2008). Universities have also begun in some cases to provide open course materials – such as University of Southern Queensland's OpenCourseWare (Cobcroft 2008, pp.183-4)

Geospatial information

The Cutler report refers to geospatial information as an area which is well advanced in policy development for open access. Geosciences Australia (GA) has an Australian Government Policy on Spatial Data Access and Pricing, launched in 2001. Maps and other products of Geoscience Australia are available without charge, and under a generous licence which permits the user to

- a. use, reproduce, adapt, modify, commercially exploit and communicate the Data (including by development and distribution of a Derivative Product); and
- b. sublicense the Licensee's right to use, reproduce, adapt, modify, commercially exploit and communicate the Data, subject to the terms of this Licence.” (Geosciences Australia 2001)

Statistics

In December 2005 the Australian Bureau of Statistics (ABS), the national statistical agency, made all statistics available from the ABS website free of charge. More recently, in December 2008, ABS modified the licence involved in using its statistics, and placed all material under a Creative Commons Attribution 2.5 Australia licence. There are very few exceptions – “except the ABS logo, the Commonwealth Coat of Arms, and any material protected by a trade mark.” (ABS 2009) This means that this material may be adapted and re-used, and may be used for commercial as well as non-commercial purposes.

Legal information

The Australian Legal Information Institute (AUSTLII) is a joint enterprise of the Faculties of Law of University of New South Wales and the University of Technology Sydney. AUSTLII makes available public legal information – “legislation, treaties and decisions of courts and tribunals); and secondary legal materials created by public bodies for purposes of public access (law reform and royal commission reports for example) and a substantial collection of law journals.” (AUSTLII, 2009)

AUSTLII is a free service and is maintained by the two institutions which created it, deriving income from grants and donations. Material on the site is reproduced with the permission of copyright owners and government entities.

The Australian Broadcasting Corporation

The Australian Broadcasting Corporation (ABC) is a national broadcaster, providing radio, television and internet services to Australians and overseas. The ABC has the largest audiovisual archive in Australia, and has recently established a collaborative media site, Pool. This provides material available for re-use, and has recently released material into the pool using a Creative Commons Attribution-Noncommercial licence – the first use by the ABC of a CCA licence. In practice, the licence enables others to re-mix and re-use provided that it is for a non-commercial purpose (ABC, 2009)

Part 5: Conclusion

It is quite clear that well before the Cutler report there was much movement in government towards a range of measures which would make copyright, at least in relation to government information, more hospitable to innovation. There is a wide range of tools now emerging to make it easier for those involved in innovation and creation to re-use and build upon the work of others. These include

- New licensing models – in particular open licences, and amongst those, the Creative Commons licences. These are now international, and are used in many different contexts in government and elsewhere. At the same time, other forms of open licences are also used.
- New ways of handling government information for the benefit of all are being developed. Although there has always been a model for this in the case of the United States, other countries – especially Crown Copyright countries – are moving to the view that innovation and economic advance take place when government-controlled information is made freely available to those who can exploit it.
- New approaches to research are being taken, which recognise government-supported research in particular as a public asset. The movement to open access to research repositories, fostered by

and largely managed by libraries, is only one side of this – research data is also being considered in the same way as research publication.

- Governments are considering new policy agendas and seeing copyright as primarily an economic policy issue, posing the question – how can we use innovation and creativity to drive the creation of wealth. They are coming to the conclusion that creation of a long-term monopoly through conventional copyright is not the best way to go.
- New business models are emerging which recognize the way which information spreads in a networked digital world, and which adapts to this reality. Copyright owners do make money from their work in different ways – not just by selling copies or access. Many people earn a living from creativity and innovation – from research, information and content, and new business models aim to maximise use and value, not protection.
- Changes to the law are also on the horizon. For example, changes which differentiate between commercial and non-commercial uses and permit a much wider range of access in the case of the latter are proposed. The issue of widening exceptions and user rights is also under consideration, especially in areas such as education and research. The strong legislative agenda in Australia over the last decade is not exhausted – more is likely.

This paper has dealt with the strong agenda for change within Australian government. It is written before the publication of a response of the Australian Government to the Cutler report, and Australians look forward hopefully to a more systematic, dynamic, and wide-ranging approach from all Australian governments.

References

Access to and Use of Public Sector Information (auPSI) (2009) [website] Retrieved on 3 March 2009 from <http://www.aupsi.org/>

Atkinson, Benedict (2005), *The true history of copyright: the Australian experience 1905-2005*. Sydney: Sydney University Press.

Australian ICT in Education Committee (AICTEC), Intellectual Property and Privacy in Technology Advisory Group (IPPTAG).[website] Retrieved 25 February 2009 from <http://www.aitect.edu.au/aitect/go/home/about/cache/offonce/pid/255>

Australian Broadcasting Corporation (ABC) (2009). Pool. Retrieved on 26 February from <http://www.pool.org.au>

Australian Bureau of Statistics (2009). [website] Retrieved on 26 February 2009 from <http://www.abs.gov.au>

Australian Legal Information Institute (2009). [website] Retrieved on 26 February from <http://www.austlii.edu.au/austlii/>

Australian Research Council, Discovery Projects Funding Rules for funding commencing in 2010. 1 December 2008. Retrieved 26 February 2009 from http://www.arc.gov.au/pdf/DP10_FundingRules.pdf

Braue, David (2009) "Vic Govt limited Google's bushfire map" in *ZDNet Australia* February 12, 2009. Retrieved on 3 March from <http://www.zdnet.com.au/news/communications/print.htm?TYPE=story&AT=339294916-130061791t-110000003c>

Carr, Senator Kim, Speech: Open Access and Research Conference, 24 September 2008. Retrieved 25 February, 2008 from <http://minister.innovation.gov.au/Carr/Pages/OpenAccessandResearchConference.aspx>

Committee of Australian University Librarians (CAUL) (2008) Australasian Digital Theses Program [website] Retrieved 2 March 2009 from <http://www.caul.edu.au/adt/>

Coates, Jessica and Fitzgerald, Brian (2008). *Copyright and innovation: freedom to innovate*. Submission to the Review of the National Innovation System. Retrieved 28 February 2009 from http://www.innovation.gov.au/innovationreview/Documents/435-Jessica_Coates.pdf

Cobcroft, Rachel (ed) (2009) *Building an Australasian commons. Creative Commons case studies, Volume 1*. Brisbane: ARC Centre of Excellence for Creative Industries and Technology and others. Available from <http://creativecommons.org.au/casestudiesvol1>

Cooke, Alexander, *Research infrastructure and the open access agenda*. Australian Research Council, 2008. Unpublished Powerpoint MS.

Copyright Law Review Committee (2005), Crown Copyright. Canberra: The Committee. Retrieved 4 March 2009 from <http://www.ag.gov.au/agd/WWW/clrHome.nsf/AllDocs/4F25A124B6E6F1A4CA256FDB0015D5A7?OpenDocument>

Creative Commons Australia (2009). Creative Commons licences. Retrieved 25 February 2009 from <http://www.creativecommons.org.au/>

Curriculum Corporation (2008) Report on jurisdictional contribution to the national content pool pilot. Melbourne: The Learning Federation. Retrieved 3 March from http://www.tif.edu.au/verve/resources/Report_on_jurisdictional_contribution_to_national_pool.pdf

Cutler, Terry (2005) Creative content and the failures of public IP policy. Paper delivered at the Open Content Licensing Conference, Queensland University of Technology, 18-19 January 2005. Retrieved 3 March 2009 from http://www.cutlerco.com.au/activities/speeches/05_speeches/Creative_content.pdf

Cutler, Terry (2007) [contributor to discussion] "Why Governments and Public Institutions Need to Understand Open Content Licensing" in Brian Fitzgerald, Jessica Coates and Scott Kiel-Chisholm, *Submission to the Government inquiry on the extension of legal deposit to electronic and audiovisual materials, Intellectual Property: Knowledge, Culture and Economy*, Brisbane: Queensland University of Technology.

Cutler, Terry (2008). *Venturousaustralia: building strength in innovation*. Canberra, Department of Innovation, Industry, Science and Research. Retrieved 25 February 2009 from <http://www.innovation.gov.au/innovationreview>

Cutler, Terry (2008-oar) [oral presentation] Open Access and Research Conference, Brisbane, 24-25 September, 2008. Retrieved on 3 March 2009 from <http://www.oaklaw.qut.edu.au/node/61>

Department of Education, Employment and Workplace Relations (DEEWR). Accessibility Framework, 2004. Retrieved 25 February 2009 from http://www.dest.gov.au/sectors/research_sector/policies_issues_reviews/key_issues/accessibility_framework

Department of Innovation, Industry, Science and Research (DIISR). Australian Scheme for Higher Education Repositories (ASHER). Retrieved 24 February 2009 from [http://www.innovation.gov.au/Section/AboutDIISR/FactSheets/Pages/AustralianSchemeForHigherEducationRepositories\(AHSER\)FactSheet.aspx](http://www.innovation.gov.au/Section/AboutDIISR/FactSheets/Pages/AustralianSchemeForHigherEducationRepositories(AHSER)FactSheet.aspx)

Fitzgerald, Brian (2008), "Copyright 2010: the future of copyright", in *European Intellectual Property Review* (2008) 30: 43. Retrieved 24 February 2009 from <http://eprints.qut.edu.au>

Flew, Terry (2005), "Creative commons and the creative industries", in *Media and Arts Law Review* 257: 10.

Gans, Joshua (2008), "Caught short: information controls kill opportunities", in *The Age*, 5 August, 2008. Retrieved 2 March 2009 from <http://business.theage.com.au/business/caught-short-information-controls-kill-opportunities-20080804-3q03.html>

Geosciences Australia (2001), *Australian Government Policy on Spatial Data Access and Pricing*. Retrieved 25 February 2009 from <http://www.osdm.gov.au/OSDM/Policies+and+Guidelines/Spatial+Data+Access+and+Pricing/default.aspx>

Greenleaf, Graham (2008). *Unlocking IP to stimulate Australian innovation: an issues paper*. University of New South Wales Faculty of Law Research Series. Paper 44. Retrieved 24 February 2009 from <http://law.bepress.com/unswwps/flrps08/art44>

Houghton, John, Steele, Colin and Sheehan, Patrick (2006), *Research Communication Costs in Australia: Emerging Opportunities and Benefits*. Canberra: Department of Education, Science and Training (DEST) http://www.dest.gov.au/NR/rdonlyres/0ACB271F-EA7D-4FAF-B3F7-0381F441B175/13935/DEST_Research_Communications_Cost_Report_Sept2006.pdf

Kennan, Mary Ann and Kingsley, Danny L (2009), "The state of the nation: A snapshot of Australian institutional repositories", in *First Monday*, 14:2. Retrieved 2 March 2009 from <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2282>

Lessig, Lawrence. *Free culture: how big media uses technology and the law to lock down culture and control creativity*. New York, The Penguin Press, 2004.

National Health and Medical Research Council, Australian Research Council and Universities Australia (2007), Australian Code for the Responsible Conduct of Research. Retrieved 26 February 2009 from <http://www.nhmrc.gov.au/publications/synopses/r39syn.htm>

Nielsen, Michael. Blog. Retrieved 25 February 2009 from <http://michaelnielsen.org/blog>

Open Access to Knowledge Law Project (2009). Reports, guides and publications. Retrieved 2 March 2009 from <http://www.oaklaw.qut.edu.au/reports>

Productivity Commission (2007), *Public Support for Science and Innovation*. Retrieved 26 February 2009 from <http://www.pc.gov.au/projects/study/science/docs/finalreport>

Simes, Laura (2008), *A user's guide to the flexible dealing provision for libraries, educational institutions and cultural institutions*. Canberra: Australian Digital Alliance and the Australian Libraries Copyright Committee. Retrieved 26 February 2009 from <http://www.digital.org.au/documents/FlexibleDealingHandbookfinal.pdf>