AUSTRALIAN INDUSTRY

GROUP

AUSTRALIAN INDUSTRY GROUP SUBMISSION

Australian Law Reform Commission

Inquiry into Copyright and the Digital Economy

19 November 2012

EXECUTIVE SUMMARY

The Australian Industry Group (Ai Group) welcomes the opportunity to make a submission to the Australian Law Reform Commission's (ALRC) Inquiry into copyright and the digital economy. The Inquiry is considering whether existing exceptions in the *Copyright Act 1968* (Copyright Act) are appropriate in the context of the digital economy or if further exceptions are needed. The terms of reference require the ALRC to consider the importance of the digital economy and the opportunities for innovation created by the emergence of new digital technologies.

Ai Group is a peak industry association in Australia which along with its affiliates represents the interests of more than 60,000 businesses in an expanding range of sectors including: manufacturing; engineering; construction; automotive; food; transport; information technology; telecommunications; call centres; labour hire; printing; defence; mining equipment and supplies; airlines; and other industries. The businesses we represent employ more than 1 million employees.

Our submission concentrates on the role of copyright in encouraging innovation and digital economy participation. The key points made in our submission are:

- Copyright law is an important part of the regulatory framework influencing the conditions for innovation and digital economy participation.
- Copyright law can encourage innovation by ensuring appropriate remuneration for creative and inventive effort.
- Copyright law can also support innovation by ensuring reasonable access to content and not unduly limiting competition or innovative uses of copyright works.
- Getting this balance right is critical as increasing productivity, innovation and digital economy participation are key challenges for Australia.
- Digital technologies are increasingly testing Australia's copyright law framework as:
    - Making digital copies for technical reasons is a routine aspect of many internet and digital functions, but may not be permitted by Australian law.
    - A greater range of industries and activities will increasingly rely on copying and analysing information, e.g. for data analytics, but these broader range uses are not envisaged by the Copyright Act.
    - There has been considerable change in the way that content is distributed, published, received and consumed in the last decade, challenging the technology specific nature of exceptions to the Copyright Act.
- Australia is not alone in experiencing these impacts. A number of countries have initiated reviews of their domestic legal frameworks. Australia's regulatory framework must keep pace with these developments to ensure that Australian regulatory settings are internationally competitive and do not act as a barrier to domestic innovation.
- While Ai Group has generally elected not to make recommendations on specific amendments to the current exceptions to the Act, Ai Group supports consideration of a more technology neutral approach to copyright law.
- Ai Group also recommends that the ALRC give priority to identifying areas where Australia's copyright framework inhibits innovation by preventing routine or critical aspects of Internet and digital functionality. This should include consideration of an amendment to the Copyright Act to permit data analytics where this does not directly trade on the underlying creative and expressive purpose of the work.
- Once the ALRC is in a position to identify amendments to exceptions to the Copyright Act, the ALRC should commission detailed cost / benefit analyses for these proposals to determine the impact of proposed changes on different groups and the broader community.

Section One: Copyright, innovation and the digital economy

The ALRC's issues paper invites comment on the role of copyright in encouraging participation in the digital economy. In particular, the paper asks "whether there is there evidence about how copyright law:

(a) affects the ability of creators to earn a living, including through access to new revenue streams and new digital goods and services;
(b) affects the introduction of new or innovative business models;
(c) imposes unnecessary costs or inefficiencies on creators or those wanting to access or make use of copyright material; or
(d) places Australia at a competitive disadvantage internationally."

Ai Group's submission focuses on this question as our central interest in the Inquiry is the role of copyright in encouraging and enabling innovation in the digital economy.

Ai Group's submission starts by considering the productivity and innovation challenge facing Australia and the relationship between copyright and innovation in the digital economy. It then considers major technological trends that Australia's copyright framework will need to respond to and the impacts of these trends for copyright regulation and innovation. It concludes by making recommendations for the ALRC to consider ahead of the release of a discussion paper next year.

Australia's productivity and innovation challenge

The ALRC's consideration of the impact of copyright on digital economy participation is timely given the increased focus on Australia's broader productivity and innovation performance. Digital economy engagement is an important part of this debate.

While Australia experienced strong productivity growth in the 1990s, labour and multi-factor productivity growth have trended down in the last decade around a cyclical pattern. Notwithstanding some improved labour productivity data over the past year or so, there remains a substantial challenge to avoid the continuing poor productivity performance over the medium term.

There are numerous, and often debated, reasons for this decline. What is not in dispute is that lifting the pace of productivity improvement will take on greater importance if Australia is to maintain or improve living standards. Declining productivity growth has so far been offset, at the aggregate level, by the impact on GDP of high commodities prices associated with the mining boom. However, with mineral prices anticipated to decrease in coming years, and increased workforce participation and population growth offering limited opportunities for further per capita GDP gains, Australia will be increasingly reliant on increased productivity to maintain GDP growth.

Relevantly for the ALRC's inquiry, Australia's fast and successful take-up of ICT technologies is considered to be one reason behind Australia's high productivity growth rates in the 1990s. These gains have not been maintained, however, and the Grattan Institute has questioned whether "slippage (relative to other countries) in Australia's take-up of productivity-enhancing technologies"[1] has partly contributed to Australia's productivity decline.

A number of recent reports have emphasised the importance of innovation to increase Australia's productivity.[2] Innovative Australian businesses are twice as likely to report increased productivity

[1] Eslake, S. and Walsh, M. (2011), *Australia's Productivity Challenge,* p. 26.
[2] See for example *Understanding Productivity: Australia's Choice*, *Smarter Manufacturing for a Smarter Australia*, and

and 41% more likely to report increased profitability. They are also more likely to export and to make employment and social contributions.[3]

However, international measures of innovation consistently show that while Australia performs moderately well on innovation measures it is not a world leader. The World Economic Forum (WEF)'s Global Competitiveness Index recently ranked Australia 20 out of 144 countries in 2011-12. This represented a slight decline from Australia's average ranking of 18 over the last five years.[4] In the most recent report, Australia ranked below the OECD average for factors such as technological readiness, business sophistication and innovation.

The Department of Innovation, Industry, Science and Research (DISR) has also noted that Australia's approach to innovation involves less investment in intangible innovation capabilities compared with other OECD countries. DISR concluded

> A comparison of Australia's investment in intangibles with that of other countries shows that we are more than twice as likely to adopt existing technology embodied in physical machinery and equipment, than we are to invest in our own intangible innovation capabilities. Based on this measure, OECD countries such as the United States, Sweden, UK and Finland show the reverse trend, suggesting that either we are not as advanced along our transition to a 'knowledge-based' economy, or that we are taking an atypical pathway.[5]

Participation in the digital economy is likely to be a critical source of innovation for Australian firms and consumers. Recent economic modelling undertaken by the World Economic Forum as part of the Global Information Technology Report 2012 estimated that an increase in digitisation of 10 percentage points leads to GDP gains in the range of 0.50 – 0.62 percentage points, with the extent of gains increasing as the level of digitisation accelerated. The WEF also found that a ten percentage increase in digitisation also reduced a nation's unemployment rate by 0.86% and led to improved performance on the Global Innovation Index, perhaps suggesting that increased digitisation may enhance innovation potential.[6]

As with international comparisons of innovation, Australia has room to improve in measures of digital economy engagement. An analysis of the contribution of the Internet Economy to G20 nations by Boston Consulting Group found that the Internet economy made a net contribution of $41 billion to Australia in 2011, representing 3.3% of GDP, compared to average of 4.1% contribution to GDP for G20 nations. The report also predicted that Australia would fall comparatively further behind other G20 nations in medium terms, estimating that the Internet economy would contribute 3.7% of GDP in Australia by 2016, compared to an average of 5.3% for G20 nations.[7]

Copyright, Innovation and the Digital Economy

Copyright law impacts on innovation in the digital economy in a number of ways. Ai Group welcomes the ALRC Inquiry as an opportunity to ensure that Australia's copyright law encourages innovation and digital economy participation.

The fundamental purpose of copyright law is to provide an economic incentive to create or invent by granting a temporary monopoly on the exploitation of a work. In this way copyright law can have a positive impact on innovation. This is particularly the case for activities that involve significant

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Australia in the Asian Century.

[3] Department of Innovation, Industry, Science and Research (DISR) (2011), *Australian Innovation System Report 2011*, p. 3.

[4] World Economic Forum (WEF) (2011), *Global Competitiveness Report 2011-12*, p. 94.

[5] DISR op. cit., p. 1.

[6] Bilbao-Osorio, B. and Dutta, S. (2012), *The Global Information Technology Report 2012: Living in a Hyperconnected World*, p. 127

[7] The Boston Consulting Group (2012), *The Internet Economy in the G-20*, p. 20.

research and development expenditure but where there are low economic or technical barriers to imitating or copying of works that would prevent the creator or inventor from realising sufficient value from that effort.[8]

However, a second aim of copyright law is to promote access to copyright material and to encourage further forms of innovation that build on works afforded copyright protection. The landmark Hargreaves Report in the United Kingdom noted that Intellectual Property Rights (IPRs) can stifle innovation and growth where:

- transaction costs are high;
- rights are fragmented and hard to access;
- established market players with exclusive rights to innovative content or technologies take advantage of poorly designed IP laws to stymie competition by preventing access; and[9]
- the search, administration and enforcement costs imposed on copyright owners are high, offsetting the value of protection.[10]

The need for copyright law to adapt to technological and market change was also a core theme of the Hargreaves Report.[11] The challenge that digital technologies present to copyright law is succinctly captured by the Report

> Because copyright governs the right to own and use data and information, as well as the output of authors, musicians, photographers and film makers, copyright law is now of primary interest to players across the whole of the knowledge economy, not just those involved in the creative industries. Digital technologies are based on copying, so copyright becomes their regulator: a role it was never designed to perform.

One key issue presented by digital technologies is that they routinely involve copying of text, images and data. The ALRC Issues Paper identified this problem within an Australian context where routine internet functions such as caching, indexing of data, and making temporary copies of material as part of the act of storing content remotely are prohibited or legally uncertain under the Copyright Act. Ai Group considers that providing greater certainty about the legal status of such functionality is important to enabling innovation and participation in the digital economy.

Copyright law also impacts on innovation because of the greater breadth of industries relying on copying material as part of their core activities and the increasing importance of data analytics to research. The Hargreaves Report noted that "copyright, once the exclusive concern of authors and their publishers, is today preventing medical researchers studying data and text in pursuit of new treatments. Copying has become basic to numerous industrial processes, as well as to a burgeoning service economy based upon the internet."[12] This led the report to conclude that "The UK cannot afford to let a legal framework designed around artists impede vigorous participation in these emerging business sectors."[13]

There are also broader innovation impacts from encouraging the take-up of content and digital economy services. Access to high bandwidth audio-visual content is known to be a key driver for household take-up of high-speed broadband. A New Zealand study into demand for high-speed broadband concluded that "video content is likely to be the primary driver of consumers' uptake of

[8] Hargreaves, I. (2011), *Digital Opportunity: A Review of Intellectual Property and Growth*, p. 11.
[9] Ibid., p. 10
[10] Ibid., p. 11.
[11] Ibid., p. 6
[12] Ibid., p. 1
[13] Ibid., p.

high speed broadband services over the next few years. The rate of uptake is likely to be higher if there is a diverse range of video on demand options available to consumers."[14] More widespread and rapid take-up of high-speed broadband can help facilitate activities like teleworking and the delivery of innovative telehealth and education services.

A final issue is the need for Australia's regulatory framework to be consistent and competitive with other jurisdictions. A copyright framework that prohibits critical or routine activities related to the digital economy that are permitted in other markets may discourage domestic innovation or lead to commercial or research activities staying or moving offshore.

Section Two: Major technology trends impacting copyright law

There are a number of technology trends related to the digital economy that will place further pressure on the existing copyright framework. These include the growth in networked devices, the rise of cloud computing, and increased reliance on big data and analytics.

Content Distribution, Publication and Consumption

By the end of 2013, the majority of voice, data and audiovisual content in Australia will be delivered digitally. This is a fundamental shift from just a decade ago when in 2001 analogue transmissions predominated for free-to-air and cable pay TV television services, there were only an estimated 122, 800 broadband customers in Australia and popular social media and content services like YouTube, iView and Facebook did not exist.[15]

Growth in high-speed fixed broadband and high-speed mobile broadband connections will continue with the rollout of the national broadband network and the imminent launch of 4G LTE mobile services. Higher bandwidth infrastructure will facilitate the carriage of digital content over a range of platforms to multiple devices. This will include internet services, such as over-the-top or internet TV, IPTV services delivered over managed networks, such as via the NBN Co Multicast product or Fetch TV, cable; satellite, and terrestrial broadcast services.

The ready availability of content on numerous platforms is increasing consumer access to content and creating new markets and commercial opportunities for content producers. The Australian Communication and Media Authority (ACMA) recently noted that online video services "are now being seen not only as meeting viewer demand, but also as a potential area for revenue growth by free-to air (FTA) broadcasters and internet service providers seeking to increase online audiences and subscriber numbers."[16] In the US, e-book adult fiction sales surpassed hardcover sales in 2011 and overall e-book sales revenue more than doubled between 2010 and 2011.[17]

Importantly, these changes are not simply creating new market opportunities, but also more sophisticated, flexible and efficient means for companies to measure and charge for usage via licensing or subscription models.[18] Providing convenient and legal means for consumers to access content may also reduce demand for illegal downloading and piracy.[19]

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[14] Commerce Commission of New Zealand (2012), *High speed broadband services demand side study: final report*, p.4.
[15] Jackson, K. (2002) 'Household Broadband Access in Australia', Australian Parliamentary Library, Research Note no. 34, 2001-02.
[16] Australian Communications and Media Authority (ACMA) (2012), *Communications report 2011–12 series, Report 1—Online video content services in Australia: Latest developments in the supply and use of professionally produced online video services*, p. 1.
[17] The Association of American Publishers (2012), press release titled *BookStats 2012 Highlights*, available at: http://www.publishers.org/press/74/.
[18] European Commission (2012), *Commission Staff Working document accompanying the Unleashing the Potential of Cloud Computing in Europe Communication*, p. 20.
[19] Ericsson (2012), *TV and Video: An analysis of evolving consumer habits*, p. 10.

Changes to content creation, distribution and consumption methods means content increasingly defies categorisation by delivery platform or format. Newspaper content is available simultaneously online and in hard copy format and can include text, audio and audiovisual material. There are smartphone and tablet apps of popular children's books, such as Dr Seuss stories, which allow consumers to read an animated book by turning pages, to have the book read aloud to them, or to interact with the book.

Another key change is the rise of cloud computing and the ability to remotely access the same content from multiple devices. Cisco's Global Cloud Index forecasts that global cloud IP traffic will increase six-fold over the next 5 years and grow at a compound annual growth rate (CAGR) of 44% between 2011 and 2016. [20] The Index also forecasts that growth in consumer cloud traffic will be higher than business cloud traffic growth, with CAGR of 46% and 37% respectively between 2011 and 2016. In absolute terms, consumer cloud traffic is forecast to significantly outweigh business cloud traffic, rising from 559 EB per year in 2011 to 3,659 EB per year in 2016 compared to business cloud traffic growing from 124 EB in 2011 to 596 EB in 2016. Increased usage of audio and visual streaming and personal content lockers is behind the predicted strong consumer cloud growth. [21]

The range of consumer devices available to watch content, and the number of devices per capita, is also growing. According to Cisco's virtual networking index (VNI), there were 93 million networked devices and 4 per capita in Australia in 2011. The VNI estimates there will be 147 million networked devices or 5.7 per capita by 2016.[22] Around 57% of adult Internet users in Australia have smartphones and around 29% use tablets.[23] Research conducted by the ACMA in June 2012 identified six types of devices which were used by 20% or more of consumers to watch online video content.[24]

Increased penetration of networked devices, combined with increasing ease of access to content and lower carriage charges, is leading to consumer behavioural change. OzTam / Nielsen figures show that 45% of Australian consumers watch video on demand services each month.[25] Recent ACMA research found that 32% of households had a personal video recorder (TiVo, PVR, FOXTEL iQ, Fetch TV) and 43% of adult home internet users had accessed online video content in June 2012, with 1.5 million adult users viewing online content in June 2012. [26] The ACMA also found that around 64% of Australians used two or more devices to watch online video content.[27]

These trends mean consumers increasingly expect choice and flexibility about what content they watch and when and where they watch it.[28] As cloud computing enables a consistent and familiar experience no matter which device is used to access content, it is also leading consumers to engage in increasingly sophisticated behaviour such as accessing remotely hosted content from multiple devices.[29] This trend is likely to continue as networked technology becomes increasingly pervasive and immersed in physical objects such as buildings, appliances and vehicles and device interfaces

[20] Cisco (2012), Cisco Global Cloud Index White Paper Forecast and Methodology 2011 - 2016, p. 1.
[21] Ibid., p.8
[22] Cisco (2012), Virtual Networking Index Highlights for Australia, available at: http://www.cisco.com/web/solutions/sp/vni/vni_forecast_highlights/index.html#~Country.
[23] ACMA op. cit., p. 2.
[24] The devices were: Internet enabled televisions, laptop computers, desktop computers, standard television, tablet, mobile phone or smartphone. ACMA op. cit., p. 31.
[25] OzTAM / Nielsen (2012), *National Multi-screen Report Quarter 2 2012: Trends in video viewership beyond conventional television sets*, p.
[26] ACMA op. cit., p. 4.
[27] ACMA op. cit., p. 32
[28] Nielsen research in Australia has found that 68% of Australian consumers nominated the ability to watch online video content at a time of their choosing as the reason why they watched online video content. ACMA op. cit., p. 34.
[29] Fujitsu (2012), *Technology Perspectives*, p. 12.

become more human-centric and intuitive (for example, touch screens replacing the mouse and keyboard).[30]

Data analytics and big data

Another significant trend is increased use and reliance on data analytics including big data. Big data is the ability to analyse massive and diverse data sets, often in real-time.

Big data holds enormous potential for a range of industries. A 2011 study by the McKinsey Global Institute found that big data analysis had potentially significant productivity and innovation benefits for a range of industry sectors including manufacturing, retail, health care and government.[31] Fujitsu's *Technology Perspectives* paper identified increasing real-time data usage as one of twelve key technology trends for 2012.

Data analytics involves crawling large amounts of information from numerous websites and information sources. This can raise potential copyright issues as it requires copying and storage of website material for analysis. Generated reports often include small fragments of the copied material to explain the results. As the ALRC Issues Paper notes, many jurisdictions overseas are grappling with data analytics implications for copyright law. The potential benefits of data analytics, and in particular big data analysis, means it is important from an innovation standpoint for this issue to be resolved quickly to provide certainty about what activities are permitted.

While one option suggested by the ALRC is to create an exception for data mining and scientific and research purposes, such an exception would need to be carefully drafted to allow for the breadth of organisations that may legitimately undertake research and data analytics. The Hargreaves Report, for example, observed that

> The nature of services innovation implies that answers to technical problems will not lie exclusively within research institutions or companies with proprietary R&D cultures and the means to manage and protect IP. Instead, they will emerge through integration of ideas from a wide range of organisations, some of whom may consider managing IPR to be an unacceptable obstacle in a high value business.[32]

The ALRC could consider an amendment to the Copyright Act to permit data analytics where this does not directly trade on the underlying creative and expressive purpose of the work.

Impact of Technological Trends on Copyright Framework

The combined effect of these technological trends is that "the world has become saturated with millions – billions - of devices, all capable of connecting over ubiquitous networks…. Meanwhile at the other end of these networks are vast online reserves of computing resources, applications and information services – the digital world of the internet and the cloud."[33]

These changes are testing copyright regimes worldwide. While Ai Group does not wish to comment on the specific proposals for amending exceptions to the Copyright Act suggested by the ALRC, we note that a copyright framework based on technology specific exceptions will be increasingly challenged by such a dynamic and fluid technological environment. The Copyright Act, for example, includes separate format shifting exceptions for books, newspapers and periodicals, photographs, videotapes, and sound recordings yet increasingly content will defy these categorisations.

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[30] Fujitsu op. cit., p. 11.
[31] McKinsey Global Institute (2011), *Big data: The next frontier for innovation, competition, and productivity*, p. 8.
[32] Hargreaves op. cit., p. 14.
[33] Fujitsu op. cit., p. 6.

These pressures will accelerate as format- shifting, time-shifting and remote storage of content that can be accessed from multiple devices become increasingly common activities. A legal framework that does not accommodate these activities will not serve the interests of content creators and distributors as they seek out new markets and commercial opportunities, or consumers who will increasingly expect flexibility and control over the content that they watch.

Ai Group considers that reform can be achieved while maintaining an appropriate balance between ensuring an incentive to create whilst allowing access to content and encouraging innovative uses and applications. As the European Union (EU) recently observed in the context of releasing a cloud computing strategy

> Fair and efficient transactions between rightholders and cloud services providers as well as between cloud service providers and consumers should allow equitable and efficient remuneration of rightholders. It is essential to take proper account of the opportunities offered by the current development of new business models. Such models deliver new forms of authorised access to copyright protected content. They should at the same time enable rightholders to better control the use of their content and the manner in which they are remunerated for it.[34]

One difficulty in finding this balance is ascertaining the economic impact of existing or proposed copyright provisions. It is likely this can only be established where specific exceptions are considered and their impact on particularly industries or user groups can be estimated.[35] Given the importance of copyright to Australia's participation in the digital economy, Ai Group recommends that once the ALRC is in a position to identify any preferred amendments to exceptions to the Copyright Act the ALRC should commission detailed cost / benefit analyses for these proposals. These analyses could try to determine in more detail the impact of proposed changes on different groups and the broader community.

Conclusion and Recommendations

Ai Group welcomes the ALRC's review of copyright and the digital economy. The review is timely to ensure that Australia's copyright framework encourages innovation, can adapt to technological and commercial change, and remains internationally competitive.

While Ai Group does not generally wish to comment on specifically on possible amendments to existing exceptions considered by the Issues Paper, Ai Group does make the following recommendations.

1. The ALRC's issues paper suggests ten principles to guide reform of copyright law. Ai Group members generally support the principles outlined by the ALRC. However, Ai Group recommends that principles five and six should more explicitly recognise the desirability of technology neutral regulation given the difficulty of predicting and keeping pace with technological and commercial change.
2. Ai Group recommends that once the ALRC is in a position to identify amendments to exceptions to the Copyright Act it commissions detailed cost / benefit analyses for these proposals. The analysis could try to determine in more detail the impact of proposed changes on different groups as well as the broader community.

[34] European Commission op. cit., p.20.

[35] Towse, R., 'What We Know, What We Don't Know, and What Policy-makers Would Like Us To Know About the Economics of Copyright', *Review of Economic Research in Copyright Issues*, 2011, vol.8, no.2, December, p. 113.

3. Ai Group recommends that the ALRC give priority to identifying areas where Australia's copyright framework inhibits innovation by preventing routine or critical aspects of Internet and digital functionality. This should include consideration of an amendment to the Copyright Act to permit data analytics where this does not directly trade on the underlying creative and expressive purpose of the work.
4. Question 38 of the Issues Paper asks whether the ALRC inquiry is the appropriate forum for resolving the treatment of retransmission of broadcasting signals under the Copyright Act. Ai Group does not consider the ALRC Review to be the appropriate forum to address this matter as it raises significant broadcasting policy issues rather than being a purely a question of copyright law.