Notes: This document was prepared by the Policy and Planning Group during 2011 for the purpose of assessing how key external factors have affected the Health and Community Services industry since 2007. The original IES noted that the media and communications industry comprises all enterprises involved in the production and distribution of information, primarily for the purposes of news and entertainment, with the bulk of the industry focused on the development and distribution of content for varying mediums. As such, the industry definition is quite broad, encompassing many industry sectors across traditional media industries and into new Information and Communications Technology (ICT) industries. The Innovation and Business Skills Australia (IBSA) is the Industry Skills Council for media and communications (along with other sectors such as financial services and education and training). This scan draws on much of IBSA’s recent environmental scanning, along with IBISWorld industry reports for particular sectors.

## Overview and Rationale

### The Media and Communications Industry in 2006-2007 (as outlined in original IES) - Why was this industry selected?

In 2006-07, the original IES found that the industry was undergoing significant change in response to new technologies and globalisation. Confluence and convergence between ‘new media’ and old media, with previously separate media forms trending to be published in parallel was the dominant trend. The industry was already highly concentrated and, while the effects of (then recent) changes to media ownership legislation were not yet apparent, there was increasing foreign ownership and fears of reduced editorial diversity through takeovers. Mobile devices were becoming “functionally richer and more connected”, with possible opportunities through increased bandwidth variety and signal proliferation. Increased connectivity was also giving rise to increased data security risk and increasing data storage needs. Other opportunities were emerging through real time and simulation. The industry was experiencing serious skills shortages across key IT areas, particular difficulties recruiting design/creative and management skills and skills shortages predicted in future growth markets eLearning, architecture, planning, health, mobile content and games. RMIT had learning and teaching skills in the industry.

### The Media and Communications in 2011 – Summary (Why should RMIT continue to focus on this sector?)

Trends apparent in 2006-07 continue, with increasing convergence, digitisation and connectivity changing the way people and business use and access media and communications products and services. The rapid pace of change is putting pressure on traditional business models and affecting profitability, particularly in an increasingly global market. Changing media ownership laws, regulation, a focus on sustainability and, critically, increased competition for advertising dollars are also putting pressure on the industry.

However, businesses within the sector are seeking new ways of developing and distributing their products and services and using new technologies to create new products and access new markets. There is ongoing government support for sectors of the industry and significant Commonwealth spend to develop a high-speed broadband network for Australia. Similarly, many of the National Research Priorities and Associated Goals can have linkages to the industry.

Similarly, while employment is predicted to decline in some industries, select occupations are in shortage. The changing landscape continues to offer opportunities to businesses able to harness new technologies and develop new strategies in an increasingly global market. In turn, this also continues to create opportunities for education and training providers able to keep up with the changes, support the industry re-skill and re-focus.

## Industry Snapshot

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<tr>
<td>Australia’s online advertising market (IBISWorld)</td>
<td>$800 million in 2005-06</td>
<td>$2.5 billion in 2011-12 (predicted)</td>
<td>Employment (Information Media and Telecommunications - ABS – Australian Industry)</td>
<td>171,000</td>
<td>177,000</td>
</tr>
<tr>
<td>Film and TV drama production spending in Australia (incl foreign) source: Screen Australia</td>
<td>$632 M</td>
<td>750 M (estimate) ($722 M – 2009-10)</td>
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Economic factors include economic growth, interest rates, exchange rates and the inflation rate. These factors have major impacts on how businesses operate and make decisions.

**Economic Context**

In Australia, the five-year period has been characterised by both expansion and contraction, dominated by the resources boom, which is driving the Australian dollar up and contributing to inflation, and the effects of the 2008-09 Global Financial Crisis (GFC). IBSA notes that the media and communications sectors are integrated into all parts of the Australian economy making them vulnerable to market forces, but also insulated from them (IBSA). A higher AUD over the period means that some IBSA businesses have benefited from reduced input costs, while others have been negatively affected due to reduced competitiveness. The GFC did have a negative impact on particular industries, for example:

- Printing companies reported a “staggering drop in work” in 2008-09 of up to 25 per cent. Improvement followed in 2010 but the recovery has been described as “patchy” (IBSA).
- Arts and entertainment industries experienced subdued growth in audience numbers and reduced government and business support during the downturn (IBSA) with tighter credit markets meaning that less capital was available for film projects (IBISWorld).
- Metropolitan newspaper advertising revenue declined 20.9 per cent during the second half of 2008-09 (IBISWorld, Newspaper printing or publishing).

The availability of advertising dollars are also linked to the state of the national economy.

**Industry Performance**

Overall, the Australian content and communications industry is considered to be “in good shape” (Convergence Review) however, convergence challenges traditional industry business models and existing communications and media regulation in Australia (see further below). In this environment, the fortunes of particular sectors within the industry can vary. Given the diverse breadth of industry sectors within media and communications, select key industries are examined in the appendix, canvassing:

- Newspaper printing and publishing
- Film and video production
- Radio services
- Information and communications technology (ICT)
- Advertising and Public Relations
- Recorded media manufacturing and publishing in Australia
- Interactive Entertainment
- Free to Air Television

Broadly, trends apparent during 2006 are continuing, with ongoing growth in communications and media activity across converged platforms and consumer devices (ACMA Communications Report 2010-11). Most Australians are diversifying their use of communications and increasing numbers are adopting multiple devices to suit their lifestyle (ACMA Communications Report 2010-11). For example:

- The penetration of smartphones in the Australian market is forecast to increase from 46 per cent in 2011 to 82 per cent in 2015 (Screen Australia, *Playing for Keeps*, citing PWC).
- Tablet penetration will increase from 8.5 per cent to 33 per cent over the same period (Screen Australia, *Playing for Keeps*, citing PWC).

This increasing popularity is being driven by new content and applications available for global services that are changing the shape of the Australian content and communications market (Convergence Review). Ongoing developments in digital infrastructure, products and services provide “a platform for continuing development of the digital economy in Australia” (IBSA) (see further below). Select common trends which apply to several industry sectors include:

- **Technological developments**: digitalisation is separating services from transport layers. Increasing availability of digital downloads is leading to a decline in traditional physical forms of media and communications product (such as CDs or printed newspapers).
- **Increased competition for advertising dollars**.
• **Market developments and changes in industry structure:** liberalisation of telecommunications markets has resulted in multiple competing networks offering electronic services as well as increased globalisation.
  
• **Changing consumer preferences and increasing engagement** (e.g. driven by new products and applications).
  
• **National digital communication strategies:** direct public sector investment in communications infrastructure is reshaping competition dynamics and presenting public policy challenges (such as the delivery of consumer safeguards and the migration of telecommunications to internet protocol (IP) delivery) (ACMA 2011).
  
• **Mergers, takeovers and global engagement:** as online, global activity increases, consumers increasingly seek services from companies which can support their global engagement.
  
• **Changing nature of advertising and PR:** declines in advertising revenue affect revenue and profitability of traditional media stables, with both sectors being increasingly called on to deliver online content.

**Rise of the Digital Economy and the National Broadband Network**

The Commonwealth announced on 7 April 2009 announcement that it would establish a new company to design, build and operate a new high-speed National Broadband Network (NBN), accompanied by reforms to Australia’s telecommunications sector. The NBN is creating a combination of fibre, wireless and satellite broadband connections to and will take around 8 years from 2010 (NBN Skills). It is hoped that the NBN will:

• Improve the functionality of online products and services and applications and content, for example, by enabling faster data connection permitting rapid transfer of data and files, streaming data, applications sharing, video or web conferencing, data casting and broadcasting content, and real-time collaboration tools.
  
• Remove barriers to the deployment of new applications and services e.g. in 2007 over 74 per cent of USA homes received CableTV via a broadband connection (NBN Skills).
  
• Enable Australia to keep up with other global broadband infrastructure projects, with estimates suggesting that every 10 per cent increase in the population using (1.2 Mbps) broadband communications adds an estimated 1.2 per cent or 1.38 per cent to the annual GDP1 (NBN Skills, citing studies conducted by the World Bank and UNESCO).
  
• Enable more than 10 million homes and premises to access the network (although initial reports suggest take-up is behind original predictions).

In 2011, the Commonwealth also released the National Digital Economy Strategy to outline a vision for Australia’s digital economy and realise the potential benefits of the NBN (DBCDE, National Digital Economy).

**Industry Structure and Media Laws**

Australia is ranked 41st in the world for media diversity, with two newspaper groups currently accounting for over 90 per cent of the circulation of daily newspapers and three commercial television networks (The Australian Collaboration).

In October 2006, the Australian Parliament passed legislation for new media laws that commenced on 4 April 2007. The amendments opened up to more foreign and cross ownership, with a ‘two out of three’ rule, meaning that companies are allowed to own up to two media outlets (television, radio and newspaper) in a single area. Mergers are allowed if the transaction passes a media diversity test and subject to the approval of the Australian Competition and Consumer Commission (The Australian Collaboration).

The changes have led to increased international investment from private equity firms (for example for private capital city TV operators (IBISWorld, Free to Air Television) and stimulated investment by operators in cross-media activities, which included TV, radio and newspapers. In radio, the industry has witnessed a significant upswing in foreign ownership and participation, with some major international media companies accumulating several rural and regional AM and FM stations (IBISWorld, Radio Services). Similarly, in November 2009, the Federal Government auctioned

1 Based on World Bank July 2010 estimates of Australia’s GDP, would indicate GDP growth projections of equivalent to more than $11.1 or $12.76 billion per annum for each additional 10 percent growth in connection (NBN Skills, citing studies conducted by the World Bank and UNESCO).
excess capital city digital radio spectrum, with Austereo taking 27.1 per cent of available national spectrum (IBISWorld, Radio Services). These issues, along with the challenges and opportunities of convergence - which also change the shape of the media landscape – have created increased focus on media regulation, ownership and principles, particularly given the socio cultural role of media and communications (see further below at political and socio cultural).

**Industry Outlook**

The way people may seek to access media or entertainment is shifting, rather than declining. While this does challenge traditional business models, there is evidence that the industry is seeking new ways of capturing opportunities presented by the changes, with the Convergence Review finding that Australia’s digital creative industries are in a strong position to benefit from the changing landscape (Convergence Review). For example, there are opportunities to expand content production in traditional screen business and develop excellence in areas like apps for tablets and smartphones. Similarly, there are signs that more traditional media companies are seeking to match changing preferences: for example some newspapers have changed from broadsheet to tabloid format, which may be more attractive to some consumers (IBISWorld, Newspaper Printing). Newspapers are also providing more comment, lifestyle articles and articles on personal subjects as a response to the ‘commoditisation’ of news (IBISWorld, Newspaper printing).

Convergence is also offering other opportunities such as new trade routes and cultural interactions with the rest of the world, where global distribution is virtually free (Convergence review). Australia’s regional ties to Asia and the English language “could allow us to build an important hub of technology development” (Convergence). Online Information services also have strong export potential, given global nature of the internet (IBISWorld, Business Services).

Other positive indicators for this industry include:

- **Interactive Entertainment**: The physical retail console and PC market is expected to pick up over the next five years after falling in 2009 and 2010, expanding globally at a growth rate of 3.7 per cent particularly due to strong growth in the online distribution of games.
- **ICT**: Strong public infrastructure spending, business and personal uptake and other government support point to continued growth in this sector, with Victorian ICT companies optimistic about the future prospects for the industry as a whole, with 61 per cent expecting the industry to improve its profitability over the next two years (Victorian Government).
- **Television**: free-to-air TV operators have recognised the technological changes occurring and are actively adapting and making use of it by developing interactive websites, incorporating program downloads and podcasting and providing for SMS audience response and interactivity (i.e. voting), ordering and competition linked activities to certain programs (IBISWorld, Free to Air TV). Maintenance and/or possible increases to Australian local content requirements (as floated in the Convergence Review Interim Report), could also support the industry. IBISWorld estimates that in the five years through 2016-17 pay TV industry revenue will grow at an annualised rate of 3.7 per cent to reach $4.18 billion (IBISWorld, Pay Television in Australia, October 2011).
- **Radio**: Over the five years through 2016-17, conditions are set to improve, with real industry revenue anticipated to rise at an annual average rate of 2.3 per cent, to reach $1.59 billion, buoyed by an uptake in digital broadcasting.
- **Public relations (PR)**: PR services withstood the GFC better than traditional advertising. Its longer-term trend toward more below-the-line marketing methods is predicted to support public relations industry growth at an average of 3.0 per cent annually, to reach $513.4 million by 2016-17, and it also predicts that new communication opportunity areas will centre on environmental issues, including the carbon footprints of clients and their carbon reduction strategies and offsets.
- **Printing**: The industry is responding to the reduced demand for traditional printing services by expanding their services into print management and building customer relations (IBSA, Printing and Graphic Arts) with increased opportunities to transfer and produce print product from concept to actual production using virtual, cloud solutions and integrating graphic design, printing and mail services by e-printing businesses (NBN Skills). Additionally, the digital share of the market is predicted to increase as output quality improves, operation costs drop and market awareness grows.
• **Other industries**: IBSA predicts that industries in which the digital economy is likely to expand most rapidly, though business and service take up of the capacity through the NBN are e-health, education services, e-finance and business services, logistics and transport and media and entertainment (IBSA).

**Employment and Workforce**

Estimating the size of the workforce corresponding to each sector of the industry is challenging as ABS classifications and data do not fully capture the industry, particularly creative industries where people may have another job (IBSA, Cultural and Creative Industries). However, ABS employment statistics for the ‘Information Media and Telecommunications’ division show employment increased by 6000 people over the period 2006-7 to 2009-10, from 171,000 to 177,000. However, given the changing landscape employment is predicted to decline in particular sectors, including:

- **The film and video production industry**: with employment predicted to decrease by 1.6 per cent a year to about 11,600 people (IBISWorld, Film and Video Production in Australia).
- **The newspaper printing/publishing industry**: employment is predicted to decline from 22,685 in 2009-10 to a forecast 22,234 in 2011-12 (IBISWorld, Newspaper Printing).
- **Music production and retailing**: predicted to decline 6.8 per cent between 2009-10 and 2014-15 (IBSA, Cultural and Creative Industries)
- **Other clearly defined sectors, such as Satellite, television and radio relay operations**: employment is expected to decline as a result of sector convergence (IBSA, citing IBISWorld Satellite, Television and Radio Relay Operations in Australia).

However, overall IBSA predicts a small growth in employment in the Printing and Graphic Arts Industry and a 13% employment growth in Cultural and Creative Industries. The Victorian Government’s ICT survey also shows ICT growth in Victoria, with the government estimating that approximately 29 per cent of Australia’s ICT workforce is employed in Victoria (Victorian Government). Overall, IBSA suggests that the IT sector has created over 100,000 new jobs in Australia in the past decade, with most growth in companies engaged in wholesale distribution of software products (IBSA, ICT).

The workforce is increasingly mobile and dispersed with expectations of flexible, technology-enabled working arrangements (IBSA). As with most creative industries, wage and labour costs are a significant percentage of the industry cost base. For example, major costs for film and video production relate to labour: with wages and on-costs accounting for an estimated 31.1 per cent of total industry revenue in 2011-12 (IBISWorld, Film and Video Production in Australia). Similarly, the radio industry is labour-intensive across all areas such as management, sales of airtime and station promotions, on-air personalities and producers and other back-of-house functions such as maintenance and cleaning (IBISWorld, Radio Services). Other workforce trends include:

- IBSA notes that the age distribution amongst media and communications industries varies – e.g. printing industry is skewed towards older employees. Among IBSA industries, the ICT industry has been the largest employer of skilled migrants. Changes in the industry triggered by the adoption of digital technologies may result in increasing attractiveness to new and younger workforce entrants (IBSA, speaking of printing industry)
- Union policy for film and video production on the importation of overseas skills, for example, precludes overseas technicians working in Australia only if the skills does not exist in Australia and the imported personnel train Australian workers.

**Socio-cultural**

Social factors include the cultural aspects and include health consciousness, population growth rate, age distribution, career attitudes and emphasis on safety.

The media and communications industry plays an important part of social and cultural life, as well as influencing approaches to business. The Interim Report of the Convergence Review notes that “(m)ore of our social and cultural lives are occurring in the digital realm. Maintaining access to a range of information, news and current affairs and ensuring availability of Australian content remain vitally important to our democracy and cultural diversity”
(Convergence, iv). The increased bandwidth offered by the NBN is also anticipated to underpin “new approaches to work and to community and social interaction” (NBN Skills).

**Consumer preferences:** Increasingly consumers have higher expectations of online service availability and access to products and services in a global marketplace (IBSA – result of increased NBN bandwidth). For example:

- People are downloading entertainment over the internet, including new season television programs (IBISWorld, Free to Air TV) or music and tending to use their PCs as a means of listening to and watching various media (IBISWorld, Recorded Media).
- More people are watching more hours of TV (driving demand for TV shows and movies) (IBISWorld, Film and Video Production in Australia).
- Use of voice over internet protocol (VoIP) at home increased by 31 per cent to reach 3.8 million Australians aged 14 years and over at June 2011 (ACMA, 2011).
- Computer users are becoming more computer savvy and operating systems more user friendly, allowing users to troubleshoot their own problems rather than calling in professionals (IBISWorld, Business Services).

Other socio cultural factors to note include:

- **Population:** Growth in Australia’s overall population affects circulation numbers and demand for advertising in newspapers, with more consumers to buy products and services. Australia’s population has grown by three million in the past decade (Commonwealth, State of Australian Cities) with net population growth exceeding 400,000 per annum over recent years, almost twice the long-term average (IBISWorld, Construction), although the growth rate has been declining since the peak of 2.2 per cent for the year ended 31 December 2008 (ABS).
- **Demographics:** Changing demographics also change demand for different media products and formats. For example, people aged at least 50 year accounted for 41 per cent of metropolitan newspaper readers and those aged between 35 and 49 years accounted for 28 per cent of metropolitan newspaper readers (IBISWorld, Newspaper printing, citing Roy Morgan research). Similar to most developed countries, Australia’s overall population is ageing due to sustained low fertility and increasing life expectancy.
- **Commuting:** The nature of commuting can also affect newspaper readership, with IBISWorld noting that as more people use private cars for their commute, fewer people will buy papers to read on public transport (IBISWorld, Newspaper publishing). Analysis of 2001 and 2006 Census journey to work data for Sydney, Melbourne and Perth shows that urban commuting patterns became increasingly complex over the period, with strong growth in outward and cross-suburban commutes (Commonwealth, State of Australia’s Cities).
- **Sustainability:** Environmental concerns are expected to affect demand, such as for printed newspapers, as select consumers seek to cut their paper use (IBISWorld, Newspaper printing).

**Technological** Technological factors include technological aspects such as R&D activity, automation, technology incentives and the rate of technological change. They can determine barriers to entry, minimum efficient production level and influence outsourcing decisions.

The Convergence Review Interim Report notes that “(o)ne of the few certainties is that the change we have witnessed in recent years will only increase in pace” (Convergence Review). The rapidly changing media and communications landscape means that it is very important for businesses to be on top of technological changes and seek new ways of developing, publishing or distributing content. Broadly, as noted above, the trend towards convergence and digitisation has enabled new product development, such as smartphone products. It is anticipated that the NBN will trigger innovations in the ways businesses operate by making teleworking, outsourcing and online services easier to access. For example, IBSA predicts that a range of new business services offerings will emerge in the online environment, such as payment gateways (IBSA).

Increased connectivity will drive further opportunities for social networking, social commerce, advertising and digital downloads. This will further drive digital conversion (from analogue to digital broadcasting) and demand for downloaded applications and product. Also, the emergence of connected televisions and connected living room devices will “further propel participation in interactive entertainment” (Screen Australia).

Given the pace of change, identifying emerging trends or applications is more challenging. However, general factors influencing innovation in the industry and possible new opportunities in particular sectors include:
**Recorded media:** rapid changes in electronics technology increases demand for newer and faster products and applications, with a trend to product convergence e.g. CDs with online content (IBISWorld, Recorded Media).

**Data security and copy protection:** The growing popularity of piracy of music, film and TV, has lead to copy protection schemes to limit the trading of files online. Increasing downloads of data and the rise of cloud computing also create data protection rights issue, with information security threats reinforcing the need to protect digital content and intellectual property (IBSA).

**Film production:** Digital technology is expected to eventually halve film production costs and allow for entire film sets to be computer produced, including virtual actors (IBISWorld, Film and Video Production in Australia).

**Television:** Given that analogue broadcasting will cease in 2013, the industry has a focus on digitisation. Increasing competition and convergence has also been leading to more ‘interactive’ forms, such as use of SMS. IBISWorld notes that the convergence of technologies in digital formats will continue to occur, either directly through links between these streams and free-to-air TV operators, or through operators in the industry diversifying their activities into other media in search of more content, revenue and profit growth (IBISWorld, Free to Air TV).

**Cloud computing:** The availability of cloud computing services is providing on-demand access to applications with vendor support and reduced need for inhouse specialist IT services (IBSA). These technological developments, along with improved bandwidth from the introduction of high-speed broadband infrastructure, will allow a penetration of cloud gaming services into the Australian market (Screen Australia).

**Newspapers:** Newspapers are responding to increased competition by introducing new publications including insert magazines targeting specific markets, improving quality and greater use of colour, greater focus on online product and more tabloid content (IBISWorld, Newspaper Printing or Publishing). The automation of sales and back office processes have offered productivity gains (IBISWorld, Newspaper printing). Newspapers are also experimenting with paywalls, whereby consumers must pay for all or select online content.

**Radio:** In anticipation of cheap digital radio receivers being made available to consumers in the near future, radio broadcasters in many countries are seeking to add games, video and web pages to their programming and activities, e.g. Wavefinder, which can convert digital data broadcast by a radio station into video pictures and text, which can be displayed on computer screens and hand held devices (IBISWorld, Radio Services).

**Research Priorities**

The National Research Priorities are unchanged since 2002 and ‘Frontier Technologies for Building and Transforming Australian Industries’ is included as a priority in its own right, with a associated goals which link to the industry including:

- **Frontier technologies:** Enhanced capacity in frontier technologies to power world-class industries of the future and build on Australia’s strengths in research and innovation (examples include ICT and complex systems).
- **Smart information use:** Improved data management for existing and new business applications and creative applications for digital technologies (examples include e-finance, interactive systems, multi-platform media, creative industries, digital media creative design, content generation and imaging).
- **Promoting an innovation culture and economy:** Maximising Australia’s creative and technological capability by understanding the factors conducive to innovation and its acceptance.

Additionally, the research priority ‘Safeguarding Australia’ can also have applications in media and communications, with associated goals highlighting:

- **Critical infrastructure:** Protecting Australia’s critical infrastructure including our communications systems.
- **Understanding our region and the world:** Enhancing Australia’s capacity to interpret and engage with its regional and global environment through a greater understanding of languages, societies, politics and cultures.
- **Transformational defence technologies:** Transform military operations for the defence of Australia by providing superior technologies, better information and improved ways of operation.

**Political factors** Political factors are how and to what degree a government intervenes in the economy, including tax policy, labour law, environmental law, trade restrictions, tariffs, and political stability.
Government is a major player in this industry with regulatory authority over the granting of media licences and access to broadband technology. There has been significant political focus on the industry, particularly through regulatory reforms and inquiries and ongoing government support for the industry. Both the Commonwealth and Victorian Governments have policy units and departments with media and communications linkages. For example, the Commonwealth has a Department devoted to Broadband and the Digital Economy).

Examples of ongoing Commonwealth support for the industry include:

- The Federal government supports generous tax incentives and subsidies for the feature and TV film industry, including a 40 per cent rebate on costs for domestic film productions.
- The 2009 federal budget provided $208 million in screen industry funding, including $103 million for Screen Australia, which was established on 1 July 2008 and administers the Producer offset and takes on the AFC research and statistics functions and $105 million for the National Film and Sound Archive. It has provided direct project funding to interactive entertainment projects through the Innovation Program and its successor the All Media Fund.
- In 2010, the Commonwealth announced increased funding to the Australian Broadcasting Corporation (ABS) for drama ($70 million over three years).
- $15 million was spent by the main political parties in the five weeks prior to the Federal Election in August 2010 on government advertising (IBISWorld, Free to Air Television, November 2011).

Examples of ongoing Victorian support for the industry include:

- In November 2011, the Victorian Government released Victoria’s Technology Plan for the Future, an $85 million plan to support continuing growth, development and global competitiveness in Victoria’s information and communications technology (ICT) sector, and promote ICT-enabled innovation across the economy. It includes:
  - The $11 million Digital Futures Fund which supports collaborative projects in the ICT sector and with other partners to develop emerging ICT capabilities in Victoria.
  - The Technology Trade and International Partnering Program to assist for export-ready Victorian companies to attend recognised overseas ICT trade fairs and participate in trade missions.
  - The $18 million Broadband Enabled-Innovation Program to provide grants to innovative projects to develop new ways of working and improving service delivery through the use of high-capacity broadband.
  - Around $2 million in a suite of ICT skills initiatives, in partnership with industry and the education sector, will deliver targeted programs for the continued growth of ICT in Victoria.
- Multimedia Victoria fosters the development of industry networks to encourage collaboration and drive innovation, by promoting ‘clusters of excellence’, including in Electronic Games, Telecommunications, Niche software and services and Web Applications Software.
- Multimedia Victoria assists the games industry through its Game Plan: Game On, including support for the Game Developers’ Association of Australia, raising the profile of the industry in Australia and overseas, and the growth of new Victorian games companies (Multimedia Victoria).

Regulatory Framework

In 2010, the Commonwealth announced a review of communications regulation, including media ownership law, including a review of convergence (particularly the convergence of telephone, television and computers) in the media sector, with an announced intention for media regulation to “promote community standards, ensure a diversity of views, encourage competition and protect original Australian content” (The Australian Collaboration).

Convergence review: On 15 December 2011, Convergence Review Committee released the Convergence Review Interim Report. The report proposes fundamental change to the regulatory framework of Australia’s digital economy. Recommendations for the regulatory landscape in Australia include:

- A platform-neutral regulatory framework focused on the new concept of Content Services Enterprises
- A new independent regulator for communications in the digital economy
- Removal of content-related licenses
The final report is due to government in March 2012.

**Legislative review:** On 29 August 2011, the Australian Communications and Media Authority (ACMA) released *Broken concepts—The Australian communications legislative landscape*, which examines how the process of convergence has systematically broken, or significantly strained, many of the legislative concepts that form the building blocks of current communications and media regulation in Australia, identifying change drivers as discussed above at Economic.

**Finkelstein Media Inquiry:** In 2011, the Commonwealth established an independent inquiry into the Australian media, examining the effectiveness of the current media codes of practice in Australia and:

- The impact of technological change on the business model that has supported the investment by traditional media organisations in quality journalism and the production of news.
- Ways of substantially strengthening the independence and effectiveness of the Australian Press Council, including in relation to online publications, and with particular reference to the handling of complaints.
- Any related issues pertaining to the ability of the media to operate according to regulations and codes of practice, and in the public interest (DBCDE, Media Inquiry).

The Media Inquiry is expected to support the government's Convergence Review by providing a separate and distinct examination of the pressures facing newspapers, online publications and their newsrooms, as well as the operation of the Australian Press Council. The inquiry will report to the government by 28 February 2012 (DBCDE, Media Inquiry).

Internationally, the **UK Leveson Inquiry** is an ongoing public inquiry into the culture, practices and ethics of the British press following the News International phone hacking scandal.

**Australian Law Reform Commission (ALRC) Review of the National Classification Scheme:** On 24 March 2011, the Commonwealth referred this review to the ALRC and asked it to conduct widespread public consultation across the community and industry, considering issues such as:

- existing Commonwealth, State and Territory classification laws
- the current classification categories contained in the Classification Act, Code and Guidelines
- the rapid pace of technological change
- the need to improve classification information available to the community
- the effect of media on children
- the desirability of a strong content and distribution industry in Australia.

**Employment, Industry Skills and Productivity:** a separate scan of the skills horizon, given its importance to RMIT’s engagement with the industry.

Skill development is an ongoing need for the industry as it faces increased competition, a rapidly changing landscape, more savvy consumers as well as changing industry structures and products.

**ICT and digital literacy**

An overarching need for all sectors within the industry is a need to upgrade workforce skills in line with the introduction of new technologies. This is also true for related industries which are increasingly relying on ICT to deliver sophisticated, integrated technology and systems solutions for complex problems. It is particularly an issue given ICT skills have a short skill life span due to rapid changes in technology (IBSA). Harnessing the benefits of access to highspeed broadband services also requires basic levels of technology and digital literacy to use technology effectively, with employers commonly perceiving that such skills are acquired in a ‘haphazard’ manner, often relying on an employee’s level of interaction with technology outside of work (IBSA). Similarly ‘digital media literacy’ – whereby people can confidently use, participate in and understand digital media and services - is becoming an important prerequisite to effective participation in the digital economy and Australian society more generally (ACMA).

In turn, IBSA notes that it will be critical for education and training providers and businesses to understand skills needs and changing technologies (IBSA). Training and education providers will need to make effective use of technology and
To maintain and attract both clients and skilled staff. Although the impact of the NBN is likely to be both rapid and profound, IBSA has found in its 2011 scan that “it is not yet gaining substantial VET policy or provider interest at management level” (IBSA).

Skills needs for the new economy

To support the roll-out of the NBN, the Commonwealth commissioned IBSA to undertake on the likely impact of the digital economy and the National Broadband Network (NBN), on future skill requirements to confirm how highspeed broadband will affect both economic and business growth and especially examine the changes to information and communications technologies (ICT) skills demand across occupational boundaries (NBN, Skills). To sustain the investment and on-going competitiveness of telecommunications companies and investors in high speed broadband that rely heavily on the availability of ICT skills, the IBSA is planning on undertaking a role to:

- Promote improving the level of digital literacy skills of all Australians. This can assist address issues of equity of access and perceptions of an emerging rural-urban digital divide.
- Enhance the pool of telecommunications and related IT labour available to support the NBN.
- Enhance the readiness of the ICT industry to respond to the NBN investment and the inherent stimulation of business.
- Drive innovation for businesses to build competitive advantage through developing new applications, devices or services that rely on high speed broadband.
- Enhance the readiness of small and regional businesses to adopt broadband and secure the cost efficiencies and productivity improvements it can generate.
- Drive small business participation and adoption of e-business and new business models.
- Establishment of an integrated eSkills policy and strategy to support Australia’s competitiveness.
- Provide authoritative advice to government on where education and training policy and incentives can enable and support ICT adoption (NBN Skills).

Such a push will continue to create other education and training opportunities in VET and higher education providers and for businesses, including possible research opportunities. Similarly, IBSA is concerned with ensuring training packages are keeping pace with technological advances, sector convergence, digitisation and increased focus on sustainability.

Skills Shortages

Select extracts of the Commonwealth’s current Skilled Occupation List are provided in the attachment, which shows that key professions and trades associated with the industry are in shortage, most of which are related to ICT. DEEWR notes that there are particular skills shortages in electrotechnology and telecommunications: while many people in these professions and trades are employed in building and construction, there are clear applications in the media and communications industry. Two telecommunications trades worker occupations (cabler and telecommunications linesworker) have been identified as priority occupations for the rollout. However, the NBN Co. has suggested that there are sufficient skilled workers available to meet this demand (DEEWR, Electrotechnology and Telecommunications). Forty-four per cent of Victorian ICT companies named access to skilled employees as a barrier (up from 33 per cent in March 2010) (DBI).

Business and Design Skills

In a changing global market, it is critical that Australian media and communications players are able to recognise opportunities, trends, customer needs’ and develop and implement market strategies. Changing distribution and production methods and other factors are “forcing many broadcasters, aggregators, distributors, publishers and creators to rethink their business models” (Screen Australia). This creates a strong need for innovation and leadership to capitalise on opportunities arising from the availability of new technologies and new organisation and business models (IBSA). Increasing competition, a tighter advertising market and changing customer preferences are also requiring new product design and distribution methods. Factors which highlight the need for enhanced business skills include:

- Increasing vertical integration in the film and video production industry, with producers requiring entrepreneurial skills to manage large projects involving a large number of people, possibly working across different locations, regions and countries with a need to secure finance.
• Increasing foreign ownership and global links through news services and programming arrangements with major Hollywood and other film studios and distributors (IBISWorld, Free to Air TV) also points to increased international business opportunities.
• Networks require a strong management team, to decide on key target audiences and to ensure ongoing market research (IBISWorld, Free to Air TV)
• Strong investment analysis skills, given the hit and miss profitability of film production (e.g. Screen Australia lists 12 points in the Australian Film and Television finance and Investment Guide) (IBISWorld, Film).
• Good sales skills also required to support sales and reduce costs, particularly in more traditional sectors which rely on access to advertising dollars. Similarly, given the changing nature of the printing industry, IBSA notes that clients relations managers (who previously only required technical printing skills) now require technical, sales and business skills in order to “understand, communicate and complete a job requiring the full range of integrated services”, including brand development, product development in a variety of formats and delivery and distribution (IBSA, Printing and Graphic Arts).
• The majority of artists (including those who can find employment in media and communications industries) are self-employed or freelancers with many having or working in their own small/micro business. IBSA has found that many artists and arts organisations “may have difficulty in understanding technical business requirements and language and lack basic management skills” (IBSA, Cultural and Creative Industries).

Other Trends

Other possible skills and training trends to note include:

• **Flexible Workforce – ‘Skills Convergence’**: Convergence also means that particular industry skill sets will have increasing applications in other sectors. For example, elements of game-thinking into other forms of interactive entertainment has become embedded in creative digital agencies (Screen Australia) and individual workers with financial, business, creative or ICT skills can move across industries as skill demand shifts (IBSA).
• **Sustainability**: Changing expectations regarding environmental sustainability lead to new practices (such as trends towards electronic rather than paper-based forms of marketing and information dissemination or increasing customer demand for environmentally friendly inks).
• **Legal and regulatory changes**: ongoing regulatory and licensing changes and reviews create ongoing workforce training needs. The current focus on media and communications regulation signals changes into the future. Data protection, intellectual property and copyright issues can also create legal research and advisory needs.
• **Gender balance**: The ICT workforce is male dominated – IBSA notes scope for industry to meet future workforce requirements by “tapping into female workers and reviewing workforce practices to increase part time work opportunities” (IBSA). The Victorian Women in ICT Network was launched in 2005, aiming to encourage and retain women in the ICT workforce (Multimedia Victoria, The Victorian Women in ICT Network).
• **Information management**: Changing data storage and records management also creates general skills need for content and records management. Library workforce is changing with a steady move away from clerical staff involved in filing and sorting information (IBSA).
References


IBISWorld, Business Services in Australia, June 2011.
IBISWorld, Cloud Computing, November 2011.
IBISWorld, Construction Industry September 2011.
IBISWorld, Film and Video Production in Australia, November 2011.
IBISWorld, Free to Air Television, November 2011.
IBISWorld, Radio Services in Australia, November 2011.
IBISWorld, Recorded Media Manufacturing and Publishing in Australia, September 2011.


Select Media and Communications Industry Segments: Industry Outlook
NB These scans draw heavily on IBISWorld industry reports.

Newspaper printing and publishing

As other forms of media and entertainment arise, the print media faces two main challenges: declining circulation and declining advertising revenue (advertising revenue accounts for about three-quarters of newspapers publisher’s revenue). Printed newspapers share of advertising spending in Australia is declining, predicted to fall to about 30 per cent in 2011-12, from 41.8 per cent in 2000 (IBISWorld, Newspaper printing). IBISWorld notes that newspaper operators are “fighting back” by offering more attractive content (print and online) and more attractive classified advertising websites – however online revenue tends to be less than print news margins. Industry revenue is expected to decrease at an average rate of 3.3 per cent per annum in the five years through 2011-12, forecast to be flat over the next five years, with revenue of $7.4 billion in 2016-17. In a low growth environment, operators seek to reduce costs, leading to reduced employment. Community and regional newspaper readership rates are expected to be less affected by new media compared with metropolitan rates, although some regional papers may be faced with declines in their catchment area. Larger, more integrated players may be in better shape, e.g. as larger operators can copy share between papers in the same stable. Implementation of new cross-media and foreign-ownership rules will likely affect industry concentration into the future (IBISWorld, Newspaper Printing).

Recorded media manufacturing and publishing in Australia

Digital media downloads have been damaging the music industry, with bandwidth capacity growth, faster download speeds and increasing storage capacity on home PCs supporting users access TV and film online. This “spells disaster” for manufacturers of physical media (IBISWorld, Recorded Media) as it generates the majority of sales from physical CD and DVD manufacturing. With production falling (e.g. sales of CD singles fell from approximately 12.4 million in 2001 to 37,000 in 2010) and predictions for further decline, IBISWorld predicts that in the five years through to 2015-16, revenue will fall by 3.8 per cent. Other media, such as films on DVD and video games, are also beginning to move away from physical formats. Growing competition has also been forcing prices down, affecting profitability. Capital costs are likely to increase to keep pace with changing technology.

Music publishing does show promise, with marketers increasingly aware of the benefits of using an appropriate song in an advertising campaign.

Film and video production

This sector is considered relatively high risk, with approximately only 1 in 15 films produced breaking even financially, although production costs may be predicted to reduce with increased digitisation and a trend to greater vertical integration in production and distribution also providing opportunities for increased profitability (as then there are less intermediaries to draw on box office takings). The high Australian dollar also acts as a disincentive in attracting major feature film productions (IBISWorld, Film and Video Production in Australia).

However, governments provide some strong incentives, with approximately 20-30 per cent industry funding derived from federal and state government funding. Also, an increased number of TV channels and increasing number of hours of TV watched per person are helping to buoy the industry, with IBISWorld predicting revenue growth at an annualised 1.5 per cent over the next five years to $2.51 billion in 2016-17 (IBISWorld, Film and Video Production in Australia). IBISWorld predicts industry growth will be assisted by other factors including the technological changes in pay-TV and digital TV services, podcasting and internet-streaming direct to TV, which will support demand for film content.

Free to Air Television

Policy and Planning Group, Media & Communications Industry Environmental Scan
Since December 2007, free-to-air TV stations have offered digital channels to households with a set-top box, enabled by multichannelling capabilities available under the digital broadcasting regime. In October 2010, there were 16 of these channels available. All analog TV broadcasting will cease from December 2013.

This industry is facing increasing competition from other forms of digital media stemming from the convergence of telecommunications, IT and transmission technologies such as pay-TV, digital TV and emerging internet TV. This fragments media viewing and access patterns (particularly among people aged 15 to 30 years) and also means that there is increasing competition for advertising revenue. Consequently, free-to-air TV is “struggling” to maintain audience numbers and its share of total advertising revenue (IBISWorld, Free to Air Television). This is also exacerbated by increased costs associated with conversion to digital broadcasts. However, Australians are watching increasing amounts of TV and the government continues to support the industry through grants, funding and subsidies. IBISWorld notes, however, that more channels means networks are able to sell more advertising space, and this will drive substantial revenue growth and TV operators have opportunities through integration with other digital media which is critical “if the industry is to maintain its relevance to a wider audience, particularly young people and adults”. IBISWorld predicts that that, in 2011-12, the industry will grow by 1.5 per cent, generating revenue of $5.0 billion (IBISWorld, Free to Air Television).

**Advertising and Public Relations (PR)**

The ability to access print media, music and television online and on-demand has made consumers more difficult to reach through advertisements (IBISWorld, Public Relations). In response, new opportunities are being sought in newer media forms, with Australian online advertising market predicted to grow from $800 million in 2005-06 to approximately $2.5 billion in 2011-12 (IBISWorld, Newspaper Printing or Publishing). Barriers to growth include: a) many popular websites and social networks such as YouTube and Facebook have limited advertising to not deter visitors b) consumer fears regarding viruses and spyware causing create skepticism for online advertisements (IBISWorld, Public Relations).

This has contributed to greater focus on public relations with the line between PR and advertising also being blurred by activities such as the production of ‘viral’ videos: advertisements which become popular on websites such as Youtube, generating many non-paid views as people voluntarily share them on social media. Similarly, given the increasing perception that public relations services are more focused and therefore better value for money than media advertising, it means that that industry withstood the GFC better than traditional advertising. This, along with the longer-term trend toward more ‘below-the-line marketing methods’, means that IBISWorld predicts that revenue in the public relations industry will grow at a stronger rate than that of the advertising services industry. Specifically, IBISWorld forecasts public relations industry growth at an average of 3.0 per cent annually, to reach $513.4 million by 2016-17, and it also predicts that new communication opportunity areas will centre on environmental issues, including the carbon footprints of clients and their carbon reduction strategies and offsets.

The convergence between PR and advertising activities, and the increasing use of PR, is creating the need for closely integrated campaigns across various media, in turn prompting mergers between PR and advertising firms, and resulting in increasingly larger, more global companies.

**Radio services**

In May 2007, the Digital Radio Act was passed by Federal Parliament, which made digital radio available in state capitals from 1 January 2009, although with some restrictions. Many traditional operators are seeking to link into digital media by providing radio broadcasts through mobile phones, online streaming, pay TV sound broadcasts and SMS links (IBISWorld, Radio Services in Australia). Digital radio also opens up the market to more international competition (and opportunities), although there will be an estimated conversion cost to the industry of $400 million (IBSA, Cultural and Creative Industries). This industry is also sensitive to advertising demand and revenue, particularly to help offset increasing competition (from international media companies and likely increased competition from digital, satellite and internet radio operators) and high wage costs. IBISWorld also notes that it is critical for operators to choose and be attuned to the target market’s tastes, monitoring changes in these and continually changing the mix of programming, personalities and format to maintain a dominant position among the chosen demographics.

**Information and communications technology (ICT)**

Policy and Planning Group, Media & Communications Industry Environmental Scan
As noted in the original IES, information technology (IT) is also critical to this industry, in terms of content creation and content distribution. IT consulting grew strongly prior to the GFC, driven by the continued evolution of information and communication technology (IBISWorld, Business Services). IBISWorld predicts that IT and communications industries will continue to be strong over the next five years, particularly given world-leading technology is widely seen as a potential driver of growth in post-industrial economies (IBISWorld, Business Services). The Online Information Services industry benefited from a rapidly increasing proportion of communication, media and information consumption migrating online, leading also to the emergence of digital marketing agencies, taking market share from the traditional mass-media focused agencies (IBISWorld, Business Services – see also above at advertising and PR).

Cloud computing (including companies that host computing applications of data processing activities online) is a comparatively new IT industry, with strong growth potential, for example, by supporting businesses have global reach (IBISWorld, Cloud Computing). Cloud computing is closely associated with creating platforms for collaborating and ways of sharing information, with such platforms proving popular in social networking, blogging, video sharing and wikis (e.g. Facebook, Twitter, YouTube and Wikipedia) (IBISWorld, Cloud Computing).

Current growth opportunities are in the sale of internal cloud resources for business applications, where users are limited to a particular corporation. In this way, IBISWorld likens cloud computing as a utility, with consumers able to subscribe to a computing provider. Factors which could limit growth include: concerns over security and limited business capital expenditure (IBISWorld, Cloud Computing). Data security concerns also cross-borders. IBISWorld predicts an average growth of 5.4 per cent per annum over the next five years (IBISWorld, Cloud Computing). IBISWorld also notes that smaller operators will face more challenging competitive conditions, with larger operators having better economies of scale, global reach and tending to buy smaller players.

**Interactive entertainment**

Australia currently has a small but diverse interactive entertainment development industry, with independent and publisher-owned studios producing various types of games for a variety of platforms (Screen Australia, *Playing for Keeps*). The Victorian Government notes that more than half of Australia’s computer games development industry is based in Victoria, with the local industry supporting about 800 jobs, more than 20 games development studios, animation houses and games industry service provider and offering a lower cost of game production when compared with the USA and Europe (Multimedia Victoria).

A recent study commissioned by the iGEA (Digital Australia 2012) found that 92 per cent of Australian households have a device for playing computer games, up from 88 per cent in late 2008 (Screen Australia). The global interactive entertainment industry is forecast to be the fastest growing entertainment and media sector, expanding from $64.8 billion in revenues in 2010 to $90.1 billion in 2015 (Screen Australia). The Australian market is expected to grow during this time at a compound annual rate of 9.5 per cent to reach $2.5 billion (Screen Australia). The challenges facing the interactive entertainment industry are “inextricably linked to those of the broader screen sector” (Screen Australia) with a downturn experienced during the GFC, and some industry challenges associated with traditional fee-for-service activity. For this reason, Screen Australia suggests that the sustainability of the local interactive entertainment industry is under threat. These threats fall broadly into two areas:

**Falling foreign investment:** Due to the current hardware cycle and a difficult economic climate, many international publishers have focused their development strategies on blockbuster franchises, trimming medium-budget games and licensed titles from their portfolios. Coupled with tax incentives in other territories and an unfavourable exchange rate, this has limited growth among Australian companies. Like other forms of screen content, games produced for the Australian market tend to be riskier investments for publishers given the population size. Because of this, most local developers are primarily export focused and the contraction in foreign investment means there are now even less opportunities to raise funds.

**Talent being driven offshore:** The influx of foreign investment into the local industry in the 2000s resulted in the industry acquiring a talent pool of highly skilled and experienced workers. However, the local talent pool has been severely diminished as a consequence of recent studio closures, which resulted in the loss of hundreds of jobs.”

Policy and Planning Group, Media & Communications Industry Environmental Scan
For this reason, Screen Australia recently released a discussion paper floating ideas for targeted industry support.
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