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- **Product distribution and localization**
- **Conduits to China**

## **Overview**

The document provides background contextual material on the games industry in Australia and identifies key challenges and opportunities confronting Australian developers.

Comparisons with the United States and Canada will also be provided. This report focuses on companies (games developers), the policy environments in which they operate and markets for their products. Australian information comes from a 2009 report on the video game industry as well as a 2012 report focusing on consumers; US and Canadian information is extracted from ESA reports dating from 2011. The first part of the paper provides comparative data; the second part examines key issues.

## **Key points:**

- Australia is primarily an importer of video games and associated technology; export revenue is primarily game and accessory developer income derived from intellectual property;
- While Australian developers' share of the US market is minimal, the impact of US business on the viability of the Australian industry is critical;
- Traditionally Australian game companies adhered to the fee-for-service model of working for overseas companies, mainly U.S. publishers. Competitive advantages for Australia include its cultural affinity to the large markets of the United States and United Kingdom; and lower production costs compared to the United States and Europe. This fee-for-service approach proved very successful until significant global changes in the industry and market from 2009 made this model increasingly untenable. Many high profile Australia developers closed during this difficult period.
- The industry is currently experiencing an ongoing shift from traditional console and PC based products towards hand-held and mobile devices. Australian developers are experiencing commercial success by entering this growing market

- To take advantage of the emerging opportunities in mobile and social network platforms, Australian developers have needed to rapidly innovate. These innovations include organisational transformation and the nurturing of a more sustainable and creative workplace culture. Successful Australian firms such as Halfbrick (*developer of Fruit Ninja*) are characterised by flatter organisations that devolve more creative control to project teams. These innovations include developers adopting an approach of 'self-publishing' in which they are now required to self-market and promote, increasingly through the opportunities provided by social networking such as Youtube, Facebook and Twitter. The effort and resources dedicated to these social-network activities are just as important as the traditional design and development of videogames. Indeed it is arguable that social-networking practices are now integral to the process of videogame development,
- In comparison with other countries such as Canada, Australian developers enjoy limited targeted government support such as tax breaks. However, the Australian Federal government recently introduced a \$20 million Interactive Games Fund to help support and grow the local games development industry.
- Future challenges confronting the games industry include understanding how the data analytics associated with social media might inform and guide the process of making, promoting and distributing videogames. Meeting these challenges may require a significant rethink of the very nature of the development firm, including of how project teams are organised. New skills and competencies will also be required to understand and effectively harness the potential of social media, including data analytics.

## Industry Background

Over the past decade the global video games industry and market has grown rapidly. However, recent changes in the nature of the market driven by emerging technologies such as mobile devices and social-network platforms have profoundly shaken up the industry. These changes impact on local developers, requiring them to fundamentally rethink the very process of developing, promoting and distributing games. In short they need to innovate. The local Australian games development industry offers a case-study which highlights many of these significant changes together with the associated challenges and opportunities that confront developers.

Price Waterhouse Coopers (2009) recorded growth in video game revenues of 16 percent from 2005 to 2009, a rate over five times higher than overall media and entertainment industries (PricewaterhouseCoopers, 2009, in De Prato *et al.*, 2012, p. 222). The global video games industry was worth \$90.1b in 2010 with growth of 8.2%. This corroborates the findings of the ITU-T Technology Watch Report (Adolph, 2011), which identifies that video games industry revenue surpassed the US movie and music industries in 2005 and 2007, a feat matched by the United Kingdom industry in 2008.

The Australian video games industry has grown substantially in line with global trends. It was worth \$500m in 2000; by 2007 it had reached \$1.3bn and by 2010 \$1.85bn; it is forecast to reach \$2.5bn by 2015 with an annual growth rate of 9.5%. Australia is primarily an importer of video games and associated technology; however in 2007 the industry exported \$120m, increasing to \$135m in 2009 (IBIS World, 2009, p. 4-9).

In 2007, Interactive Australia 2009 listed 25 major game studios; in 2009 IBIS listed 2080 businesses linked to video games (including retailers, publishers, and hardware firms). In 2008-9, 80.1% or \$2.45bn of revenue was from imports. In comparison, 4.4% of revenue was from exports and much of this was game and accessory developer income from intellectual property being sold overseas by local publishers.

As of April 2012, there were 34 active video game companies. Successful developers such as Firemint and Halfbrick provide Australian based examples of how firms are concentrating on the opportunities provided by mobile technology (see below). Firemint achieved sales figures of 700,000 copies during the first 3 months of release of the iOS game *Flight Control* in 2009, at an average price of US\$1.

Publishers experienced a growth in revenue of 11.3% in 2009; however, publishers and developers were running at a combined loss of 8% of revenue in that year due to increasing costs of game development. In comparison, video game retailers experienced a profit of 10.4% of revenue. IBIS projected publishers and developers returning to profit in 2013/14, with profit of 1% of revenue (p. 9-12).

The videogames development industry is spread across Australia; however it is mostly concentrated in the eastern states: in 2008-9 33.8% of revenue originated from New South Wales, 27. % from Victoria and 17% from Queensland: in contrast Western Australia had 11.5%, the Northern Territory 1%, South Australia 5.5%, the Australian Capital Territory 2.1% and Tasmania 1.6%) (p. 22-23). IBIS quotes market shares including leading retailers such as JB Hi-Fi and Dick Smith. In regard to publishers / hardware manufacturers, the local market was dominated by Sony Computer Entertainment (9.5%), Nintendo (4.3%), Microsoft (2.6%) and EA (4%) (p. 33-35).

Traditionally Australian game companies adhered to the business model of working for overseas companies, mainly U.S. companies, on a fee-for-service basis. This model proved to be successful for many large developers including Brisbane based Krome Studios.

Competitive advantages for Australia include its cultural affinity to the large markets of the United States and United Kingdom; and lower production costs compared to the United States and Europe (Australian Government Cultural Portal 2007). Australian Bureau of Statistics [ABS] data (2008) shows that in 85 per cent of income (\$116.9 million) in 2006/07 came from the provision of services to other businesses. Nearly all of this (93 per cent) came from overseas sources, and most of it related to console games.

The heavy reliance on international game studios and publishers became one of the main weaknesses of the Australian game industry. The local industry proved to be very exposed to the global financial crisis as well as a strengthening Australian dollar, which meant raising development costs and a less attractive proposition for the large USA based publishers. Since 2006/2007, there has been the closure of studios focusing on developing console games on a fee-for-service basis for larger USA publishers, and the emergence of many independent developers specialising in games for mobile devices. In 2009 the industry experienced significant setbacks and local studios shut down businesses one after another. Pandemic Studios shut its doors in Brisbane in 2009, Krome Studios shut in 2010, while US-based THQ's Brisbane and Melbourne studios shut in 2011 along with EA's Visceral Games, and Rockstar partner Team Bondi, the team behind the successful video game *LA Noire*.

Kennedy Miller Mitchell (KMM) Brisbane ceased operation in October 2011 after finishing work on *Happy Feet 2*. According to the studio's art director, Jason Stark, the high Australian dollar, tax breaks for game developers overseas and a decline in middle-ground games were main reasons Australian game studios were shutting down (Miller, 2011). The strong Australian dollar against the US dollar means it is more expensive to make a video game in Australia, in contrast to the late 1990s when the local studios boomed as the Australian dollar was sitting around 50 US cents.

Meanwhile tax breaks for video game studios overseas mean companies are moving wherever they get the biggest incentives. The decay of the middle-ground products, which a lot of local developers specialised in, based on movie-licensed titles with low to average development budgets, is no longer a viable business model for the Australian industry.

A report by IBIS notes that there is "no assistance provided for companies in this industry, and that it suffers from no specific tax burden, other than standard company tax and GST" (p. 39). This has been identified as a reason for the significant industry closures mentioned earlier. Jason Stark (KMM Brisbane) noted that "with the dollar currently above the US, it's now more expensive to make a video game here than what an American publisher considers locally" (Miller, 2011).

Jason Stark also noted that the market had changed over this time span:

[t]he sort of middle-ground products, which a lot of local developers specialise in, that were movie-licensed titles that were low to average budget, have since proven to be just not viable from a business point of view. People are either buying AAA games or they're buying \$2 games on their iPhone. They're not really interested in a \$60 'meh' game. There is a really boom or bust environment at the moment.

Stark mentioned he planned to start his own small studio to develop games for the iPhone. He projects a future of mobile game development as evidenced by Halfbrick Studios (*Fruit Ninja*) and Firemint (*Flight Control*, *Real Racing*). (ABC, 2011)

## **Canada**

The Canadian industry offers an interesting comparison in policy terms. At the federal level Canada has competitive corporate tax rates; individual provinces offer both refundable tax credits for the production of interactive digital media and Scientific Research and Experimental Development (SR&ED) tax credits. In addition, provincial funding programs for digital media offers support for projects that may not otherwise obtain funding. In Quebec, the local government subsidises 37.5% of a video game studio's payroll (ABC, 2011), with a Guardian report claiming that in total Canadian firms are receiving support equivalent to 23% of their turnover (Guardian, 2011).

Canada employs 16,000 directly in the video game industry, which ranks 3rd in the world with an estimated \$1.7bn direct economic impact on the economy. In 2011 the industry had 348 companies, with 11% current growth, and projected growth of 17% in 2012/13. The ESA claims the primary drivers for the economic growth are the made-in-Canada nature of the industry, liveability and the government policies outlined above in 2012/13. They also note that Canada is "known internationally for a strong base of diverse, creative and well-trained

talent” , with 60% of Canadian companies expecting to hire new graduates in 2011, and 77% planning to do so by 2013. (p. 5) The average salary in the games industry is \$62,000, vs. \$29,000 in the broader economy (p. 12)

In Canada the majority of employees work at large companies (defined as over 150 employees), whilst small and medium companies also prosper with 148 companies averaging 16 employees. The market is concentrated around console game development (68%) with 2% of resources dedicated to social and casual gaming (terms which go undefined), and 7% to mobile gaming. The dominance of console games is a result of a very high amount of resources from a small number of companies (p. 6-7). The ESA claims this resource split is changing rapidly, projecting a greater move in to the casual/social and mobile spaces.

In terms of geography, Quebec is dominant, hosting 25% of companies, (including 70% of the larger ones) and attracting half of the jobs and industry spending. The average number of employees is twice the Canadian average and growth is recorded at 13% p.a. The Quebec industry is concentrated around console games with 72% of resources being dedicated to it; however this also is dropping rapidly (p. 8).

Ontario has smaller firms, hosting 30% of the small/micro companies, and as a result has more individual companies than Quebec. The industry is less focused on traditional console games. In 2008 (p.8-9) Ontario paid one game company a subsidy of more than \$321,000 for each job to relocate from the United States. (New York Times, 2011) British Columbia is similar to Ontario but record flat growth; however the ESA notes that “expectations of better days ahead seem to be underlined by the fact that many skilled former studio employees have elected to start game companies of their own” (p. 9).

## **United States**

The United States is a broad geographic region with very different policies from state to state. While this report does not canvas an in-depth study of the individual rebates and



policies in individual states, it is evident that companies do follow tax incentives and large swathes of the industry are concentrated in 5 areas: California, Texas, Washington, New York and Massachusetts. Collectively, these locations employ over 22,000 workers in the video games industry, almost 71% of the national figure. 41% are in California alone with companies there providing \$2.6b in direct and indirect compensation in 2009. Growth in California was 11.4% from 2005 to 2009, compared to negative growth overall in the state. (ESA, 2011)

US companies are able to claim tax incentives and credits from a number of different fields described by the *New York Times* (2011) as “mostly devised for other industries in other eras”, making “video game production one of the most highly subsidized businesses in the United States”. Companies also benefit from overall US tax breaks, with the *New York Times* noting that one of EA’s “biggest tax advantages is a tool available to all companies, a deduction related to the stock gains on options exercised by its executives”. (*New York Times*, 2011)

Again using EA as an example, whilst their development costs for software have totalled almost \$6bn over 5 years, they have been able to deduct almost all of this immediately from their taxes under a software development tax break dating back to 1969. A R&D tax break dating from the rise of Japan in 1981 has allowed EA to claim tens of millions in tax savings from R&D credits. EA also pushes for future tax breaks, spending lobbying money to have a 2004 export tax break apply to video games, which in 2010 allowed EA to deduct 9% of its total production costs (*New York Times*, 2011)

### **The Consumer Base**

In Australia, 92% of households have at least one device used for gaming, a figure which rises to 95% when the household includes a child under 18. 62% of game households use a PC for games, 63% use a console, 43% mobile phones, 13% tablets and only 13% a handheld gaming console. The average age of gamers is 32 (which has increased from 24 in 2005), and 75% of gamers are over 18. 47% of gamers are female (up from 38% in 2005), 83% of

parents play games, with almost 20% playing games on social networks and almost 10% playing MMORPG's. The average adult gamer has been playing for 12 years, with 57% of gamers playing at least an hour every other day. 59% state that they play for up to an hour at a time, whilst only 3% claim the average session is over 5 hours. (Digital Australia 2012, pp. 6-13)

In a sample week, the average spend on all media was found to be \$A29, with games accounting for 28% of this. Australians currently prefer to purchase boxed games from local retailers (accounting for 43% of sales) as opposed to downloads (22%), online mail order (14%), used locally (11%), used online (5%) or auctions (5%). Family games account for 19% of sales, action games 18%, first person shooters 15%, sports 9% and racing 9% (p. 19).

## **Canada**

In Canada, 59% of people surveyed identify themselves as gamers with an average age of 33. 96% of households own a computer whilst 47% have a console. 75% play at least a few times a week and of these 49% play on computer, 34% console, 10% handheld and 7% a cellular device. 83% of parents state they sometimes or always check ESRB ratings whilst 88% sometimes or always use the descriptors. 93% agree that the ESRB system is useful for parents making decision about games. Of games ranked in 2010, 18% got E10+, 21% Teen, 55% E, 5% Mature, 1% Early Childhood (ESA Canada, 2011, p. 13-18).

## **US**

In the United States 72% of all households play computer or video games with the average age of gamers being 37. In 2011, 29% of gamers were over 50, 58% male, whilst women over 18 (37%) represented a larger share of the market than boys under 17 (13%). The average age of a household's most frequent game purchaser is 41. Of the most frequent purchasers, 19% pay to play online games, whilst 55% play on phones or handheld devices, and 65% with others in person. As with Australia the average gamer has been playing for 12 years. 91% of the time parents are present when games are purchased or rented, and 98%

of parents state they are confident in the accuracy of ESRB ratings. 45% of parents play computer or video games with their children at least weekly (up from 36% in 2007) and amongst games sold, 44% are rated E, 12.3% E10+, 19.5% T, 24% M. (p.8). The total consumer spend was \$25.1bn and the physical/digital split changed from 80/20 in 2009 to 76/24 in 2010 (ESA United States, 2011, p. 2-11).

## **Cultural Policy**

Cultural policy has a significant, and regional, impact on the development of the games industry, ranging from incentives to develop (start-ups) to incentives for types of game designed that better appeal to local investors and consumers. The industry also faces significant challenges relating to the governance of virtual spaces created within the games industry, particularly virtual worlds.

Australian federal and state governments provide a broad range of R&D funding schemes and tax breaks which game companies can benefit from through agencies such as the Department of Innovation, Industry, Science and Research [DIISR], Austrade (the Australian government trade assistance agency), state (provincial) governments and state screen agencies, as well as Screen Australia. The games companies benefiting from funding schemes or tax breaks are more likely to be for technologies such as game engine development than for game design and development as such.

## **Tax incentives**

The leading incentive offered by DIISR is the R&D Tax Incentive. Game developers, mainly those engine-level technology developers, can benefit from a recently introduced R&D Tax Credit. Companies with a turnover of less than \$20 million can receive a 45% refundable R&D tax offset and those with a turnover more than \$20 million can receive a 40% refundable R&D tax offset (Screen Australia [SA], 2011). DIISR also offer grants from schemes such as *Commercialisation Australia* and *Enterprise Connect*. The former provides funding for companies to access specialist advice and services, engage a CEO or other senior executive, prove the commercial viability of new IP, and take a new product, service or process to market. The latter provides funding for small and medium-sized companies to engage a researcher to help develop new ideas with commercial potential. Further, Export Market Development Grants which are offered by Austrade aim to assist small and medium

companies to develop export markets by partially reimbursing their expenditure on export promotion.

In terms of state government initiatives, Victoria has been the most proactive in supporting the industry and it was the first Australian state to provide government funding for its game industry in 1996. Film Victoria, a scheme of The Victorian Government, supports the industry by providing direct project funding. Game studios also find support in Queensland, through *Queensland Games*, but to a lesser extent than in Victoria. Major studios in Australia have been located mainly in Brisbane and Melbourne. In 2011, the NSW state government launched the Interactive Media Initiative, which provides direct project funding and enterprise funding.

The most significant recent development in government support for the industry was the Australian Federal governments announcement in November 2012 of the Australian Interactive Games Fund. This scheme provides \$20 million over three years to support and grow the local industry as it emerges from the difficult period and challenges described in this report. In announcing the scheme Arts Minister Simon Crean commented, 'Australian games studios are recognised internationally for their skill and originality in developing interactive games played all over the world, but the local industry is coming under increased pressure in the midst of a major market shift' (Serrels 2012). This fund will be administered by Screen Australia. However, it should also be noted that funding schemes, tax credits and offsets that target the film industry do not apply to the Australian games industry. Although the Interactive Games Fund announcement has been welcomed by the industry, the overall lack of direct assistance is identified in the recent National Cultural Policy and Convergence Review.

The government's skewed investment towards alternative R&D sectors or other sectors within entertainment industries such as film and TV constrains Australian game industry's future growth and ability to compete globally (Games Developers' association of Australia [GDAA], 2006). Therefore the game industry calls for schemes that specifically target the game industry, and which can enhance competitiveness against overseas companies such as

those Singapore, Canada, and Ireland. As mentioned above, Canada provides a range of support; the Quebec government in Canada subsidises 37.5% of videogame studios' payrolls.

Screen Australia (SA), the key funding body for the Australian screen production industry, advocates for greater support for Australian game developers through a range of options including credits, offsets, and direct investment. SA proposed 30% tax credit on 'eligible' expenditure for games (with a minimum expenditure threshold of \$500,000), and a 20% tax credit on (again) 'eligible' expenditure (with a minimum expenditure of \$200,000) (Screen Australia [SA], 2011, p. 27). In addition, The Interactive Entertainment (Games) Offset being proposed would expand the existing film 'Producer Offset' and would not require an additional application or eligibility test (Screen Australia [SA], 2011, p. 28).

In its *National Cultural Policy and Convergence Review* submissions, Screen Australia proposed the creation of an Online Production Fund. It aims to leverage the opportunities brought by fast broadband, and would be focused on 'narrative' but with unique media including browser-based interactive entertainment as well as mobile and tablet applications. It can be seen that the proposal aims to not only better support stand-alone games but also facilitate the intersection with film and TV industry.

The IBIS report notes that “there is no assistance provided for companies in this industry”, and that it “suffers from no specific tax burden, other than standard company tax and GST” (p. 39). The announcement of R&D tax credits are welcomed by the GDAA (Game Developers Association of Australia). Antony Reed of the GDAA notes: ‘In terms of our development community it’s perfect for the games industry. If you’re writing code or working out mechanics, working on new animation systems, that all qualifies under the system’. Companies focused on contract work for overseas IP also qualify, with testing falling under criteria for supporting R&D, which Stark notes “could bring the cost of Australian development down quite substantially” (Kotaku, 2011).

As a result there has also been movement with Brisbane developer Halfbrick relocating part of their operations (including the development of primary IP Fruit Ninja) to Sydney to take

advantage of the Interactive Media Fund, which will see them receive \$3m over two years in addition to six other 'digital content creators'. NSW deputy premier Andrew Stoner commented that he expected to see the NSW digital games sector double to over \$53bn by 2016. The Queensland government responded by claiming Queensland's gaming sector accounts for approximately 40 per cent of the \$136 million Australian gaming industry, and that the government's Information Industries Bureau helped Queensland firms secure \$7.8 million worth of deals in March this year. (Feeney, 2011)

### **Free Speech vs. Classification – US & Australia**

In policy terms, video games are seen as fully protected speech under the US constitution, and claim the same first amendment protection as books, movies, and music and television programs. The ESA, as an industry body, is "opposed to legislation that would treat video games differently than other first amendment-protected works and that would regulate the content of video games in any form or restrict access to video games". US games are rated by the ESA-created ESRB (Entertainment Software Rating Board), which "provides consumers with information about the age appropriateness and content of entertainment software". The ESA claim this is supported by retailers, opinion leaders and parents, and lauded by the Federal Trade Commission (FTC). An April 2011 FTC report revealed that only 17 percent of the agency's undercover underage shoppers were able to buy M-rated video games, 73 percent less than in 2000 (ESA, 2011).

Recent cases, including a 2011 Supreme Court judgment, have supported this position, with the Supreme Court striking down a California law aimed at restricting the sale or rental of violent video games to minors, with the courts making reference to violent scenes in novels such as Dante's Inferno and the Grimm's fairy Tales, and preventing the separate categorisation of video games (Takahashi, 2011)

Until 2012, video games in Australia could not legally be sold if the content was deemed to only be suitable for those over 18 years of age. This meant that games classified elsewhere

as adult or suitable for age 18 and above were either refused classification and unable to be sold, or (far more frequently) were sold in Australia with a lower classification (and sometimes with edited content). This was a topic of much debate (Hogan, 2005; Brand, Borchard & Holmes, 2008), as adult players of games felt they deserved to be able to buy games that appealed to their tastes.

However, the practical impact of this regulatory regime has been negligible. Brand, Borchard & Holmes state that “of more than 3,500 titles classified in Australia between 2004 and 2008 by the Board, only 19 titles were restricted. This is a very small proportion (half of one percent) of the total product pool available on the market. Nevertheless, transnational publishers of these works saw fit to revise their titles in nearly half of the cases to bring those products to the relatively small Australian market”. (p. 70). In March of 2012, the ALRC review into classification reported to parliament, and the R18+ rating classification became available in Australia in 2013. On 14 February 2013, for example, the R18+ Classification legislation for videogames passed in the Queensland state parliament.

### **Intellectual Property & Piracy**

There are a range of other significant international debates in the policy realm, particularly around issues such as piracy and the trend towards Digital Rights Management that has resulted. Intellectual property debates stem from the fact that video games are increasingly becoming co-creative endeavours, particularly virtual worlds in which users create their own characters and histories. However, this is increasingly true of traditional single-player or desktop gaming, with players increasingly given a role in the design process and encouraged to create their own additions to the games content. Two prominent examples of this are *Civilization V*, in which players are able to create both new maps and resources, and *Flight Simulator*, where the majority of the content comes from a provider other than the original software developer.

As Banks (2007) states, “the very idea of calling them end users is now a little redundant because fans are right up front increasingly participating in the games development project



itself. They are creators and producers”. (p. 208-209) Banks discusses how the development of *Trainz* became a collaboration between staff at Auran and the fans of the game, noting that “this creates complex IP issues/implications”. In the case of *Trainz*, “any content they (the fans) create they retain the IP to. This is unlike other game companies where fan material cannot be commercially released by the fan creators; they often retain the right to take fan content without the creator’s permission and commercially exploit it or release it in their own packages” (p. 211)

Humphreys (2005) outlines a number of the issues this raises: she notes that EA, producer of *The Sims*, is in contrast with Auran’s approach; they (EA) do not pass any IP rights to players when they create content. Humphreys argues that Auran’s model may in fact promote innovation: “in a context where there is so much anxiety about retaining and protecting the rights to intellectual property, the attitude that the value may lie elsewhere in the product requires a major reorientation of thinking and priorities. It is a shift that may be seen to encourage innovation rather than stifle it – an accusation often levelled at the strengthening of intellectual property laws” (p. 7)

Humphreys also considers the advantages of such an approach, identifying how through the gamer consumers generating content the manufacturer is able to take advantage of a skilled talent pool which might ultimately improve the profitability of the product. As she notes, this has been described as akin to ‘free labour’ and complicates the ethics of ownership and rights. Players participating in this process have different motivations – some “create new content for the sheer love of it [whilst] others wish to capitalise on their work”. Further some “see content development as a pathway into the industry and professional work” (p.8). Humphreys goes on to note that this throws up queries around licensing, and whilst Creative commons could be a solution for those where players are allowed to claim creations as their own, for others Terms of Service or EULA agreements “may preclude [users] from exercising any rights at all in relation to their content”.

## Virtual World Governance & Taxation

One continuing theme amongst both players and academics discussing virtual worlds is the need to protect the investment – financial, social and time – that participants make in such environments. Castronova's (2005) study suggested that Norrath, the fictional setting for *Everquest*, had a GDP per capita which, if real, would place it somewhere between Russia and Bulgaria in the world's economies, higher than countries such as China and India. Similarly, the 2009 sale of *Project Entropia's* 'Crystal Palace' for \$330,000 (Brennan, 2009) and the real-world gold-farming and levelling industry highlighted by Dibbell (2007), which employs "an estimated 100,000 workers, who produce the bulk of all the goods in what has become a \$1.8 billion worldwide trade in virtual items", highlights the importance of governance strategies in these spaces.

There are examples across virtual worlds which demonstrate the increasing risk of a continuation of 'developer fiat', and a push for governance of some form. Ludlow & Wallace (2007) offer an example where a dispute between two groups, the Space Monkeys and XLS arose, where XLS recruited a Space Monkeys member (Xaphon) and through Second Life's software 'stole' \$320 (in real currency) worth of Space Monkey's land (in-game) and transferred it to XLS. The Space Monkeys complained, and whilst "...all he had done was to sell group land, something the software tools of the world had enabled him to do. Within both the code and the laws of *Second Life*, he was perfectly within his rights. But the company's response was utterly disconnected from its own legal documents. Despite the fact that Xaphon had not contravened the terms of service agreement, he was promptly suspended. The heisted land was seized and a small proportion of it was returned [...] it was simply the prerogative of the gods of the Grid to do as they pleased. They decided the land should belong neither to the Space Monkeys nor to XLS, but rather to the gods themselves" (pp. 239-240). The authors conclude that "If the Lindens really did want to help build a new world, a new kind of society on the frontier of cyberspace, they had chosen the worst way to go about it" (p. 241).

There are also questions over whether environments which make use of real world currency should be subject to taxation. In his book *Play Money* (2006) Julian Dibbell discusses the possibility of making a real world income through online games and goes on to attempt to include such in a tax return (to the United States IRS). Whilst this is likely to be an area that arises in the future, he also points out that as early as 2004 the US Government believed the tax gap “attributable to small businesses doing business over the internet was estimated to be \$1billion and rising”. Other facts and figures from Dibbell’s work include \$1 billion changing hands in virtual worlds in 2005, 3,100 Second Life residents generating average revenue of US\$20,000 and Second Life charging VAT on certain transactions between European Union residents and Second Life, which the US does not.

The issue is of course more complicated than taxing everything that happens in a virtual environment. Dibbell, citing pages 213-226 of the National Taxpayer Advocate’s 2008 Annual Report to Congress, notes that such questions include whether a person should be taxed each time “He or she acquires virtual property, when exchanging one virtual property for another, or for virtual currency, and when the virtual property or account and/or avatar are sold for real money”. He also raises the issues around supporting, withholding and record keeping that attempting to tax such transactions would have and the implications this would have for the tax obligations of virtual world operators. All of these questions need addressing; however, the question remains whether the gap identified in the US and elsewhere should be closed or whether these environments should be protected as a place for ‘play’. The US Government report goes on to consider similarities to gambling, noting that “a gambler is generally not taxed after each winning hand of poker provided he or she does not leave the table or cash in his or her chips. Thus, a taxpayer may wonder if the acquisition and sale of virtual property for virtual dollars is non-taxable because it is similar to winning a hand of poker before leaving the table or cashing out”.

## **Labour Strategies**

The CCI report (CCI, 2011), *Working in Australia's Digital Games Industry* outlines a number of the challenges facing both the Australian Games Industry, described above, and the education sector in skilling people for these positions, questioning the value of gaming degrees. Matthew Jeffrey of Electronic Arts says, 'The problem is that game degrees are almost like the latest fashion accessory – all the universities are running to set them up, but the students aren't being prepared in terms of the skills sets they have' (2011, p. 42). Further, as the CCI report suggests, Industry feedback about the effectiveness of games courses suggest available game industry skills standards and competencies documentation do not adequately reflect the industry's demand for people who are capable designers, sophisticated team players, and innovators. (2011, p. 44)

The CCI research queried the effectiveness of games courses: of 279 participants in a poll, 84% stated that the courses were highly ineffective whilst in a survey of workers 16.1% stated they were highly ineffective and 33.9% claimed they were somewhat ineffective. Further, the research claims that Australian educational institutions are producing too many graduates for the number of jobs available in the industry, citing 2007 data.

A 2007 UK Government report (2007, p.12), discussing the Australian industry, notes that "due to a lack of high quality experienced local development staff, many larger developers have to recruit from overseas, making it an expensive (e.g. interviews and relocation costs) and difficult process". The report also suggests that "[s]timulating the sector via grants and other forms of government funding, encouraging linkages between universities and studios, and endeavouring to attract skills to Australia's shores are viable strategies for tackling this problem. A disproportionately high number of the Australian development industry's more experienced staff and senior management are non-Australian nationals, particularly UK and USA nationals. The potential impact of the loss of these staff is elevated as a result. Staff replacement times are high due to relative geographic isolation".

### **Social impact of games**

As part of the Australian Government review into the classification of media, research was undertaken to evaluate citizens' opinions towards particular examples of media, which included violence and sexual activity in video games. These findings give us the most recent reference point for Australian cultural attitudes, whilst facts & figures from recent US and Canadian surveys undertaken by polling organisations provide a useful contrast.

## **Australia**

In considering violence in video games, three recent examples were used – namely *Mortal Kombat*, *F.E.A.R. 2: Project Origin* and *Call of Duty: Modern Warfare* (specifically, the well known 'Airport scene' where the player is directed to fire upon passengers in an airport lounge whilst undercover with a terrorist group). Data was collected from two groups – 'community groups', picked to be representative of the community by the ALRC (Australian Law Reform Commission), and a 'reference group' made up of industry stakeholders and others with interest in classification.

Amongst the community groups, 26.7% found the fighting scenes in *Mortal Kombat* offensive (with 20% unsure), 16.7% found *F.E.A.R. 2* offensive (with 30% unsure), whilst 50% found the airport scene in *Call of Duty* offensive (with 6.7% unsure). There was relatively little difference in the reference group amongst the latter two games, with 13.3% and 53.3% finding them offensive respectively, however only 10% amongst the reference group found *Mortal Kombat* offensive.

Also illuminating of community attitudes were participant responses. The ALRC noted that computer game "participants were generally unsure or not offended by the material, with comments such as 'one expects a level of blood and gore', 'it's all fantastical', and 'it's comic book material'". They also found that "a minority found the footage offensive and noted that 'it was unacceptable that it's becoming acceptable' and that 'internet gaming assists in making violence so acceptable'. An additional comment stated that If it had been real people (e.g. in a movie) I would have been instantly offended" (p. 55).

In comparison, the ALRC raised the fact that reference groups questioned the validity of the term 'offensive' used for the sessions, and that participants in the reference groups who were offended "pointed to issues such as the fact that the player is actually carrying out the actions, which possibly made it more disturbing than an acted out scene in a film". Overall, some participants formed the opinion that computer games may have a more serious impact than what people generally think or give them credit for, and that 'it can be the tipping point (i.e. inciting violence) for some people. Particular attention was given to *Call of Duty* with respondents saying that it was portraying violence directed at innocent people, e.g. 'It's too close to reality'. One participant noted the potentially negative effect of such violence particularly on refugee children. (p. 55)

In general, both community and reference groups "would generally not ban the material, although some felt that 'killing people' in games should be banned". It was however suggested that content should be age restricted with the range varying from 15-18; however, some participants acknowledged that "the more you restrict things the more people watch it". It was thought that the most vulnerable to such material would be children aged 10-13, and thus a 15+ restriction was appropriate. Finally, the panels believed that material unsuitable for games "included content that has a superfluous role in the story, sexual violence and graphic scenes of torture" (p. 55).

In considering sexual activity, the panels were shown a scene from *Grand Theft Auto: the Ballad of Gay Tony* where the player acts as a bodyguard for a nightclub owner. The footage is non-interactive and serves as a plot development tool. 16.7% of the community group found the content offensive and 20% of the reference group. Community group participants "commented that they were not expecting to see sexual acts in the game", whilst some of the research group participants "felt the idea of 'powerful men versus women as sex objects and gratuitous sex' was offensive". Again here most felt an age restriction was appropriate, suggesting restricting the game to 18+ (with a few suggesting 15+), however, the concern was acknowledged that "what happens once a game leaves the shop – it can go anywhere – it's an unrealistic boundary".

## Canada

We have to delve further into the past to gauge Canadian attitudes to games as there is a lack of recent surveys. In 2004, a national telephone survey conducted by Decima concluded that 59% of respondents strongly agreed, and 24% agreed, with the statement 'The government should regulate video game content by requiring that games be rated measuring such things as violence and sexual content'. Again in comparison to the US data, 73% stated that they monitored what the children were playing, yet with a majority wanting government regulation Decima concluded that "this may suggest two lines of thought: 1) either they know what is at youngsters' disposal and this has convinced them that there is a need for regulation, or 2) adults do not want to be the sole parties responsible for screening the games youngsters play. This may in fact be an acknowledgement that, although they can supervise youngsters some of the time, they cannot, or don't want to, supervise them all the time".

## US

Issues surrounding computer game violence continue to be raised occasionally in the United States, however the most recent case dates to 2011 when the US Supreme Court overturned a California legislature decision to ban retailers from selling or renting video games to those under 18 without parental consent – a decision primarily reached on 1st amendment freedom of expression guarantees – comparing games to books such as *Grimm's Fairy Tales*, *The Odyssey* and *Lord of the Flies* which contain gratuitous violence.

However, the public response to this decision tells us much about the US cultural position. Rasmussen Reports conducted a survey in response to the decision (sampling 1000 adults with a 3% margin of error), and of their sampling 67% of respondents were in favour of States being able to prohibit the sale and rental of video games to children (in comparison to 28% who felt US states should be banned from such prohibitions). Amongst the other findings of the survey were that US Citizens felt parents were more responsible for

monitoring their children's play than the government (by a ratio of 79% to 4%), whilst 39% felt video game producers should be held legally liable if it could be proven that their products led to somebody committing a violent act (in comparison, 45% felt they should not be liable).

## **Business Strategies**

### **Cross-platform development**

Technological convergence impacts user engagement and changes the processes of games production and distribution. The trend is to integrate games with TV or film as interactive cross-platform entertainment. Games from film and television can deepen audience engagement with the setting and narrative of the original property as well as generate additional revenue streams. They are often made for high-end consoles but are increasingly produced for digital distribution to mobile and tablet devices (Screen Australia [SA], 2011).

One example is KMM Games, the game development arm of Kennedy Miller Mitchell, the movie studio behind the *Mad Max Trilogy*, *Babe* and *Happy Feet*. Australian director and producer George Miller started KMM Games to develop console tie-in games to their feature film properties (Screen Australia [SA], 2011). He hailed the "cross-fertilisation of those previously distinct genres, platforms and formats" as "an enormous opportunity for Australia" (Turner, 2011). An initial project was a tie-in game to a fourth *Mad Max* film – *Fury Road* planned back in 2008, which is yet to see the light. An example of games turning filmic is *LA Noire*, developed by Team Bondi. It used MotionScan to capture actors' performances and employed multiple digressive story lines, and became the first video game to premiere at a film festival, Robert de Niro's Tribeca Film Festival.

When KMM purchased intellectual property of the Sydney based game developer, Team Bondi and absorbed its remaining staff, Team Bondi immediately went to work on *Happy Feet Two*. It was a 3D musical adventure game based on the adaptation of the namesake



animated film for Playstation 3, Xbox 360 and Wii. The fact that people can move flexibly from a game to a movie production reflects the trend of convergence.

Another company actively engaged in multiplatform entertainment production is Hoodlum, established by Tracey Robertson and Nathan Mayfield in 1999. Coming from a TV Drama and feature film background, the founders experienced initial success in 2003 with their cult TV series *Fat Cow Motel*, a popular multiplatform TV drama series in Australia. They do not view themselves as working in a games company; rather, they “create meaningful online experiences that engage audiences in ‘active storytelling’ – by participating in the experience the story is revealed” (Hoodlum, 2011). The company also specializes in integrating active storytelling experiences with existing on-air storylines, which motivates audiences to migrate between different media platforms. They regard the ‘deep understanding of story’ as their core strength that allows the company to connect with mainstream audiences all over the world (Hoodlum, 2011). The company also helps the world’s leading brands connect with audiences by creating interactive branded storytelling campaigns, such as the web series PS Trixi, commissioned by Yahoo!7, was a successful venture partnering with Toyota.

The strategy of focusing on interactive storytelling and multimedia entertainment is also reflected in the company structure and the skill sets required in the team. The Head of Development and Production is a credited screenwriter and practitioner in multiplatform storytelling and production. Anthony Mullins is Creative Director and his BAFTA winning work sits amongst his Cannes breakout film and award winning documentaries. Technology Manager Richard Owens' games experience with his programming expertise is also amplified by his passion for film and TV. Together they lead a team of filmmakers, creatives and technology developers who understand the uncompromising demands of film and TV production schedules as well as the intricacies of multiplatform content delivery.

Offering multiplatform entertainment experience requires close collaboration with other content producers and distributors. Hoodlum’s *Primeval Evolved* was a ten-week online experience that extended the storyline for ITV’s hit television series *Primeval* in the UK. This

collaboration between ITV.COM, ITV, Impossible Pictures and Hoodlum allowed the stories and characters of the popular TV show to weave seamlessly across multiplatform and deliver an integrated experience for viewers.

More recently, the company released *Slide*, a 10-part TV series that's coupled with digital content across multiple platforms. A co-production between Hoodlum and Playmaker Media for Foxtel, it was premiered on the Fox8 subscription television channel in August 2011. It encourages viewers to view extra content online via mobile apps and social networking sites such as Facebook and Twitter.

Webisodes of events that take place before and after episodes are also available on Youtube. Hoodlum also developed an online alternate reality game Find 815, for the fourth season of the television series LOST in collaboration with the producers of the show and the American Broadcasting Company. This has led to further cooperation opportunities and *Dharma Wants You*, a third alternate reality game for *LOST* was released during the gap between the fourth and fifth seasons of the show. It utilized a variety of media platforms ranging from websites, exclusive video, interactive games, Bluetooth, mobile, TV, VOIP, social networks, and complex real-world events to engage the fans worldwide in a non-linear interactive entertainment experience. Such cooperation also strengthened the company's position as a global player in the industry where technology and creativity is converging.

### **Shift in focus towards mobile**

As mentioned earlier the most significant recent trend in the global games industry is the ongoing shift from traditional console and PC based products towards hand-held and mobile devices. De Prato *et al* (2012, p. 233) predict that 2013 will see the sale value of PC video games fall to \$4billion, or approximately 6 percent of the overall market.

PriceWaterhouseCoopers (2009, 2011) predict that the online and mobile segments of the

video game industry will grow to approximately \$15billion in 2013, or 40% of the total market, whilst IDATE (2008, 2011) predict growth of €9-17billion, and a similar share of the global market.

Banks and Cunningham (forthcoming) argue that these are strong examples of the speeding-up of the innovation cycle and the interdependency of technology-push and user-demand-pull, whilst also acknowledging the significant role of business model innovation, such as the increasing trend towards micro payments and the radical disintermediation of the value chain of significant parts of the industry.

Ongoing research with *Halfbrick*, the Brisbane based developer of *Fruit Ninja*, demonstrates the recent focus of development efforts on games for mobile platforms and social networks, and a move away by some Australian developers from traditional fee-for-service development, a trend which can be attributed in part towards platform standardization on iOS and Android. Banks and Cunningham also attribute this shift towards a reduction in the need for physical logistics, whilst De Prato *et al* (2012, p. 434) argue that “a range of activities in the legacy value network are potentially rendered obsolete – manufacturing boxes and disks, organization and the infrastructure of distribution, retail sales, inventory and returns”. Graft (2009, in Banks and Cunningham) predicts that Valve’s *Steam* platform now accounts for almost 70% of digitally distributed game revenue.

PricewaterhouseCoopers (2010) predicts consumer spending on games in Australia will increase to US\$1,584 million in 2014, due mainly to greater demand for online games and wireless games. Estimated compound annual growth in consumer spending for online games (13.6%) and wireless games (13%) for the period 2010 to 2014 is significantly higher than estimated compound annual growth for consoles and handheld devices (5.8%).

Policymakers are adapting to changes in the industry. Both Multimedia Victoria and the Queensland state government are focusing less on attracting large overseas studios and more on pushing and monetizing original content, especially towards the mobile platform and emerging markets. Indeed, Australian developers are increasingly seen as world-class

providers of mobile games with titles like the Madden NFL series (2006) and *The Fast and the Furious: Fugitive 3D* (2007) and by Firemint Game Development and *Sports Fight Night Round Three* (2006) by Iron Monkey Studios. More recent success on mobile platforms includes *Fruit Ninja* (2010) and *Jetpack Joyride* (2011) by Halfbrick.

### **Monetization strategies**

A monetization strategy based on the freemium model has been an important trend in the games industry. Games sales numbers no longer present the whole picture. Micro-transaction free-to-play involves players accessing the game for free but paying small fees each time they want character and gameplay enhancements, like a map or a weapon. According to Phil Larsen, CMO of Halfbrick, “Many games are monetised extremely well by tapping into a key player base and providing the content to drive high value IAP. Many of these games aren't high in the charts at all” (Scimeca, 2011). In fact, *Jetpack Joyride* is the first IAP games developed by Halfbrick and the 99c iOS title that has hit the top one grossing game spot in 18 countries.

A report by Cutler & Company (2002) indicated the challenge for title originators is keeping players deeply immersed in a game to ensure “a recurrent annuity of royalties derived from monthly subscriptions or ‘membership fees’, product placement charges, and merchandising opportunities” (p. 19). They argued that to do so title originators must commit to the on-going product development requirement of “customer care” and “creative moderation”.

### **Distribution and marketing**

Digital distribution increasingly allows developers to access markets directly, rather than having to rely on large multinational publishers. There are a number of online platforms for self-publishing games, with revenue split between the platform provider and the developer.

The three game console hardware manufacturers, Sony, Microsoft and Nintendo, all offer online distribution platforms that are utilised by publishers and by developers self-publishing their games. The platforms are *Playstation Network*, *Xbox Live Arcade* and *WiiWare*.

*Steam* is a popular online distribution platform for PCs, which is utilised by major publishers to digitally distribute games as well as enabling developers to self-publish their games. Games can be distributed via Steam on a download-to-own basis or by selling subscriptions to “massively multiplayer online games”. Publishers/developers can also generate revenue via Steam through in-game purchases such as access to levels or virtual goods.

After the global financial crisis, the focus in the game industry worldwide has been shifting from AAA titles to mobile games for iOS (iPhone/iPad) or Android operating systems. Some Australian developers such as Halfbrick Studios and Firemint have successfully adapted to pursue this opportunity. Halfbrick is best known for *Fruit Ninja*, a commercially successful game which boasts 40 million downloads across a range of platforms (iPhone, iPad, Android) with an Xbox360 Kinect version. Its more recent success is *Jetpack Joyride*. Firemint is known for *Flight Control* and *Real Racing* (ABC 2011). The dominant distribution platforms for mobile games are Apple’s iTunes and Google’s Android App Market. On these platforms, the developers are able to retain 70% of the revenues, which is far better than the fee for Service model.

These profound changes in distribution channels mean that marketing assumes an increasingly important role. Without proper marketing strategies, a well-developed game may be buried in the sea of apps featured in the App Store. Social network platforms also offer opportunities for developers to effectively self-promote. For example, a Halfbrick Youtube video with a tagline of “Ninjas Hate Fruit” spread went viral on the internet and garnered a tremendous number of players for Halfbrick.

## Emerging niche markets

While still an emerging market, industry practitioners believe social games have significant potential. The phenomenally successful *Words With Friends*, developed by Zynga and based on a classic word game format provides a case of this rapidly growing market.

The Australian based developer 3 Blokes Studio, now owned by RockYou, has developed four social games for Facebook, including their most recent title, *Galactic Trader*, a space trading and combat game with 200,000 monthly users. According to John Passfield, the vice-president (creative) of 3 Blokes, there is a huge trend for socialisation of games - be it on Facebook or iPhone, “primarily because the market had moved toward smaller more accessible games that don't cost very much to buy but offer great value and lots of fun” (Foster, 2011).

As Phil Larsen, CMO of Halfbrick, mentioned in an interview with PocketGamer, “Even though multiplayer still makes up such a small portion of top-tier games, seeing new and exciting ways to play with friends is going to be huge...When we see some new ideas and IP, coupled with iCloud, AirPlay and more, mobile multiplayer should be a pretty big trend” (Jordan, 2012). The company has released a Facebook version of its highly popular game *Fruit Ninja* in 2011, called *Fruit Ninja Frenzy*. The game offers a real-time friend leaderboard and sharing of accomplishments with the larger network. Players can also choose to post messages promoting *Fruit Ninja Frenzy* to their Facebook Walls.

Another emerging and growing market for the gaming industry may exist in game-based learning or leisure learning. According to Dr Brand from Bond University, Australia can be a world leader in the development of the games sector by focusing on Serious Games for teaching and learning (iGEA [Interactive Games and Entertainment Association], 2010). In a public lecture titled “Video games and the future of the knowledge economy”, Dr. Brand argues that there is huge potential in the Serious Games market because 1) Australia has

two generations of gamers who are game-literate and a workforce trained for the knowledge economy that not only is receptive to game-based experiences, but is also hungry for new models of learning and training; 2) Many countries including Australia are re-examining their education systems; 3) Both games publishers and book publishers are rethinking the scope of their respective industries.

However, there are currently significant barriers to increasing the use of games in education and to Australian developers being able to seize the opportunity of the Serious Games opportunity. The problem here is that much of the population still sees games as vacuous, or worse, potentially damaging. And perhaps even more significantly, many of our educators are still technophobic (Hill, 2010).

### **Creative Clusters**

In April 2008, the Australian Bureau of Statistics (Australian Bureau of Statistics [ABS], 2008) released its first issue of *Digital Game Development Services, Australia*. As at June 2007, 695 of the 1,431 workers employed in the games development industry were located in Queensland, which represents 48.6% of all workers in Australia. Queensland's capital city Brisbane was once home to large studios including Pandemic, Krome and THQ, which made Brisbane the gaming industry powerhouse of Australia. While these big studios were forced to shut down in recent years, Brisbane continues to be the home for successful developers such as Halfbrick.

Australia has a strong base of complementary creative industries, including film and television, design, advertising and new media. Games clusters co-located with other media represents a competitive advantage of the Australian digital games industry because of the convergence across industries and transferability of skills across sectors benefits (Australian Research Council Centre of Excellence for Creative Industries and Innovation [CCI], Queensland University of Technology [QUT], & [GDAA], 2011). This facilitates crossover hits between different industries.

Convergence is taking place across different platforms accompanying the integration with TV/film industries. In contrast to the original game concepts (internal IP), game concepts may be derived from a pre-existing franchise under licence or contract (external IP).

According to Jason Della Rocca, executive director of the International Game Developers Association, much more money is made on successful internally-developed properties, but that investing in these is more risky (Stuart, 2007). As Della Rocca explains:

Internal IP makes, on average, \$4 million more (or 5 percent) than external IP. However, that extra money comes at a steep cost of additional uncertainty; the standard deviation is 19 percent higher. So really, when you're making internally-created content, you're 19 percent more uncertain you'll make 5 percent more than going with an external license. And executives don't like to gamble (Stuart, 2007).

This trend has also extended to mobile platforms. When Dreamworks was interested in creating an iPhone game for its movie *Puss in Boots*, Halfbrick struck the deal and released *Fruit Ninja: Puss in Boots*, with new modes, backgrounds and weapons.

Most skills needed in each of the digital content industry segments were found to be transferable across segments, and the potential for skills transference is likely to increase as these segments further converge (House Standing Committee on Communications, 2004). Previous evidence suggests students graduating from traditional film and television courses see games development as a new and attractive career option.

Further, the rapidly expanding industry means skills gaps need to be addressed jointly by the games industry and the film, animation, special effects industries, and the educational institutions. Future skills most applicable to the games industry include business planning skills and converging technologies skills due to changing business and employment structures, and IP protection and copyright knowledge due to the speed of technological change (Innovation & Business Skills Australia [IBSA], 2010).



Therefore co-location of games clusters and other industries benefits knowledge and skill development for the Australian games industry.

## **Interest in Asia/China**

### **Opportunities and challenges**

As Australia represents only 2% of the world market, the overseas market is important to its games companies. According to PricewaterhouseCoopers (2010) In the Asia Pacific region, Japan's market share declined significantly between 2005 and 2009 (51.1% to 37.9%) whereas China's market share increased significantly over this period (8% to 23.2%). By 2014, China will have the biggest share of the video games market in the Asia Pacific region (46.1%) while Japan's share will continue to decline (25.5%). Meanwhile Australia's market share is declining, falling from 6.5% in 2005 to 5.6% in 2009, and is predicted to decline further to 3.9% by 2014.

Given the geographic proximity to the economic power-houses of Asia and its fast growing games market, Australian game companies are keen to enter Asian markets. Government incentives have also noticeably been spurring activity in that area with both Multimedia Victoria and the Queensland state government focussing less on attracting large overseas studios and more on pushing and monetizing original content, especially towards emerging markets.

Currently the strongest relationship between the Australian and Chinese audiovisual industries now occurs in the postproduction sector (The Media and Entertainment and Arts Alliance, 2004) . The first Chinese director to look to Australia was He Ping who came to do post-production for *Sun Valley* in 1995. He returned in 2003 to do the post-production for *Warriors of Heaven and Earth*. Zhang Yimou's earlier films *The Road Home* (1999), *Happy Time* (2001), and *House of Flying Daggers* (2004) were also post-produced in Australia. Sydney-based Animal Logic was the lead visual effects house for Zhang's internationally acclaimed film *Hero*.

In 2007, Australia and China signed a film co-production agreement, which came into effect in December 2008. According to the Minister for the Arts and Sport at that time, “This agreement will give Australian filmmakers greater access to the film market of the world’s most populous nation and the important wider Asian market” (Department of Communications, 2007). For China, this is a way of strengthening its soft power through ideological and cultural push in an attempt to counter the Western cultural hegemony (Su, 2010). The Sino-Australian co-productions include *The Children of Huangshi* (2007), *The Dragon Pearl* (2011), and *33 Postcards* (2011). Given the integration between film and games industries, the benefits of such access to the Chinese market hold opportunities for the Australian game companies.

However, several barriers exist. Firstly, the Chinese game market is very complicated with local firms controlling most of the market. Lack of understanding of the local market means the need to partner with local operators. The mobile gaming market is a good example: the complicated distribution market in China presents challenges to overseas companies. While there is only one Android market internationally, there are more than 70 in China. The lack of the knowledge about the complicated landscape of the local ecosystem including a variety of players such as third-party application stores, mobile operators, and mobile device manufacturers mean that it is necessary to work with local partners.

Secondly, the weak IP regime in China presents further barriers. Third-party emulated servers allow players to play a modified version of a game or manipulate the game by reverse engineering the official servers without the consent of the IP owner. Scapegaming, a *WoW* private server, is such an example. It allowed players to play a modified version of *WoW* that was not under Blizzard's control and for which players would pay the private server provider rather than *WoW*. For instance, it introduced the micro-transaction feature which does not exist in *WoW*. For the developers, it obviously means loss of revenue stream and creative control. In early 2010, Blizzard resorted to the legal action against the owner of Scapegaming, and won the lawsuit with a compensation of \$88 million. Such private servers exist in China and carve out a major slice of the revenue of the copyright owners. Unofficial

statistics put the annual revenue of the private server industry at 5 billion RMB, or 17 percent of the total revenue of the online game sector (Yih, 2010). For instance, *Aion: the Tower of Eternity*, developed by Japan-based NCSOFT and operated by Shanda Interactive Entertainment in China, suffered great loss from private servers and add-on cheats.

Further, P2P downloads of infringing video game files are fast becoming the predominant form of piracy along with websites that offer infringing videogame product that can be accessed from home PCs and from Internet cafés. In 2011, China was placed third in the world in the number of connections by peers participating in the unauthorized file sharing of select Entertainment Software Association (ESA) member titles on public P2P networks (International Intellectual Property Alliance (IIPA), 2012). The latest statistics by IIMEDIA Marketing Consultation Group show that only 1.4 percent of the mobile games used in China are legal versions (Z. Zhang, 2011). More than 20 percent of game software in use in China on Apple's iOS platform is copycat versions of the originals; and the rate is nearly 40 percent on Android phones.

The prevalent IP infringing behaviour raises concerns for Australian gaming companies in terms of the impact of copyright and piracy issues on controlling their innovation and the financial viability of entering the Chinese market. Thus it poses a serious challenge for Australian companies who want to enter China market.

Thirdly, China is widely known for its severe cultural censorship, which applies to a wide range of media sectors including film and online game. Some banned online games include the U.S. production *Command & Conquer Generals*, *Football Manager 2005* produced by Sports Interactive, for "posing harm to the country's sovereignty and territorial integrity", the Swedish-made *Hears of Iron*, and Norwegian-made *I.G.I.-2: Covert Strick*, "for damaging China's sovereignty and territorial integrity" (Swedish video game banned for harming China's sovereignty, 2004). More recently the government banned websites featuring or publicising online games which glamorise mafia gangs. The Ministry of Culture said such games "advocate obscenity, gambling, or violence, and undermine morality and Chinese traditional culture" (S. F. Zhang, 2009). Strong censorship and ideological control is

therefore another risk factor for overseas gaming companies to cash in on the expanding Chinese market.

### **Product distribution and localization**

Despite the risks and barriers, China has already become a strategic focus for Australia's leading developer Halfbrick. The company has high hopes for China, which has more than 900 million mobile phone users. While most downloads for *Fruit Ninja* come from the U.S., China is the game's second largest market. Already, 30 percent of the game's total downloads, or 20 million, come from China (Tan, 2011). The company expects to gain an additional 70 million downloads in China within six months of entry to the market.

Halfbrick has partnered with a Chinese mobile gaming company, iDreamSky, to distribute official versions of the game through channels like websites and app stores in China. It is also important to find the right localized marketing channels. Halfbrick began with replacing Facebook and Twitter with Chinese social media platforms to cater to the Chinese audience, such as Sina Weibo and RenRen. In terms of app stores, while Apple App store still controls the distribution to iPhones with its own device and payment channel, distribution to Android phones in China is more complicated. In addition to different operators and mobile device manufacturers there are more than 40 free app stores for Android phones in China. A local partner plays an important role in such a complicated scenario. With more than 200 distribution channels, device manufacturers and content developers as partners, iDreamSky has an advantage. It has chosen a range of local distribution channels including China Mobile Mobile Market, [www.ggg.cn](http://www.ggg.cn), [www.gfan.com](http://www.gfan.com), [www.anzhi.com](http://www.anzhi.com), [www.appchina.com](http://www.appchina.com), [www.hiapk.com](http://www.hiapk.com) and successfully distributed the game.

Halfbrick is also partnering with iDreamSky to develop localized versions of the game for the Chinese market. At least five upcoming versions of the game will be centred on Chinese content. The company also wants to license pre-installed versions of the game for mobile devices. To make money off the game in China where users have a low willingness to pay

and where privacy is rampant, Halfbrick released free versions of *Fruit Ninja* featuring in-game advertising and in-app purchases for virtual goods. iDreamSky and its advertising partner Domob retains 30% of the advertising revenue. For the revenue from in-app purchases, iDreamsky keeps 20% of the total.

Following the footsteps of Angry Birds developer Rovio, Halfbrick wants to turn *Fruit Ninja* into a major franchise. The company plans to leverage Chinese people's insatiable desire for themed items like plushies, mouse pads, and other assorted trinkets sell merchandise in China (Tan, 2011). In addition, it also plans to produce animated short films and has acquired an animation studio The People's Republic of Animation.

### **Conduits to China**

Taiwan, Hong Kong and Singapore can serve as key conduits to the Chinese market owing to the cultural linguistic similarities and the geographical proximity. For example, *Star Wars* creator George Lucas founded a new television and digital animation movie studio in Singapore in 2004, soon after the signing of the U.S. – Singapore Free Trade Agreement. Singapore's commitment to protect IP was cited as a reason for choosing Singapore as its first place of venture outside of the United States (Loon, 2009). In July 2006 Lucasfilm Animation Singapore (LAS) announced the creation of the Game Group, which launched *Star Wars: The Clone Wars – Jedi Alliance* on the Nintendo DS in 2008. Japanese firms also used Taiwan as a mediating point to enter Chinese market. For instance, Japanese developer/publisher Sega collaborated with China's Sunchime Cartoon Group and Taiwan based game software developer XPEC Entertainment to jointly develop and release video games based on the Blue Cat animation series on August 4, 2006.

Currently, the games industry is not covered by the Economic Cooperation Framework Agreement (ECFA) between China and Taiwan. This means Chinese game companies are able to easily enter the Taiwan market while Taiwanese games have to go through a complicated examination system before becoming available in China. According to Aaron

Hsu, chairman of XPEC Entertainment and president of the Game Industry Promotion Alliance (GIPA) of Taiwan, if the ECFA negotiations lead to China allowing Taiwanese companies to directly enter the Chinese game market, more international game companies will also use Taiwan as a stepping stone to its larger neighbour (Breaking into China, 2012).

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