



**MONASH** University

**Console Modification in the Video Game Industry  
An Empirical Study of the Technological Protection Measure Reforms of the  
Australian *Copyright Act* 1968 (Cth)**

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A thesis submitted for the degree of Doctor of Philosophy at  
Monash University in 2016  
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## ABSTRACT

The Australian-United States Free Trade Agreement expanded the access rights provisions, including the technological protection measures (TPM) and anti-circumvention prohibitions in the *Copyright Act 1968* (Cth), to address the unauthorised distribution of copyrighted content, colloquially referred to as piracy. Copyright users object to these "paracopyright" principles being implemented as criminal penalties and restrictive Digital Rights Management (DRM). Evidence that piracy has persisted despite the implementation of TPMs raises the question of the effectiveness of copyright as a control of piracy. The thesis examines through empirical methodologies the effectiveness of the access rights provisions of the Act that are required in light of persistent circumvention and piracy.

To address this, a case study using video game console modification was undertaken as its functions highlight the issue of access restriction and cultural acceptance of DRM circumvention to access content illegally. More significantly, while console modification is defined by the video game industry as a gateway into piracy, video-gamers argue that it allows interoperable software and privately copied games to be accessed without restriction. A series of interviews and focus groups, comprising video game industry professionals and gamers, were conducted to highlight these opposing perspectives.

The thesis found copyright as *law* is powerless in light of the *cultural norms* developed by internet users which accept console modification and piracy as a convention. The *economic factors* such as the high price of video games in Australia and *technological advances* in console modification and DRM mean a multifaceted approach to the re-adjustment is required. The thesis makes recommendations to achieve an acceptable re-adjustment through the recognition of cultural norms, and the introduction of business models that provide user-friendly solutions in accessing content.

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# PUBLICATIONS

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# GLOSSARY

**Circumvention Device** - Devices (or software) that are primarily designed or used for hacking or bypassing technological protection measures or digital rights management.

**Console Modification** - Console modification allows the expansion of the console's hardware capabilities or the installation of an alternative operating system to completely re-purpose the console.

**Digital Rights Management (DRM)** - Is a class of technological protection measures that allow rights owners to set and enforce terms by which people use their content or material. These terms are not necessarily for copyright. It relies on encryption to protect the content and authentication systems to ensure that only authorised users can access the files and prevent potentially infringing copyright of the files or materials.

**Free-to-Play** – A business model whereby developers or publishers will provide a game for free but with limited access, content and service, and can only be acquired if the content user pays to access such content and service.

**Homebrew** - A term frequently applied to applications and programs produced by a developer that is interoperable with proprietary hardware platforms not typically user-programmable. This might include programs developed with official development kits, such as Linux for the Sony PlayStation 4.

**Modification chip** - A small electronic device used to modify or disable built-in restrictions and limitations of videogame consoles.

**Technological Protection Measure (TPM)** - Technological protection measures (TPMs) are technical locks copyright owners use to stop their copyright material from being copied or accessed (e.g. passwords, encryption software and access codes).

## CHAPTER 1 - INTRODUCTION

### **1.1 BACKGROUND AND MOTIVATION**

*As a child who grew up during the Playstation era, it always struck me as odd how easy it was for my father to be able to secure new games despite living in a rural area. My father told me the Playstation consoles we had were "chipped" so we can play any game we wanted without having to wait until they were legitimately sold in the local electronic shop an hour away from our home. Unaware and apathetic to the legal and economic consequences of using a modified console to play pirated games, I accepted it as a simple fact of life and continued to use my chipped Playstation to play pirated games. My apathy was further attributed to the ease of acquiring pirated games from my friends, who also chipped their consoles without any thought of the legality of the practice.*

*Based on my experiences, console modification was never a controversial concept for gamers, despite the legal, technological and economic consequences purported by the industry and legal experts. This raised the question whether copyright as a balance between owners of works and users of works can be influenced by gamer's beliefs and experiences of copyright.*

Console modification as a mechanism to cheat the system is not a new concept. First appearing as modification chips (mod chips) in the late '90s, the rise of console modification was due to the popularity of the Playstation system and the increasing availability and affordability of CD and DVD burners. A decade ago, a mod chip's sole purpose was to allow the use of imported and copied game media by supplying the necessary codes the gaming consoles require when loading a game. Today, console modifications come in the form of easily installed patches or firmware. These services allows 'modding' or the introduction of a plethora of modifications to the console, including the circumvention of region coding, digital rights management (DRM) and copy protection for the purpose of running software intended for other markets, copied games, or unlicensed homebrew software.<sup>1</sup> Furthermore, console modification allows expansion of the console's hardware capabilities or the installation of an alternative operating system to completely repurpose the console.

This raises the question of how effective copyright law is in controlling video game software piracy, and how copyright law should address console modification given its multitude of uses. In 2006, the High Court judicially examined console modification and mod chips in *Stevens v Kabushiki Kaisha Sony Computer*

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<sup>1</sup> The term 'modding' can come in many different forms. See below page 9 for a working definition.

*Entertainment*, analysing the TPM provisions in copyright and the true purpose of the modification chip and whether it infringed copyright. There were in fact three decisions, the initial judgement by Sackville J, and two appeals, one to the Full Federal Court and an ultimate appeal to the High Court.<sup>2</sup> Throughout the appeal process Sony argued that Stevens infringed the Copyright Act because the mod chips was a device aimed at circumventing the access code, the boot ROM, or both of them, which together constituted a technological protection measure (TPM).<sup>3</sup> The High Court ruled that the regional security protections employed in the console did not satisfy the definition of TPM, and that the mod chip is not a circumvention device under the Copyright Act.<sup>4</sup> This decision created a precedent the mod chip did not circumvent an effective TPM of the Sony console, which contrasted with the judicial interpretation by other jurisdictions.<sup>5</sup> The decision's ramifications created two observations regarding the prevalence of console modification in the gaming industry which will be examined in this thesis.

Firstly, access to console modification and its functions are products of a technologically reliant society. The Internet and sharing applications, such as peer-to-peer networks, have revolutionised the production and distribution of copyright works. Works can now be transmitted anywhere in the globe for negligible cost and without impairing the quality of the information. Such advancements in technology have introduced exciting avenues in the creative industry including the gaming industry such as the distribution of games via proprietary platforms that also act as social networks. These are the general observable events that new technology and the Internet have introduced into the field. However, the most exciting developments the internet has made possible is it entirely changed content distribution, creation and protection. The proliferation of information via the internet has created and altered existing industries that would not have been possible a decade ago.

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<sup>2</sup> *Kabushiki Kaisha Sony Computer Entertainment v Stevens* [2002] FCA 906; *Kabushiki Kaisha Sony Computer Entertainment v Stevens* [2003] 132 FCR 31 and; *Stevens v Kabushiki Kaisha Sony Computer Entertainment* [2005] HCA 58. Where the High Court decision is discussed generally, then the term *Stevens v Sony* will be used.

<sup>3</sup> *Kabushiki Kaisha Sony Computer Entertainment v Stevens* [2002] FCA 906, para [110-111]. Sony also argued that Stevens had engaged in trademark infringement; and misleading and deceptive conduct under s 42 of the *Fair Trading Act* 1987 (NSW). Sackville J in the first instance, was satisfied that on the evidence before him trademark infringement was established and this was not appealed [at 64-65]. However, Sackville J held that Stevens did not engage in misleading and deceptive conduct as the people who purchased the unauthorised copies of the games knew that Stevens was not holding himself out as being endorsed by Sony to sell those games, and this was not pursued on appeal [at 73].

<sup>4</sup> *Stevens v Kabushiki Kaisha Sony Computer Entertainment* [2005] HCA 58, para [38] and 219. In the present case, it is legitimate to say that, had it been the purpose of the Parliament to push the provisions of the Copyright Act attaching offences and sanctions to circumvent of TPMs in a way that deprived chattel owners of ordinary rights of ownership, such a provision would have been spelt out in unmistakable terms. In the definition of TPM in s 10(1) of the Copyright Act, such unmistakable language does not appear. This fact affords a further reason for preferring the more restricted interpretation that is compatible with the ordinary incidents of ownership of lawfully acquired chattels.

<sup>5</sup> See *Sony Computer Entertainment America, Inc. v Divineo, Inc.* 457 F. Supp. 2d 957 (N.D. Cal. 2006); *Sony v Ball* [2005] FSR 9 (*Ball*); and *Decision of the Criminal Court of Bolzano, 21<sup>st</sup> January 2006 (Justice Gottardi) (Tribunale di Bolzano)*.

Emerging industries in e-commerce, including online application markets such as iTunes and movie file streaming services such as Netflix, have revolutionised how content can be distributed and accessed through the internet. More importantly, amalgamating these services to new technologies in smartphones and tablets has widened the market to avenues previously unreachable by conventional laptops, mobile phones and personal computers.

Secondly, while these industries have reaped the rewards of digital technology, the dissemination of information through the Internet has resulted in the escalation of piracy. The US Government Accountability Office (GAO) Intellectual Property Report found the development of technologies that enable the unauthorised distribution of copyright works is currently the largest challenge to copyright enforceability.<sup>6</sup> Technology has made free-riding infringement so simple that almost any individual can acquire and make copies of any content at no cost to the individual and without the permission of the copyright owner. In turn, digital technology has also given rise to significant risks for right owners because their works can easily be reproduced, stored, transmitted, or manipulated without quality degradation.<sup>7</sup> In the context of video games and console modification, console gaming manufacturer and produce of games Nintendo believe the mod chip is solely for piracy:

Game copiers that are used to copy video game software without authorization onto any type of memory device or the hard drive of a personal computer are illegal. They enable the user to make, play and distribute illegal copies of video game software, which violates Nintendo's copyrights and trademarks. Mod chips are also designed to circumvent the copy-protection security system and deem the detection process inoperable, enabling the console to play pirated or illegal copies of Nintendo games downloaded from the Internet. Based upon the functions of these devices, they are illegal.<sup>8</sup>

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<sup>6</sup> United States Government Accountability Office, *GAO Report to Congressional Committees, Intellectual Property: Observations on Efforts to Quantify the Economic Effects of Counterfeit and Pirated Goods* (April 2010) < <http://www.gao.gov/new.items/d10423.pdf>>, 8 [hereinafter GAO Report].

<sup>7</sup> Pierre Sirinelli, 'The Scope Of The Prohibition On Circumvention Of Technological Measures: Exceptions', (Paper presented at the conference ALAI 2001 Congress: Adjuncts and Alternatives to Copyright), New York, June 2001 1, 1.

<sup>8</sup> *Frequently Asked Questions* (2015) Nintendo Anti-Piracy, < <https://ap.nintendo.com/faq/#stance>>.

The economic repercussion of piracy cannot be quantifiably proven but the Australian Content Industry group state that by 2016, the value of annual loss retail to the Australian content industries sector will be \$5.2 billion - a loss of \$18 billion.<sup>9</sup>

A combined effort by policy-makers and the industry to curb piracy through both legal and technological resulted in mandating of TPM provisions into respective national sovereign copyright legislation in order to protect copyright works. On the other hand, the primary industry response to the proliferation of pirated material so far has been the development of DRM.

The changes to international treaties and technologies thus extended the scope of copyright infringement from mere unauthorised reproduction or adaption of works to the illegal circumvention of TPMs and DRMs by using anti-circumvention technologies, as dictated under Art 11 of the WIPO Copyright Treaty of 1996:

Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.<sup>10</sup>

The implementation of the WIPO treaties and subsequent use of anti-circumvention technologies however introduced issues in regard to the interests of owners to monopolise access of content and the ability of users to access content without impediment. Case law and legislation have stirred debate in the literature regarding the interpretation of TPMs and their true purpose. Experts including Fitzgerald, Weatherall and Brennan examined these issues focused on the ambiguity of TPMs, "paracopyright" issues of TPMs, the issue of anti-circumvention devices and the copyright balance between content owners and users.<sup>11</sup>

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<sup>9</sup> *The Impact of Internet Piracy on the Australian Economy* (23 March 2011) Australian Content Industry Group, <<http://apo.org.au/research/impact-internet-piracy-australian-economy>>.

<sup>10</sup> *WIPO Copyright Treaty*, opened for signature 20 December, 1996, S. Treaty Doc. No. 105-17, arts 11(entered into force 6 March, 2002).

<sup>11</sup> See Brian Fitzgerald, 'The Playstation Mod Chip: A Technological Guarantee of the Digital Consumer's Liberty of Copyright Menace/Circumvention Device?' (2005) 10(89) *Media and Arts Law Review* 1-19.; David Brennan, 'What can it mean 'to prevent or inhibit the infringement of copyright'? - A critique on *Stevens v Sony*' (2006) 17(1) *Australian intellectual property journal* 1-23. And Kimberlee Weatherall, 'Before the High Court : On Technology Locks and Proper Scope of Digital Copyright Laws : Sony in the High Court' (2004) 26(4) *Sydney Law Review* 613-638.

This debate lies in the inclusion of access TPMs in the realm of copyright, where two perspectives arise:

(A) In the copyright owner's perspective, TPMs prevent piracy where it is almost impossible to trace due to the nature of the Internet and the plethora of circumvention devices that can be used to reproduce copyrighted works. Copyright owners should have the right to protect their work from copyright infringement, especially in the digital age.

(B) On the other hand, copyright users argue that TPMs and DRMs prevent access to works and information for legitimate purposes because not everyone who copies a work infringes copyright. Moreover, it is important to note that not all circumvention of TPM or DRM will result in piracy. In this instance, fear exists that TPM provisions contained in legislative materials can transfer the balance towards copyright owners because "whereas copyright has traditionally been concerned to control copying of protected works, the focus in respect of material distributed electronically has shifted to controlling access" as a pre-empt reaction to stop unauthorised access and piracy of works.<sup>12</sup>

These arguments highlight another observable issue that academia and the industry have realised - that digital technology has effectively spawned a sub-culture aimed at avoiding these legislative and technological constraints. Sugden has argued that TPMs are counterintuitive to the 'cyber norm' culture, which "accepts downloading of music and films as a norm and [is] morally acceptable".<sup>13</sup> Indeed, Downing writes that while much of the research conducted on subcultures in the digital era emerged from the field of marketing, a growing body of research has attempted to examine this subculture from a more sociologically grounded perspective, where subcultures are defined on how they are influenced by the norms and values of dominant cultures.<sup>14</sup> Attempts by legal bodies and industry members to cease the manufacturing and distribution of questionably illegal services and products, such as modification chips, continue to be futile, and history supports Professor Cornish's assertion:

Back in the 1970s and 1980s, the answer to analogue copying on photocopiers, cassette decks, and video recorders was pronounced to lie in the machines themselves: but the

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<sup>12</sup> Ross McLean and Anne Flahvin, "The Digital Agenda Act: How the New Copyright Law (and Contract) is Redefining the Relationship between users and owners of copyright", (2001) 3 *AIPPLRes*, 1, 1.

<sup>13</sup> Paul Sugden, "Internet Piracy and Copyright Debates" in Marion Quigley (ed), *Encyclopaedia of Information Ethics and Security*, 391, 391.

<sup>14</sup> Steven Downing, "Retro Gaming Subculture and the Social Construction of a Piracy Ethic" (2011) 5(11) *International Journal of Cyber Criminology* 750, 752.

eternally springing hopes were often enough dashed. With the Internet, technical control remains the core objective, because it seems the only hope for preserving the copyright industries in something resembling their present form.<sup>15</sup>

This thesis posits that the industry and legislators must now deviate from technological protection enforcement by copyright legislation and instead respond to the consumers. The old creed of “the answer to the machine is the machine”<sup>16</sup> is obsolete as innovative individuals and groups continue to crack the DRMs. Indeed, if one is asked to do a search on piracy using Google, the front page will consist of numerous articles and statistics which pronounce that piracy is still prevalent. Clearly, when consumers are copying content without fear of punishment, the laws and technologies are ineffective.

Outdated policies restricting access and innovation are anathema to users who expect everything on the internet to be free and live by the code, whereby the free access to knowledge usurps commercial distribution models of copyright publishing. Therefore, the thesis examines the tension recognised above, and critically analyses the issues of access rights under the reformed TPM provisions of the Australian *Copyright Act* 1968 (Cth) (hereafter called the Act). More importantly, the context of this study will be analysed through a case study of the video game industry and console modification because the cultural norms involved in the video game industry appear different from all other mediums in that it is "a critical site where discourses around technology, technological innovation, and technological competence converge."<sup>17</sup>

This chapter provides a brief introduction of console modification and thereafter the statement of the research problem, as well as the objectives and the methods that will be used to achieve the intended outcome. The research topic delves into an area that is vastly multidisciplinary and current. A mere reflection of the literature in the past few years yields knowledge that might be conceptually correct, but if implemented in an ever-changing technological world would be considered redundant. As such, the thesis acknowledges that the topic area is wavering at best, and it will attempt to highlight any significant

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<sup>15</sup> William Cornish, *Intellectual Property: Omnipresent, Distracting, Irrelevant?* (Oxford University Press, 2004), 54.

<sup>16</sup> Sirinelli above n 7, 1. This means that the second machine would make it possible to control the use of copyrighted work and access to them, and would offer the means of ensuring the protection of digital identification measures as well.

<sup>17</sup> J Dovey and H. W. Kennedy, *Games Culture: Computer Games as New Media* (Open University Press, 2006), cited in Adrienne Shaw, "What is Video Game Culture? Culture Studies and Game Studies" (2010) 5(4), *Games and Culture* 403, 406.

changes in the video gaming industry and the copyright regime that might affect the research topic. The thesis will achieve this through the combination of text, media and direct interviews from selected samples in the industry and gaming communities.

## **1.2 THE GAME INDUSTRY AND DEVELOPMENT OF CONSOLE MODIFICATION**

Before the research question can be explained, a description of the history and development of console modification within the gaming industry is necessary to understand the motivations of gamers to modify their consoles.

Video gaming has become a massive industry, rivalling Hollywood in earned revenues.<sup>18</sup> According to the Entertainment Software Association, the industry has proven itself to be immune to the global economic crisis, instead showing growth with consumers spending \$22.41 billion on video games in 2014 with 53% of those purchases occurring through digital avenues rather than retail stores.<sup>19</sup> The gaming industry added \$6.2 billion to the US Gross Domestic Product in 2012.<sup>20</sup> Likewise, the Australian gaming industry has grown, with the Digital Australia 2016 study finding the local gaming industry to be worth nearly \$3 billion in 2015<sup>21</sup>, with 98% of households with children in Australia and New Zealand found to have at least one gaming console.<sup>22</sup> These figures exclude money spent on gaming consoles such as the Nintendo Wii-U and general electronic devices like tablets and smartphones.

Growth in the gaming industry is also evident by the shift in the gamer demographic from the stereotypical “teenage boy gamer” to the inclusion of female and elderly gamers. In fact, the Digital Australia 2016 study found:

- The proportion of female gamers has increased to near parity with male gamers;
- A large percentage of parents regularly play video games with their children; and

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<sup>18</sup> Sahil Bhalla, *The biggest entertainment release of 2015 wasn't a film. It was a video game* (November 2015) CatchNews <<http://www.catchnews.com/science-technology/the-biggest-entertainment-release-of-2015-wasn-t-a-film-it-was-a-video-game-released-last-week-1447604841.html>>.

<sup>19</sup> *2015 Sales, Demographic and Usage Data: Essential Facts about the Computer and Video Game Industry* (April 2015) Entertainment Software Association <<http://www.theesa.com/wp-content/uploads/2015/04/ESA-Essential-Facts-2015.pdf>> 1, 13.

<sup>20</sup> Stephen E. Siwek, *Video Games in the 21st Century* (November 2014) Entertainment Software Association <[http://www.theesa.com/wp-content/uploads/2014/11/VideoGames21stCentury\\_2014.pdf](http://www.theesa.com/wp-content/uploads/2014/11/VideoGames21stCentury_2014.pdf)> 1, 1.

<sup>21</sup> *Digital Australia 2016* (July 2015) iGEA <<http://www.igea.net/wp-content/uploads/2015/07/Digital-Australia-2016-DA16-Final.pdf>> 1, 29.

<sup>22</sup> *Ibid.* 6

- An increasing number of people over 50 years old play video games.<sup>23</sup>

This growth is most likely attributed to the surge of 'casual' games such as Guitar Hero and Wii Sports, and also to the widespread availability of tablets and smartphones capable of playing video games. The gaming industry is immensely profitable and influential globally. McLean asserts that “videogames are not the ugly sister of the entertainment industry anymore” and have ascended to the point where “it’s incredibly mainstream”.<sup>24</sup>

Despite this growth, profits from sales of games and gaming consoles have decreased. According to market research group NPD, video game sales in the US dropped an estimated 2% in 2015 and hardware sales also fell 4%.<sup>25</sup> Similarly, Australian software sales reduced by 5% between 2012 and 2014.<sup>26</sup> Likewise, gaming retail stores worldwide are closing down due to the dearth of sales.<sup>27</sup> This is by no means an indication the gaming industry is dying but rather, according to the NDP it is a result of the transition from old hardware to the new generation consoles such as the Sony Playstation 4 and the Microsoft XBOX One.<sup>28</sup> Moreover, there is also a transition of gamers buying games through the internet, as the CEO of the iGEA Ron Curry postulated:

While there is a decline in traditional sales, the gaming industry as a whole remains buoyant as people shift towards a ‘hybrid’ model in their consumption of interactive entertainment.<sup>29</sup>

The ‘hybrid’ models of game consumption combine digital distribution and grey market importations. Australian based game developers, Disparity Games, explained the hybrid model as a turning point to hit the industry that have led to a change in the distribution model where gamers can buy games through online game stores.<sup>30</sup> This is particularly evident in Australia where 41% of gamers, according to the Digital Australia 2014 study, preferred to purchase and download their games from an online store, and

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<sup>23</sup> Ibid, 5

<sup>24</sup> Nui Te Koha, ‘We can be heroes’, *Sunday Herald Sun Play* (Melbourne), 13 September 2009, 10.

<sup>25</sup> Rachel Weber, *NPD: 2015 Video Game Sales Flat Compared To 2014* (14 January 2016) [gamesindustry.biz <http://www.gamesindustry.biz/articles/2016-01-14-ndp>](http://www.gamesindustry.biz/articles/2016-01-14-ndp). The report cannot be found unless requested but the NDP never replied to the requests for a copy of the report.

<sup>26</sup> *Digital Australia 2016* above n 21, 25.

<sup>27</sup> William Usher, *GameStop Closing Up to 500 Stores in 2013* (4 February 2013) Gaming Blend <<http://www.cinemablend.com/games/GameStop-Closing-Up-500-Stores-2013-52203.html>>.

<sup>28</sup> Nick Statt, *Retail Video Game Industry Suffered Abysmal Sales Slumped in May* (June 11 2015) CNET <<http://www.cnet.com/news/npd-video-game-report-may-2015/>>. Since the introduction of new game hardware from Microsoft and Sony in November 2013, the retail game industry has been struggling to stabilize itself as it fully transitions away from old hardware and onto the new platforms.

<sup>29</sup> Mark Serrels, *The Australian Retail Games Contracted by 23 Per Cent in 2012* (13 February 2013) <<http://www.kotaku.com.au/2013/02/the-australian-retail-games-market-contracts-by-23-per-cent/>>.

<sup>30</sup> *Digital Australia 2016* above n 21, 19.

\$455 million of video game sales were through digital downloads.<sup>31</sup> Senior research manager of Teslyte Sam explained the hybrid model also takes advantage of the growth of mobile gaming driven by the proliferation of smartphones and tablets:

The growth in digital gaming is driven by mobile app gaming on smartphones and tablets, which is offsetting the decline in physical purchases and even pushing the overall games market into growth.<sup>32</sup>

Given the simultaneous growth of gaming and reduction in physical retail sales, the gaming industry is experiencing a transition from the physical business model of retail shops towards increased reliance on the internet and digital distribution. This transition also causally affected the rate of piracy and console modding.

Console modding alters the hardware or software of a gaming console in order to circumvent a gaming console's TPMs. However it is only one of many different forms of modding which is practised in video games. Sotamaa defines modding as the design and re-design of content and may involve the improvement of existing or development of new applications.<sup>33</sup> According to Sotamaa, modding can come in three different types including: the manipulation and reprogramming of games, the act of decorating gaming devices and lastly, the modification of gaming consoles.<sup>34</sup> Scacchi on the other hand lists five forms of video game modding which include the customisation of gaming interfaces, conversion of games, the creation of Machinima and other art modifications, enhancement of game performance and console modification.<sup>35</sup> While these forms of modding, will be acknowledged, *console modification* will be the primary focus of the thesis. .

Console modding enables a console to perform operations which the manufacture has not approved. Historically, console gamers installed mod chips into their systems, allowing this "programmed micro-controller" to bypass the region code system of the console to play imported, backed-up or pirated

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<sup>31</sup> *Digital Australia 2014* (December 2013) iGEA <<http://www.igea.net/wp-content/uploads/2013/11/Digital-Australia-2014-DA14.pdf>> 1, 28.

<sup>32</sup> Ibid.

<sup>33</sup> Olli Sotamaa, "Computer Game Modding, Intermediality and Participatory Culture" (2003) *New Media* 1, 3.

<sup>34</sup> Ibid.

<sup>35</sup> Walt Scacchi "Computer Game Mods, Modders, Modding and the Mod Scene" (2010) 15(5) *First Monday* 1, 2.

games.<sup>36</sup> The mod chip enabled gamers to pirate games in unquantifiable numbers, affecting the gaming industry most often negatively. However, console modification has advanced to the point where consoles can now be repurposed that allow gamers to play backed-up copies of games, play games that are not available in the consumer's region and install unauthorised interoperable programs or applications.<sup>37</sup>

Console manufacturers and game developers response to prevent and deter console modification ranges from technological to legal. Console manufacturers, gaming publishers and developers disparaged the legitimate uses of mod chips as being solely illegal. Nintendo, for instance, has a dedicated website that states mod chips primary use is for playing and distributing illegal copies of the company's video games.<sup>38</sup> Sony's approach was to sue people who modify their consoles.<sup>39</sup> Far more wide-reaching, all three console manufacturers use complex DRMs to cease console modification by banning consoles that are flagged by their network as having been modified. The technological response (described in Chapter 2) is a result of the advances in software protection measures and new generation consoles that are subsequently supported by changes in legislation. Yet such measures continue to be circumvented by savvy individuals and groups without fear of legal recourse, giving credence to the rhetoric that getting past the security measures "is likely only a matter of time, as no system is 100% secure".<sup>40</sup>

The realisation that technology has created a cyclical response in the 'circumvention leads to more protection which leads to more circumvention' means examination of the copyright rights access provision is necessary. The dilemma arises when the TPM provisions allow copyright owners to seek more protection beyond the exclusive rights afforded copyright, such as s 31 of the Act.<sup>41</sup> In the case of console modification, user groups believe copyright was never designed to stop people from repairing, or reselling or reading or using materials in customary ways.<sup>42</sup>

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<sup>36</sup> Sotamaa above n 33, 3.

<sup>37</sup> Ephriam Knight, *Of Betamax: And Mod Chips* (16 November 2009) <[http://www.gamasutra.com/blogs/EphriamKnight/20091116/3544/Of\\_Betamax\\_and\\_Mod\\_Chips.php](http://www.gamasutra.com/blogs/EphriamKnight/20091116/3544/Of_Betamax_and_Mod_Chips.php)>. Ephriam lists significant non-infringing uses of the mod chip including: playing of backup copies of games, playing games that are not available in the consumer's region and playing of software that was developed and released through channels other than the hardware provider.

<sup>38</sup> Nintendo Anti-Piracy (2016) Nintendo <<https://ap.nintendo.com/>>.

<sup>39</sup> Nikole Zivalich, *Sony Threatens to take Legal Action Against those who Distribute PS3 Hacks; Asks for Names and IPs from Google, Twitter* (9 February 2011) G4TV, < <http://www.g4tv.com/thefeed/blog/post/710327/sony-threatens-to-take-legal-action-against-those-who-distribute-ps3-hack-asks-for-names-and-ips-from-google-twitter/>>.

<sup>40</sup> Joe Grand, "Research Lessons From Hardware Hacking" (2006) 49(6) *Communications of the ACM* 44, 46.

<sup>41</sup> s. 31 of the *Copyright Act 1968* (Cth.) lists all the exclusive rights of copyright owners.

<sup>42</sup> Ejan Mackaay, 'On Property Rights and their Modification' in P. Bernt Hugenholtz (ed) *Future Of Copyright In A Digital Environment: Proceedings Of The Royal Academy Colloquium Organized By The Royal Netherlands Academy Of Sciences (KNAW) And The Institute For Information Law* (Kluwer Law International, 1996) 19.

### **1.3 STATEMENT OF THE RESEARCH PROBLEM**

The thesis will assess the perspectives of both copyright owners and users in regard to the effectiveness of the TPM provisions of the Act through a case study examining the impact of console modification in the video game industry, and the cultural norms that influence this issue. The method of modifying consoles has divided the video game industry and video game players, or "gamers". On one hand, the industry argues that the device opens a gateway into software piracy.<sup>43</sup> In contrast, gamers contend the device is aimed at overcoming monopolistic obstacles and to make better use of the console.

In response to gaming piracy<sup>44</sup>, the industry implemented advanced DRM in current-generation gaming consoles to thwart devices that allow gamers to play pirated copies of games, such as mod chips.<sup>45</sup> Such technologies include the need for constant internet-access, unique code registrations and regional locks. To bolster legal protection, Australian legislators expanded the access rights provisions under the TPM and anti-circumvention sections because of Chapter 17 of the Australian-US Free Trade Agreement (hereafter referred to as AUSFTA) amendments. The expansion includes the introduction of the terms 'access control technological protection measure' (ATPM) and 'control access'. ATPM offers protection to DRMs or applications of information or processes that are required to gain access with the permission of the copyright owner or exclusive licensee. Moreover, the AUSFTA significantly widened the definition of 'circumvention device'<sup>46</sup> by prohibiting both the use and commercial dealing of a circumvention device.<sup>47</sup>

Consumers argue that the expanded definitions infringes on the rights of legitimate consumers to use their lawfully purchased goods because this class of protective technologies control not only potentially infringing *copying* (governed under s 101 of the *Copyright Act 1968*), but also *access* to the material (governed under s 116AN of the *Copyright Act 1968*).<sup>48</sup> As emphasised by Kerr, Maurushat and Tacit, combining both ATPM and DRM creates a class of DRM called "TPM enabled DRMs", which is used in video game

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<sup>43</sup> Suh-kyung Yoon, 'The Mod Squad' (2002) 165(44) *Far Eastern Economic Review* 34, 35.

<sup>44</sup> According to the Entertainment Software Association, global piracy is estimated to have cost the U.S. entertainment software industry over \$3.0 billion in 2007, not including losses attributable to Internet piracy. See Entertainment Software Association, *Anti-Piracy Frequently Asked Questions* above n 33. Also see *Shadow Market: 2011 BSA Global Software Piracy Study Ninth Edition* (May 2012) Business Software Alliance <[http://globalstudy.bsa.org/2011/downloads/study\\_pdf/2011\\_BSA\\_Piracy\\_Study-Standard.pdf](http://globalstudy.bsa.org/2011/downloads/study_pdf/2011_BSA_Piracy_Study-Standard.pdf)> 1, 4. While piracy rates have stabilised in developed countries, the steadily expanding marketplace in the developing world has driven the commercial value of software theft, including video games, to \$63.4 billion.

<sup>45</sup> These DRMs are explained further in Chapters 2 and 3.

<sup>46</sup> AUSFTA art 17.4.7(a) (ii).

<sup>47</sup> AUSFTA art 17.4.7. (a) (i).

<sup>48</sup> David Fry, "Circumventing Access Controls under the Digital Millennium Copyright Act: Analyzing the SECURUM Debate" (2009) 5 *Duke Law and Technology Review* 1, 2.

console DRMs given a gamer can only access or play the video game unless they accept all the asserted rights usually contained in the End User License Agreement (EULA).<sup>49</sup> In this thesis, references made to DRMs for video game consoles means a “TPM enabled DRM”.

These restrictions thus pose the following problems for gamers:

1) TPMs and DRMs are pre-emptive tools against piracy and copyright infringement through the restriction of access, with the intention that users must purchase or acquire the licence to rightfully access the content. This however leads to the monopolisation of access to content by copyright owners because they can pre-empt enforcement of copyright prohibitions to all users, whether legitimate or illegitimate. Access to content and the use of fair dealing exceptions are predominantly controlled by publishers.

2) TPMs and DRMs cannot distinguish legitimate and illegitimate users. As such, gamers are frustrated as they feel their rights to access games and enhancing their rightfully purchased consoles are diminished. Consequently, gamers continue to modify their consoles to either illegally reproduce and access games or install interoperable applications without any thought of the technological, economic and legal consequences.

The thesis argues that the access rights implemented by copyright distort the relationship between the copyright owners and users, providing overprotection to owners beyond solely rights given by copyright. The distortion will be analysed against four fields described by Wiersma. In conceptualising these fields of power, Wiersma attempted to clarify the "conceptual muddle" of copyright by identifying four fields of power relevant to interest groups including the: (i) the conspicuous field of the law, (ii) the economic market system and its rules, (iii) the technological architecture or the physical and digital barriers that control access to content, and lastly, (iv) the social norms, views and ideas that make up public opinion.<sup>50</sup>

The four interconnected fields form the basis for the examination of console modification and piracy. In this case, console modification and piracy is a legal, technological, economic and cultural issue, and gamers are prepared to modify their consoles to defy legal, technological and economic rules to access games. In

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<sup>49</sup>Ian Kerr, Alana Maurushat and Christina Tacit, “Technological Protection Measures Tilting at Copyright’s Windmill (2003) 34(1) *Ottawa Law Review* 11, 25.

<sup>50</sup>Wybo Wiersma, “Enclosures of the Mind: Intellectual Property from a Global Perspective” (Research Paper, University of Groningen, 2010) <<http://www.logilogi.org/pub/Enclosures/paper.pdf>> 1, 12.

effect, this thesis aims to examine why gamers pirate and modify consoles, and to test the TPM provisions using the video game industry and console modification as a case study to answer the primary question: do the reformed Australian *Copyright Act 1968* (Cth) access rights provisions need re-adjustment in light of console modification in the video game industry?

This central question gives rise to subsidiary questions that will be examined in this thesis:

1. What drives affected gamers to continue to modify their consoles despite the harsh legal and technological consequences?
2. How do the gamers and industry members perceive DRMs?
3. Are gamers generally aware of the copyright laws that affect them?
4. What are the effects of console modification in the Australian gaming market and industry?

Despite the extensive copyright literature on the Act, there is lack of primary qualitative research of gamers and the gaming industry done to determine the effects of the new access rights in the Australian context and if it has achieved the intended goals of the Explanatory Memorandum to keep pace with technology and consumer behaviour.<sup>51</sup> Console modification as a case study and directly inquiring relevant questions to the affected parties are important additions to legal knowledge because the relationship between the gaming industry and gamers significantly responds to changes to copyright law. In this case, the effects of legislation on the gaming industry and gamers influences the use, experience and developments of games.<sup>52</sup>

## **1.4 OBJECTIVES AND METHODS**

The thesis utilises Wiersma's four fields of power as a framework to examine why gamers pirate, and modify consoles and the implications for the effectiveness of copyright. In this case, the thesis was modelled using four factors under: (i) legal, (ii) technological, (iii) economic, and (iv) cultural, as these factors ultimately influence the persistence of the mod chip and piracy in the gaming environment. These

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<sup>51</sup> Explanatory Memorandum, Copyright Amendment Bill 2006 (Cth.) General Outline, 1:

(1) The need for copyright to keep pace with developments in technology and rapidly changing consumer behaviour,

(2) Recognising reasonable consumer use of technology to enjoy copyright material and Australian consumers should not be in a significant worse positions than in similar countries, and

(3) Copyright piracy is becoming easier and the law needs to be constantly updated to tackle piracy.

<sup>52</sup> Neils Clark, *Video Game Regulation: Where are we now* (20 January 2009) Gamasutra <[http://www.gamasutra.com/view/feature/3907/video\\_game\\_regulation\\_where\\_we\\_.php](http://www.gamasutra.com/view/feature/3907/video_game_regulation_where_we_.php)>. Denis McCauley, editor of the Entertainment Consumer Associations GamePolitics blog states that “while I think consumers and the video game industry are on the same side on the content – they’re probably not on the same side on all aspects of IP protection.”

factors are likely to influence consumer's behaviour to defy the law and circumvent console DRMs, and their utilisation of circumvention devices and to access content.<sup>53</sup> These factors also illustrate and demonstrate the complexity of the issues that the industry, legislators and gamers face. In doing so, the primary focus of the thesis is the video game industry and mod chips, as the device has polarised video gamers and the industry on the legal status of such devices.

To address the research question, qualitative research techniques were undertaken in order to define categories and then to determine the relationship between them.<sup>54</sup> This quantitative study use recognised methods of focus groups and interviews to obtain experiences of gamers and industry members who are affected by the research issue. Open-ended questions for both methods were formulated to explore the themes in the collected data.<sup>55</sup> These questions can be found in Appendix E and F. Furthermore, these methods assisted in data analysis because it is possible to locate and organise each respondent's answer to the same questions.<sup>56</sup>

Data collection for the research was divided into two phases. The first phase of data collection involved conducting *focus group interviews* to obtain a first-hand perspective from gamers in a number of gaming clubs in Victorian universities regarding mod chips, piracy and TPMs. In this case, the focus group interviews allowed access to the collective experiences, opinions, knowledge and beliefs of gamers in determining whether access to games are impeded due to the TPM rules and DRMs embedded in gaming consoles.

The second phase of the research involved *standardised open-ended* interviews of industry professionals in the gaming industry, who represent various roles in the gaming industry, to obtain their experiences and beliefs of the mod chips, piracy and the justifications for utilising DRMs in consoles. This allowed for the interviewees to unfold their perception of whether the Act is a successful tool in curbing gaming piracy and protecting their copyrights through the extended TPM rules. Further, the interviews were used to outline and supplement the views of the much publicised perspectives of larger gaming publishers and manufacturers towards mod chips.

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<sup>53</sup> Wiersma above n 50, 10.

<sup>54</sup> Grant McCracken 'The Long Interview' (1988) 13 *Qualitative Research Methods Series* (Sage Publications) 16.

<sup>55</sup> Kate Kelley, Belinda Clark, Vivienne Brown and John Sitzia 'Good Practice in the Conduct and Reporting of Survey Research' (2003) 15(3) *International Journal for Quality in Health Care* 261, 261.

<sup>56</sup> Michael Quinn Patton, *Qualitative Research and Evaluation Methods* (Sage Publication, 2002) 346.

This study proposes to use data *display analysis* for both methodologies. The matrix and visualised based approach of framework analysis will be used to synthesize and interpret the qualitative data in a systematic procedure that improves the reliability and theoretical depth of analysis.

### **1.5 CONTRIBUTION OF THE THESIS**

The primary contribution of the thesis is the qualitative examination of Australian gamers and industry member's beliefs relating to copyright in the context of console modification. The research question and objectives discussed have not been specifically examined within the Australian context and provide important policy and legislative decisions about copyright protection. The published materials by copyright lobby groups and academia, usually predict doom to content industries such as the gaming industry if the trends predicted continue. However, there are studies that refute the piracy rates released annually. Indeed, most of these statistics that are quoted on a regular basis originate from American lobby groups that fail to disclose the research methodologies used.<sup>57</sup>

There is a body of research studying the moral grey areas surrounding copyright infringement and the individuals involved. These studies focused on the macro-culture of piracy rather than directly inquire the users, such as gamers, the influences that motivate them to breach copyright without any thought of the legal and economic recourse of the activity in the context of video games and mod chips. The research identifies a lack of qualitative research examining the views of consumers regarding access to technology, the legal boundaries in copyright relating to the cultural and technological setting, particularly in the Australian market.

The Australian Government has investigated the economic and technological factors in relation to copyright and consumer laws. Firstly, the House of Representatives Standing Committee on Infrastructure and Communication investigated whether "a difference in price exists between IT hardware and software products, including computer games and consoles, e-books and music and videos sold in Australia over the internet or in retail outlets as compared to markets in the US, UK and economies in

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<sup>57</sup> Tilman Baumgärtel, "The Culture of Piracy in the Philippines" (2006) 45 *Pilipinas: A Journal of Philippine Studies* 373, 377.

the Asia-Pacific."<sup>58</sup> Secondly, an inquiry by the Australian Law Reform Commission considered the appropriateness of the existing exceptions to TPMs and speculated the introduction of fair use exceptions.<sup>59</sup>

While both reports have analysed issues relevant to the thesis, the thesis however has a unique edge in that it will contribute to the literature in the following manner:

1) By examining whether a re-adjustment of the TPM provisions in the Act is required as copyright has strengthened the protection of content through access rights, which may lead to anti-competitive behaviour. By narrowing the key target demographic to members of the gaming industry and gamers, the thesis examined whether the TPM provisions adversely influence a market that is directly affected by these provisions and technologies rather than the general populace which holds differing perspectives and experiences.

2) To identify central issues to why gamers circumvent DRMs. Examination of these central issues could aid in balancing the opposing interest groups being copyright owners and users, and whether future legislative change is required

3) Consider whether the gaming culture of defying copyright regardless of the consequences may influence legislative reform.

## **1.6 OUTLINE OF THE THESIS**

The thesis will be structured in the following manner. Chapter 2 describes how console DRM operates in past and current generation gaming consoles and the methods that gamers use to circumvent these DRMs. This will be followed by a historical outline of console modification and its legitimate and illegitimate uses. These DRMs will be explained using the Sony Playstation and Playstation 2, emphasising their functionality in preventing illegal circumvention and piracy. A concluding comment about the future of console modification will be included given the release of the next generation consoles which utilise cloud technology and digital distribution.

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<sup>58</sup> Standing Committee on Infrastructure and Communications, Parliament of Commonwealth of Australia, *At What Cost? IT Pricing and the Australia Tax* (2013).

<sup>59</sup> Australian Law Reform Commission, *Copyright and the Digital Economy*, ALRC Paper 122 (2014), 87.

Chapters 3 to 7 provides a review of the existing literature concerning relating to the four field of powers, commencing with the legal discussions on the nature of TPM laws and concurrent arguments about the distortion of access rights. This involves an examination of the legislation and case laws applied in the US, EU and Australia, followed by reviewing literature including government materials and journal articles that have analysed and critiqued these pieces of law. Following this, the review examines present discussions on the current DRMs utilised in technology, predominantly the inclusion of these rights management technologies in video game consoles and the debates regarding the nature of circumvention devices, such as mod chips, and the DRMs that aim to prevent the functioning of such devices. It then discusses existing cultural norms established by this rapid shift into the digitisation of works, with particular emphasis on social norms that depict file-sharing as the norm and any means to inhibit this is an anathema to the community. Lastly, the review examined the economic underpinnings of the adoption of digital distribution, and the economic effects of piracy.

Chapter 8 outlines the justifications of the qualitative methodology of focus group interviews and standard open interviews for the thesis. The chapter identifies the parameters for the samples and the variables needed to gain the primary data. This will be followed by defining and describing data display analysis utilised in the thesis. The chapter outlines the processes taken to choose the appropriate sample, the methods of recruiting the samples, and organisation of collected data. There will be a section that will also give an overview of the ethical issues that are present in the study.

Chapter 9 aims to present and analyse the data identifying connecting themes and patterns relating to the research question. The sub-factors presented and analysed in the chapter present findings that can potentially illustrate DRM and copyright concerns raised through examining the four fields of power. The analysis presents established attitudes of apathy of the law, the anathema towards console DRM and the cultural acceptance of piracy despite concerns over its economic repercussions. These four fields will be presented using sub-chapters as follows:

- Chapter 9.1: The legal factor illustrates emerging attitudes present from the gaming community and the industry in regard to the policy and copyright issues involved in modification, piracy and enforcement.

- Chapter 9.2: The cultural factor demonstrates the emerging social norms and attitudes that are evident in the gaming community. The norms illustrated in this factor emphasise the beliefs shared by the gamers and industry members in regard to console modification and piracy.
- Chapter 9.3: The technological factor highlights the attitudes of gamers and gaming professionals in regard to the DRMs used to protect consoles and games from piracy.
- Chapter 9.4: The economic factor identifies key cost perceptions from gamers and industry members regarding the most prevalent issues in the gaming industries and also for the community.

Chapter 10 discusses the findings and policy implications that can be drawn from the analysis. Chapter 11 outlines the recommendations, limitations and possible avenues for future research.

## CHAPTER 2 – THE GAME INDUSTRY AND DEVELOPMENT OF CONSOLE MODIFICATION

The implications of console modification, the operation of console hardware protection and modification will be described. The history of technological developments commences with console modification from the Playstation console to the current generation of consoles including the Playstation 3, Microsoft XBOX 360, the Nintendo Wii and the Wii-U. An understanding of the operation of console DRMs and circumvention devices operate assists with the analysis of whether a re-adjustment is necessary. The author acknowledges the descriptions will not be a thorough because “there are different TPMs used for different products/ distribution platforms”, hence “it is not possible to identify the sole TPM used by the games industry.”<sup>60</sup> This also speaks true for console modification since there are numerous methods for consoles to be modified courtesy of a thriving community of hackers and developers.

### **2.1 THE GENESIS OF CONSOLE MODIFICATION**

The popularity of console modification achieved by installing mod chips gained traction due to the popularity of the Playstation system and the increasing availability of CD writers and computers. The mod chip operated through the supplication of necessary codes which the Playstation requires when switched on. By doing this it meant back up games and unauthorised games could be played, thereby allowing gamers free access to the Playstation library at no cost. Console modification however had its roots during the 16-bit era which did not involve physical modification of the gaming console, but rather, the purchase of a bootleg cartridge of the game in the black markets. Console modification was not as prolific then and much too costly for the average gamer.

The judicial examination of this type of console modification can be sourced from two American decisions pre-dating the PlayStation: the *Atari, Inc. v J.S. & A Group, Inc*<sup>61</sup> and *Nintendo of America v Computer & Entertainment*.<sup>62</sup>

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<sup>60</sup> Interactive Entertainment Association of Australia Submission No. 43 to House of Representatives Committee on Legal and Constitutional Affairs, *Review Of Technological Protection Measures Exceptions*, February 2006, 2.

<sup>61</sup> *Atari, Inc. v J.S. & A Group Inc* 597 F.Supp 5 (ND Ill, 1983) (referred hereafter as *Atari v JS*).

<sup>62</sup> *Nintendo of America v Computer & Entertainment* WL 511619 (WD Wash, 1996)(referred hereafter *Nintendo v Computer*)

In *Atari v J.S.*, the “PROM BLASTER” device allowed gamers to create an exact duplicate of the game within 3 minutes by putting an Atari 2600-compatible cartridge in one slot of the PROM BLASTER device, and a blank cartridge sold by JS&A in another.<sup>63</sup> The company advertised the device as a means for consumers to protect their investments by enabling a backup copy of JS&A games because video game cartridges could easily be damaged.<sup>64</sup> Atari argued the copying of its video game cartridges infringed its copyright under s 106 of the US *Copyright Act* 1980, and thus sought a preliminary injunction to cease distribution. The District Court disagreed with JS&A's justification by concluding the PROM BLASTER did not have a non-substantial non infringing use and may cause "irreparable harm" to Atari through unwarranted piracy of their games.<sup>65</sup> The District Court judged the device lacked non infringing uses and thus an injunction was placed to prevent the distribution of the device. It was the first case which examined the primary uses of a device that allowed the actually copying of games.

A similar device was examined in the *Nintendo v Computer* case. The "Super UFO" device permitted the copying of Nintendo SNES cartridges by plugging the device in the game console and then copying the SNES game cartridge from its original cartridge format onto a disk. The disk can then be inserted into the SNES control deck of the SUPER UFO device without the need of the original SNES cartridge. Nintendo argued the primary purpose of the device was to make cheap copies of Nintendo games. The District Court agreed with Nintendo's arguments and decided the Super UFO did not have any substantial non-infringing uses apart from copying games which may cause irreparable harm to Nintendo's investments.<sup>66</sup>

The PROM BLASTER and Super UFO are the earliest recorded devices which allowed for the backing up of console games. These devices were the precursors to the physical mod chip. Further, the manufacturers for these devices identify the consumer arguments to enable the backing up of game to protect their investments.

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<sup>63</sup> *Atari v JS* at \*7.

<sup>64</sup> *Ibid* at \*7.

<sup>65</sup> *Ibid* at \*10. According to the case, the development, marketing and production of its copyrighted video games represents an investment by Atari of “hundreds of millions of dollars”; but because the consumers do the copying, Atari can never know the extent of copying or the extent of its loss.

<sup>66</sup> *Nintendo v Computer*, at \*20.

At the time of the decisions, the costs of reproducing games required capital investment in equipment to reproduce the games, resulting in black market products. The PROM BLASTER cost \$119 and a blank cartridge sold for \$10.<sup>67</sup> The SUPER UFO device on the other hand cost \$450, but the cost of the computer disks was about 40 cents, which dramatically made copying SNES games using the device enticing.<sup>68</sup>

The subsequent development of technology, reduced costs and availability of cheap replicating devices such as CD-burners, led to the popularity of the mod chip. Mod chip installation was provided by backyard mod chip installers, online retailers or tutorials on the internet for do-it-yourself enthusiasts.<sup>69</sup> Furthermore, increased download speeds and larger storage capacity meant that games could be downloaded over the internet or shared between peers. The advantages lead to the proliferation of unauthorised copies of games that infringe copyright owner's rights.

## **2.2 HOW IT ALL WORKS**

The Playstation console was released in 1998 as a progression from the two-dimensional era<sup>70</sup> to full three-dimensional games.<sup>71</sup> It was the first console to use optical based technology, the CD-Rom, taking advantage of the lower production costs and increased storage for the extra data needed to incorporate 3D graphics and sound. Sony's CD-Rom technology lead to the success of the Playstation against the Nintendo 64, which used more expensive and less spacious physical cartridges. Sony's involvement with first and third party developers also resulted in the release of iconic games such as *Final Fantasy VII*, *Metal Gear Solid* and *Gran Turismo*. These factors led to the Playstation becoming the first console to distribute 100 million units worldwide and to hold the title of bestselling console of all time from 1999 until the release of its successor, the Playstation 2.<sup>72</sup> The Playstation 2, in contrast, was the first gaming console to incorporate the DVD-Rom medium, again taking advantage of the low cost of production and bigger

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<sup>67</sup> *Atari v JS* at \*7.

<sup>68</sup> *Nintendo v Computer* at \*22.

<sup>69</sup> A YouTube search for "how to modify a Playstation 3" yielded 69,200 results. Most of the videos had working hyperlinks with further information on how to modify the consoles, and where to download copies of games.

<sup>70</sup> 2D, or two-dimensional, is the concept of the gaming architecture (including gameplay and artwork) being on one plane of existence – that is – movement is restricted along the horizontal X-axis and the vertical Y-axis.

<sup>71</sup> 3D, or three-dimensional, is the expansion of the 2D space with the dimension of depth, geometrically allowing the gaming architecture to move within the three-dimensional plane.

<sup>72</sup> *Playstation 2 Breaks Record As The Fastest Computer Entertainment Platform To Reach Cumulative Shipment Of 100 Million Units* (30 November 2005) SONY <<http://www.scei.co.jp/corporate/release/pdf/051130e.pdf>> 1, 1.

storage. The DVD-Rom proved to be more advantageous than the CD-Rom as it enabled developers to take advantage of the Playstation 2's superior graphical and computational capabilities.

The operation of the DRM for the Playstation and Playstation 2 is similar as both consoles allow the access and playing of games via the recognition of a string of encrypted access codes in the CD or DVD. Normally, gaming consoles are protected through both hardware and software mechanisms. Hardware protection in gaming consoles is implemented by installing tamperproof chips to prevent modification of the software.<sup>73</sup> Software protection on the other hand is commonly used to allow access and verify the validity of games.<sup>74</sup> In the Playstation consoles, the boot read-only memory (ROM) chip acts as the hardware protection, while the access codes in the game serve as the software protection. The Playstation hardware DRM operates in the following ways:

- The prevention of playing unauthorised copies of games (without the access codes); and
- The prevention of playing games purchased from another region (with a different regions access code). The access codes act as Regional Access Coding (RAC) which segment the world into three distribution regions based on the television system standards that are operative in the market, the regions being the USA, Asia and Europe. Games intended for sale in a region have their own unique access codes. Hence a game sold in the USA cannot be played on a console sold in the UK.

The access codes enable access to the content, and becomes additional de facto access content measure. Regional codes as such provide Sony and the publishers' better mechanisms to protect content through segregated regional distribution.

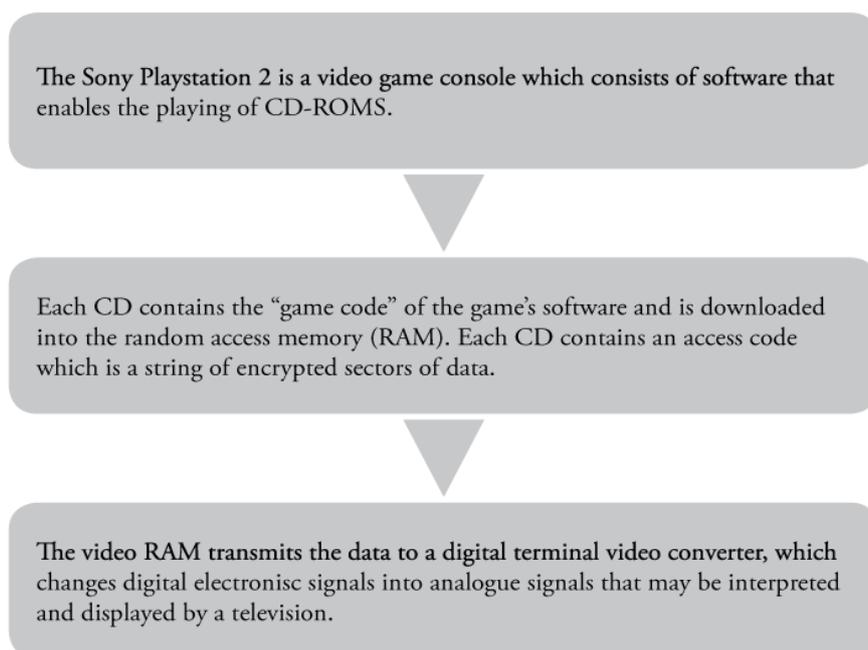
These protection measures usually operate immediately upon insertion of the disc into the console. Once inserted, the boot ROM located within the Playstation console recognises the specific access codes. If the console accepts the access codes, the console interprets the data on the optical medium and the video random access memory (RAM) then transmits the data to the television as shown below:

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<sup>73</sup> G. Myles and S. Nusser "Console Protection for Games" (2006) *Systems Journal* 45(1) 119, 122.

<sup>74</sup> Ibid 123.

Figure 2.1 Flowchart of PlayStation 2 Operation



The encrypted access codes cannot be easily copied as the decryption method is inaccessible to standard burning devices.

These protection measures can be avoided through the installation of mod chips which operates with the mod chip supplying the necessary access codes to the console enabling the avoidance of region coding and in turn, the running of international and copied games. Installation requires the mod chip to be connected to a console’s circuitry, usually done by soldering wires to selected traces or chip legs on a system’s circuit board.

Modifying the Playstation console led to an industry built on avoiding the Playstation DRM. In response, Sony and the gaming industry developed complex DRMs employed in current generation consoles. The current DRMs use these access codes but also utilise the internet to continually update the console’s security firmware to close any software exploits. On the other hand, console modification today has advanced from pure circuitry to 'soft-modding' which needs no physical intrusion to the consoles hardware. Soft-modding enable the user to run custom firmware to override the official firmware to run third party software.<sup>75</sup> By manipulating the consoles software, soft-modding allows not only the playing

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<sup>75</sup> Qin Zhou and Nigel Poole 'Forensic Investigation of the Soft-Modded Playstation Portable (PSP) in Dasun Weerasinghe, ed. *Information Security and Digital Forensics: First International Conference* (Springer Berlin Heidelberg, 2010) 50, 51.

of backed up games, but also increased functionality and interoperability development by gamers. These new DRMs and interoperable functions will be explained in detail below.

### **2.3 INDUSTRY REPOSE TO CONSOLE MODIFICATION**

The current generation of gaming consoles implemented advanced DRMs to prevent content from being copied, but also to limit the means of access to participate in the game. Current DRMs require gamers to create a unique profile attached to the console and require constant internet access to keep the access codes current. DRM as such has shifted from merely stopping gamers from accessing content to pre-empting the possibility of infringement. These DRMs are now ubiquitous since the advent of the seventh generation of consoles in 2005, including the Nintendo Wii, Sony Playstation 3 and Microsoft XBOX 360. However, while the XBOX 360 and Nintendo Wii still practice geographical segmentation through regional access coding, the Sony Playstation 3 no longer uses regional locks in order to play video games.

Unlike the Playstation 1 and 2, the current iteration of gaming consoles has advanced to the point where not only do they serve to play high definition video games<sup>76</sup>, but they also act as a media centre, or as a central hub for users to watch movies, play music, browse the internet, and record and watch TV shows.<sup>77</sup> In addition, these devices most often require an internet connection to enable access of additional services. For instance, Microsoft offers gamers exclusive online content and services such as discounted games or extra downloadable content if they choose to subscribe to a gold pass in XBOX Live.<sup>78</sup> Game consoles have also integrated their services with social media, allowing gamers to play or send messages to each other.<sup>79</sup> While these services are uniform between all three consoles, the need for internet operates as an extra security measure in the form of compulsory firmware updates to fill the security gaps of the console.

Sony, Nintendo and Microsoft periodically release a compulsory system upgrade, or firmware, to close any potential security weaknesses to their systems. These firmware updates are new methods in the

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<sup>76</sup> The Playstation 3 is the first home console to utilise 3D technology. *Playstation Knowledge Centre: Configuring Playstation 3 for 3D Output* (13 March 2013) SONY <[https://support.us.playstation.com/app/answers/detail/a\\_id/2125/~configuring-playstation-3-for-3d-output](https://support.us.playstation.com/app/answers/detail/a_id/2125/~/configuring-playstation-3-for-3d-output)>.

<sup>77</sup> *Windows Media Center on XBOX 360* (January 2013) XBOX <<http://support.xbox.com/en-US/apps/windows-media-center-on-xbox-360/windows-media-center-on-xbox-360-info>>. Also see Drew Prindle, *Playstation 3 Media Server Setup* (6 September 2012) Digital Trends <<http://www.digitaltrends.com/gaming/playstation-3-media-server-setup/>>.

<sup>78</sup> *XBOX Live* (January 2016) XBOX <<http://www.xbox.com/en-AU/live>>.

<sup>79</sup> *Playstation Knowledge Centre: Sharing PSN Info on Facebook* (6 May 2013) SONY <[https://support.us.playstation.com/app/answers/detail/a\\_id/1919/~sharing-psn-info-on-facebook](https://support.us.playstation.com/app/answers/detail/a_id/1919/~sharing-psn-info-on-facebook)>.

continuing need of console manufacturers to update and strengthen console security. Before the user is able to download the firmware, however, the player is required to agree to the EULA. Failure to accept the EULA or download the upgrade would prohibit access to the extra online features or system changes.<sup>80</sup> Kerr et al describe this type of DRM as “TPM enabled DRMs”, whereby the DRM (both hardware and software) controls access to the content by forcing users to agree to the rights enforced by the EULA.<sup>81</sup> Compared to the previous console generation, the complexity of the security measures employed in current generation consoles can generally be demonstrated under Appendix A.

The complexity of the DRM implemented in current consoles illustrates the advancement of security measures in video game consoles which has so far effectively made the **physical** mod chip obsolete, with the Nintendo DS as the only exception.<sup>82</sup> Nevertheless, these new security measures have been avoided via software utilisation of security loopholes to modify and circumvent the security measures of the console.

Soft-modding allows the user to "flash" the console, which is a process of installing a custom firmware to manipulate the consoles security system to allow access to content and other features normally prohibited by the official firmware. The Nintendo Wii was the first console to be modified under these conditions, with the XBOX 360 following afterwards. The Sony Playstation 3 proved to be difficult due to the cell architecture of the device. Moreover, the motivation to hack the console for piracy was low during the first few years after release, since the games required Blu-Ray discs and the distribution of high-definition content over the internet. This meant that with file sizes ranging from 4GB to 50GB, it was impossible for internet users who did not have the bandwidth or download speeds to download these files.<sup>83</sup> Nevertheless, the PS3 technology protection measures were eventually avoided. Table 7.1 tabulates the progress in console modification of the Nintendo Wii, Sony Playstation 3 and Microsoft XBOX 30 consoles:

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<sup>80</sup> For clarity, a comprehensive list of software updates for the Playstation 3 can be found in: *Playstation 3 System Software* (16 February 2016) WIKIPEDIA <[http://en.wikipedia.org/wiki/PlayStation\\_3\\_system\\_software](http://en.wikipedia.org/wiki/PlayStation_3_system_software)>.

<sup>81</sup> Kerr et al above n 49, 25.

<sup>82</sup> Casey O'Donnell, "Mixed-Messages: The Ambiguity of the MOD Chips and Pirate Cultural Production for the Nintendo DS" (2013) *New Media and Society*, 1, 1.

<sup>83</sup> See Andrew Blach and Aaron Striegel, "Is High Definition a Natural DRM?" (Paper Presented at the 18th International Conference on Computer Communications and Networks, California, August 3-6, 2009) 1, 1.

Table 2.1 Console Modification of Current Generation Consoles

DEVICE	YEAR	TPM	HACKED
<b>Nintendo Wii</b>	2006	Encrypted bootup	1 month after release
<b>Sony Playstation 3</b>	2006	Encrypted/Signed bootup Encrypted/Signed executables Hypervisor eFuses Isolated PSU	4 years after release
<b>Microsoft XBOX360</b>	2005	Encrypted/Signed bootup Encrypted/Signed executables Encrypted RAM Hypervisor eFuses	12 months after release

Soft-modding has significant disadvantages. Firstly, soft-modding only operates when the console has not been updated to the latest security firmware. The operation would deny the gamer access to the online component of the console experience. Console modification has also unfortunately fostered a community of multiplayer 'griefers', whereby gamers with customised consoles distort their profile to their advantage allowing "god mode" cheats, where their character cannot die whilst also having the best weapons in the game.

Moreover, soft-modding require extensive technical and programming knowledge to implement, as well as using the appropriate console model. For example, to hack the XBOX 360 requires the console to be 'flashed', whereby the hardware chip of the DVD drive is programmed to allow the playing of backed up games. However, for the 'flash' method to be effective, the console must have the right disk drive and effective 'flashing' also depends on the manufacturing date of the console. Unlike the Playstation mod chip, the flash method does not permanently circumvent the DRM as it requires constant flashing to the right custom firmware in the event that Microsoft changes the protection keys.<sup>84</sup> This means gamers who flashed their XBOX 360 will have to repeat the process of flashing with the updated custom keys to play new games that use the new Microsoft keys.

In addition, console modification means gamers risk being banned from accessing the online services and corruption of their save files. This strategy is employed by Microsoft and Sony, wherein by using their online servers they are able to screen, check and record whether any consoles connected have been

<sup>84</sup> *DriveFlashing*, (February 2016) Ozmodchips, < <http://www.ozmodchips.com/xbox-360-c-10.html>>.

modified. If the console is flagged, the device can be permanently banned from the network.<sup>85</sup> Improvements in console modification have made it possible to temporarily disable the modification to prevent detection, but this is dependent on the firmware. O'Donnell coined these complex DRMs and enforcement methods as the pervasive and dominant method of "effective frustration", which encourages users to follow the rules by making undesired activities such as console modification difficult<sup>86</sup>

## **2.4 HOMEBREW DEVELOPMENT – WHY CONSOLE MODIFICATION?**

Despite O'Donnell's 'effective frustration' methods used by the industry to deter users from modifying their consoles, gamers will soft mod their consoles, sacrificing the online capabilities of the consoles in exchange for playing backed up or copied games. Indeed, soft-modding for instance enables games to be played using external hard drives plugged into the USB port of the console.<sup>87</sup> Yet console modification is not totally used for illegal purposes such as piracy or copying of games. Scacchi argued that console modification is an expression of gamers who are willing to circumvent the DRMs of the console in order to experience the liberty, skill, innovation and knowledge acquisition that mastery of reverse engineering affords.<sup>88</sup> Within this class of gamers, there exists a 'less vocal' or represented community that exists in the "margin of piracy" which consists of "amateur content creators often referred to, vernacularly amongst game developers, as homebrew developers".<sup>89</sup>

Grand states that these developers belong to a community of hardware and software programmers, which frequently develop unexpected uses for or improvements in technologies.<sup>90</sup> This finding is supported by interviews conducted by the BBC News which examined the *modus operandi* of hackers who modified the handheld Playstation Portable with their altruistic aim to "enable as many people as possible to run homebrew programs."<sup>91</sup> The interviews unveiled that the development teams who modify the PSP do so out of the joy of hacking DRMs, to prove their technical ability and proficient in technology, and also to make a point regarding their stance against "restrictions that make a device unable to show its true

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<sup>85</sup> Myles et al above n 73, 122. Also see Tom Bradwell, *HALO Fan Banned until 9999* (10 May 2007) EuroGamer <<http://www.eurogamer.net/articles/halo-fan-banned-until-9999>>. There are reports that Xbox players banned from Xbox Live can be banned until the year 9999.

<sup>86</sup> O'Donnell above n 82, 7.

<sup>87</sup> *Configurable USB Loader* (January 2013) Softmod My Wii <<http://www.softmodmywii.co.uk/configurable-usb-loader/>>.

<sup>88</sup> Scacchi above n 35, 5.

<sup>89</sup> O'Donnell above n 82, 4.

<sup>90</sup> Grand above n 40, 45.

<sup>91</sup> Paul Rubens, *Three Hacker Teams Unlock the PSP* (26 February 2007) BBC News <<http://news.bbc.co.uk/2/hi/technology/6397797.stm#chart>>.

potential".<sup>92</sup> This is a similar stance taken by controversial hacker George Hertz or “Geohotz” who rose to prominence in 2010 when he released a Playstation 3 hack and encouraged others to “organise and figure out how to use this to do practical things, like the iPhone when jailbreaks were first released.”<sup>93</sup>

These developers operate through modifying consoles in order to allow the expansion of consoles capabilities through independent applications also known as homebrew. Homebrew applications for video game consoles allow the development of independent software, such as unofficial games or applications including media players, email, web browsers and total repurposing of the operating system to operate as a general computer running Linux - all made possible by the vast array of very capable hardware gaming consoles.<sup>94</sup>

These applications are developed to easily run user-made software on consoles, demonstrated by the “Homebrew Channel” developed exclusively for the Nintendo Wii.<sup>95</sup> The Homebrew Channel, installation requires the use of a software exploit in the Wii menu which Nintendo does not authorise. When launched, it displays a list of applications<sup>96</sup> which can be loaded from a Secure Digital (SD) card such as an alarm clock or the installation of a text file editor.<sup>97</sup>

Other homebrew developers have also allowed consoles to run emulation software to be able to play games not natively supported by the console. These emulators however are a source of controversy for developers, as they infringe on the boundary between legitimate homebrew applications and an application that only serves to promote piracy. An emulator is software that emulates the hardware of another gaming console to allow the running of games built for the software being emulated. The Conley, Andros, Chinai, Lipkowitz and Perez study of video gaming emulation stated that emulators have become a staple design mechanism among gamers, particularly old game enthusiasts.<sup>98</sup> For example, the Homebrew Channel for the Wii has dedicated applications that allow for the running of games from old

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<sup>92</sup> Ibid.

<sup>93</sup> Richard Leadbetter, *PS3 Hacked* (January 2010) Eurogamer.net < <http://www.eurogamer.net/articles/digitalfoundry-ps3hacked-article?page=2>>.

<sup>94</sup> Christopher Soghoian, ‘Caveat Venditor: Technologically Protected Subsidized Goods and the Customers Who Hack Them’ (2007) 6(1) *Northwestern Journal of Technology and Intellectual Property* 46, 50.

<sup>95</sup> *The Homebrew Channel* (January 2013) The Homebrew Channel < <http://hbc.hackmii.com/faq/>>.

<sup>96</sup> *List of Homebrew applications* (23 March 2015) Wüibrew, <[http://www.wüibrew.org/wiki/List\\_of\\_homebrew\\_applications](http://www.wüibrew.org/wiki/List_of_homebrew_applications)>. This page lists all of the downloadable Homebrew Channel application.

<sup>97</sup> The SD card is a non-volatile memory card which is widely used in digital cameras, media players and video game systems.

<sup>98</sup> James Conley, Ed Andros Priti Chinai, Elise Lipkowitz, and David Perez, ‘Use of a Game Over: Emulation and the Video Game Industry, A White Paper’, (2004) 2(2) *Northwestern Journal of Technology and Intellectual Property*, 1, 1.

hardware including the Nintendo 64 and Playstation 1. However the danger lies in the need to download the ROM (read only memory) copies of the game to be able to use the emulator. While gamers, particularly old game enthusiasts, insist that emulation only preserves game rights to archive and enjoy old video games that may not be commercially available<sup>99</sup>, O'Donnell argues that the majority of gamers who emulate and download the ROMs do not actually own the licences to the software they wish to emulate.<sup>100</sup> Emulator distributors and developers are thus hesitant to share websites and sources to download ROMs as the legality of sharing ROMs is questionable.<sup>101</sup> The legitimacy of emulators is further obfuscated by the problems associated with backing up games, which is considered illegal in Australia. This ambiguity thus adds further arguments to the illegitimacy of console modification, and is considered a source of controversy for many homebrew developers who view emulation as dangerously close to piracy.

Nevertheless, the development of interoperable applications clearly demonstrates that despite the overwhelming evidence that console modification is primarily used for piracy, savvy developers and users can also utilise it for installing homebrew applications. O'Donnell distinguishes between these two parties, claiming homebrew developers are legitimate users of content and are often associated with the same communities of game developers and software engineers who create and support software.<sup>102</sup> Geohotz argued his hacks are not to be used for piracy, and that he himself does not support illicit use of his programs.<sup>103</sup> Moreover, PSP hacker David Court, in an interview, supports this distinction by making it clear what their motivations are in modifying the PSP:

Everyone has the right to do what they want with their own hardware. Piracy does upset me, and because what we are doing opens the way to piracy, it's harder to justify it morally.

But our stance on piracy is clear, and we hope to be role models.<sup>104</sup>

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<sup>99</sup> Ibid, 2.

<sup>100</sup> O'Donnell above n 82, 9.

<sup>101</sup> Emulator Zone, a popular emulator and ROM distributor has a disclaimer for users in regards to downloading copyrighted game ROMs which states: "If you were hoping to find any popular games on this page when you clicked on the link, then I have to disappoint you: you will not find them here. This website does not offer any commercial (copyrighted) games for download. What we do have are emulators and some legal "public domain" games." See *ROMs* (August 2013) Emulator Zone < <http://www.emulator-zone.com/doc.php/roms.html>>.

<sup>102</sup> O'Donnell above n 82, 11

<sup>103</sup> Leadbetter above n 93. Geohotz wrote in his blog: "If you are expecting some tool to be released from this blog like blackra1n, stop reading now," he posted. "If you have a Slim and are complaining this hack won't work for you, stop reading now. WE DO NOT CONDONE PIRACY, NOR WILL WE EVER. If you are looking for piracy, stop reading now. If you want to see the direction in which I will take this blog, read the early entries in the iPhone one. Information on this blog is for research purposes only."

<sup>104</sup> Rubens above n 91.

At the same time, O'Donnell claims that because these projects are completely dependent on technological and security glitches, gamers are increasingly becoming aware of the structures that inhibit broader participation in the gaming industry.<sup>105</sup> Essentially, console modification has created newfound awareness about the possibilities of homebrew development and interoperability in gaming. Tutorials, videos, blogs and wikis are available online that teach modders how to mod their consoles and install these interoperable applications.<sup>106</sup> These divisive uses of console modification can be illustrated using Table 2.2:

Table 2.2 Legitimate and Illegal Uses of Console Modification

Allow the use of user-created software (homebrew)	Allow the use of illegally copied games
Installing an alternative operating system to repurpose the console	Circumvents TPM (DRM)
Allow the use of imported games	Can be used to 'hack' and modify games for cheating purposes
Allow the use of privately copied games	

## 2.5 WHAT THE FUTURE HOLDS

Since the Playstation era, console modification has become an accepted norm by gamers. Console modification has progressed from the simple installation of the mod chip to software modification. At the same time, console manufacturers have also improved and strengthened the DRMs of their consoles for each successive generation. However, these added security measures add a complex dimension into the gaming experience as demonstrated in Appendix A. Nevertheless, as shown in Table 7.1 and despite the advanced DRM employed in current generation consoles, such as the implementation of systematic software updates, savvy hackers inevitably hacked these consoles. Indeed, O'Donnell postulated that in the case of firmwares, the very fact that these security systems can be updated is what makes hacking these security systems possible.<sup>107</sup> Given the increased capabilities of current generation consoles, developers have also been able to allow interoperable homebrew applications to function. The new Nintendo Wii-U has already been successfully hacked to play unauthorised Wii games using a USB external hard drive<sup>108</sup>

<sup>105</sup> Ibid.

<sup>106</sup> A simple Google search for "Nintendo Wii modding" yielded 727,000 results, the top result being a popular Wiki website for everything to know about modding the Nintendo Wii. Likewise, the same search yielded 410,000 video tutorials in YouTube.

<sup>107</sup> O'Donnell above n 82, 12.

<sup>108</sup> Mark Hearn, *Wii-U Allegedly Hacked, Nintendo Addresses Would-Be Pirates* (1 May 2013) EndGadget <<http://www.engadget.com/2013/05/01/nintendo-wii-u-hack/>>.

and to operate the Homebrew Channel which allows users to install interoperable apps and emulators.<sup>109</sup> Nintendo responded that they will “continuously monitor all threats to its products' security and will use technology and will take the necessary legal steps to prevent the facilitation of piracy”.<sup>110</sup>

This vicious cycle in the "hacking - more protection - more hacking" game is significant in the balancing act of copyright rights for users and owners. For instance, the Nintendo 3DS has been hacked and presently allows piracy and homebrew.<sup>111</sup> More recently however, hackers have hacked the Playstation 4 and install a full version of Linux and demonstrated the homebrewing capabilities by playing a modified version of Pokémon.<sup>112</sup> Not deterred by these developments, the industry has also implemented an anti-tamper protocol, called DENUVO, which prevents hackers from tampering the very DRM itself.<sup>113</sup> While exclusively for PC games, this protection measure is considered so successful that PC game hackers admit that PC game piracy may end by 2018.<sup>114</sup> Whether this anti-tamper protocol will be implemented in consoles eventually is yet to be seen and this technology is beyond the scope of the thesis. It is clear the breach of the PS4 and 3DS DRMs and the DENUVO development illustrates the cycle continues.

The policy challenges of DRM and anti-circumvention also continue, as demonstrated by the severe backlash to Microsoft from gamers when the DRM protocols of the XBOX One were revealed. Social media was used predominantly to show disdain and frustration of the planned implementation of DRM for the XBOX One. The DRM would have prevented gamers from playing a game without online authentication every 24 hours, and also sharing game disks without online registration.<sup>115</sup> The DRM would have also prevented many countries from using the console due to Microsoft implementing a mandatory XBOX Live authentication requirement to operate the console. Ultimately, the combined

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<sup>109</sup> James Plafke, “Wii-U Hacked to Run Homebrew Channel in Wii Mode” (10 December 2012) GEEK <<http://www.geek.com/games/wii-u-hacked-to-run-homebrew-channel-in-wii-mode-1531716/>>.

<sup>110</sup> Hearn, above n 108.

<sup>111</sup> A guide on how to hack the Nintendo 3ds can be found in Reddit. See 3dsHacks, *All you need to know – by popular demand*” (8 January 2016) Reddit <[https://www.reddit.com/r/3dshacks/comments/3ztqqv/all\\_you\\_need\\_to\\_know\\_by\\_popular\\_demand/](https://www.reddit.com/r/3dshacks/comments/3ztqqv/all_you_need_to_know_by_popular_demand/)>.

<sup>112</sup> Jason Schreier, *Hackers got Pokémon Running on a PS4* (31 December 2015) Kotaku <<http://kotaku.com/hackers-get-pokemon-running-on-a-ps4-1750463668>>.

<sup>113</sup> *What is the Denuvo Anti-Tamper Solution?* (15 January 2016) Denuvo <<http://www.denuvo.com/#page-4>>. According to the website, the Denuvo Anti-Tamper technology prevents the debugging, reverse engineering and changing of executable files to strengthen the security of games. It is not a DRM solution, but rather, Denuvo Anti-tamper protects DRM solutions, such as Origin Online Access or the Steam license management system, from being circumvented.

<sup>114</sup> Kyle Orland, *Major Piracy Group Warns Games may be crack-proof in two years* (8 January 2016) ArsTechnica <<http://arstechnica.com/gaming/2016/01/major-piracy-groups-warns-games-may-be-crack-proof-in-two-years/>>. A Chinese hacking group claims that with Denuvo and current trends in encryption technology, no free games will exist in two years' time.

<sup>115</sup> Kevin Stuart, *XBOX One DRM Restrictions Dropped after Gamer Outcry* (20 June 2013) The Guardian <<http://www.guardian.co.uk/technology/2013/jun/19/xbox-one-drm-second-hand-restrictions-abandoned>>. Also see Kyle Wagner, *XBOX One and Used Games: The Real Reason Everyone's so Mad* (30 May 2013) Kotaku <<http://www.kotaku.com.au/2013/05/xbox-one-and-used-games-the-real-reason-everyones-so-mad/>>.

forces of press and gamers resulted in Microsoft re-evaluating its DRM protocols. The revised option is that routine online authentication is no longer needed to play the game and that game disks can be shared without restriction.<sup>116</sup> Indeed, the Vice President of Microsoft, Phil Spencer, emphasised the changes resulting from customer feedback means that the XBOX One will utilise technical measures with what he describes as "physical DRM" - combining both disc and digital DRM.<sup>117</sup> Interestingly, the backlash towards Microsoft prompted gamers to implore Sony, through a twitter campaign, not to implement similar technical measures in the PS4, which it ultimately did not.<sup>118</sup>

Clearly the battle is not over, and legislators will have a huge task ahead of them in progressing copyright law to meet these challenges. This will certainly be more present as the curtain for the current generation consoles have descended and gaming consoles have transitioned into the next-generation consoles including the PS4 and the XBOX ONE. On the one hand, policy makers, legislators and courts must ensure copyright will be able to provide protection in the advent of the new console generation. Technology has also enabled gamers advanced interaction with games, resulting a cultural development about their belief of access to and development of copyright content. Moreover there needs to be a recognition by copyright the legitimate uses of console modification, that is, the development of interoperable applications.

This chapter, as a precursor in answering the overarching question, illustrated the opposing uses of console modification, and how console DRM and anti-circumvention have progressed since the heydays of physical modding. Video game console DRM and console modification illustrates the technologies upon which the thesis is based, and provides grounding for the following literature review of gamers and developers view the issue in an Australian context.

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<sup>116</sup> Patricia Hernandez, *XBOX One DRM Reversal is Proof that Speaking Out can get Results* (21 June 2013) Kotaku <<http://www.kotaku.com.au/2013/06/xbox-one-drm-reversal-is-proof-that-speaking-out-can-get-results/>>.

<sup>117</sup> Adam Gauntlett, *Microsoft Believes XBOX One and Kinect are One and the Same* (22 August 2013) Escapist <<http://www.escapistmagazine.com/news/view/127082-Microsoft-Believes-Xbox-One-And-Kinect-Are-One-And-The-Same>>.

<sup>118</sup> Jason Schreier, *#PS4NoDRM: The Next-Gen Twitter Campaign That Has Sony's Attention* (29 May 2013) Kotaku <<http://www.kotaku.com.au/2013/05/ps4nodrm-the-next-gen-twitter-campaign-that-has-sonys-attention/>>.

## CHAPTER 3 - LITERATURE REVIEW

The primary literature to be examined relates to copyright law and the technological challenge to copyright.

In copyright law, the legislative balancing of rewarding innovation whilst allowing fair access and usage for consumers has been a stated policy objective since the *Statute of Anne* in 1709, where the Long Title and Preamble reads:

An Act for the Encouragement of Learning, by vesting the Copies of Printed Books in the Authors or Purchasers of such Copies, during the times therein mentioned.

Whereas printers, booksellers and other persons have of late frequently taken the liberty of printing, reprinting, and publishing, or causing to be printed, reprinted and published, books and other writings, without the consent of the authors or proprietors of such books and writings, to their very great detriment, and too often to the ruin of them and their families: for preventing therefore such practices for the future; and for the encouragement of learned men to compose and write useful books.<sup>119</sup>

The legislation indicated that for a period of time, copyright works would be recognised and the authors and publishers would have powers to control the publication of the work.<sup>120</sup> Copyright thus gives a statutory property right of authorship that gives owners certain exclusive rights or the ability to license to use the work on agreed terms that differ depending on the type of work at issue. For instance, s 31 of the Act gives copyright owners the exclusive right to reproduce, publish, adapt, rent to a commercial party, perform and communicate the work in public. Infringement occurs where a person directly or indirectly does or authorises anyone to do that which is recognised as an exclusive right of the owner.<sup>121</sup> Permission to use a copyrighted work is often granted through a license which confers permission to perform an act, such as copying or performing the work in public, which would otherwise be an infringement of copyright and therefore be unlawful.<sup>122</sup>

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<sup>119</sup> *Statute of Anne 1709* (UK) 8 Anne, c 21. The statute of Anne is widely famous for being the first legislation to formally hand over the enforcement of copyright from private individuals and groups to the government and courts.

<sup>120</sup> See Carys J. Craig, *Copyright, Communication and Culture: Towards a Relational Theory of Copyright Law* (Edward Elgar, 2011), 1, 1. Copyright regulates the production and exchange of meaning and information, and shapes social relations of communications. Writers, artists, musicians, performers, software programmers, publishers, students, researchers, librarians, teachers, readers, movie-goers, music fans – and so, one might say, all of us – exist in a web of cultural relations.

<sup>121</sup> S 36 of the Act lists the activities which infringes on the copyright of original works. S 101 lists the activities which infringe Part IV materials of copyright which include sound recordings, films, televisions and sound recordings and published edition of works.

<sup>122</sup> Ruth Dawk Atkins, "Copyright, Contract and the Protection of Computer Programs" (2009) 23(2) *International Review of Law, Computers and Technology* 143, 144.

A balance however must be achieved between these rights for authors and to the public who access these works. Neri described this balance as “a kind of compromise, a balance struck between the financial interests of creators and the public’s interest in free access to information.”<sup>123</sup> The case of *Sony Corp of Am v Universal City Studios Inc* summarised the copyright balance between copyright owners and users that must be maintained:

[Copyright] involves a difficult balance between the interests of authors and inventors in the control and exploitation of their writings and discoveries on the one hand and society’s competing interests in the free flow of ideas, information and commerce on the other hand.<sup>124</sup>

According to Himma a clear evaluation of IP rights, including copyright must consider the interests of all parties that people might have in intellectual content, such as video games.<sup>125</sup>

With the development of technology however, the rights of copyright were expanded to include rights for publishers and producers of copyright. The necessity of copyright law can be diluted into two main reasons:

- 1) Copyright gives statutory expression for the moral and economic rights of creators in their creations and the rights of public in access to those creations.<sup>126</sup>
- 2) Copyright promotes, as an act of Government policy, the dissemination and application of its results and to encourage fair trading which would contribute to economic and social development.<sup>127</sup>

The legislative enactment of rules of ownership and controlling the right to reproduce a work enabled copyright to support social relations, communities and economic growth. This system has been explained in moral and economic terms. Morally, copyright was to reward labour by providing the author with the

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<sup>123</sup> Geoffrey Neri, "Sticky Fingers or Sticky Norms -Unauthorised Music Downloading and Unsettled Social Norms" (2004) 93 *Geo. LJ* 733, 737.

<sup>124</sup> *Sony Corp of Am v Universal City Studios Inc* 464 U.S. 417, 429 (Sup CT, 1984).

<sup>125</sup> See Kenneth Einar Himma, “The Justification of Intellectual Property: Contemporary Philosophical Disputes” (2008) 59(7) *Journal of the American Society for Information and Science and Technology* 1, 14. Himma states that a clear evaluation of IP rights will have to consider all interests that people might have in intellectual content.

<sup>126</sup> Hedieh Nasheri, 'Addressing the Global Scope of Intellectual Property Crimes and Policy Initiatives' in Jay S. Albanese (ed) *Intellectual Property Theft and Fraud: Combating Piracy* (Transaction Publishers, 2009) 95, 98.

<sup>127</sup> *Ibid*, 108

right to control the work and the need to discourage theft of property.<sup>128</sup> These moral rights involve the right to claim authorship of a work and the right to oppose changes to it that could harm the creator's reputation.<sup>129</sup> Economic justifications include providing an incentive to create new works and the need to remunerate for the cost of creation. These rights are granted to the author and have been interpreted to have a public interest benefit being the encouragement of the learning and knowledge, sharing of information and promotion of culture.<sup>130</sup> Director General of the WIPO, Francis Gurry (albeit speaking generally about intellectual property) sums up the economic justification in his speech:

Intellectual property creates a policy restriction, in the form of exclusive rights to commercial use, on the otherwise free availability of knowledge and information in order to compensate for the cost of production of the knowledge of information. It thereby creates an economic incentive to investment knowledge creation and provides a safe passage through hostile terrain for the long and often lonely march of an idea from the conception to commercial implementation as a new product, service or process. The exclusive rights in effect, make access a saleable commodity and create the basis of markets for knowledge and technology.<sup>131</sup>

Traditionally, copyright provided right holders with legal control over the production of copies of the work and permitting copies to be sold at a price providing a profit.<sup>132</sup> Many creative works protected by copyright generally require mass distribution, communication, and financial investment for their dissemination. Hence creators often sell the rights to their works to individuals or companies that can package, market and distribute the works in return for payment (lump sum or royalties).<sup>133</sup> Such copyright systems worked well because up until the digitisation of information, the resources required to produce

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<sup>128</sup> See s 189 of the Copyright Act 1968 (Cth). Moral right means:

- (a) in relation to an author:
  - (i) a right of attribution of authorship; or
  - (ii) a right not to have authorship falsely attributed; or
  - (iii) a right of integrity of authorship; and
- (b) in relation to a performer:
  - (i) a right of attribution of performership; or
  - (ii) a right not to have performership falsely attributed; or
  - (iii) a right of integrity of performership.

<sup>129</sup> The relevant sections in the Act are encapsulated in Part IX specifically: s 193: Author's right of attribution of authorship, s 195AC: Author's right not to have authorship falsely attributed and; s 195A1: Author's right of integrity of authorship.

<sup>130</sup> See Jason Rhinelander *Copyright amid Piracy* (Research Paper, Mt. Allison University, 2009) <<https://imaginary.ca/papers/2009/copyright-amid-piracy.pdf>> 1, 2.

<sup>131</sup> Francis Gurry, 'Re-Thinking the Role of Intellectual Property' (Speech delivered at the Francis Gurry Lecture on Intellectual Property) University of Melbourne, 22 August 2013.

<sup>132</sup> Rhinelander above n 130, 3.

<sup>133</sup> Nasheri above n 126, 98.

and distribute works were expensive and copy degradation was unavoidable. The Internet and digitisation of data however meant the production and distribution of works and became instantaneous at negligible cost without impairing the quality of the information. Indeed, Harhoff, in listing the challenges affecting the use and enforcement of intellectual property rights, described the arrival of new digital recording and transmissions technologies has been the main challenge to copyright law and its enforcement because “in a technical sense, the act of copying occurs on any computer or the internet many times.”<sup>134</sup> The internet has essentially transformed information into a digital form which can be copied and transmitted with ease and relatively low costs.<sup>135</sup>

In contrast to these advantages, right holders are increasingly turning to technology to protect their digital works against illegal piracy through TPMs. TPM's may utilise encryption methods contained in DRMs which include password protection, “read only” technology and the copy protection systems in CDs and DVDs. TPMs are also afforded legal protection by two copyright treaties in 1996: (a) the WIPO Copyright Treaty and (b) the WIPO Performances and Phonograms Treaty, referred to as the WIPO Internet Treaties. These Treaties enable signatories to enact laws outlawing the circumvention of TPMs, even for the purpose of exercising legitimate exemptions in copyright law. Moreover, the treaties also clarified the expected minimum standards of intellectual protection around the world in respect to Internet-based delivery of copyrighted works.

The legal and technological protection provided by statute supported raised concerns of user rights to access content. The Standing Committee on Infrastructure and Communications Report into software and hardware pricing for instance identified underlying tensions which persist in the copyright regime between users and rights holders as TPMs can restrict competition in copyright markets by preventing consumers from accessing and using legally acquired content in legitimate ways.<sup>136</sup> Esler argues technology allows greater “fine-tuning” of right holders preferences while defeating the traditional public rights and copyright exceptions.<sup>137</sup> Scafidi argued the “fine tuning” of technology and copyright law,

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<sup>134</sup> Dietmar Harschoff, Challenges Affecting the Use and Enforcement of Intellectual Property Rights (Research Paper, Economic Value of Intellectual Property Forum, 2009) 1, 2.

<sup>135</sup> Mackaay above n 42, 18.

<sup>136</sup> Standing Committee on Infrastructure and Communications, Parliament of Commonwealth of Australia, *At What Cost? IT Pricing and the Australia Tax* (2013) 1, 100.

<sup>137</sup> See Brian Esler, 'Judas or Messiah? The Implications of the Mod Chip Cases for Copyright in an Electronic Age' (2003) 1 *Hertfordshire Law Journal* 1, 1. Also see Deidre K. Mulligan, "Digital Rights Management and Fair Use by Design" (2003) 46(4) *Communications of the ACM* 31, 32.

policymakers have “arguably forgot the law is supposed to promote creativity, not to build fences around existing creations”, thus placing control in the hands of right holders and giant corporations.<sup>138</sup>

The purpose and use of console modification in the gaming industry is an example of the conflicting relationship between owners and users. Industry representatives, such as Nintendo, argue “mod chips infringe copyright in computer programs” and as such are “a threat to the gaming business and game development companies who contribute to providing games for the company’s platform.”<sup>139</sup> In contrast, Brisbaji argued that the cumulative protection afforded by technology and copyright law is contrary to public policy concerns, such as allowing hobbyist developers to express themselves creatively through their software.<sup>140</sup> Moreover, these protections subsequently mean the non-infringing applications of console modification are ignored or deemed insufficient to warrant its legitimacy.<sup>141</sup>

This chapter will review the tension between technology and the law from the literature regarding TPM and DRM to restrict access, and whether console modification constitutes classification as circumvention devices despite the possibilities of protection under the US fair use exceptions or the Australia fair dealing exceptions. Specifically, the review will focus on the debate about the extent of protection given to copyright works through technology. The examination will involve the review of the literature in law relating to copyright and the influence on cultural customs on law. It will also examine gaming media literature through gaming websites given the information regarding the industry are focused on these mediums.

The literature review will be structured as follows. Firstly, a brief examination of copyright law is required with emphasis on how it has adapted from the rapid shift to the digitisation of work. Next will be a review of literature to identify the following issues:

- (1) The development of anti-circumvention law, as the "machines answer to the machine" in copyright law.

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<sup>138</sup> Susan Scafidi, *Who Owns Culture?* (Rutger University Press, 2005), 135.

<sup>139</sup> AAP, *James Burt to pay Nintendo \$1.5m for illegal uploading of New Super Mario Bros* (9 February 2010) The Australian <<http://www.theaustralian.com.au/australian-it/james-burt-to-pay-nintendo-15m-for-illegal-uploading-of-new-super-mario-bros/story-e6frgaxk-1225828434339>>.

<sup>140</sup> Vijay G. Brisbaji, ‘Game Console Modification Chips: The Effect of Fair Use and the Digital Millennium Copyright Act on the Circumvention of Game Console Security Measures’, (2004) 28(2) *Nova Law Review* 411, 431.

<sup>141</sup> This is evidence in the US case law *Sony Computer Entertainment America v Divineo* 457 F. Supp. 2d 957, 965 (ND Cal. 2006), where it was held the unauthorized access to copyright work via circumvention is an infringement even if the underlying use is for fair use..

- (2) The TPMs, DRMs and threats of overprotection.
- (3) The cultural norms established by this rapid shift into digitisation of works.
- (4) The economic effects of piracy.

This will lead to a further review of how experts identify these concepts and how they have affected the copyright environment between copyright owners and users, with particular emphasis on the effects it had in the gaming industry, the gaming culture and the legitimacy of the mod chip.

### **3.1. OVERLAPPING ISSUES**

The task of enforcing copyright laws and maintaining the balance of rights has become difficult in an increasingly digitised society. Copyright is an intangible property right given that technology enables conversion to digital formats and their dissemination through networks and computers and its physical replication into simple, cheap and efficient forms. The Internet has not only provided the mechanism for content distribution, but also its creation, finance and protection. Industries obtain benefit from the reduced costs of providing physical items and distribution costs internationally – these are the rewards from using digital technology and the Internet. The benefits, however, enabled users to easily pirate content, and more difficult to trace. The introduction of TPMs in legislation, and implementation of DRM to prevent circumvention are intensively used to deter piracy. It is important to first define the term piracy as this is the primary reason to the questionable legality of console modification.

The thesis so far has loosely used piracy to describe acts of unauthorised copying of content without the authorisation of the copyright owner. The definition of piracy however comes in many forms and definitions, depending on the context of the activity – thus it is difficult to pin down a definitive meaning since piracy is a colloquial term, not a legal term. Governing bodies such as the WIPO recognises that piracy is usually associated with infringements of copyright or related rights, tied with the commercial purposes of the infringer, therefore causing economic harm to the right holder.<sup>142</sup> The TRIPS Agreement further clarifies that pirated copyright goods mean any goods which are copies made without the consent of the right holder or person duly authorised by the right holder in the country of production and which are made directly or indirectly from an article, where that copy would constitute an infringement of

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<sup>142</sup> *Chapter 4 – Enforcement of Intellectual Property Rights, WIPO Intellectual Property Handbook: Policy, Law and Use* (2013) WIPO <<http://www.wipo.int/export/sites/www/about-ip/en/iprm/pdf/ch4.pdf>> 206, 217.

copyright.<sup>143</sup> Authors including Law and Wong, Choi and Perez, and Ram et al however, have defined piracy loosely to mean the unwarranted copying of copyright content, regardless of whether it will result in economic harm to the owner, or advantage to the copier.<sup>144</sup> Lawrence Lessig on the other hand categorised piracy in two different segments:

1) There is commercial piracy or “copy-shop” piracy, which is the unauthorised taking of other’s people’s content within a commercial context. This is piracy which results in a commercial advantage for the infringer, where they take the content, copy it, and sell it – all without the permission of a copyright owner. This is, unquestionably, illegal as it contravenes the exclusive rights of copyright owners and may result in criminal prosecution.<sup>145</sup> Coincidentally, the respondents are of the same mind regarding this type of piracy.

2) There is “taking” piracy, which is more directly related to the Internet. This is a kind of piracy that occurs commonly through p2p sharing software such as BitTorrent. Lessig contrasts this kind of piracy to “copy shop” where users attempt to escape the controls of an industry (such as the film or video game industries) by exploiting new distribution channels but no one is selling the content that is “taken” from p2p services. It is important to note that not all forms of “taking” piracy is illegal<sup>146</sup>, but where it is it will result in a civil offence.<sup>147</sup>

This thesis will use this second definition, as respondents to this study have described many reasons for resorting to console modification, and playing “taken” games is just one of those reasons to modify a console. The impact of selling copyrighted content on the other hand is outside the scope of the thesis. There is also no question that “copy-shop” and (in some ways) “taking” piracy is illegal as stated above, but the morality of this conduct is questioned many times due to the social norms explained in the literature and the findings chapters below.

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<sup>143</sup> *Agreement on Trade-Related Aspects of Intellectual Property Rights* 1869 U.N.T.S. 299, 33 I.L.M. 1197 (signed and entered into force on 1 January 1996), Note 14.

<sup>144</sup> Rob Law and Donna Wong, ‘How do Hospitality and Tourism Students View Software Piracy?’ (2005) 10(3) *Asia Pacific Journal of Tourism Research* 263, 263. They defined software piracy as an illegal duplication of copyrighted software without the permission of the publisher. Also see David Choi and Arturo Perez, “Online Piracy, Innovation and Legitimate Business Models” (2007) 27(4) *Technovation*, 168, 168; which similarly defined piracy as the unauthorised use or reproduction of copyrighted or patented material. On the other hand Ram D. Gopal, G. Lawrence Sanders, Sudip Bhattacharjee, Manish Agrawal and Suzanne C. Wagner, “A Behavioural Model of Digital Music Piracy” (2004) 14(2) *Journal of Organizational Computing and Electronic Commerce*, 89, 91; interestingly omitted the act of backing up within the definition of piracy, which is the illegal act of copying digital goods for any other reason other than backup, without explicit permission from and compensation to the copyright holder.

<sup>145</sup> Lawrence Lessig, *Free Culture: The Nature and Future of Creativity* (Penguin Books, 2005), 63.

<sup>146</sup> *Ibid*, 68. Lessig notes that there are 4 types of file sharer’s who ‘take’ content from the internet. He describes that many who use sharing networks to get access to content that is not copyrighted or that the copyright owner wants to give away do not infringe on copyright.

<sup>147</sup> For the most recent case involving this type of piracy, see *Dallas Buyers Club LLC v iNet Limited (No 5)* [2015] FCA 1437.

Yet technology is not the only problem facing copyright enforcement as the technological age of social media has created an Internet culture that develops its own means of conduct. These social forces affect the application of copyright laws because of their acceptance by interest groups in society, meaning the laws are the product of a compromise between interest groups in the industry affected by the legislation.<sup>148</sup> Kathy Bowery explained the tension is most pervasive in the Internet because laws that attempt to govern the Internet are “diffuse and rarely autonomous”, continually shifting to adapt with “the technological flows, and are thereby quite globally pervasive”.<sup>149</sup> This means that in the realm of the Internet “the idea of law changes, depending upon the context and nature of the relevant decision-making community”.<sup>150</sup> As such, the relevant Internet communities and their cultures ultimately focuses and refines the relevant meaning of the law, making these laws (including copyright law) fragmented and difficult to enforce.<sup>151</sup>

Cultural conduct and attitudes of the relevant users in society present problems for industry organisations such as the RIAA and MPAA which have attempted to control the distribution and access to content by technological means. Technological protection of works has existed even before the internet through the use of copy-protection hardware including video cassette and audio cassette tapes. Today, the principal response of the industry to the proliferation of pirated material has been the development of DRM. DRMs are used on both physical mediums such as CDs, and digitally distributed content available in online services such as iTunes. Copyright owners claim DRMs are necessary to prevent infringement of their intellectual property rights, and the vast majority of legitimate users are completely unaffected by DRM. However, the inclusion of DRMs is argued by consumers to infringe on the rights of legitimate consumers to use their lawfully purchased goods.<sup>152</sup> In essence, copyright enforcement through a traditional copyright perspective and active anti-circumvention legislation, acting in concert with TPMs, brings into light issues of cultural conflict, overprotection and the exclusion of copyright limitations and exceptions. The interplay between these issues gives breadth to a wealth of knowledge that will be

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<sup>148</sup> *Stevens v Kabushiki Kaisha Sony Computer Entertainment* [2005] HCA 58 at [127]. As the judgements of Sackville J and Lindren J show, for many years Australian and overseas copyright owners and copyright users had been active in seeking to expand or limit the scope of legislation permitting copyright owners to use a “technological protection measure”.

<sup>149</sup> Kathy Bowery, *Law and Internet Culture* (Cambridge University Press, 2005) 20

<sup>150</sup> *Ibid.*

<sup>151</sup> *Ibid.*

<sup>152</sup> Fry above n 48, 2.

examined under the Wiersma's four fields of power, which include the *legal, cultural, economic* and *technological* factors.

## CHAPTER 4 - DEVELOPMENT AND ENACTMENT OF ANTI-CIRCUMVENTION LAWS

### **4.1 DEVELOPMENT OF TPM LAWS**

The law is described as the most conspicuous power present in the debate as copyright laws have the capacity to emphasise existing power structures and restrict creative practices by enforcing and expanding traditional proprietary norms in the digital environment.<sup>153</sup> The enactment of TPMs as copyright mechanism has enabled technologies to limit access and reproduction.

To understand TPMs, it is necessary to consider its genesis under two Treaties created by the WIPO: the WIPO Copyright Treaty (WCT) and the WIPO Performance and Phonograms Treaty (WPPT). These Treaties require Member States to implement legislative protection for TPMs to deter widespread piracy made possible by advancing technology<sup>154</sup>. In conceptualising the protection of TPMs against circumvention devices, the WIPO Standing Committee on Copyright and Related Rights (SCCR) raised a number of concerns about their impact on competition and innovation. This is reflected in the preamble of the WIPO Copyright Treaty (WCT) which recognises the need to maintain a balance between the rights of authors and the larger public interest, particularly in relation to education, research and access.<sup>155</sup> The SCCR eventually settled to a neutral and general anti-circumvention device provision which stated:

Contracting parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorised by the authors concerned or by the law.<sup>156</sup>

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<sup>153</sup> Craig above n 120, 1. Also see Wiersma above n 50, 10.

<sup>154</sup> See Sirinelli above n 7, 1.

<sup>155</sup> *WIPO Copyright Treaty*, opened for signature 20 December, 1996, S. Treaty Doc. No. 105-17, arts 11 (entered into force 6 March, 2002). The Preamble recognises the need to maintain a balance between the rights of authors and the larger public interest, particularly education, research and access to information, as reflected in the Berne Convention.

<sup>156</sup> The WIPO originally proposed that member states make mandatory the inclusion of TPMs in devices that processed copyright works: Obligations Concerning Equipment: Protection against Uses Conflicting with a Normal Exploit of Works

(1) If equipment might normally be used for reproduction of works in a manner that, if not authorised by the authors concerned, would conflict with a normal exploitation of such works, the manufacture, importation or sale of such equipment shall be prohibited.....unless such equipment is made to conform to technical specifications which prevent its use in such a manner.

This wording became Art 11 of the WCT and Art 18 of the WPPT.<sup>157</sup> The entitlements provided contracting states to experiment with the national interpretation of anti-circumvention law. Brown described this flexibility as “novelty on the international stage”.<sup>158</sup> In effect, Member States incur the obligation of ensuring the legal protection of technological measures.

What is an “adequate” and “effective” level of protection for the vaguely termed “effective” TPM provided national legislators the ability and privilege to enjoy the freedom to implement Art. 11 of the WCT and Art 18 of the WPPT, as long as the legislators grant a “sufficient” level of protection to TPMs.<sup>159</sup> De Werra theorised that because Art 11 of the WCT does not specifically require the anti-circumvention to be integrated in the copyright legislation, contracting states are free to implement protection in any type of legislations such as in computer crime and unfair competition legislation.<sup>160</sup> Brown also observed that the WIPO Treaties require contracting parties to not only provide protection for copyright owners against circumvention devices, but *inter alia* require contracting parties to also ban the act of circumvention as well as devices or services that enable it.<sup>161</sup> This led to Brown's belief that overprotection occurred in three strata encompassing the: “law, technology in aid of law, and law in aid of technology”.<sup>162</sup>

The neutral position that WIPO has taken in its aim to conceptualise a defence for right holder interests against circumvention of TPMs, Member States have applied the obligations which arguably did not balance the interests of the owners and users in the way the WIPO Treaties intended.<sup>163</sup> Sirinelli postulated that the imbalance is due to different States locating the “centre of gravity in different places”, for a variety of philosophical, economic and legal reasons.<sup>164</sup> Similarly, literature has indicated that national legislations in the USA and Australia, through their respective legislative enactment; the US *Digital*

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<sup>157</sup> *WIPO Performance and Phonograms Treaty*, opened for signature 20 December 1996, S. Treaty Doc No. 105-17, arts 18 (entered into force 20 May 2002) (WPPT). Art 11 of the WCT: Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorised by the authors concerned or permitted by law. Art 18 WPPT is in similar terms.

<sup>158</sup> Ian Brown, ‘The Evolution Of Anti-Circumvention Law’, (2006) 20(3) *International Review of Law, Computers and Technology* 1, 5.

<sup>159</sup> See Ibid, 5. Jacques de Werra, “The Legal System of Technological Protection Measures under the WIPO Treaties, the Digital Millennium Copyright Act, the European Union Directives and other National Laws (Japan, Australia)” (Paper presented to the ALAI Congress, New York, June 2001) 1, 9.

<sup>160</sup> Ibid, 13.

<sup>161</sup> Brown above n 158, 5.

<sup>162</sup> Ibid.

<sup>163</sup> Sirinelli above n 7, 5

<sup>164</sup> Ibid.

*Millennium Copyright Act 1998* (hereafter called the DMCA), and the Australian *Copyright Act 1968 (Cth)*, have caused legal uncertainty given that copyright law has become much more influential, from not only regulating the use of the content, but also regulating how a user may access the content.

## **4.2 KEY NATIONAL LEGISLATIVE SOLUTIONS**

For the purposes of this thesis, the implementation of three significant legislative solutions of the WIPO Treaties are identified in the literature being the US DMCA, the EU Directive and the AUSFTA Treaty which is implemented in the Australian *Copyright Act 1968 (Cth)* will be discussed.

### **I. THE UNITED STATES – THE DMCA**

The DMCA adopted the WIPO Treaties in 1998 by enacting rights for authors to the digital transmission of their works to the public. By enacting the DMCA, the objective of Congress was to advance the growth and development of electronic commerce and to protect the rights of intellectual property owners at a time when the entertainment industry feared the potential of extensive piracy. Samuelson and Ginsburg, however, argue the DMCA transcended the WIPO treaties requirements<sup>165</sup>, and § 1201 TPM and anti-circumvention device provisions were “unconstitutionally vague”.<sup>166</sup> The complete § 1201 debate and effects on copyright owners is beyond the ambit of this thesis which focuses on the legislative effects on the video game industry and the access rights.<sup>167</sup>

#### **(a) Prohibitions – TPM and Circumvention Device**

The DMCA was unique when enacted in 1998, as the restrictions on circumvention devices were extended to acts of circumventing access and usage controls.

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<sup>165</sup> See Pamela Samuelson, “Intellectual Property And The Digital Economy: Why The Anti-Circumvention Regulations Need To Be Revised” (1999) 14(1) *Berkeley Technology Law Journal* 1, 25. Also see Jane Ginsburg, “The Pros And Cons Of Strengthening Intellectual Property Protection: Technological Protection Measures And Section 1201 Of The US Copyright Act”, (2007) 16(3) *Information & Communications Technology Law* 1, 8. Also see Corrine Miller, “The Video Game Industry and Video Game Culture Dichotomy: Reconciling Gaming Culture Norms with the Anti-Circumvention Measures of the DMCA” 16(1) *Texas Intellectual Property Law Journal* 453, 457.

<sup>166</sup> Andrew Grosso, “Why the Digital Millennium Copyright Act is a Failure of Reason”, (2002) 45(2) *Communications of the ACM* 19, 19. Also see Ginsburg *ibid*, 21. Ginsburg argues that the US anti-circumvention law is unconstitutional because it ‘chills’ the fair use defence.

<sup>167</sup> *Ibid*. Also see Brown above n 158, 8. He asserts that the anti-circumvention law promoted by the United States was against the “clear sense of Congress” in that it prohibited circumvention for the exercise of fair-use rights. Also see Lucy Craddock and Adrian, McCullagh, “Designing Copyright TPM: A Mutant Digital Copyright” (2005) 13(2) *International Journal of Law and Information Technology* 155, 168. Both dispute that the DMCA is a ‘mutant digital copyright’ as the legislators have overstepped the balance by favouring copyright owners. Also Samuelson above n 161, 1 who argues that the DMCA’s anti-device provisions are overbroad and unclear.

§1201. Circumvention of Copyright Protection Systems

- (a) Violations regarding circumvention of technological measures –
  - (b) (1)
    - (A) No person shall circumvent a technological measure that effectively controls access to a work protected under this title.  
  
...
    - (2) No person shall manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof, that –
      - (A) is primarily designed or produced for the purpose of circumventing a technological measure that effectively controls access to a work protected under this title
      - (B) has only limited commercially significant purpose or use other than to circumvent a technological measure that effectively controls access to a work protected under this title, or
      - (C) is marketed by that person or is acting in concert with that person’s knowledge for use in circumventing a technological measure that effectively controls access to a work protected under this title.<sup>168</sup>

§1201(a) distinguished two prohibitions. First, §1201(b)(1)(A) prohibited the actual circumvention of access control technological protection measures. ATPMs are defined as TPMs which prevent any unauthorised person from gaining access to a copyright protected work, much like a “lock and key” mechanism, which David Nimmer described as the electronic equivalent of breaking into a locked room in order to obtain a copy of the book.<sup>169</sup> Secondly, §1201(b)(2)(A-C) distinguishes between the actual circumvention of TPMs and preparatory activities such as the production and distribution of tools to circumvent TPMs.<sup>170</sup> The prohibitions are limited to devices which are “primarily designed or produced”

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<sup>168</sup> 17 USC § 1201 (1998).

<sup>169</sup> David Nimmer, “A Riff on Fair Use in the Digital Millennium Copyright Act” (2000) 148 *University of Pennsylvania Law Review* 673, 686.

<sup>170</sup> Stefan Bechtold, “Digital Rights Management in the United States and Europe” (2004) 52(2) *The American Journal of Comparative Law* 328, 333. Moreover, whereas the DMCA prohibits the actual circumvention and preparatory activities in regards to ATPMs, it only targets preparatory activities in regard to usage control technologies.

to circumvent; or “have only limited commercially significant purpose or use other than to circumvent” or is marketed by the person or by another with the knowledge it will be used for circumventing a TPM.<sup>171</sup>

The act of circumvention by § 1201(a)(3)(A) means to descramble scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate or impair a technological measure without the authority of the copyright owner. Furthermore, a technological measure “effectively controls access to a work” in the ordinary course of its operation.<sup>172</sup>

### **(b) Exceptions**

Limited exceptions under § 1202 (d)-(j) are given to non-profit libraries, educational institutions and archives to determine if they wish to acquire a work.<sup>173</sup> These exceptions are further supported by the § 107 fair use doctrine to copyright infringement which examines the following:

- (1) The purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purpose;
- (2) The nature of the copyrighted work;
- (3) The amount and substantial portion used in relation to the copyrighted work as a whole;
- and
- (4) The effect of the use upon the potential market for or value of the copyrighted work.

Each limb of the fair use doctrine is equal in status and was intended to provide flexibility in applying the test to a variety of situations<sup>174</sup>.

In the course of completing the thesis, the Librarian of Congress, after three years of examination as per required under 17 U.S.C. § 1201 (1)(a) (1998) introduced a number of exceptions that have relaxed the strict TPM provisions of the DMCA.<sup>175</sup> Three exceptions are especially relevant to the discussion of anti-

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<sup>171</sup> § 1201 (a) (2) (a), (b), and (c)

<sup>172</sup> § 1201 (1)(3)(b)

<sup>173</sup> 17 USC § 1201 (a)(1)(b), (c)-(j) (2006). Additional exceptions include reverse engineering of computer programs, law enforcement, intelligence and other government activities, security testing, encryption research, protection of minors, security testing and circumvention to identify and disable the capability to collected personally identifying information.

<sup>174</sup> Melissa de Zwart, ‘Fair Use? Fair Dealing?’ (2006) 24(1 and 2) *Copyright Reporter* 20, 23.

<sup>175</sup> Described by the US Congress as a ‘fail safe mechanism’, the Librarian of Congress conducts a triennial rule-making procedure under s. 1201(a)(1)(c) that may exempt specific classes of works from DMCA anti-circumvention protection, when persons may be “adversely affected by virtue of such prohibitions in their liability to make non-infringing uses of that particular class of work”. For a comprehensive list of the new exceptions see *Statement of the Librarian of Congress Relating to Section 1201 Rulemakings* (26 July 2010) Library of Congress, <<http://www.copyright.gov/1201/2010/Librarian-of-Congress-1201-Statement.html>>. For an overview of how the exceptions will impact on the entertainment and gaming industries see Nate Anderson, *Apple Loses Big in DRM Ruling: Jailbreaks are Fair Use*, (27 July 2010) *Ars Technica*, <<http://arstechnica.com/tech-policy/news/2010/07/apple-loses-big-in-drm-ruling-jailbreaks-are-fair-use.ars>>. Also see Mike Fahey, *New*

circumvention. Firstly, bypass of content scrambling systems of movies legally purchased in order to incorporate short portions of the work into educational or other non-commercial uses is permissible. Secondly, circumventing the technological measures of wireless telephone handsets is protected under fair use for the sole purpose of interoperability. This exception was recently extended to the unlocking of smartphones under the *Unlocking Consumer Choice and Wireless Competition Act* (2014).<sup>176</sup> Thirdly, bypassing the DRM of a personal computer video game is allowed if it is for the purpose of good faith testing for investigating the DRM or correcting security flaws or vulnerabilities. This exception now also extends to the permitted circumvention of gaming console and video game DRM for the preservation and archiving of abandoned server-based (or online) video games where the developers are no longer able or willing to maintain the servers, either for personal use or for preservation of the game in a playable form by an eligible library.<sup>177</sup>

Even with the Library of Congress expansion of exceptions to § 1201, the limitations remain narrow however according to the literature above. Lohmann considered the powerful prohibitions and narrow exceptions granted to copyright owners as the power to “unilaterally eliminate the public’s fair use rights”, and in practice, the anti-circumvention provisions have been used to stifle a wide array of legitimate activities, rather than to stop copyright infringement.<sup>178</sup> These arguments are evident in court cases instigated by corporations subject to their claims of violation of their TPM rights, not by pirates, but against consumers, scientists, and legitimate competitors.

### **(c) Anti-circumvention case law**

Since the adoption of the DMCA, the U.S. courts have judicially examined § 1201 and the decisions have incited frustration because the DMCA has been criticised for “chilling” fair use and innovation.<sup>179</sup> For instance, Russian software company Elcomsoft was indicted for marketing a software program that circumvented a DRM protection in Adobe’s ebook reader software. The program allowed the conversion of the proprietary Adobe e-Book format into PDF files, thereby removing restrictions embedded into the

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*DMCA Rules Say Jailbreaking Your iPhone is OK*, (27 July 2010) Kotaku <<http://www.kotaku.com.au/2010/07/new-dmca-rules-say-jailbreaking-your-iphone-is-ok/#comment-149456>>.

<sup>176</sup> *Unlocking Consumer Choice and Wireless Competition Act* 1123 H.R. § 2(c) (2014).

<sup>177</sup> For the new exceptions, see *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies* (28 October 2015) Library of Congress <<http://copyright.gov/1201/2015/fedreg-publicinspectionFR.pdf>>.

<sup>178</sup> Fred Von Lohmann, ‘Unintended Consequences: Twelve Years under the DMCA’ (2010) *Electronic Frontier Journal* 1, 1.

<sup>179</sup> *Ibid.*

files by e-book publishers.<sup>180</sup> In *RealNetworks v DVD Copy Control Association*, RealNetworks ceased the commercial distribution of the RealDVD software which allowed users to copy a DVD and store it on their hard drive. Despite RealDVD's argument that the software had lawful fair uses such as backing up of rightfully owned DVDs and the backed up copy preserved the CSS copy protection systems, the Federal Court on appeal ruled under the DMCA to forbid the distribution of tools like RealDVD under §1201 (1)(a). The court reasoned the DMCA is fundamentally aimed at outlawing devices that are intended to facilitate circumvention of TPMs, despite the legitimate uses of the RealDVD software which was found to be insufficient.<sup>181</sup>

The case of *Chamberlain Group v Skylink Technologies* illustrated the attempted use of the DMCA as a method for leverage of sales into aftermarket monopolies.<sup>182</sup> In this decision, garage door manufacturer Chamberlain contended that compatible cheaper second market garage door openers bypassed the “authentication regime” between the Chamberlain remote opener and the mounted garage door receiver unit. The court ultimately decided against Chamberlain, claiming the DMCA does not create a new right to regulate access to works, but instead only gives the right to prohibit access that otherwise infringes a right protected by copyright.<sup>183</sup> The courts have also determined right holders cannot subvert lawful fair uses.<sup>184</sup> The subsequent decision of *Lexmark v. Static Control Components* supported a similar argument in the printing industry in regard to third party printer cartridges, with the court deciding the DMCA protections do not extend to TPMs that restrict one form of access but leave another route wide open.<sup>185</sup> These decisions illustrate the industries use of the DMCA anti-circumvention provisions in unintended circumstances including “controlling downstream markets by a combination of technology and law and challenging innovation in these markets”.<sup>186</sup>

Video games were also the subject of the DMCA, brought into light by gaming console manufacturers and video game producers such as Sony and Blizzard. In the case of *MDY Indus., LLC v Blizzard Entertainment*,

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<sup>180</sup> *U.S. v Elcom Ltd.*, 203 F.Supp.2d 111 (N.D. Cal. 2002). However, in December 2002, a jury acquitted the company of all charges.

<sup>181</sup> *RealNetworks v DVD Copy Control Association* 641 F. Supp. 2d 913, 942 (N.D. Cal., 2009). Also see *RealNetworks, Inc. v Streambox, Inc.* 2000 WL 127311 (W.D. Wash, 2000). A District Court granted a preliminary injunction against a company offering a software program that had a copy protection technology in the widely-used RealNetworks audio and video player software.

<sup>182</sup> *Chamberlain Group v Skylink Technologies*, 381 f.3d 1178 (Fed.Cir.2004).

<sup>183</sup> *Ibid* 1202

<sup>184</sup> *Ibid*. “What the law authorizes, Chamberlain cannot revoke.”

<sup>185</sup> *Lexmark v. Static Control Components*, 387 F.3d 522, 547 (6th Cir. 2004).

<sup>186</sup> Bechtold above n 170, 334.

*Inc.*, Blizzard (the creator of the popular MMORPG World of Warcraft (WoW)) used the DMCA to sue developers of a program which enabled players to continue playing even while the player is idle through a separate AI controlling the player's avatar.<sup>187</sup> Blizzard however claimed the program breached §1201 (1)(a) by circumventing the DRMs used by Blizzard to control access to copyrighted materials stored on the WoW servers. The developers of these 'bot' programs, MDY Industries, on the other hand argued the programs reduced the time that a user must otherwise spend to progress in the game. The Ninth Circuit ultimately concluded the program did breach §1201 (1)(a) and entered a permanent injunction against MDY to prevent future violations.<sup>188</sup>

Similarly in *Davidson & Assoc. v Jung*, where Blizzard successfully prevailed on its DMCA claim against a group of volunteer gamer enthusiasts who managed to develop a software called 'bnetd' that allowed owners of Blizzard games to play their games over the Internet, outside the official Blizzard service Battle.net. While the software was freely distributed, open source and non-commercial, Blizzard argued the software was a circumvention device and could potentially be used to play pirated Blizzard games.<sup>189</sup> These decisions however have been criticised for stymieing the ability of users to create 'add-on' software that may improve the user experience for copyright users because it breached §1201 (1)(a) of the DMCA.

Under the DCMA 17 U.S.C. § 1201 (a)(2)(A) and (B), the mod chip was held to be a circumvention device to a TPM in the case of *Gamemasters*. The plaintiff, Gamemasters Inc., was sued by Sony for selling a mod chip called "Game Enhancer". The court focused on the primary function of the device, and it recognised consumers had a legal right to play imported games:

It would seem that the games, legally, validly manufactures and sold in Japan, for example do not become transformed into illegal, bootleg infringing games merely because they are transported across the ocean and sold by third parties who may choose to do so. A consumer's choice to play the non-territorial game cannot be the infringing activity.<sup>190</sup>

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<sup>187</sup> *MDY Indus., LLC v Blizzard Entertainment, Inc.* 629 F.3d 928, 954 (9th Cir, 2010).

<sup>188</sup> *Ibid*

<sup>189</sup> *Davison & Assoc. v Jung* 422 F.3d 630 (8<sup>th</sup> Cir. 2005).

<sup>190</sup> *Sony v Gamemasters* 87 F.Supp.2d 976, 986 (N.D. Cal 1999).

Despite this recognition, it dismissed the alternative uses and fair use argument by stating that since the Game Enhancer did not exactly mimic the functions of a similar Sony product, the products were not competing and there was no basis for a claim of copyright misuse. As such, the court concluded the Game Enhancer is a device primarily designed for the purposes of circumventing effective TPM's:

[Sony] specifically designed the Playstation console to access only those games with data codes that match the geographical locations of the game console itself. The Game Enhancer circumvents the mechanism on the Playstation console that ensures the console operates only when encrypted data is read from an authorised CD-ROM... Thus at this stage, the Game Enhancer appears to be a device whose primary function is to circumvent “a technological measure (or a protection afforded by a technological measure) that effectively controls access to a system protected by a registered copyright.”<sup>191</sup>

In *Divineo*<sup>192</sup>, it was also held that console modifications for the PS2 violated the DMCA despite "the lawful or fair use of circumvention devices."<sup>193</sup> The District Court judge argued despite the legitimate uses of the mod chips such as interoperability of an independently created computer program, “the downstream customers' lawful or fair use of circumvention devices does not relieve the plaintiff from liability for trafficking in such devices under the DMCA.”<sup>194</sup> As such, the mere trafficking of the mod chip and circumvention of the PS2 breached the DMCA, despite its legitimate uses. The case however did not examine the fair use doctrine in the area of circumvention devices.

In response to this case, Harris Jr. argued the *Divineo* decision sounded the death knell for the use of mod chips within video game systems but emphasises that “with existing valid arguments for significant non-infringing uses and lessons provided by other countries, victories in lawsuits may not be far away”.<sup>195</sup> He reasoned that non-infringing applications from a consumer rights perspective should not be minimised. In this respect the gaming community identifies a consumer's right to use or benefit from non-infringing

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<sup>191</sup> Ibid. [Sony] specifically designed the Playstation console to access only those games with data codes that match the geographical locations of the game console itself. The Game Enhancer circumvents the mechanism on the Playstation console that ensures the console operates only when encrypted data is read from an authorised CD-ROM... Thus at this stage, the Game Enhancer appears to be a device whose primary function is to circumvent “a technological measure (or a protection afforded by a technological measure) that effectively controls access to a system protected by a registered copyright.

<sup>192</sup> *Sony Computer Entertainment v Divineo* 457 F. Supp. 2d 957 (N.D. Cal. 2006).

<sup>193</sup> Ibid 965. The case however did not examine the fair use defenses.

<sup>194</sup> Ibid 965.

<sup>195</sup> Phillip A. Harris Jr. “Mod Chips and Homebrew: A Recipe for their Continued Use in the Wake of Sony v Divineo” (2007) 9(1) *North Carolina Journal of Law and Technology* 113, 113.

homebrew software or video games from other regions played on domestic gaming systems, as outweighing any potential damage to copyright owner's bottom line.<sup>196</sup>

Harris' arguments are supported by Ginsburg's analysis of the *321 Studios v MGM*<sup>197</sup> that noted the flaw in the DMCA, wherein the U.S. courts are not required to determine whether the primary purpose or actual use of the device was to circumvent the law.<sup>198</sup> This analysis was not upheld in the *Divineo* case, however, as the court deemed it unnecessary to decide the potential non-infringing uses of the mod chips to override region coding or to allow interoperability with independent computer programs.<sup>199</sup> The *Divineo* decision thus accepted that the trafficking and the act of circumvention was sufficient to breach the DMCA.

Recent events demonstrate the shift of copyright law enforcement from owners chasing after infringers to an "ex ante" model whereby ISPs, search engines, social networking corporations and other intermediates assume responsibility for the filtering of infringing content on their networks or face liability, through the Stop Online Piracy Act (SOPA) Bill 2011.<sup>200</sup>

#### **(d) SOPA**

Formally known as Bill 3261, SOPA was introduced in the United States House of Representatives in 2011 by U.S. Representative Lamar Smith. The bill was aimed at enhancing the U.S law enforcement abilities to combat illegal online file-sharing and counterfeited goods. SOPA also established a system for taking down websites which the Justice Department determined to be dedicated to copyright infringement.

SOPA's main purpose would have allowed the Attorney-General and copyright owners to obtain, cease and desist orders against US-directed websites which facilitate or commit online piracy.<sup>201</sup> These court orders included wide powers to impose restrictions on the four parties involved in assisting the operation and promotion of offending websites. These parties are: Service Providers<sup>202</sup>; Internet Search Engines<sup>203</sup>;

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<sup>196</sup> Ibid.,125.

<sup>197</sup> *321 Studios v MGM* 307 F. Supp. 2d 1085, 1097-98 (N.D. Cal. 2004)

<sup>198</sup> Ginsburg above n 165, 8. "It is the technology itself at issue, not the uses to which the copyrighted material may be put... It finds that legal downstream use of the copyright material by customers is not a defence to the software manufacturer's violation of the provision of s 120(b)(1)

<sup>199</sup> Ibid.

<sup>200</sup> Stop Online Piracy Act, H.R. 326 112<sup>th</sup> Congress (2011). Also see Joe Karaganis and Lennart Renkema, "Copy Culture in the US and Germany" (2013) *The American Assembly Columbia University* 1, 41.

<sup>201</sup> See SOPA § 101 (23) U.S. Directed Sites – means an Internet site or portion thereof that is used

<sup>202</sup> SOPA Title I, § 102.c, Para 2.A - Service providers are required under an order from the Attorney-General to take "feasible and reasonable measures" to prevent access to US subscribers to the foreign offending website.

Payment Network Providers<sup>204</sup>; and Internet Advertising Providers.<sup>205</sup> Each of these four parties was required to take "feasible and reasonable measures" to prevent, prohibit or suspend the flow of commerce depending on the characteristics of the entity.

The manner of taking these "feasible and reasonable measures" operates through two mechanisms accessible to the Attorney General and copyright owners. Firstly, § 102 empowers the US Attorney-General to seek an injunction from a US court against a rogue website and then serve that injunction to these four intermediaries requiring them to cease dealing with the website. For example, the U.S. Department of Justice can file a civil action against foreign rogue sites by directing ISPs and internet search engines to "take the least burdensome, technically feasible and reasonable measures designed" to prevent access to the offending website. In addition, it orders payment processors and online advertising networks to cease the provision of money to the rogue website. Secondly, under § 103, copyright owners are given the right to commence an action against foreign rogue websites to prohibit and cease the provision of money from the U.S. to the rogue websites through payment processes and online advertising networks within five days. Subjecting these four parties to the provisions of the bill was to expand the responsibility of preventing widespread foreign intellectual property infringement by including the intermediaries seen as the source of funds and mechanisms utilised by Internet users to access infringing material. This proposal extended copyright protection and prevention beyond the owner of the content, without necessarily making them secondary liable to the acts of rogue websites. This placed them in a position to vicariously limit their operations by limiting the economic and download traffic of the foreign rogue website.<sup>206</sup>

SOPA also aimed to introduce penalties for streaming videos and for selling counterfeit drugs, military materials, or consumer goods, and to criminalise unauthorised streaming of copyrighted content, with a maximum penalty of five years in prison for ten such infringements within six months. Lastly, a safe harbour justification defence to prosecution was provided to any entity served with an order if they acted

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<sup>203</sup> SOPA *Title I, § 102.c, Para 2.B* - Internet search engines are required under an order from the Attorney-General to take "feasible and reasonable measures" to remove all "direct hypertext links" to the foreign offending website.

<sup>204</sup> SOPA *Title I, § 102.c, Para 2.C* - A payment network provider is required to take "feasible and reasonable measures" to prevent, prohibit or suspend any transactions between the foreign offending website and U.S. customers.

<sup>205</sup> SOPA *Title I, § 102.c, Para 2.D* - An internet advertising service that provides advertising to or for the foreign offending website shall take "feasible and reasonable measures" to no longer serve ads linking to the site, or display ads on the foreign site.

<sup>206</sup> Kimberlee Weatherall, "Evaluating SOPA: Who should enforce IP Online?" (2012) 62(2) *Telecommunications Journal of Australia* 59.1, 59.4

in a manner "reasonably designed to comply" with the bill or, they take voluntary action to sever ties with the offending website.<sup>207</sup>

The bill however was summarily defeated in 2012 when significant numbers of Republican politicians withdrew their support, citing effects on the flow of commerce and interference with the United States constitutional right of freedom of speech. A revised version of the bill titled the "Manager's Amendment"<sup>208</sup> was defeated despite assurances that the revised bill would not impose a restraint on the American doctrines of free speech and press, and that it narrowed enforcement to non-US websites designed or operated with the intent to promote copyright infringement.

Nationwide implementation of internet censorship aroused public and internet protests on a global scale during the bills deliberation, but the bill's defeat would have been a landmark in copyright law reform in that, for the first time, a significant number of Republican lawmakers withdrew their support for a stronger IP enforcement. Community opposition and the swiftness of the response startled Congress and SOPA supporters, resulting in the MPAA declaring SOPA to be "gone" and "not coming back".<sup>209</sup> Regardless of whether SOPA would in fact threaten the sanctity of the Internet, the overwhelming response highlighted the power of social media and culture in law reform in an era of internet distribution of ideas.

## II. THE EUROPEAN UNION – THE DIRECTIVE

The European Union Directive is the response to the obligations established in the WIPO treaties for the protection of technological measures. Unlike the DMCA, the purpose of the Directive was to harmonise the commercial rights of authors and neighbouring rights holders among EU nations, as well as attempting to harmonise the areas of exceptions to copyright and the legal protection of TPMs, including DRM<sup>210</sup>. There were grave concerns that the Single Market of the European community would be fragmented by the national sovereignty of copyright laws resulting in the imbalance of rights between copyright holders and users.<sup>211</sup> These concerns were expressed in the 1995 *Green Paper on Copyright and*

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<sup>207</sup> SOPA §.102 (c) (5) (B).

<sup>208</sup> Mike Masnick *Lamar Smith Proposes New Version of SOPA, with just a Few Changes* (12 December 2011) techdirt <<https://www.techdirt.com/articles/20111212/14010917054/lamar-smith-proposes-new-version-sopa-with-just-few-changes.shtml>>.

<sup>209</sup> James Johnson, *SOPA and PIPA are Dead says MPAA Chairman Chris Dodd* (4 October 2012) The Inquisir, <<http://www.inquisitr.com/352649/sopa-and-pipa-are-dead-says-mpaa-chairman-chris-dodd/>>.

<sup>210</sup> Matthias Leistner, 'Copyright Law in the EC: Status Quo, Recent Case Law and Policy Perspectives' (2009) 46(3) *Common Market Law Review*, 847, 848.

<sup>211</sup> Trevor Cook, Lorna Brazell, Simon Chalton and Calum Smyth *The Copyright Directive: UK Implementation* (Jordan Publishing Limited, Bristol, 2004), 13.

*Related Rights in the Information Society*<sup>212</sup>, which recommended that copyright protection be applied to new digital technology as a means of combating the low level of security in the medium.<sup>213</sup> The 1996 European Commission Communication outlined the legislative initiatives required to “achieve a level playing field for copyright protection in the framework of the European Single Market in a coherent context”.<sup>214</sup> The 1995 Green Paper and 1996 Communication precipitated a five year debate, with aggressive lobbying on the Directive before its final adoption on 9 April 2001. Scholars have condemned the lack of legal certainty of the Directive in achieving the intended harmonisation<sup>215</sup> and the strong imbalance in favour of the right holders regarding the confusing exceptions.<sup>216</sup> Articles 5 and 6 of the Directive, which govern the TPM rights and exceptions, are central to academic debates in the literature.

### **(a) Prohibitions**

The Directive was aimed at implementing adequate protection of copyright work for Member States and copyright owners against piracy. These obligations in Art. 6 provide Member States the power to introduce adequate legal protection against the circumvention of any effective TPM and expressly prohibit the act of circumvention.

Art. 6.2 require;

Member states shall provide adequate legal protection against the manufacture, import, distribution, sale, rental, advertisement for sale or rental, or possession of commercial purposes of devices, products or components or the provision of services which... circumvent... any effective technological measures..<sup>217</sup>

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<sup>212</sup> *Copyright and Related Rights in the Information Society - Green Paper* [1995] OJ COM 95/1.

<sup>213</sup> Cook et al. above n 211, 13. Also see Ibid, 4. The paper stressed that the rights conferred by domestic law are too restricted by their territorial scope, and that limitation can be reduced through the harmonisation of Member States regulations.

<sup>214</sup> *Communication from the Commission: Follow-up to the Green Paper on Copyright and Related Rights in the Information Society* [1997] COM 96/1, 4. In its Communication Report, the Commission outlined four priorities for legislative action: reproduction rights, communication rights, legal protection of anti-copying system and distribution rights; and to improve harmonisation between Member States and eliminate barriers to trade in copyright goods and services. The Communication considered the right to reproduce work as the most important amongst the priorities because in view of the development of new forms of reproduction such as scanning and digitisation, there was an urgent need to properly define the limits of the protection throughout the EU.

<sup>215</sup> See J. Carlos Fernandez-Molina, “Laws against the circumvention of copyright technological protection” (2003) 59(1) *Journal of Documentation* 41, 59. Also see Urs Gasser and Michael Girsberg, ‘Transposing the Copyright Directive: Legal Protection of Technological Measures of Member States: A Genie Stuck in the Bottle?’, (2004) 10 *Berkman Publication Series* 1, 1.

<sup>216</sup> See Severine Dusollier, ‘Fair Use By Design In The European Copyright Directive of 2001’ (2003) 46(4) *Communications of the ACM* 51, 51. Also see Natalie Helberger and P. Bernt Hugenholtz, ‘No Place Like Home For Making a Copy: Private Copying In European Copyright Law And Consumer Law’, (2007) 22 *Berkeley Tech. L.J.* 1061, 1093.

<sup>217</sup> Art. 6.2 provides adequate protection against the provision of devices which:

- (a) Are promoted, advertised, or marketed for the purpose of circumvention of, or
- (b) Have only a limited commercially significant purpose or use other than to circumvent, or
- (c) Are primarily designed, produced, adapted or performed for the purpose of enabling or facilitating the circumvention of, any effective technological measures.

In other words, the business of trafficking circumvention devices are regulated and these ‘preparatory acts’ are to be prohibited under the Directive. An effective technological measure is defined by Art. 6.3 to include any technology, device or component that in its normal operation is designed to prevent or restrict acts, in respect to works or other subject matter, which are not authorised by the right holder of any copyright or any right related to copyright as provided for by law or the *sui generis* right provided for in Chapter III of Directive 96/9/EC. Article 6.3 also states that an ‘effective’ TPM is where the work or other subject matter is protected through the application of an access control or protection process which achieves that objective.

Two observations about Arts. 6.2 and 6.3 can be made. First, Brown argues the definition of effective technological measures does not restrict the circumvention of technologies that control acts or works not protected by copyright, such as DVD region codes or protected public domain works.<sup>218</sup> His argument is based upon the effect of EU competition law “because the enforcement of price discrimination is plainly not a right granted by the EU Copyright Directive because price issue breaches the competition law, causing divisions in the market under EU Trade Practices.”<sup>219</sup> The test of effectiveness requires the right holders to prove the TPM can reach a level of effectiveness in order to obtain legal protection against circumvention.<sup>220</sup> Therefore, deficient TPMs that are easily circumvented, even if done accidentally, cannot be protected against circumvention. Second, breach occurs with the prohibited acts without proving the dissemination of circumvention devices have resulted in actual infringements or the purpose was to commit an infringing act. The broad definition of TPM in this instance covers both access and copy control TPM, without making the distinction between these types of TPMs.

The Directive augments the protection of TPMs with an express prohibition on the act of circumvention itself under Art. 6.1:

Member States shall provide adequate legal protection against circumvention of any effective technological measures, which the person concerned, carries out in the knowledge, or with reasonable grounds to know, that he or she is pursuing that objective.

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<sup>218</sup> Brown above n 158, 10 and 12.

<sup>219</sup> Ibid.

<sup>220</sup> de Werra above n 159, 28.

The requirement of actual or constructive knowledge as an element to prove circumvention in the Directive means acts of circumvention by a person without actual or constructive knowledge or reasonable grounds of knowing that the person is pursuing the objective of circumventing, will not trigger any legal sanctions.<sup>221</sup>

The Directive Recital 48 however provides that electronic and multi-purpose services that have a commercially significant purpose are not prohibited just because, in proportionality, they are able to circumvent technological protection measures.<sup>222</sup> This provision added to avoid litigation against manufacturers who place in commerce products designed for legitimate purposes but which potentially could be used for purposes of circumvention.<sup>223</sup>

### **(b) Exceptions**

Paragraph 31 states the principles of fair balance between the interests of right holders and users must be safeguarded. This principle is to be used in interpreting the Directive.<sup>224</sup> This principle meant permissible exceptions have been provided to prevent TPMs from unduly interfering with the interests of right holders. These exceptions are categorised in two forms. First, Art. 5(1) provides compulsory exceptions that Member States must implement; and second, Art. 5(2) provides Member States a list of additional optional exceptions for member states to choose from. The choice of the optional exceptions is determined by each Member State. A state can choose all or select those relevant to their national laws according to Art. 6(4), which Littoz-Monnet argued was an objective for the Commission also wanted to promote the development of the information society and further liberalisation.<sup>225</sup>

In Art. 5(2), right holders and users can adopt an agreement allowing the users to benefit from the exceptions guaranteed by the national legislations. In the absence of such agreements, Member States are required under Art 6.4 to take measures to ensure that the right holders:

Make available to the beneficiary of an exception or limitation provided for in national law

... the means of benefiting from that exception or limitation, to the extent necessary to

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<sup>221</sup> Ibid, 29.

<sup>222</sup> Ibid., Recital 48. “Such legal protection should respect proportionality and should not prohibit those devices or activities which have a commercially significant purpose or use other than to circumvent the technical protection. In particular, this protection should not hinder research into cryptography.”

<sup>223</sup> Sirinelli above n 7, 5. This accords with the view that it is not the machine that is illegal but the use which it is put into.

<sup>224</sup> See Paragraph 31 of the Directive: “A fair balance of rights and interests between the different categories of right holders, as well as between the different categories of right holders and users of protected subject-matter must be safeguarded.”

<sup>225</sup> Annabelle Littoz-Monnet, “Copyright In The EU: Droit D’Auteur Or Right To Copy?”, (2006) 13(3), *Journal of European Public Policy* 438, 451.

benefit from that exception or limitation and where that beneficiary has legal access to the protected work or subject matter concerned.

Art. 6.4 provides for three types of exceptions that reflect their importance to legislators.<sup>226</sup> The first group pursues a public policy objective, referring to the reproduction right<sup>227</sup>, or to the reproduction or communication to the public rights.<sup>228</sup> The second group encompasses the interaction between TPMs and private use exceptions.<sup>229</sup> These exceptions introduce the concept of ‘fair compensation’ in the form of levies, which has remained by far the most common remuneration scheme for private compensation although the Directive does not explicitly mandate levies as a form of fair compensation.<sup>230</sup> The third group captures the national exceptions and analogue variation exceptions included in Art. 5 but not mentioned in the first paragraph of Art. 6.4.

The discretionary exceptions are balanced with the sole mandatory exception in Art. 5(1). This mandatory exception includes: temporary acts of reproduction which are integral and essential to a technological process, the sole purpose being to enable the lawful use or transmission in a network between third parties by an intermediary of a work or other-subject matter which has no separate economic significance. This exception is to protect Internet Service Providers (ISPs) regarding ‘cached copies’<sup>231</sup>, and to satisfy

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<sup>226</sup> Fernandez-Molina above n 215, 57.

<sup>227</sup> Ibid. These exceptions include article 5.2(a) (reprography); 5.2(c) (reproductions made by publicly accessible libraries, educational establishments or museums and archives); 5.2(d) (certain ephemeral recordings made by broadcasters); 5.2(e) (reproductions of broadcasts made by certain social institutions).

<sup>228</sup> id. These exceptions include Art. 5.3(a) (for the purpose of illustration for teaching or scientific research); 5.3(b) (for the benefit of people with a disability; and 5.3(e) (use for the purposes of public security or to ensure the proper performance or reporting of administrative, parliamentary or judicial proceedings).

<sup>229</sup> See under Art. 5(2)(b):

Member states might provide for exceptions or limitations to the reproduction right provided for in Article 2:

(b) in respect of reproduction on any medium made by a natural person for private use and for ends that are neither directly nor indirectly commercial, on condition that the right holders receive fair compensation which takes account of the application or non-application of technological measures referred to in Article 6 to the work or subject-matter concerned.

Also see Art. 6.4(3).

<sup>230</sup> Helberger et al. above n 216, 1069. Since these were introduced by the German Federal Supreme Court in 1964, copyright levies have gradually spread across the European Union. Consequently, there is no uniform European levy system, but Copyright levies vary between Member States according to the exceptions and limitations provided. See Copyright Levies and Reprography (2008) *International Federation of Reproduction Rights Organisations*, <<http://www.ifro.org/upload/documents/Ifro-Levy%20Publication-9.pdf>>, 12-13. In Germany, the equipment levy applies to photocopiers, fax machines, reader printers, scanners and CD and DVD burners. In 2004, Germany became the first European nation to impose 12 euro copyright levy tax on new personal computers due to the outcome of the District Court case by VG Worts Right Society, which has sought compensation for digital copying, against PC manufacturer Fujitsu Siemens (Holding) BV. From 2008 onwards, distributions to rights holders will include payment for the copying of online works, with the money coming from the equipment levy on CD and DVD burners. In contrast, the United Kingdom has vehemently argued against Copyright levies. For instance, the UK’s Campaign for Digital Rights condemned the German District Court decision to impose levies on new PC’s, claiming copyright levies are inherently regressive taxation since they don’t take into account ability to pay and the effect is to punish everyone for copyright infringement by only a few users.

<sup>231</sup> Martin Kretschmer, ‘Digital Copyright: The End of an Era’ (2008) 25(8) *European Intellectual Property Review* 333, 339. “Cache’ copies are used to store previous responses from web servers, such as web pages. Web caches reduce the amount of information that needs to be transmitted across the network, as information previously stored in the cache can often be re-used. This reduces bandwidth and processing requirements of the web server, and helps to improve responsiveness for users of the web.

consumer groups that acts of temporary copying, such as viewing videos on the internet would not come within the scope of copyright infringement.

### (c) Criticisms

The increased protection to TPM prompted campaign group Eurorights.org to criticise Art. 6 as making the computer code control what can and cannot be done in the digital world, and not the law.<sup>232</sup> Criticisms in the academic debate arise within two fields. Firstly, the Directive failed to achieve harmonisation because of the extended list of exceptions listed in Art. 5(2) and (3). Secondly, the Art. 5(2)(b) exception for temporary acts of reproduction is described as “unclear, complex and arguably unnecessary”.<sup>233</sup>

Sirinelli observed that just from the format and history of the Directive, the EU was more concerned to defend the rights of authors and holders of neighbouring rights.<sup>234</sup> He argued the exceptions to the prohibition on circumvention appeared only late in the development of the Directive and were not accepted until the end of the negotiations.<sup>235</sup> This he identified as a lack of concern about exceptions to circumvention that support right owners against users. The Directive does not indicate the type of agreement should be reached to facilitate the exercise of exceptions, nor under what circumstances they may intervene, nor whether it is possible to prohibit the TPMs becoming too restrictive in accessing content.<sup>236</sup> Another failure of the Directive is the lack of harmonisation in regard to the introduced exceptions under Art. 5. Lucchi argued the Directive offers a very long list of exceptions, only one is mandatory while all the other exceptions are subject to the free choice of each Member state.<sup>237</sup> Cook et al. argued setting limitations expressly within the Directive is conceptually inflexible to deal with unforeseen situations that arise in the internet environment.<sup>238</sup> They further contend that the Directive incorporated clauses allowing Member States to apply existing exceptions but “only in minor cases and only for analogue use”.<sup>239</sup> It is also troubling that since the Directive is evasive on the method of

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<sup>232</sup> EDRI, Implementing the European Copyright Directive (2003) EDRI: Protective Digital Freedom <<https://edri.org/edriagramnumber1copyright/>>. Also see Tricia Mohan, 'Freedom VS. Control: Private Copying And Technological Protection Measures' (2003) 36(1) *Law Technology* 19, 38.

<sup>233</sup> Cook et al. above n 211, 12.

<sup>234</sup> Ibid, 13.

<sup>235</sup> Ibid.

<sup>236</sup> Fernandez-Molina above n 215, 59.

<sup>237</sup> Nicola Lucchi, *Digital Media & Intellectual Property: Management of Rights And A Consumer Protection In A Comparative Analysis* (Springer, Berlin, 2006), 57. The only mandatory exception is the right of reproduction under paragraph 3 of Art. 6.4.

<sup>238</sup> Cook et al., above n 211, 21.

<sup>239</sup> Ibid.

intervention, uncertainty persists in the implementation Member States through legislation, resulting in the ability of member states to defeat the harmonisation purpose of the Directive.<sup>240</sup>

The national implementation through individual state selection affects the copyright balance within the EU since the Member State have discretion to include the non-mandatory exceptions in their national legislation. Further, the Directive does not list any exceptions to the anti-circumvention provision. Arguably, Recital 48 may be an exception to the anti-circumvention provision as it provides Member States a test for proportionality to determine whether the legal uses of the device overshadow the ‘incidental’ ability to circumvent the effective TPM. The lack of legislative definition enable national variations to the development in interpretation both legislatively and judicially of acts of identical intent. Although the actual act of circumvention will be illegal if it crossed into countries where no exemption applies, the enforcement of the law and “these doctrinal divergences will promote the increase of unlawful acts (which will remain undiscovered) on certain territories.”<sup>241</sup>

The harmonious application of the Directive anti-circumvention rules regarding the distribution of mod chips in the UK, Spain and France courts appears to defy these criticisms. The UK High Court decision in *Nintendo Company Ltd. & Anor v Playables Ltd & Anor* [2010] EWHC 1932 (Ch) by Floyd J judged that with s 296ZD under the *Copyright Designs Patents Act* 1986, persons may end up liable with dealing in the UK in devices capable of circumvention regardless of whether circumvention should occur and equally whether the circumvention should take place in the UK.<sup>242</sup> In this case, the court also concluded that “[t]he mere fact that the device can be used for a non-infringing purpose is not a defence, provided one of the conditions in section 296ZF(1)(b) is satisfied.”<sup>243</sup> Likewise, the Spanish Criminal Court of Bilbao in 2015 sanctioned importers of the R4 mod chip for circumvention of the Nintendo DS TPM.<sup>244</sup> The Paris

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<sup>240</sup> See *Consolidated Version of the Treaty Establishing the European Community* [2002] O.J. C 235/65, Art. 249. This states the directive “shall be binding, as to the result to be achieved, upon each Member States to which it is addressed, but shall leave to the national authorities the choice of form and methods”.

<sup>241</sup> Sirinelli above n 7, 18.

<sup>242</sup> *Nintendo Company Ltd. & Anor v Playables Ltd & Anor* [2010] EWHC 1932 (Ch) 1, 26. It is common ground that the accused devices have been imported and offered by the defendants. It is clear from the evidence that all the accused devices allow the Nintendo DS to boot up and play games by successfully circumventing the ETM. It follows that the devices meet the conditions specified in each of subsections (i) to (iii) of section 296ZF(1)(b).

<sup>243</sup> *Ibid.*

<sup>244</sup> Decision of the Criminal Court of Bilbao, 27 March 2015.

Court of Appeals in 2011 also issued criminal sanctions against distributors of mod chips in France.<sup>245</sup>

These cases illustrate that courts in EU countries have interpreted Art 6 of the Directive consistently.

The Italian Milan District Court however somewhat took a different turn from this trend. In January 2014, the *Tribunali di Milano* (Milan District Court) sought clarification from the European Court of Justice (ECJ) in *Nintendo and Others v PC Box SRL and Others* to the extent of the protection offered by Art. 6, and the principle of proportionality offered by Art 6 and Recital 48 in regard to the circumvention of video game console TPMs to allow interoperability of third party software that is not native to the video game console.<sup>246</sup>

**(d) ECJ case law - *Nintendo v PC Box***

The plaintiff, Nintendo sought to ban the distribution of a device manufactured and distributed by PC Box as it circumvented and deactivated the TPM of Nintendo's proprietary gaming consoles.<sup>247</sup> The defendant, PC Box, marketed original Nintendo consoles with pre-installed PC Box equipment that enabled access and use of unauthorised copies of Nintendo games together with installation of independently developed applications and programs, otherwise known as homebrew.<sup>248</sup> While PC Box acknowledged the device does circumvent the effective TPM of Nintendo's consoles, it argued the device does not facilitate illegal copying of video games, rather it is intended to enable movies, videos and MP3 files to be read on the consoles, essentially turning the Nintendo console into an all-purpose media player.<sup>249</sup> The *Tribunale di Milano* stayed its proceedings and sought the European Court of Justice for a preliminary ruling and made two findings.

The ECJ firstly ruled the legal protection afforded to technical measures under Art. 6.3 covered both the TPMs in the device which houses the copyrighted content (such as the Nintendo game cartridge or CD), but also the encryption codes and systems instilled in the housing system of the console.<sup>250</sup> This decision clarified the interactivity of TPMs as an effective copyright protection measure, even when the TPMs are two-part measures protecting the content in tandem with each other.

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<sup>245</sup> Decision of the Court of Appeals in Paris, 23 September 2011.

<sup>246</sup> *Nintendo and Others v PC Box SRL and Others* (Court of Justice of the European Union, C-355/12, 23 January 2014) (hereafter *Nintendo v PC Box*)

<sup>247</sup> *Nintendo v PC Box* at [12].

<sup>248</sup> *Ibid.* [14].

<sup>249</sup> *Ibid.* [15].

<sup>250</sup> *Ibid.* [28]

The ECJ secondly analysed and made recommendations regarding the lawful circumvention of an effective TPM of a gaming console in certain circumstances. One recommendation is for the national court to consider alternative TPMs in regard to the costs and effectiveness of these TPMs.<sup>251</sup> Moreover, there must also be consideration of less intrusive TPMs to enable third parties to install interoperable devices while at the same time providing comparable protection of the right holder's rights is a progressive measure that acknowledges interoperability of devices and applications.<sup>252</sup>

In this case, perhaps the most relevant of the decisions made by the ECJ is the need for the court to examine the legitimate purpose of devices such as the PC Box with the principle of proportionality under Recital 48 in mind.<sup>253</sup> The Advocate General's opinion was that the national court can either use a qualitative or quantitative assessment of the ultimate purpose of the device to determine whether the PC Box is primarily used to read unauthorised copies of Nintendo games on modified Nintendo consoles or if they are used for non-infringing purposes such as the installation of homebrew applications or repurposing the console to play media files.<sup>254</sup>

The second decision made by the ECJ is also relevant as it introduced a process to evaluate and determine the legitimacy of devices, that while they may circumvent effective TPMs, they could have a significant commercial purpose other than conducting unauthorised actions. The effect of this provides third parties some legal certainty that circumventing TPMs for homebrew, while unauthorised, can be legitimate as long as proportionally exists. Interoperable applications are commercially more significant than the act of circumventing the effective TPM. While it is still under the contemplation of national courts to assess these criteria, this decision introduces a balancing test to consider two issues. Firstly, is the TPM is effective? Secondly, if it is effective, does the device seek to circumvent the TPM for legitimate purposes? Conversely, it is up to the copyright owner to prove the former test, while the third party must provide evidence to prove the device has legitimate uses other than circumvention.

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<sup>251</sup> Ibid. [32]

<sup>252</sup> Ibid. [33]

<sup>253</sup> Ibid [36]

<sup>254</sup> Opinion Of Advocate General, *Nintendo and Others v PC Box SRL and Others* (Court of Justice of the European Union, C-355/12, 23 January 2014), delivered on 19 September 2013 [78].

While the decision does not open the flood gates to the avoidance of TPMs and the permissibility of all third party circumvention devices in the EU, it provides guidance on the development of a legal test to argue the legitimacy of the device that has circumvention consequences. Most importantly, the decision acknowledged the importance of Recital 48 in supporting valid uses of circumvention devices and suggested a greater understanding of the uses of technology which has both legitimate and illegitimate uses.<sup>255</sup> The decision also makes it possible for third parties to argue and provide evidence that their devices, in proportion, have a commercially significant purpose or use other than to circumvent TPM for unlawful purposes.<sup>256</sup> This decision in effect acknowledges the digital world is progressing beyond company specific platforms to total interoperability.

In contrast, the amended Australian Copyright Act has not yet been judicially challenged since the *Steven*' decision. However the harmonisation of TPM rules with the US DMCA and the AUSFTA has been argued that the Australian courts may be persuaded to follow the US judicial interpretations where right holders concerns are supreme and lawful exceptions allowed by legislation are undermined.

### III. AUSTRALIA - AUSFTA AND THE *COPYRIGHT ACT* 1968 (CTH)

Australia enacted the *Digital Agenda Act Copyright Amendment (Digital Agenda) Act* 2000 No. 110, amending the *Copyright Act* of 1968, to comply with the 1996 WIPO treaty.<sup>257</sup> The amendments prescribed minimum standards of legal protection for TPMs and DRMs.<sup>258</sup> The legislation was judicially considered in *Stevens v Sony*, where the High Court held that the security protections, specifically the regional locks employed in the console, did not satisfy the definition of TPM, and therefore the mod chip was not a circumvention device under s 116A of the previous Copyright Act.<sup>259</sup>

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<sup>255</sup> *Nintendo v PC Box* [39].

<sup>256</sup> *Ibid.* [38].

<sup>257</sup> Revised Explanatory Memorandum, Copyright Amendment (Digital Agenda) Bill 2000 (Cth), para 183. The provision came into force on March 4, 2001. The relevant provisions are included in Division 2A of Part V. Also see Dale Clapperton and Stephen Corones, 'Locking In Customers, Locking Out Competitors: Anti-Circumvention Laws In Australia And Their Potential Effect On Competition In High Technology Markets' (2007) 30(3) *Melbourne University Law Review* 664, 664. The digital amendments were also a response to the US placing Australia on a statutory watch list of countries with inadequate protection for IP rights in eight out of 10 years, because of concerns over Australia's plan to remove controls on parallel importation.

<sup>258</sup> *Ibid.*, 665. The then Attorney-General Daryl Williams MP noted that the proposed reforms update Australia's copyright standards to meet the challenges posed by rapid developments in communications technology, in particular the huge expansion of the internet. The central aim of the bill, therefore, is to ensure that copyright law continues to promote creative endeavour and, at the same time, allows reasonable access to copyright material in the digital environment.

<sup>259</sup> *Stevens v Kabushiki Kaisha Sony Computer Entertainment* [2005] HCA 58, 219. In the present case, it is legitimate to say that, had it been the purpose of the Parliament to push the provisions of the Copyright Act attaching offences and sanctions to circumvent of TPMs in a way that deprived chattel owners of ordinary rights of ownership, such a provision would have been spelt out in unmistakable terms. In the definition of TPM in s 10(1) of the Copyright Act, such unmistakable language does not appear. This fact affords a further reason for preferring the more restricted interpretation that is compatible with the ordinary incidents of ownership of lawfully acquired chattels.

The effect of the High Court decision meant Australia was out of step with other European and United States determination. The US Trade Representative Robert Zoellick declared that the Australian copyright law provided insufficient protection to online content and failed to fully implement international obligations to protect intellectual property.<sup>260</sup> These comments, combined with pressures from the United States, culminated in the AUSFTA amendments to the *Copyright Amendment Act 2006 (Cth)*.<sup>261</sup> AUSTFA Ch. 17 required for the amendment Act to create a liability for the act of circumventing TPMs. The Attorney-General's second reading speech indicated the importance of the changes:

In our online world, copyright owners are facing an increasing battle to protect their copyright material and develop business models. Technological protection measures... are an essential tool for the protection of copyright material, especially in the online environment. They provide an effective means for copyright owners to protect their material against the threat of piracy. The bill provides for more effective TPM protection to encourage distribution of copyright material online and increase the availability of music, film and games in digital form. This in turn will foster the development of new business models and provide enhanced choice for consumers.<sup>262</sup>

#### **(a) Prohibitions**

The amendments expanded the TPM definition to include the terms 'access control technological protection measure' (ATPM) and 'control access' under s 10(1), significantly widening the definition of 'circumvention device'<sup>263</sup> was broadened by prohibiting both the use and commercial dealing of a circumvention device.<sup>264</sup>

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<sup>260</sup> Matthew Rimmer, 'Robber under arms: Copyright Law and the Australia-United States Free Trade Agreement' (2006) 11(3) *First Monday* 1, 2.

<sup>261</sup> *Ibid.*

<sup>262</sup> Commonwealth, Parliamentary Debates, House of Representatives, 19 October 2006, 1 (The Hon. Phillip Ruddock MP).

<sup>263</sup> AUSFTA art 17.4.7(a)(ii). S 10(1) defined ATPM as:

A device, product, technology or component (including a computer program) that:

a) Is used in Australia or a qualifying country by, with the permission of, or on behalf of the copyright owner or exclusive licensee of a work or other subject-matter in connection with the exercise of that copyright; and  
b) In the normal course of its operation, controls access to the work or other subject matter.

<sup>264</sup> AUSFTA art 17.4.7.(a)(i). The 2006 amendments altered the definition of circumvention device under s 10(1):

...to a device, component or product (including a computer program) that:

a) Is promoted, advertised or marketed as having the purpose or use of circumventing the TPM;  
b) Has only a limited commercially significant purpose or use, or no such purpose or use, other than the circumvention of the TPM;  
or  
c) Is primarily or solely designed or produced to enable or facilitate the circumvention of the TPM.

The amendment Act introduced both civil and criminal liability for circumvention. Civil actions under s 116AN state that if the work or other subject matter is protected by an ATPM and a person “does an act that results in the circumvention” and “knows or ought to reasonably know” that the act would have that result, the copyright owner or exclusive licensee of the work or other subject matter can file an action against that person. Criminal liability under s 132APC refers to a person who “engages in conduct” that “results in circumvention” where the person knows “or is reckless as to whether” the device or service would be used to circumvent or facilitate the circumvention of a TPM. Actionable criminal conduct includes the making, importing, offering or supplying of a circumvention device<sup>265</sup> and providing a circumvention service.<sup>266</sup>

### **(b) Exceptions**

The best known exceptions of the Act are the fair dealing exceptions, which limits the exclusive rights granted to copyright owners of Part III works or Part IV audio visual works for the purposes of research or study (ss 40 and 103C), criticism or review (ss 41 and 103A), parody or satire (ss 41A and s 103AA), reporting of news (ss 42 and 103B) and judicial proceedings or the giving of professional advice (ss43 and 104).

Article 17.4.7(e) AUSTFA sets permitted circumvention of TPM under specific circumstances.<sup>267</sup> The current exceptions include circumvention with permission from the owner or exclusive licensee;<sup>268</sup> circumvention for interoperability of a computer program;<sup>269</sup> encryption research;<sup>270</sup> computer security testing;<sup>271</sup> protecting online privacy;<sup>272</sup> law enforcement and national security<sup>273</sup> and library acquisitions.<sup>274</sup> S 116AN(10) places the burden of establishing any of the exceptions enumerated to the defendant. Further exceptions may be introduced by s 249.<sup>275</sup> In recognition of *Stevens v Sony*, regional coding has

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<sup>265</sup> S 116AN and 132APC.

<sup>266</sup> S 116AP and 132APE.

<sup>267</sup> See Article 17.4.7(e)(viii) and (f) of the AUSTFA.

<sup>268</sup> S 116AN (2).

<sup>269</sup> S 116AN (3).

<sup>270</sup> S 116AN (4).

<sup>271</sup> S 116AN (5).

<sup>272</sup> S 116AN (6).

<sup>273</sup> S 116AN (7).

<sup>274</sup> S 116AN (8).

<sup>275</sup> The Minister (currently the Attorney-General) may recommend the introduction of further exemptions in the regulations at any time, based on submissions made before or after the 2006 amendments came into effect. The Minister may only make such recommendations:

- A particular submission has been made (whether before or after the commencement of this section) to prescribe the doing of the act by the person;
- If the relevant act will not infringe copyright; and
- If the adequacy of the protection and the effectiveness of the TPM offences and remedies provisions would not be impaired.

been excluded from the definition of TPM because if a circumvention device allows both region-coded and infringing games to be played, then the mechanism is an ATPM “to the extent that” it controls access to infringing copies.<sup>276</sup> This means that regional coding alone does not control access to infringing copies and is not itself a TPM.<sup>277</sup>

The AUSFTA and the also Act introduced a number of exceptions for private copying to “keep pace with technology” and prevents everyday consumers being treated like pirates.<sup>278</sup> Noteworthy exceptions are the ‘format-shifting’ for personal and domestic use, circumvention for interoperability of a computer program and the backing up of computer programs.<sup>279</sup> S 109A enables format shifting of legitimately purchased recorded music for private and domestic use, to play on their own music device such as an iPod.<sup>280</sup> S 110AA also allows format shifting of books, periodicals, photographs and videotapes to be copied into certain other forms for private or domestic use “instead of the original item”.<sup>281</sup> In addition, s 110AA allows an individual to copy a videotape into an electronic form for personal and domestic use.<sup>282</sup> However, format shifting of DVDs and computer games were not included because of fears “consumers could reproduce the full picture quality and feature provided in commercially produced digital content”.<sup>283</sup> Division 4A Part III s 47C also allows circumvention of TPM to back up “computer programs”<sup>284</sup> provided it is not a reproduction of an infringing copy of the program, reproduction cannot be done without modifying the original computer program and, the license to use the original copy has expired. However, the exception of computer programs only include literary works according to s 47AB and

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<sup>276</sup> Explanatory Memorandum, Copyright Amendment Bill 2006 (Cth.), para 12.43.

<sup>277</sup> Ibid., para 12.1: “Where access to a work or other subject-matter is controlled in more than one way, each access control would be a separate access control TPM, provided that each type of control could be circumvented independently. Where an access control has different functions but each function cannot be circumvented independently, that access control would be considered to be only one access control TPM.”

<sup>278</sup> Phillip Ruddock (Attorney-General) 2006 *Major copyright reforms strike balance*, Media release 088/2006, Canberra, 14 May, 1, 1.

<sup>279</sup> S 116AN(3)

<sup>280</sup> The exception is also deemed not to apply if:

- The copy the person owns or the copy the person makes it later sold, rented or distributed (unless it is only loaned to a member of the person’s family or household); or
- The copy the person owns or the copy the person makes is played or shown in public or broadcast.

<sup>281</sup> See Explanatory Memorandum, Copyright Amendment Bill 2006, paras 6.14, 6.24 and 6.44. The phrase “instead of” indicates that the owner may view a work by using the original and by means of a main copy; that is, the owner is not required to store the original.

<sup>282</sup> S 43C(7), 47(j) and 110AA(6). Private copying requires that the person copying must own the original copy and it must not be infringing. Moreover, the provisions allow the making of temporary copies, provided that the temporary copies are destroyed at the first practicable time after or during the making of the “main copy”. If a temporary copy is not destroyed, it is deemed to have infringed copyright in the work from the time it was made. The main copy however, does not lose the benefit of the exception.

<sup>283</sup> Australian Government Attorney-General’s Department *Copying Photographs and Films in a Different Format for Private Use: Reviews of sections 47J and 110AA of the Copyright Act 1968* (2008) 1, 2.11.

<sup>284</sup> See *Copyright Act 1968* (Cth.) s 47AB. Computer program includes any literary work that is:

- (a) Incorporated in, or associated with, a computer; and
- (b) Essential to the effective operation of a function of that computer program.

computer programs embodied in audio visual such as video games are thus not within the scope of the exception.<sup>285</sup>

Section 116AN(3) enables users to circumvent an ATPM to allow interoperability of "computer programs" to devices.<sup>286</sup> Interoperability is defined as the ability of computer programs to work with one another.<sup>287</sup> The Explanatory Memorandum covers the act of circumvention and also the protection of manufacturers of devices or services that circumvent ATPM for the purposes of creating interoperable applications.<sup>288</sup> As such, all types of circumvention devices and services can be made available, provided the interoperability was done for the sole purpose of achieving interoperability between computer programs.<sup>289</sup> However, s 116AN(3) limits the application of this exception through a number of ways. Firstly, the computer program that is to be interoperable to the device must be an original copy and lawfully obtained.<sup>290</sup> Secondly, the act of interoperability must not infringe the copyright in the original computer program.<sup>291</sup> Lastly, the interoperable application must not be readily available unless circumvention has been done.<sup>292</sup>

### (c) Criticisms

The AUSFTA amendments addressed emerging issues of copyright protection in the digital environment, and piracy. The then Attorney-General Hon. Phillip Ruddock stated that these provisions aim to "create a simplified and streamlined system of investigating and prosecuting copyright offences at all levels".<sup>293</sup> The reform process and legislation have created intense debates among academics even before implementation.<sup>294</sup> There are many points of contention regarding the amendments. Bond, Paramaguru and Greenleaf argued the amendments signalled a change from United Kingdom laws influencing

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<sup>285</sup> Robert Xavier, Submission No 531 to Australian Law Reform Commission, *At What Cost? IT Pricing and the Australia Tax*, 16 July 2012, 22. Also see *Galaxy Electronics Pty Ltd v Sega Enterprises Ltd and Another* (1997) 145 ALR 21. Per Lindren J at 34: Aggregate of the visual images generated by the playing of the video games falls within the terms of statutory definition of ss. 10 and 24 of the Act since the visual images are embodied in an article or thing. The word 'embodied' refers to the giving of a material or discernable form to an abstract principle or concept.

<sup>286</sup> See *Copyright Act 1968* (Cth.) s 47AB. Computer program includes any literary work that is:

(a) Incorporated in, or associated with, a computer; and

(b) Essential to the effective operation of a function of that computer program.

<sup>287</sup> DMCA 17 U.S.C. § 1201(f)(4)

<sup>288</sup> See Explanatory Memorandum, Copyright Amendment Bill 2006, para 12.49.

<sup>289</sup> S 116AN(3)(b)(iii)

<sup>290</sup> S 116AN(3)(b)(i)

<sup>291</sup> S 116AN(3)(b)(ii)

<sup>292</sup> S 116AN(3)(b)(iia)

<sup>293</sup> Ruddock above n 278, 33.

<sup>294</sup> See Graham Greenleaf, Alana Maurushat, David Vaile, Catherine Bond and Abi Paramaguru, 'Not A Fair Trade: Australia's TPM Protection and AUSFTA-Inspired Reforms' (2007) 19 *University of New South Wales Faculty of Law Research Series* 2, 2. The authors argued the reforms were unwarranted and unnecessary. Also see Rimmer above n 244, 4. Rimmer argued the previous Copyright Digital Amendments were operating serviceably well.

Australian legislation and the United States laws as well.<sup>295</sup> Clapperton and Coronos on the other hand stated the changes “give all the appearance of a United States shopping list” and an encroachment of the U.S. DMCA.<sup>296</sup>

Prior to the AUSFTA, Kirby warned that the proposed agreement presented a danger to Australian artists, and that “we must be alert, as a nation, to the great power of the United States... in protecting their own culture [thus] we should be equally insistent in protecting ours”.<sup>297</sup> The Trade Minister Mark Vaile argued that “it is important to be clear that these amendments do not represent the wholesale adoption of the U.S. intellectual property regime”.<sup>298</sup> Toni Harmer of the Department of Foreign Affairs and Trade stated the amendment “contains flexibility... to implement that in a way that is appropriate for us”, whilst implementing Australia’s treaty level obligations.<sup>299</sup> Supporters of Ch. 17 AUSFTA state harmonisation will encourage investment by US industries who will be comfortable with the security of laws, and will reduce the transaction costs across borders.<sup>300</sup>

Yet Bond argued that the bilateral free trade agreements and harmonisation of Australia’s intellectual property law with international standards were misleading, arguing that only ‘selective harmonisation’ was being proposed.<sup>301</sup> The obligations were primarily criticised for boosting the position of multinational entertainment companies by entrenching the DMCA.<sup>302</sup> Weatherall noted the Australian copyright regime had a number of inherently different characteristics meaning harmonisation was a myth.<sup>303</sup> Rimmer argued that the treaty provisions in some respects go farther than the DMCA commenting “it is worth conceiving of the international treaty as a petri dish, a site of policy experimentation by the U.S.”<sup>304</sup>

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<sup>295</sup> Catherine Bond, Abi Paramaguru and Graham Greenleaf, ‘Advance Australia Fair? The Copyright Reform Process’ (2007) 10(3) *The Journal of World Intellectual Property* 284, 285.

<sup>296</sup> Clapperton et al above n 257, 672.

<sup>297</sup> The Hon. Justice Michael Kirby, ‘Arts and Law in a Whirligig of Time’, (Speech delivered at the Arts Law Centre of Australia: 20th Anniversary, Sydney, 31 October 2003).

<sup>298</sup> Commonwealth, *Parliamentary Debates*, House of Representatives, 23 June 2014, (The Hon. Mark Vaile); cited in Rimmer above n 260, 29. He further maintains that “We have not stepped back from best practice elements of Australia’s copyright regime – but we have strengthened protection in certain circumstances – providing a platform for Australia to attract and incubate greater creativity and innovation.”

<sup>299</sup> Commonwealth, *Parliamentary Debates*, Senate, 3 June 2004, 66.

<sup>300</sup> Kimberlee Weatherall, ‘Locked In: Australia Gets a Bad Intellectual Property Deal’ (2004) *Policy: A Journal Of Public Policy And Ideas* 1, 4.

<sup>301</sup> Bond et al. above n 295, 285.

<sup>302</sup> Rimmer above n 260, 4.

<sup>303</sup> Weatherall above n 300, 4. “For example, in Australia, we protect collection of facts, like phone books, as copyright works, and authors are granted moral rights – rights to be attributed as the author, and to prevent their work being treated in a derogatory manner.”

<sup>304</sup> Rimmer above n 260, 4. Also see Bond et al. above n 295, 293. Developed countries such as Australia may recognise the importance of a balanced copyright... but they are increasingly willing to treat intellectual property as little more than a bargaining chip... and since quantifying the negative impact of excessive copyright controls is difficult, the policy implications of including copyright within trade agreements is often dismissed as inconsequential.

The implementation of the legislation was also contested as it had added to the length and complexity of the legislation.<sup>305</sup> Compared to treaty obligations, which are usually stated at a broad level that is flexible to craft the implementing laws, Weatherall argued the AUSFTA constrains the policy options available in future law.<sup>306</sup> Given the sheer breadth of provisions it introduced, Bond et al argued that the provisions would not be understood by anyone other than copyright lawyers.<sup>307</sup> Duncan Kerr MP explained that “this legislation will do nothing to improve the clarity, the ease of access or the capacity to understand copyright legislation... [It is now] impossible to understand, dense and impenetrable”.<sup>308</sup> Moreover, the Australian Consumer’s Association argued that “extending such measures would intrude into consumers’ lives excessively”.<sup>309</sup> The Australian Vice-Chancellors’ Committee described the amendments to be “very much pitched at the interests of copyright holders at the expense of users to such an extent that it alters the balance of copyright in favour of owners”.<sup>310</sup> Weatherall also argued the amendments increased the criminal remedies and offences for copyright infringement.<sup>311</sup>

The legislative amendments process has been criticised as being substantially influenced by copyright owners and industry bodies.<sup>312</sup> The Senate Select Committee on the Free Trade Agreement criticised the negotiation and reform process for its lack of transparency and that the parliament was not given an opportunity to review the AUSFTA until after it was signed.<sup>313</sup> Weatherall described the process as ‘behind closed doors’ which favoured established stakeholders already accustomed to lobbying with the Minister and the Attorney-General, and in her opinion the lack of consideration from other interest groups showed

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<sup>305</sup> Weatherall above n 300, 1. At 29 closely typed pages, it is breathtakingly long, detailed, and opaque

<sup>306</sup> See WCT above n 155, art 11. Also Ibid, 2. It goes on for 2 and a half single space typed pages. It defines what technological measures are, what acts relating to them are proscribed, what exceptions may be provided, and even when and how new exceptions can be created, and what criteria we can apply in creating them

<sup>307</sup> Bond et al. above n 295, 299. Also see Senate Standing Committee on Legal Constitutional Affairs, *Committee Hansard*, 7 November 2009, 9.

<sup>308</sup> Commonwealth, *Parliamentary Debates*, Senate 7 November 2006, 40 (The Hon. Duncan Kerr).

<sup>309</sup> See Australian Consumers’ Association, Submission No 522 to Senate Select Committee, *Free Trade Agreement between Australian and the United States of America*, Undated, 13.

<sup>310</sup> Australian Vice-Chancellors’ Committee, Submission No 336 to Senate Select Committee, *Free Trade Agreement between Australia and the United States of America*, 29 April 2004, 5.

<sup>311</sup> See Kimberlee Weatherall, ‘Of Copyright Bureaucracies And Incoherence: Stepping Back From Australia’s Recent Copyright Reforms’ (2007) 31(3) *Melbourne University Law Review* 967, 984. The criminalisation of ordinary behaviour has also brought attention from oppositions of the reform. The Copyright Amendment Bill contained over 30 “strict liability” offences, under s 132AL(9), which created potential liability in the absence of any intent or even knowledge of infringement. An example of this is if the person possessed a device which can be used for copying copyright material, thus broadening the “net of criminality”. This means that this provision would consider the ordinary use of copying music into an iPod media device as a criminal offence. This provision was panned by many critics and drew the attention of popular media, with a front page story claiming kids using mobile phones to record moments from concerts would face up to 60 penalty units costing approximately \$6,600. Ultimately common-sense prevailed because the public outcry from consumer advocacy groups resulted in the removal of a number of the strict liability provisions, including s 132AL(9), from the Bill before it was passed. Also see Lisa Murray ‘Hold Those Phones, Rockers, Soon Your Recordings Will Be A Crime’, *The Sydney Morning Herald Sun* (Sydney), 14 November 2006, 1; and Bond et al. above n 314, 298.

<sup>312</sup> See Clapperton et al., above n 257, 672.

<sup>313</sup> Senate Select Committee, Submission on the *Free Trade Agreement between Australia and the United States of America*, Parliament of Australia 2004b, p. xviii.

an overwhelming evidence of bias in the process.<sup>314</sup> The academic debate about AUSFTA was replicated in the debate about the *Copyright Amendment Act 2006* (Cth) introduction into parliament on 19 October 2006, and the time allowed for preparation of public submission was very limited.<sup>315</sup>

TPMs and anti-circumvention laws were raised in the AUSFTA amendments, with chief concerns that this would interfere with consumers' rights and ability to access content legally. For instance, Greenleaf et al expressed fears the altered and removal of the word "effective" from the definition of TPM would expand the scope of protection to weak and often ineffective technologies which should not be offered protection.<sup>316</sup> The expansion of the TPM protections were considered overly broad by Fitzgerald because it may intrude into consumer's lived excessively, which is further hampered by exceptions that are restrictive and unclear.<sup>317</sup> Rimmer expressed surprise of Australia's willingness to adopt a US-style TPM regime given the controversies that has resulted in US case law from the use and abuse of such protections.<sup>318</sup> Indeed, Weatherall argued the expanded anti-circumvention laws has created an "OZ-DMCA" that may result in banning more technologies with fewer exceptions.<sup>319</sup> In a follow up article that reviews the impact of AUSFTA on Australia's copyright trade policy, Weatherall concluded that by accepting AUSTFA, the Australian government has positively advocated strong, detailed and prescriptive copyright provisions. Moreover, any attempt to balance copyright has failed due to outdated technological policies (based on US legislation written in 1997), and the misguided faith that TPMs can protect copyright content in the digital environment.<sup>320</sup>

In the context of console modification, the expanded TPM and anti-circumvention means the decision in *Stevens v Sony* "has gone from pedestal to garbage dump" because the definitions means the mod chip or any form of console modification circumvents the authorisation codes that grants access to the console,

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<sup>314</sup> Weatherall above n 311, 985. The importance of negotiations between stakeholders appeared to be increased; that of public participation and of legislators as representatives of the public downgraded. Also see Bowery above n 149, 188. While there was a space made for US government and particular global owner interests to assert their preferences, there was no corresponding respect for unwelcome Australian perspectives from civil society interest groups like the Electronic Frontiers Australia, Australian Digital Alliance, Australian Library and Information Association, local free software and open source advocates, IP academics and even passing reference to the findings of the government's own IP expert communities.

<sup>315</sup> Bond et al. above n 295, 298. This was because enactment of the TPM provisions was due by 1 January 2007, or Australia risked breaching the AUSFTA. Also see Australian Commonwealth, *Parliamentary Debates*, Senate, 7 November 2006, 62, (Helen Daniels). Calls for an extension was denied, with the Government preferring to enact "one major copyright reform bill and get it all through this year".

<sup>316</sup> Greenleaf et al above n 314, 4.

<sup>317</sup> Brian Fitzgerald, "Copyright Vision: Copyright Jails" *ON LINE Opinion* 1, 2.

<sup>318</sup> Rimmer above n 260, 60.

<sup>319</sup> Weatherall above n 311, 7.

<sup>320</sup> Kimberlee Weatherall, "The Australia – US Free Trade Agreement's Impact on Australia's Copyright Trade Policy" (2015) *Australian Journal of International Affairs* 69(5), 538, 546.

regardless of how effective the DRM may be.<sup>321</sup> Despite any preconceived notions of the primary purpose of console modification, the new TPM provisions means a device could be an anti-circumvention device within the definition of the Act even if it had legitimate uses (such as interoperability), so long as it had the purpose of circumventing a TPM, or was designed to enable or facilitate circumvention.<sup>322</sup>

In light of these issues, the Government has made attempts to address a number of problems relating to copyright enforcement and TPM law. In 2008, a report that reviewed the private copying exceptions in the Act acknowledged the private copying exceptions on new digital markets for feature films and television programs were unclear.<sup>323</sup> The review listed seven issues to remedy this oversight, and of particular interest are issues 6,<sup>324</sup> and 7,<sup>325</sup> both concerning the allowing of private copying for DVDs and computer games. Issue 7 is noteworthy as it questioned whether any proposed extension to s 110AA should also cover cinematographic films embodied in a computer program, such as video games.<sup>326</sup> Ultimately, the review did not make any recommendations or amendments pertaining to format shifting of DVD<sup>327</sup> and computer games.<sup>328</sup>

While not directly related to copyright, the most publicised attempt to address the TPM provision of the Act was the House of Representatives Standing Committee on Infrastructure and Communication investigation of whether "a difference in price exists between IT hardware and software products, including computer games and consoles, e-books and music and videos sold in Australia over the internet or in retail outlets as compared to markets in the USA, in UK and economies in the Asia-Pacific".<sup>329</sup> While the report did not examine copyright laws exclusively, it did examine issues of enforceability and legitimacy having found evidence of corporations using copyright laws to justify the imposition of the

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<sup>321</sup> Fitzgerald above n 317, 26.

<sup>322</sup> Explanatory Memorandum, Copyright Amendment Bill 2006 (Cth), para. 12.17. Paragraph (a) requires a device to be promoted, advertised or marketed as having the purpose or use of circumventing the TPM. It does not require a device to have an actual circumvention purpose or use, only that it be promoted, advertised or marketed as having that purpose or use. Paragraph (c) of the definition applies to a device which is designed or produced to enable or facilitate the circumvention of the TPM.

<sup>323</sup> Australian Government Attorney-General's Department *Copying Photographs and Films in a Different Format for Private Use: Reviews of sections 47J and 110AA of the Copyright Act 1968* (2008) 1.

<sup>324</sup> Ibid. 16. Issue 6 asks whether s 110AA be changed to limit permitted copying.

<sup>325</sup> Ibid. 17. Issue 7 questions whether any proposed extension to s 110AA should also cover to a cinematographic film embodied in a computer program.

<sup>326</sup> Ibid.

<sup>327</sup> Ibid. 18. The review recommends that no change be made to s 110AA, although the Department will continue to "monitor the evolution of relevant markets to determine if new products are introduced as anticipated by the film industry.

<sup>328</sup> Ibid. 19. The Department did not consider any changes for s 110AA regarding computer games because of insufficient evidence. This is perhaps pre-cursor by a submission from the IEAA who argued that a private use exception would be a pretext for pirating and "unreasonably prejudice the legitimate interests of computer publishers."

<sup>329</sup> Standing Committee on Infrastructure and Communications, Parliament of Commonwealth of Australia, *At What Cost? IT Pricing and the Australia Tax* (2013) 1, 100.

"Australian Tax" on their products. To address these issues, the report made two significant recommendations affecting anti-circumvention provisions of the Act.

Firstly, the report recommended a change in s 10(1) anti-circumvention provisions to allow, secure and educate consumers about the circumvention of regional locks or "geoblocks" which is found to be used as an artificial market segmentation to inflate prices.<sup>330</sup> The report further recommended that such circumvention "should not be subject to civil or criminal sanctions".<sup>331</sup> This recommendation supports the argument that geoblocking is not a TPM under s 10 (1), as has been highlighted in the *Stevens v Sony* decision prior to the amendments. Secondly, the Committee highly recommended that contractual policies or terms of services that aim to enforce geoblocks be considered void.<sup>332</sup> In lieu of these recommendations, the Committee has also suggested a total ban on geoblocking as a last resort should the high price of IT products persist despite its recommendations.<sup>333</sup>

There was also an inquiry by the Australian Law Reform Commission (ALRC) inquiry into bringing copyright into the digital economy and considered whether the existing exceptions to TPMs are appropriate and whether a fair use exception be adopted into Australian copyright law.<sup>334</sup> The ALRC accepted submissions associated with the strict and limited exceptions imposed under the current regime, compared to the more flexible fair use exceptions used in America. The *Copyright and the Digital Economy* report made recommendations including the introduction of a fair use exception similar to the US exception because of its flexible and technologically-neutral nature.<sup>335</sup> The fair use exception will include a non-exhaustive list of factors and uses that may qualify as fair use. By doing this, the report also argued the fair use exception would mean the current fair dealing exceptions will inevitably be repealed, leading to a considerably clearer Copyright Act.<sup>336</sup> Failing the enactment of these recommendations in the Act, the report alternatively recommended that the current fair dealing exceptions be simplified, whilst adding new exceptions for certain actions that the report claims do not infringe copyright. For instance, the report recommended the current format shifting be repealed, instead to be amended to 'consolidated fair dealing

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<sup>330</sup> Ibid, 108.

<sup>331</sup> Ibid, 107.

<sup>332</sup> Ibid 116.

<sup>333</sup> Ibid. 115.

<sup>334</sup> Australian Law Reform Commission, *Copyright and the Digital Economy*, ALRC Paper 122 (2014), 123. The report however makes known the inquiry is limited on legal exceptions to copyright rather than on measures to combat copyright infringement.

<sup>335</sup> Ibid, 21.

<sup>336</sup> Ibid, 125.

exceptions' in determining whether the private use infringes copyright.<sup>337</sup> In regards to computer programs, the report acknowledged that s 47C definition as too complex and narrow with Xavier arguing for the exception to be repealed and instead implement a fair use exception instead.<sup>338</sup>

While these new developments might shed light into practical improvements into copyright enforceability and legitimacy, the overall legislative enactments of the WIPO treaties are reputed to limit consumer rights according to Neri, while expanding copyright owner rights in determining how users may or may not access content, because of heavy industry lobbying.<sup>339</sup> Judicial interpretation illustrates a difference in interpretation and attitudes of the relevant TPM rules. US case law, including *Divineo*, indicates an interpretation on circumvention devices being unlawful despite legitimate fair uses.<sup>340</sup> On the other hand, the European Court of Justice decision in *Nintendo v PC Box* and the interpretation of Recital 48 suggests a greater understanding of the uses of technology which have both legitimate and illegitimate uses, may develop through the proportionality of both uses. While the US and the EU have judicially examine how TPM and anti-circumvention provisions, the amendments in Australia has not been judicially interpreted.

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<sup>337</sup> Ibid, 15.

<sup>338</sup> See Xavier above n 285.

<sup>339</sup> Neri above n 123, 757. In the case of the music industry in the US, Neri argues the heavy handed measures of the RIAA and Congress, including "threats, litigations, and slick and unpersuasive educational campaigns", have proven ineffective.

<sup>340</sup> Craddock et al above n 167, 166.

## CHAPTER 5 – DRM IMPLEMENTATION: ISSUES OF OVERPROTECTION

### 5.1 DRMs AND OVERPROTECTION

TPM provisions are formulated in response to the latest challenge to copyright enforceability; piracy being a factor leading to free-riding infringement of owners' rights.<sup>341</sup> Technology has made piracy so simple that almost any individual can acquire copies of any content at no cost to the individual. But the impact of piracy is not uniform across all creative content industries. Rhinelander acknowledges that the losses and frequency of piracy depend upon various attributes or types of creative work under consideration and the extent to which the type of work can be reproduced. He argues that works that are more difficult to interrupt and accurately represent digitally are less vulnerable to piracy, while easily and accurately recorded copies have the most to lose from piracy.<sup>342</sup> Regardless of the form of the content, copyright owners have utilised both law and technology to protect their content after their products have been sold to the public.

Discussions of anti-circumvention and TPM laws was discussed in the preceding chapter. However, the utilisation of these laws in the form of technologies referred to as DRMs has aroused public and academic debates, which will be examined in this chapter. Wiersma acknowledged this field of power under 'architecture', which is loosely meant to describe and illustrate barriers such as DRM that aim to prevent piracy.<sup>343</sup> DRM is generally defined as technological encryption "moniker used for the system or systems that are employed to manage multimedia content".<sup>344</sup> DRMs are used on both physical mediums such as CDs, and digitally distributed content available in online services.

While TPMs and DRMs both protect content, they are *not the same*. Kerr et al. defines TPM as the technological methods that is intended to promote the authorised use of digital works that is

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<sup>341</sup> *GAO Report* above n 6, 8. The development of technologies that enable the authorised distribution of copyrighted works is widely recognised as leading to an increase in piracy.

<sup>342</sup> Rhinelander above n 130, 7. The rapid growth of Internet use, in particular, has significantly contributed to the increase. Digital products are not physical or tangible, can be reproduced at very low cost, and have the potential for immediate delivery through the Internet across virtually unlimited geographic markets.

<sup>343</sup> Wiersma above n 50, 12.

<sup>344</sup> Blaich et al above n 83, 1. Also see Nicola Lucchi "Countering the Unfair Play of DRM Technologies (2008) 16 *Texas Intellectual Property Law Journal* 91, 93. Lucchi defines DRM as a broad term that refers to any technologies and defines which have been specifically developed for managing digital rights or information; and have the potential to control access to and use of digital content. Also see Luke Plunkett, *What, Exactly, Is DRM?* (April 9 2010) Kotaku < <http://kotaku.com/5513060/what-exactly-is-drm>>. In gaming media, Kotaku defines DRM as a means for publishers to control the way in which you can use a piece of PC software. Also see *Windows Media Licensing Program* (August 2014) Microsoft, <<http://www.microsoft.com/windows/windowsmedia/licensing/default.msp>>. DRM stands for digital rights management. DRM is a technology used by content providers, such as online stores, to control how the digital music and video files you obtain from them are used and distributed. Some online stores sell and rent songs and movies that have DRM applied to them. A file that has DRM applied to it is known as a protected file.

accomplished by controlling access and uses of such works, including copying and distribution.<sup>345</sup> This definition is consistent with the ATPM definition under s. 10 of the Act. On the other hand, DRM is the technological system that facilitates the management of rights (not limited to copyright) in any kind of digital information throughout its lifecycle.<sup>346</sup> In short, TPMs authorise use of and access to digital works, while DRMs control the management of asserted rights that extends beyond copyright.<sup>347</sup> Melendez-Juarbe classifies DRM into four categories as follows: (1) Ancillary DRM technologies; (2) Technologies that protect access to the content; (3) Technologies that limit the copying of content and; (4) Technologies that limit transporting the content from one device to another.<sup>348</sup> DRMs may utilise one or more of these functions, but DRMs usually are a system which incorporates many of these individual technologies.<sup>349</sup> As such, a DRM does not necessarily include TPM in that a digital system to manage rights does not necessarily control access.

In light of this, McCullagh and Homsí list legitimate concerns with DRM available in the literature which include:

- (1) Digital rights management is counterintuitive and;
- (2) “Fair use” of DRM-protected materials could be prohibited, depending on the way a DRM system is designed.<sup>350</sup>

McCullagh and Homsí argue copyright owners assert DRMs are necessary to prevent infringement of their intellectual property rights, and the vast majority of legitimate users are completely unaffected by DRM.<sup>351</sup> Whilst Gullen and Sutter distinguish DRM as a neutral technology, and it only becomes damaging if monopolistic pricing practices are used.<sup>352</sup> This chapter aims to examine and discuss the major debates regarding the use of DRMs and distinguishes the factions which support and oppose DRMs.

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<sup>345</sup> Kerr et al. above n 49, 26.

<sup>346</sup> Ibid., 25.

<sup>347</sup> Ibid

<sup>348</sup> Hiram Melendez-Juarbe, "DRM interoperability" (2008) *Boston University Journal of Science and Technology Law* 1, 16.

<sup>349</sup> Ibid, 30.

<sup>350</sup> Declan McCullagh and Milana Homsí, "Leave DRM Alone: A Survey of Legislative Proposals Relating to Digital Rights Management Technology and Their Problems" (2005) *Michigan State Law Review* 317, 320. The author additionally lists two concerns including that DRM could prevent users from accessing public domain material that is encrypted, including material that has a recently-expired copyright; and depending on how they are designed, DRM systems may require customers to disclose personal information, and each access could be logged by the copyright holder or its designee, raising privacy concerns

<sup>351</sup> Ibid.

<sup>352</sup> Martina Gillen and Gavin Sutter, "DRMs and Anti-Circumvention: Tipping the Scales of the Copyright Bargain?" (2006) 20(3) *International Review of Law, Computers and Technology* 287, 295.

## **5.2 DIGITAL RIGHTS MANAGEMENT IS COUNTERINTUITIVE**

Two DRM systems used extensively are the Content Scrambling System (CSS) and regional coding. The CSS is a DRM system used to prevent copying and unauthorised viewing of DVDs or CDs, whereby the measure used effectively controls access to the underlying content on the disc.<sup>353</sup> Coupled with CSS, copyright owners have also engaged in market segmentation of access and distribution through region coding. In this system, the medium is encoded and is playable only on certain players specifically set to particular geographic zones to prevent private consumers importing and exporting.<sup>354</sup> Japan, South East Asia and North America systems are formatted with the National Television Systems Committee (NTSC) standard for colour television, while Europe and Australia are formatted with the Phase Alternating Line (PAL). This type of DRM is particularly prevalent in the gaming industry, in that the video game console is permitted to only play software games that are encoded in the relevant region. While these DRMs are used extensively today, Picker argues that DRMs are counterintuitive because DRMs allow authors to exercise control at a distance over works that they wish to distribute more generally.<sup>355</sup> Where initially authors can maintain full control over a work by never distributing it, Picker further states that DRM makes it possible for authors to control how users may access or use content at a distance, meaning that an author can distribute a work generally and yet still exercise control over how the work is used.<sup>356</sup>

DRMs that artificially restrict regional access of content are justified by copyright owners as providing an extra barrier for protection against piracy and promotes a higher level of legitimacy and software quality.<sup>357</sup> A further justification for implementing territorial lockout is its provision of added value to small local retailers in that they can sell unofficial hardware or software which is not planned for official release, or which has been delayed by the localisation process.<sup>358</sup> Brennan considered such measures acceptable because copyright law traditionally promotes creativity over materialistic consumption, hence it is necessary to restrict what may lawfully be done with chattels.<sup>359</sup> Support for his argument arising from

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<sup>353</sup> Fry above n 48, 10.

<sup>354</sup> Miller above n 165, 466.

<sup>355</sup> Randal Picker, "Fair Use v. Fair Access" (2007) 31 *Columbia Journal of Law and Technology* 603, 606

<sup>356</sup> *Ibid.* 610.

<sup>357</sup> Barry Ip and Gabriel Jacobs, "Territorial Lockout - An International Issue In The Videogames Industry" (2004) 16(5) *European Business Review* 511, 512.

<sup>358</sup> *Ibid.*

<sup>359</sup> Brennan above n 11, 23. He states that anti-circumvention law is best understood as part of an on-going attempt in public law to ensure that works of creative human expressions are not made a sacrificial offering to the gods of the latest technologies.

region coding enables the owners to stagger releases of the medium to a set period of time after their release in that region to prevent people from importing the DVD or movies outside the local market.<sup>360</sup>

The Australian Government Report into IT prices also justified regional coding on the need to accustom the products to localised laws and customer needs.<sup>361</sup> Regional lockouts ensure that offshore suppliers will have the security to provide goods in Australia, and are willing "to invest in Australia and run a local operation employing staff and building an ecosystem that delivers inputs and adds value to the economy".<sup>362</sup> Soghoian recognised consumer piracy arose from the exploitation of a price differential between developed and developing countries, leading firms to introduce cut-price editions of their goods to developing markets or utilise regional coding against recognised travel patterns.<sup>363</sup> This means that the regional local coding of zoned products from other jurisdictions would not work at places that were popular with consumers returning home to Australia. Likewise, in more expensive markets such as Australia, companies would sell titles for higher than typical market rates, although the access to pirated works reduces prices. Without effective region enforcement, significant regional price differentials create an incentive for merchants to engage in the importation of products from cheaper countries,<sup>364</sup> thus reducing the returns to copyright owners in more expensive markets. In video games, the Interactive Entertainment Association of Australia (hereafter iGEA)<sup>365</sup> lists that region coding can be used for: "assisting in the classification of games; the matching of content to the cultural games of particular markets; and facilitating compliance with licensing agreements for third party intellectual property used in games."<sup>366</sup> This is a view supported by the Nintendo Global former president Satoru Iwata, acknowledging that region encoded systems are required because:

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<sup>360</sup> Chris Zardis, "How Companies Use Technology To Control The Marketplace" (2007) *School of Electronics and Computer Science, University of Southampton* 1, 2

<sup>361</sup> Standing Committee on Infrastructure and Communications, Parliament of Commonwealth of Australia, *At What Cost? IT Pricing and the Australia Tax* (2013) 1, 113.

<sup>362</sup> *Ibid.*

<sup>363</sup> Soghoian above n 94, 49.

<sup>364</sup> *Ibid.*

<sup>365</sup> The organisation name has been replaced to the Interactive Games and Entertainment Association (iGEA). See *New Look Interactive Games and Entertainment Association Launches* (26 August 2009) Interactive Games and Entertainment Association, <<http://www.igea.net/2009/08/new-look-interactive-games-and-entertainment-association-launches/>>.

<sup>366</sup> Interactive Entertainment Association of Australia Submission No. 43 to House of Representatives Committee on Legal and Constitutional Affairs, *Review Of Technological Protection Measures Exceptions*, February 2006, 2.

...there are many different regions around the world, and each region has its own cultural acceptance and legal restrictions, as well as different age ratings. There are always things that we're required to do in each different region.<sup>367</sup>

However, territorial lockouts by regional coding has been criticised for being outdated and anti-competitive. Fitzgerald argued these locks segment the market through a technologically imposed restriction on parallel importation.<sup>368</sup> The access codes also reduce cross market competition in legitimate and non-pirated copyright products.<sup>369</sup> For instance, if the predicted demand for a product in one market is too low to make the cost of a release profitable, the rights holder will not do so. Hence, fans of obscure and foreign content may not have enough potential customers to justify a legitimate release in their geographic market, and thus region coding of the discs will prevent an imported copy from operating.<sup>370</sup> The iGEA submitted that this class of consumer is extremely small and the “only class of consumers who may be affected in this regard would be those who have travelled to a region which uses the NTSC television standards” and “there is also nothing to prevent consumers from purchasing hardware from jurisdictions to enable the discs to be played” in Australia.<sup>371</sup> Region coding opponents argue regional access codes give copyright owners better mechanisms for enforcing their copyright. Fitzgerald rebutted this through the pre-competition principles that..., “we destine any mature notion of digital liberty to the proverbial dustbin”.<sup>372</sup> This rebuttal arises from his belief “where a person owns tangible property... they should have the right to use that property to its fullest enjoyment”, but in the digital environment additional restrictions are placed on this use and enjoyment.<sup>373</sup> The Australian Government report on IT pricing supports Fitzgerald’s belief that the regional coding restrictions are used by IT companies and right holders to maximise profits and is colloquially described as the “Australian tax”. The report further states that regional coding does not explain why Australian consumers are paying more for many hardware and software products, including games, even though these products can be delivered via the internet at

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<sup>367</sup>Richard George, *Nintendo’s President Discusses Region Locking: To Lock or Unlock?* (3 July 2013) IGN <<http://au.ign.com/articles/2013/07/03/nintendos-president-discusses-region-locking>>.

<sup>368</sup> Fitzgerald above n 11, 12. “You can say I can walk on the beach for free but interpret the law so as to allow beachfront land owners to fence off the dunes.” He also notes that if the access codes were a TPM, then the technology would be the primary mode of regulating behaviour.

<sup>369</sup> Ibid, 13. A consumer buying a computer game sold anywhere in the world would expect as an aspect of digital liberty that they should be able to use and view that game in Australia, a country where the legislature has deemed it good policy to be able to import copyright games without restriction.

<sup>370</sup> Soghoian above n 94, 50. An example is the cult classic *Yakuza 3* game, which Sega denied any possible American release.

<sup>371</sup> Interactive Entertainment Association of Australia Submissions No. 43.1 above n 54.

<sup>372</sup> Fitzgerald above n 11, 19.

<sup>373</sup> Ibid.

no substantial cost.<sup>374</sup> For instance, consumer watchdog CHOICE's examination of the matters found that Australian consumers are paying up to an average of 88% more for Nintendo Wii games with regional coding compared to US consumers.<sup>375</sup>

The IT pricing report also recognised the increasing availability of products digitally distributed via the Internet negates the need for regional coding segregated markets and segmented release dates.<sup>376</sup> Although the report acknowledges that regional lockouts is a necessary business practice in some industries, such as movie and television, regional lockout in most cases is a form of "fence" that is a significant constraint on consumer choice.<sup>377</sup> This is clearly the view taken by the Attorney-General's Department, especially given the fact that they actually recommend and encourage consumers to circumvent regional coding to access cheaper legitimate goods, and as a last resort, ban regional coding altogether.<sup>378</sup> This perhaps allude to the decision in *Stevens v Sony* and the subsequent AUSFTA amendments, which claim regional coding as insufficient TPM. However, the latter approach must be taken with caution considering the Attorney-General Department's argument on a complete ban on regional coding in Australia. The Attorney-General's Department argued this may discourage offshore suppliers from providing goods in Australia or creating local distributorship and may inevitably drive up prices and result in further piracy.<sup>379</sup> Geist also argued that DRMs have the dangerous capacity to monitor consumer habits as the technology function is similar to spyware invading the personal privacy of users.<sup>380</sup> Kerr supports Geist, arguing that "what DRM really manages are people – by collecting information about them 24/7 through automated, often surreptitious surveillance technologies" because:

DRM affects a shift in social power by exacting greater control over information and, more crucially, knowledge. DRM entails a disenfranchisement through erosion of previously enjoyed public spaces in which knowledge was shared and transferred outside the eye of the powerful – in other words, privately. DRM is a technology of the powerful, for it is the

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<sup>374</sup> Standing Committee on Infrastructure and Communications, Parliament of Commonwealth of Australia, *At What Cost? IT Pricing and the Australia Tax* (2013), 83.

<sup>375</sup> CHOICE, Submission No 75 to Standing Committee on Infrastructure and Communications, *At What Cost? IT Pricing and the Australia Tax*, 16 July 2012, 22.

<sup>376</sup> Standing Committee on Infrastructure and Communications, Parliament of Commonwealth of Australia, *At What Cost? IT Pricing and the Australia Tax* (2013), 97.

<sup>377</sup> *Ibid.*, 115.

<sup>378</sup> *Ibid.*, 107.

<sup>379</sup> Attorney-General's Department, Submission No 124 to Standing Committee on Infrastructure and Communications, *At What Cost? IT Pricing and the Australia Tax*, 17 April 2013, 3.

<sup>380</sup> Michael Geist, *TPMs: A Perfect Storm for Consumers* (30 January 2005) Michael Geist < <http://www.michaelgeist.ca/content/view/1698/159/>>.

powerful that seeks to invade previously private spaces and reconstruct and control individual actions for its own purposes. The erosion of privacy goes beyond the individual, and as the space for private, autonomous action shrinks, there are significant political consequences. From this perspective, DRM is a form of social control.<sup>381</sup>

Sookman rejects these arguments, questioning DRM data information collection ability as “in many cases, information is collected to better serve the consumer”.<sup>382</sup> Kerr however argues “the current mainstream orientation of DRM could have the effect of shifting certain public powers into the invisible hands of private control” and “DRM will be ambient, ubiquitous, and omnipresent”.<sup>383</sup> This is perhaps more evident in the incompatible relationship between DRM and the US fair use doctrine, whereby the rules are programmed into consumer electronics and computers that reflect the exclusive interests of right holders undermining fair use principles.<sup>384</sup>

### **5.3 DIGITAL RIGHTS MANAGEMENT DEMOLISHES CONSUMER RIGHTS OF ACCESSING CONTENT**

The question of whether copyright law should account for the needs of users and subsequent innovators in determining the balance between users and owner rights has been considered in the literature. Generally the literature identifies DRMs as substantially limiting the application of the principles of the fair use doctrine. Gutten and Suller consider the evidence of the "erosion of fair use"<sup>385</sup> DRM protection does not expire – they extend the length of protection of the work to ‘infinity’. This means that DRM protected works do not properly enter the public domain, even when copyright protection on a work has expired but its DRM protection does not. <sup>386</sup> This aspect of DRMs has been criticised for extending protection far beyond any exclusive rights granted in the protected work. Burk expands that while copyright expires, the anti-circumvention statutes do not dictate when the technology or DRM will expire.<sup>387</sup> As a result of the protection DRMs bestow on copyright owners, works protected by DRMs theoretically can never be copied, modified, remixed or otherwise enhanced, resulting in continued

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<sup>381</sup> Ian Kerr, “If Left to Their Own Devices ... How DRM and Anti-Circumvention Laws Can be Used to Hack Privacy” in Micheal Geist (ed) *In The Public Interest: The Future Of Canadian Copyright Law* (Irvin Law, 2005) 167, 178.

<sup>382</sup> Barry Sookman “TPMs: A Perfect Storm for Consumers: Replies to Professor Geist” (2005) *Canadian Journal of Learning and Technology* 4(1) 23, 32. He further provides examples of analogue and real life events which he claims are more intrusive than DRM.

<sup>383</sup> *Ibid*, 179.

<sup>384</sup> Mulligan above n 137, 31.

<sup>385</sup> Gillen and Sutter, above n 352, 394. Also see Rhinelandt above n 130, 15.

<sup>386</sup> *Ibid*.

<sup>387</sup> Dan L. Burk “Anti-Circumvention Misuse”, (2002) 2(10) *Minnesota Public Law Research Paper* 1, 17.

protection of the underlying copyright work. Indeed, Cohen argues that DRM poses a range of special threats that will potentially interfere with individual autonomy and chill intellectual inquiry because DRMs allow right holders to impose rules that inhibit, restrict or altogether prevent many legally authorised uses, thus supplanting copyright law in many contexts.<sup>388</sup>

Mohan historical examination of content owners rights argues content owners have systematically sought to equate any unauthorised use of copyrighted works with piracy in an attempt to control their property even before the advent of DRMs.<sup>389</sup> Whilst the ability to copy works privately did exist before the digital era, copyright holders relatively remained silent on the issue because the copies made from analogue cassettes or VCR tapes were of a lesser quality than the original, and therefore each successive copy decreased in quality. Technology and the Internet allows individuals to copy content without degradation in the original copy and all subsequent copies.<sup>390</sup> In essence, technology meant that copyright owners perceive private copying potentially has the same effect as piracy.<sup>391</sup> The entertainment industry sought legislation and technologies to legitimise DRMs as a mechanism for utilising the machine to control the ability of individuals to make perfect copies. Consequently, Craddock et al. argued these protections are measures that strengthen copyright owner rights by making the distribution of devices or services, which circumvent TPM, an infringement of copyright.<sup>392</sup> The distribution of a device that can be used to circumvent a TPM is by itself an infringement of copyright to which Samuelson concurs, and argues that DRM protections are reinforced by the legislative tools discussed above, although she particularly emphasises the overzealous application by the US courts, as the DMCA does not give a requirement for courts to determine whether the primary purpose or actual use of the device is a circumvention of DRM or otherwise. For instance, the case of *321 Studios v MGM* concluded that the initial or true purpose of the circumvention technology is not the issue but rather the mere trafficking, manufacturing and making of

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<sup>388</sup> Julie E. Cohen, 'Copyright, Commodification, and Culture: Locating the Public Domain' in L. Guibault and P.B. Hugenholtz (eds), *The Future of the Public Domain* (Kluwer Law International, 2006) 121, 123. Also see Mulligan above n 137, 32.

<sup>389</sup> Mohan above n 232, 20.

<sup>390</sup> See Rhinelander above n 130, 5. Never before has copying of content been so easy: copying a digital work entails no more effort than instructing a computer to copy one sequence of bits from one place to another, whether that copy is made from a CD, a file on a computer, or an internet website or network.

<sup>391</sup> Mohan above n 232, 25. Content owners also fear that one private copy of a digital file uploaded on the Internet can destroy the market for their work.

<sup>392</sup> Craddock et al. above n 167, 157.

such devices that makes anti-circumvention devices illegal in the first place.<sup>393</sup> As such, the court explicitly adjudicated that “the legal downstream use of the copyrighted material by customers is not a defence to the software manufacturer’s violation of the [DMCA]”.<sup>394</sup>

Critics of DRM’s architecture state that the protection measures distort the balance purported in copyright regimes, whereby the law should empower citizens, and the law should build and support social relations, support communities, economic growth and encourage unpredictable sources of innovation.<sup>395</sup> Whereas Guller and Sutter argue certain companies have introduced the use of this technology without adequately explaining the full importance of the use of DRMs, thus affecting the bargaining power of content owners that has superseded those of the consumers. Furthermore, the nature of DRMs limits the platforms on which works can be used, resulting in technological monopoly wider than just content of the work itself.<sup>396</sup> Flew, Seisten and Herg add that DRMs with tamper resistant nature implies that any user producing interoperable software beyond the scope specified must have broken the law by circumventing a TPM, challenging future interoperability and innovative adaption potential<sup>397</sup>. In the case of interoperability, Melendez-Juarbe explains that there is vigorous competition among firms to establish their technology as the dominant DRM standard, but the range of DRMs available cannot interoperate with goods utilising competing DRM standards.<sup>398</sup> The lack of interoperability significantly limits users’ experiences with digital information goods and encourages users to resort to piracy to obtain interoperability. The role of DRM in protecting works through copyright, according to Lucchi, is vast because technology is not subject to any legal limit and is able to control transactions much more strictly than a contract, enabling DRMs to provide right holders with more control of their works compared to physical works such as books.<sup>399</sup> As such, DRMs allow content owners to control activities that were not

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<sup>393</sup> *321 Studios v MGM* 307 F. Supp. 2d 1088, 1098 (ND Cal, 2004). Indeed, a simple reading of the statute makes it clear that its prohibition applies to the manufacturing, trafficking in and making of devices that would circumvent encryption technology, not to the users of such technology. It is the technology itself at issue, not the uses to which the copyrighted material may be put.

<sup>394</sup> Samuelson above n 165, 8.

<sup>395</sup> Gillen et al above n 352, 295. Also see Bowery above n 149, 15. This viewpoint is embraced by *copy leftists*, who view the law with scepticism when it is related to its technological heritage, such as anti-circumvention laws.

<sup>396</sup> *Ibid.* 296.

<sup>397</sup> Terry Flew, Sussana Leisten and Gregory Hearn, "Alternative Intellectual Property Systems for the Digital Age" (2005) (114) *Media International Australia* 87, 92.

<sup>398</sup> Melendez-Juarbe above n 348, 3. The author adds that while intense competition between firms may improve innovation and competition for the DRM market, it also increases the variety of incompatible DRM systems. Hence, vendors and users of one type of DRM related products may be locked into products that are incompatible with competing products. This may impact user creativity and innovation.

<sup>399</sup> Lucchi above n 237, 91.

possible to regulate in an analogue work, such as whether, when, and for how long an individual can open, play, view or edit a work in private.<sup>400</sup>

It is Rhinelander's belief that when technology is used to enact restrictions exceeding the dimensions of copyright protection of a work, the social benefits of an increased public domain store of creativity and fair use of creative work not yet existing in the public domain is ultimately weakened.<sup>401</sup> Samuelson synonymously argues that the current legal interpretations and other anti-circumvention legislations provide nearly unlimited protection to DRM and as such create a risky environment for those who wish to circumvent DRM to exercise historically protected rights to use information.<sup>402</sup> In light of these arguments, Bechtold argued the mere existence of DRM systems runs counter to the traditional notions of copyright law as DRM systems are able to control the use or consumption of work because:

DRM enables content providers to protect their interests without paying adequate attention to interests of third parties or the society at large. In particular, DRM systems may undermine copyright limitations. They may protect digital content that is not copyrightable. They may prevent consumers from copying content for private purposes, even if a copyright limitation allows them to do so without the rights holder's permission. DRM systems may also extend their protection to areas that lie outside of the reach of copyright protection...<sup>403</sup>

This argument was described as a "perfect storm" by Geist meaning the proliferation of DRMs and TPM law represents a danger to consumers knowing that consumers are subject to these rules without recompense.<sup>404</sup>

## 5.4 IN DEFENSE OF TPM AND DRM

However the proliferation of technologies that enable piracy does demonstrate a need to bolster protection to reserve the rights of copyright holders. With this argument, Sookman refuted the anti-DRM sentiments of DRM and TPM being the "perfect storm" to consumers by arguing instead that piracy and the facilitation of copy technology serves as the "perfect storm" for copyright owners:

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<sup>400</sup> Melendez-Juarbe above n 348, 6.

<sup>401</sup> Rhinelander above n 130, 16.

<sup>402</sup> Samuelson above n 165, 32.

<sup>403</sup> Bechtold above n 170, 360.

<sup>404</sup> Geist above n 380, 1. He argues that these protective tools represents dangers to consumers as they may find themselves locked out of content they have already purchased, while sacrificing their privacy and free speech in the process.

That the proliferation of technologies which facilitate the digitisation, copying and distribution of content over the Internet, alongside changing philosophical views about the purpose and value of copyright, represent ‘the perfect storm of danger’ to rights holders. These events have steadily eviscerated the ability of copyright holders to enforce their rights and to build economically viable models to produce and distribute content.<sup>405</sup>

Sookman argued at length about the public interest need for DRM and articulated that DRMs protect right holders from other unfairly appropriated works and serve as a critical catalyst for the creation and augmentation of cultural identity.<sup>406</sup> The Digital Connections Council similarly argued that DRM is needed to give right holders the confidence to conduct business over the internet and provide a useful “speed bump” for consumers by inhibiting unauthorised use or access.<sup>407</sup> Where the locus of the literature so far is for the protection of the private consumers to access content, Sookman stressed that TPM and DRM best served the needs of the consumers as the protective technologies encouraged innovation and permit creators to discriminate their prices effectively and enforce their copyrights.<sup>408</sup> Adam Chesler, in the context of published books, argue that DRM also allow for the “controlled maximisation” of managing the distribution process of the content, and tracking how users access and use the content.<sup>409</sup> The U.S. Copyright Office stated the motion picture industry owed the success of the DVD platform and the motion picture studio’s willingness to distribute their works in this medium to the CSS DRM.<sup>410</sup>

Sookman also argued that consumers can also benefit from DRM protections because reduced piracy may result in greater economic incentive for content creators to make content available in digital forms with reduced prices.<sup>411</sup> Indeed, where DRM opponents have argued that DRM unfairly restricts content access, the U.S. Copyright Office defended the use of DRM and argued that DRM increased digital offerings for users and the value of these works for copyright owners.<sup>412</sup> This has become more evident in digital distribution, where distributors have implemented distribution platforms that also act as DRMs to sell

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<sup>405</sup> Sookman above n 382, 23.

<sup>406</sup> Ibid.

<sup>407</sup> Paul Horn, Elliot Maxwell, Susan Crawford, Committee for Economic Development, *7 of the Committee for Economic Development, Promoting Innovation and Economic Growth: The Special Problem of Intellectual Property* (2004) 1, 51.

<sup>408</sup> Sookman above n 382, 31. Also see McCullagh and Homsí above n 167, 10.

<sup>409</sup> Adam Chesler, Jim Dooley, David Parker and Zac Rolnik, ‘DRM: A Publisher-Imposed Impediment to Progress, or a Legitimate Defense of Publisher/Author Intellectual Property Rights’ (Conference delivered at Proceedings of the Charleston Library Conference, South Carolina 2014).

<sup>410</sup> *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies* 68 Fed. Reg 62017 (October 31 2003).

<sup>411</sup> Sookman above n 382, 10.

<sup>412</sup> Ibid, at 62.

media over the internet. In the context of video games, implementing the DRM into a medium used to distribute video games served as a better model for reducing piracy, as seen in the case of PC gaming platform and distributor STEAM and its console counterparts.<sup>413</sup>

McCullagh and Homsis takes a similar stance regarding the anti-DRM opinion generally present in the literature, arguing it has become fashionable to complain that DRM threaten socially desirable notions such as privacy, free speech and the ability to make fair use portions of copyright works.<sup>414</sup> Where Sookman was overly critical of Geist's "perfect storm" thesis, McCullagh and Homsis stated suggestions to change the law usually proposed by anti-DRM camps are mistaken and should leave DRM alone because "no legislation is good legislation."<sup>415</sup> They believed any proposals to relax (or increase) TPM rules may unnecessarily increase regulation of copyright in which inventors might have to seek permission from the government before creating new products.<sup>416</sup> It is important that despite the overall negative feedback from the literature to consider the pro-DRM's arguments as DRMs are ultimately considered to be the last resort in protecting the interests of copyright owners as Professor Cornish perfectly argued:

With the Internet, technical control remains the core objective, because it seems the only hope for preserving the copyright industries in something resembling their present form.<sup>417</sup>

Whether DRM is considered an undesirable hindrance or necessary in preventing piracy, McCullagh and Homsis concluded "DRM technology may prove to be a success in the marketplace; and it may not" although "it is reasonable to conclude that consumers will continue to be cautious when it comes to buying products with DRM, unless it is clear that the benefits outweigh the costs".<sup>418</sup> The Digital Connections Council advised the key to acceptance of DRM is ease of use and convenience.<sup>419</sup> Bechtold on the other hand stated that the goal should not be a DRM environment that only protects the interests of rights holders alone, but also a "symmetric DRM environment" which protects the legitimate interests of both parties.<sup>420</sup>

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<sup>413</sup> Nicole Carpenter, Steam Surpasses 12 Million Concurrent Users (January 2016) IGN < <http://au.ign.com/articles/2016/01/03/steam-surpasses-12-million-concurrent-users>>.

<sup>414</sup> McCullagh and Homsis above n 167, 1.

<sup>415</sup> Ibid, 8.

<sup>416</sup> Ibid.

<sup>417</sup> Adam Chesler et al above n 444, 142. Also see William Cornish, *Intellectual Property: Omnipresent, Distracting, Irrelevant?*, (Oxford University Press, 2004) 54.

<sup>418</sup> McCullagh et al above n 167, 10.

<sup>419</sup> Horn et al above n 407, 51.

<sup>420</sup> Bechtold above n 170, 363.

In view of these arguments, there is a general realisation that reliance on DRMs to protect content is counter-intuitive as it undermines the lawful uses that are permissible under copyright law. Moreover, DRMs have extended copyright laws by giving rights holders too much control over the use of copyrighted works. Mulligan encapsulates the problems of DRM described in the literature:

Written by rights holders and offered on an accept/reject basis, to purchasers, these rules are likely to supplant copyright laws in many contexts. As a result, the balance remaining in copyright policy – reflecting the interests of many groups, including copyright holders, creators, and purchasers of that content – stand to be replaced with contracts and machine-readable, machine enforceable code constraints reflecting and upholding the interests of the rights holders alone.<sup>421</sup>

DRMs thus have the potential to unilaterally set the terms for which copyright works can be used. Not surprisingly, subsets of copyright users are determined to circumvent DRMs to avoid these constraints. This is true with console modification and gamers, where the conflict between the law and DRM clash with anti-circumvention devices. Also, the culture of piracy and hacking is well documented in both academic and gaming literature, as illustrated in the next chapter. However, the reality of rampant piracy is an important reminder that TPM and DRM not only serves to protect the rights of owners, but if properly implemented, may increase digital offerings to consumers.

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<sup>421</sup> Mulligan above n 137, 33.

## CHAPTER 6 - CULTURAL NORMS AND ACCEPTANCE ISSUES: WHY IT IS ALRIGHT TO MOD CONSOLES?

### **6.1 CULTURE IN THE INTERNET**

The discussion of DRM and circumvention devices is not limited to the legal and technological literature, but also includes a growing body of literature that discusses these concepts in the realm of culture, relating to user and societal responses to the technological restriction on access. Copyright is viewed as a balancing mechanism between authors and publisher rights over their work whilst simultaneously limiting this control so that society can benefit from access to the work. This balancing mechanism was historically maintained by the complexity and difficulty of copying a work, however, this carefully crafted balance was unsettled by the information age and the ease with which copying could occur. Sir Hugh Laddie, in a thought provoking, if not prescient, analysis of copyright overprotection acknowledged that where copyright has dictated that “what is worth copying is prima facie worth protecting”, added that:

“not all copying is bad, and... sometimes copying and developing are to the general good. I should make it clear that I believe that copyright has an important role to play in society, I do not advocate an unprincipled free for all. But I suggest that the scales are at the moment weighed far too much in favour of would-be copyright holders.”<sup>422</sup>

In the arena of cultural studies examining the use and expression of culture, technological advances have led to a wider culture that divulge the act of free sharing and dissemination of information.<sup>423</sup> Karaganis and Renkema in their seminal research of copy culture in Germany and the US assert:

Copy culture is pervasive because it is the first practical iteration of a powerful idea: of culture as a universal library, abundant and shared. It is pervasive because copying media has become very easy – an extension of the basic operations of computers and networks. And it is pervasive because, for both these reasons, it is very hard to control.<sup>424</sup>

Given the pervasiveness of copying on the Internet, this culture generally opposes both copyright law, TPMs and DRMs. This sub-section explores the literature of the sub-cultures that subsist in the Internet

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<sup>422</sup> Hugh Laddie, “Copyright: Over-Strength, Over-Regulated, Over-Rated?”, (1996) *European Intellectual Property Review* 18(5) 253, 260.

<sup>423</sup> See Wiersma above n 50, 12. These are the norms, views and ideas that make up the public opinion. It is how people think about IP, how they act towards it, and also how they view others' behaviour towards it.

<sup>424</sup> Karaganis et al. above n 200, 3.

age, and how the change in information infrastructure has proliferated a deeply rooted scientific norm of sharing into a global movement of information liberty and piracy.

It is well recognised that independent of the legal construction of copyright law, a groups interaction with the internet, gaming, and gaming devices is a recognised cultural group. A key issue, however, in the study of gaming culture, or any culture for that matter, is the difficulty to specifically define what culture is.<sup>425</sup> Kathy Bowery perfectly puts this difficulty into context in regard to the vast number of cultures in the Internet:

It is difficult to pin down the concept of internet cultures. Whose internet? Which communities? What cultures? There are problems of definition and issues of selectivity and representativeness – matters of time, site and perspective.<sup>426</sup>

Given the difficulty in exactly pinning down the concept of culture, it is therefore important to stress that the gaming community and the broader internet communities are no more homogenous than the cultures that subsist in the real world including religion or geography. Indeed, Levin explained that scholars have failed to isolate and reach a convincing consensus in social norm development because "norms emerge in many and varied ways in many different contexts".<sup>427</sup> Shaw synonymously states that cultural studies are under constant tension and conflict over definitions, methods, theories and the fundamental goals and existence of varying cultural groups.<sup>428</sup>

This perception speaks true in the case of internet communities, given that the laws of the Internet have been likened to the 'law of the horse.' While there is no absolute law that governs cyberspace, the maintenance, formation and rules of Internet norms are also unbound by the rules of sovereignty of a person when online can be subject to the laws of multiple countries. Given the difficulty of pinning down an exact definition, the thesis looks towards a pragmatic anthropological working definition best described as Habermasian's "Life world" of everyday actions and beliefs.<sup>429</sup> This ultimately means a subset of individuals who share particular beliefs, practices, experiences or forms of expression from cultural

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<sup>425</sup> Terry Eagleton, *The Idea of Culture* (Blackwell, 2000), 1.

<sup>426</sup> Bowery above n 149, 23.

<sup>427</sup> D.B. Levin, "Building Social Norms on the Internet" (2001) 4(2) *Yale JL & Tech* 99, 102.

<sup>428</sup> Shaw above n 17, 405.

<sup>429</sup> Jürgen Habermas, *Lifeworld and System: A Critique of Functional Reason* (Thomas McCarthy, 3rd ed, Beacon Press 1985), 45 [trans of: *Theorie des kommunikativen Handelns, Band 2: Zur Kritik der funktionalistischen Vernunft* (first published in 1981)].

groups. In the context of law, Wiersma's definition of cultural norms represents the views and ideas of people about the law, how they act towards it, and also how they view others'.<sup>430</sup>

The examination of culture and its intersection with copyright law and the internet is the subject of research on Internet subcultures. The concept of culture in the internet is not a novel idealism. According to Downing, research in Internet subcultures emerged from the field of marketing and management, though the focus of the research has shifted to more sociologically grounded perspectives that aim to identify the norms and values of subcultures.<sup>431</sup> This is, in part, due to the development of the digitisation of information, which resulted in a new public concept of communication, "one that values networking over singularity and relationships over individualisation".<sup>432</sup> Within this model, Graig elaborates that social media, fan sites, file sharing defeat conventional ideas of individual ownership, and instead have shifted to the development of a robust cultural landscape in which users freely participate in "a social space made more open, accessible, democratic and vital".<sup>433</sup> However the culture present in the Internet is often in conflict with that of copyright laws. Specifically, the growth of piracy is in part led by cultural norms which commodify copyright works as products that can be freely shared in the internet without consideration of the legal consequences. This is especially emphasised in the research focused on the dissonance between copyright law, TPM and cultural norms.

The genesis of internet culture and its conflict with copyright law can be traced back from early technologists and scientists, when concepts and ideas are shared and made available between them without strict compliance to copyright rules, leading to concepts of open source and public domains. While these deeply rooted conventions of internet culture remain in close-knit technology communities such as Linux enthusiasts, the dispersion of Internet access and use from the hard-core computer geeks to the general populace means the degree of difference in the maintenance and formation of specific community norms has increased. The difficulty in specifying community norms is evident in the gaming community. For instance, Choi and Perez surmised that PC gaming subcultures accept piracy as a normal

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<sup>430</sup> Wiersma above n 50, 12.

<sup>431</sup> Downing above n 14, 752.

<sup>432</sup> Craig above n 120, 1.

<sup>433</sup> Ibid, 2.

convention to “crack” the games basic engines and modify the games extensively to their taste.<sup>434</sup> Downing, on the other hand, explained that retro gaming communities believe that piracy allows for the access of content to be shared between 'true gamers' because these games would otherwise be unavailable from more legitimate distributors.<sup>435</sup> The unsettled variety of norm theories also adds to the complexity of social norm development.<sup>436</sup> It is thus imprudent to assume that social norms in the internet all hold the same values and beliefs given the global nature of the internet.

However, it is an accepted convention that piracy is prominent in Internet communities given that piracy, according to Johns, is a philosophy of moral standards that has to do with convictions about freedom, rights, duties and obligations.<sup>437</sup> These convictions are, for the most part, driven from open-source and free-software circles, but Johns also added that genealogy can be traced back to a political legacy, such as the pirate radio boom of the 1960s following the invention of broadcasting after World War 1. Coined as pirate listening, Johns surmised that pirate listeners threatened to create a population of autonomous and individual agents that had the power to not only listen to something else, but also in some other way.<sup>438</sup> Pirate listening occurred by the utilisation of pirate stations based on ships moored outside territorial waters and those said ships transmitted an endless succession of the latest hits, which legitimate stations could not do due to licensing and time-restraint issues. The advent of transistor radios has also proliferated this activity to virtually anywhere including in motor vehicles. This analogue form of piracy is consistently analogous to the struggles and eventual triumph of digital distribution.

Whereas piracy occurred in the distribution of physical mediums such as DVDs and VHS, the affordability of copy technology, modern computers and the Internet has shifted the paradigm from the physical to the digital, much like the transition from pirate ships to transition radios in cars. By extension, the cultures that subsist in this digital revolution are 'still a culture for all' and as such, it can be asserted that pirate radios are consequential in shaping the digital culture. The moral and ethical acceptance of

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<sup>434</sup> Choi et al. above n 144, 170.

<sup>435</sup> Downing above n 14, 751.

<sup>436</sup> Levin above n 427, 104-110. Levin cites a number of prominent theories including rational choice theory which assume that people act in rational ways to maximise utility or wealth over a reasonable set of preferences; signal theory which argues that people want to have some way to show others that they will cooperate in collective settings and want to be able to find others with whom to cooperate; and esteem theory where norms arise because people derive some independent utility from having good reputations, and thus seek both value and esteem from others. Also see Neri above n 123, 733. Social norm theory explains that an individual's behaviour generally often conforms more closely to social norms regarding how people should behave than it does to laws dictating behaviour.

<sup>437</sup> Adrian Johns, *Piracy as a Business Force* (2009) 10 *Culture Machine* 44, 45

<sup>438</sup> *Ibid*, 48.

piracy by gamers on the other hand is attributed to a cultural factor that is discussed prominently in literature, including sources from IT journals and gaming media.

## **6.2 WHAT IS GAMING CULTURE?**

The definition of gaming culture, particularly in the context of this thesis, centres on the cultural acceptance of piracy and console modification within gamers and users. This can be identified using a number of theories and rationales.

Despite the heterogeneous nature of internet communities, literature has attempted to analyse the myriad of social norms that subsist in the internet, with ethnographic studies examining youth subcultures, music preferences or gaming subcultures just to name a few. Authors have purported to define the social norms of gaming generally under the guise of gaming culture. Indeed, Miller notes that video games are cultural objects borne out of history and materiality.<sup>439</sup> This is complemented by John's theoretical claim that the videogame industry is a "cultural industry" in that it is an industry that drives broad economic and technological change through cultural collaboration from within and outside the industry.<sup>440</sup> The real nature of gaming culture is difficult to pin down given that studies of gaming culture are discussed in various dimensions in the literature.<sup>441</sup> Corliss establishes the difficulty in studying video game culture:

Games and technologies are changing rapidly and video gaming scholarship is still in its formative stages. What remains an essential consideration, however, is the way in which, as social scientists, our decisions in positioning the game object - as a storytelling mechanism, a communication tool, an art object, or stimulation, for example - affect the kinds of research questions we can access.<sup>442</sup>

To overcome this difficulty, researchers have studied gaming culture through narrow perspectives. Gaming culture research, for example, focused on online communities in popular MMOs, with authors such as de Zwart and Humphreys<sup>443</sup>, Taylor<sup>444</sup> and Castronova<sup>445</sup> examining MMO players and illustrating

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<sup>439</sup> Miller above n 165, 461.

<sup>440</sup> Jennifer Johns, "Video Games Production Networks: Value Capture, Power Relations and Embeddedness" (2006) 6 *Journal of Economic Geography* 151, 155.

<sup>441</sup> Jonathan Corliss, "Introduction: The Social Science Study of Video Games" (2011) 6(1) *Games and Culture* 3, 4. The author notes that game studies and the study of game culture has been characterised by a broad range of theoretical and methodological approaches hailing from an equally wide variety of disciplines.

<sup>442</sup> Ibid.

<sup>443</sup> Melissa de Zwart and Sal Humphreys, "Playing in Contested Zones: norms, laws and rules in MMOGs" (2012) 17(1) *Media and Arts Law Review* 1. The article explores the consequences of rule breaking in MMOG and found that gamers employ strategic tactics developed within the

how players dealt with their virtual identities. Most recently though, video game culture has been examined in the political dimension, emphasising the importance of gaming industry innovation and media consumption.<sup>446</sup> Klevjer for instance discussed the cultural and political value of video games in Europe, and concluded that playful relations to technology in society constitutes a vital foundation in developing cultural policy and innovation.<sup>447</sup> Melissa de Zwart explored a range of real world governance models and postulated their effectiveness in virtual communities.<sup>448</sup> The article prescribed minimal interference of real world governance is the most effective in the development of virtual worlds because issues within the game will normally be dealt with the in-game norms of the community.<sup>449</sup> Vitale also examined gaming culture and policy implementation in the Philippines, and found the lack of efficacy of the law on gaming piracy is caused by the general acceptance of piracy by the public and government corruption which allows the black market to flourish.<sup>450</sup> Johannes in contrast examined computer gaming as part of children's culture and surmised that it could be established as a tool for informal learning processes by utilising computer competency in video games.<sup>451</sup>

Gaming culture is also used to describe the ethnography of the gaming demographics and other activities. For instance, Shaw examined gaming culture in the context of cultural studies, identifying gaming culture as often used to define and describe gamers in general, and often used in literature to outline the "prototypical" definition of a gamer.<sup>452</sup> Downing, on the other hand, examined a subset of gaming culture called retro gamers, which he described as gamers who involve themselves in digital piracy in order to

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communities in order to resolve problems. However, real life governance models (such as EULAs) are rarely used and effective in dispute resolution.

<sup>444</sup> T.L Taylor, *Play Between Worlds: Exploring Online Game Culture* (The MIT Press, 2006), 10. Taylor's ethnographic research on the MMOG Everquest found that online multiplayer games are fundamentally social spaces where gamers can share and communicate with each other.

<sup>445</sup> Edward Castranova, "On the Research Value of Large Games: Natural Experiments in Norrath and Camelot" (2006) *Games and Culture* 163, 171. Edward characterises MMORPGs as 'large games', and because of the sheer size and complexity of large games, they can be considered a genuine human society.

<sup>446</sup> See Greg Lawstoka, "Law and Game Studies" (2006) 1(1) *Games and Culture*, 1. Lawstoka examined the increasing overlap of the rules of law and play, and how to bridge a growing gap between gamer apathy and legislative rules. Also see Kurt Squire, "Cultural Framing of Computer/Video Games" (2002) 2(1) *The International Journal of Computer Game Research* 1. Squire examined the possibilities of implementing video gaming in formal learning environments.

<sup>447</sup> Rune Klevjer, "The Cultural Value of Games: Computer Games and Cultural Policy in Europe" in Peter Ludes (ed) *Convergence and Fragmentation: Media Technology and the Information Society* (Intellect Books, 2008) 71, 80. Rune cites a number of important reasons why gaming culture has been adopted as an important part of cultural policy, given the population of gamers are exponentially growing and changing; and because of its aesthetics as an "action machine" that relies on player "playful body engagement."

<sup>448</sup> Melissa de Zwart, "Piracy vs Control: Models of Virtual World Governance and Their Impact on Player and User Experience" (2009) 2(3) *Journal of Virtual Worlds Research* 4, 14.

<sup>449</sup> Ibid.

<sup>450</sup> Jennifer Kim Vitale, 'Video Game Piracy in the Philippines: A Narrowly Tailored Analysis of the Video Game Industry and Subculture' (2010) 22 *Pace International Law Review* 297, 328.

<sup>451</sup> Johannes Fromme, "Computer Games as Part of Children's Culture" (2003) 3(1) *The International Journal of Computer Game Research* 1, 1.

<sup>452</sup> Shaw above n 17, 404.

collect and consume video games published roughly from the early 1980s.<sup>453</sup> Other authors also analysed the social collaboration of subcultures where like-minded groups “brand” or identify themselves around specific brands (such as Sony or Microsoft) or games.<sup>454</sup> On the other hand, Newman describes gaming culture as evidence of the unique feature of gaming to interact and engage with one another while playing, sharing the experience of the game in various ways either through competition or collaboration.<sup>455</sup> In contrast, authors including Neiborg and der Graaf<sup>456</sup>, Sotamaa<sup>457</sup>, O'Donell<sup>458</sup>, de Zwart<sup>459</sup> and Postigo<sup>460</sup> have examined gaming culture in the context of modders, where the roles of gamers and developers have converged and they have conducted among themselves collaborative projects including the creation of games and hardware modification of consoles.

The nature of video game culture essentially depends on the context that it is being examined. However the above cited authors, while examining the definition of gaming in different contexts, acknowledge a number of unifying concepts. One such concept includes the notion that gaming is quite separate from mainstream culture having its own traditions, language and beliefs. Another common norm is the sharing and trading of knowledge that takes place between gamers. With these norms, Miller recognised three significant features of game culture: the “open philosophy” of gaming culture; the free flow of knowledge and information into the communities; and the collaborative works of gamers to foster creation and innovation.<sup>461</sup>

### **(1) OPEN PHILOSOPHY OF GAMING**

Gaming piracy and console modification are by-products of social norms in the gaming communities that foster an “open philosophy” tradition which, according to Miller, stemmed from the readiness of gamers to “share strategies, secrets and knowledge about secret areas or how to defeat difficult

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<sup>453</sup> Downing above n 14, 751.

<sup>454</sup> See J. A. McArthur, "Digital Subculture: A Geek Meaning of Style" (2008) 13(1) *Journal of Communication Inquiry* 58, 58. While not exclusively examining gaming culture, McArthur found that "geek" communities attain like-minded affiliation through computer mediated communication. Also see Downing above n 14, 752. Downing's research looked at both gamers who branded themselves as “retro” and have attached themselves as fans of specific brand and games.

<sup>455</sup> James Newman, *Videogames* (Routledge, 2004), 153.

<sup>456</sup> David B. Neiborg and Shenja van der Graaf, "The Mod Industries? The Industrial Logic of Non-Market Game Production" (2008) 11(2) *European Journal of Cultural Studies* 177, 177.

<sup>457</sup> Sotamaa above n 33 1, 1.

<sup>458</sup> O'Donell above n 82, 1.

<sup>459</sup> Melissa de Zwart “For fun rather than profit”: Playing around with online games” (2013) 18 *Media and Arts Law Review* 106.

<sup>460</sup> Hector Postigo, "Of Mods and Modders: Chasing Down the Value of Fan Based Digital Game Modifications" (2007) 2(4) *Games and Culture* 300, 309.

<sup>461</sup> Miller above n 165, 462

characters.<sup>462</sup> The willingness to share information also transcends discussions of game play, as James noted that videogames are about more than just the act and moment of play itself.<sup>463</sup> This, so far, is a product of many internet communities which Jenkins attributes as evidence of “participatory culture” that encourages “knowledge sharing on a global scale.”<sup>464</sup> For instance, Henry Jenkins examined the cultural attributes of interactive audiences or “fandoms” in popular TV shows or movies. Using Japanese animation or anime as an example, Jenkins describes how Japanese anime fans collaborate with American consumers to ensure that Japanese animation, or anime, is circulated in the internet before official release and localisation that may take years.<sup>465</sup> The episodes or movies are also then subtitled and posted in file-sharing websites so that international fans can easily access these programs without any delay and degradation in quality. Downing conversely examined retro gamers and their compulsion to download old games for archival reasons.<sup>466</sup> In video games, the “discussions of fans and their interpretive practises” being sustained in fan art, fan fiction, blogs and videos not only provided mechanisms of creativity and innovation, but also an avenue for gamers to vent their disappointment and frustration towards video gaming issues. Newman further acknowledges the presence of the Internet has become the nexus for fan activities as it has considerably extended the communicative and discursive potentials for fans and the various inter-connected websites, discussion groups and other forums.<sup>467</sup>

The second cultural significance of the gaming culture lies on the collaborative features of gaming. For instance, video game production is a product of many creative industry collaborations including the music, movie, advertising and marketing industries, as opposed to the long held belief of video gaming as a niche product, primarily targeted for a minor group of computer geeks. However, while the industry is driven by a collaborative effort from other cultural industries, the gamers themselves have significant cultural and technological influences. Miller argues the cultural aspect of video games is increasingly becoming more social and less confined to the rooms of computer geeks that are completely shut off from the rest of the

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<sup>462</sup> Ibid.

<sup>463</sup> Newman above n 455, 156.

<sup>464</sup> Henry Jenkins, *Interactive Audiences? The 'Collective Intelligence' of Media Fans, Fans, Bloggers and Gamers: Exploring Participatory Culture* (New York University Press, 2006).

<sup>465</sup> Ibid.

<sup>466</sup> Downing above n 14, 751.

<sup>467</sup> Newman above n 455, 156.

world.<sup>468</sup> This is primarily evident with the availability of MMO's which according to Taylor, by their very nature, are social ventures in that they involve numerous players gaming together in real time in a shared virtual environment.<sup>469</sup>

## **(2) GAMING COLLABORATIONS**

Other instances of the cultural significance of gaming are also present in the collaborative and often disruptive nature of professional game development and user created game content. Sotamaa, for instance, acknowledges that gamer-made modifications of computer games are "celebrated as a new medium for artistic innovation" and have become part of game development.<sup>470</sup> Moreover, gaming mods have also fostered the creative and innovative aspect of this cultural activity, with Sotamaa stating that gaming hardware and software mods are a product of the gaming culture's need and compulsion to generate "new practices and doing new things with technology".<sup>471</sup> On the other hand, O'Donnell's examination of hardware modding for the Nintendo DS demonstrated communities of homebrew developers "break open new technologies in ways that enable broader participation and use of gaming consoles".<sup>472</sup> Synonymously, Grand's work on education and hardware hacking of video games consoles found the collaborative educational movement that encourages hardware hacking community represents an example of "non-traditional learning" and "tend to learn by looking at a completed technology, taking it apart, working backward by breaking down the system into subsystems, and picking up the theory as needed."<sup>473</sup>

The collaborative aspect of gaming culture is not only present in video game console modification however, but is also present with a different type of modding – gamer made modifications of existing computer games.<sup>474</sup> de Zwart has written extensively on modding (specifically on MMOs), establishing that a long history of uneasy truce exists between the users who modify and the platforms that are being modified by these users.<sup>475</sup> Indeed, collaborative efforts to modify programs have existed at the infancy of video games such as the case of MIT students modifying a pre-existing program to create Spacewar!, the

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<sup>468</sup> Miller above n 165, 462.

<sup>469</sup> Taylor above n 444, 10.

<sup>470</sup> Sotamaa above n 33, 3.

<sup>471</sup> Ibid, 4.

<sup>472</sup> O'Donnell above n 82, 12.

<sup>473</sup> Grand above n 40, 46.

<sup>474</sup> Sotamaa above n 33, 6.

<sup>475</sup> de Zwart above n 459, 107.

game that inspired the video game hit *Asteroids*.<sup>476</sup> de Zwart describes this collaborative relationship as being a “symbiotic relationship” that provides a valuable research for other players of the game and ultimately contributes to the development of the virtual communities in a particular MMO.<sup>477</sup> Postigo defines this collaborative efforts of gamers to create content as the “convergence” of fans and producers.<sup>478</sup>

More recently, this type of modding was extensively examined in the Player-Authors Project, which surveyed gamers and industry professionals regarding user-generated content (UGC) in video games. The survey found that a large number of video game players create and enjoy UGC and are engaged in creative practices with respect to video games.<sup>479</sup> These creations include making new objects, maps, avatars or scenarios in games.<sup>480</sup> Indeed, the respondents to the study have indicated that the gaming community in general enjoy being part of a collaborative community and are happy to share its works even with no economic profit.<sup>481</sup> Surprisingly, while much of the work was argued to be derivative, most of the fan works are “original” in that the authors re-created the new content in a new medium and very little piracy was noted in UGC.<sup>482</sup>

Klevjer additionally emphasised that a reciprocal and participatory relationship between producers and consumers also exists in the gaming industry through the modding of in-game content, most present in the first person shooter and role playing game communities, where developers socially interact with the players and invite them to co-produce creative content.<sup>483</sup> These collaborations have proven to be successful as evident from games like *Counter-Strike* and *Skyrim* which can be traced to the modding communities that demonstrate interest in modifying existing game content and sharing their alterations online. Neiborg and Graaf stressed the significance of *Counter Strike* in particular, as it demonstrated the complex social world of gamers and possible business models through collaboration of developing games by the distribution of game technology to users which provide them with the tools and information to

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<sup>476</sup> Sotamaa above n 33, 7.

<sup>477</sup> de Zwart above n 459, 107.

<sup>478</sup> Postigo above n 460, 301.

<sup>479</sup> Greg Lawstoka, *The Player-Authors Project* (12 December 2013)

<[http://www.gamasutra.com/blogs/GregLastowka/20131212/205990/The\\_PlayerAuthors\\_Project.php](http://www.gamasutra.com/blogs/GregLastowka/20131212/205990/The_PlayerAuthors_Project.php)>, 4.

<sup>480</sup> *Ibid.*, 127

<sup>481</sup> *Ibid.*

<sup>482</sup> *Ibid.* 4.

<sup>483</sup> Klevjer above n 447, 75.

develop new content.<sup>484</sup> Hong in contrast highlighted the success of *Skyrim* because of the "prosumer" movement, where gamers are increasingly becoming hybrid consumers and producers.<sup>485</sup> Using a survey to estimate the value of fan made content, Postigo found this convergence can ultimately benefit the gaming industry by harnessing the talent of the 'modders' who are willing to take more risks that game companies cannot.<sup>486</sup> Using mods developed by players in popular MMOs, de Zwart synonymously finds value in modding because:

Modders can therefore be perceived as adding value to the industry in a variety of ways, testing new products, creating new add-ons that extend the life of the product, creating and maintaining interest in a particular title, and providing a recruiting pool for new developers, who do not need any training.<sup>487</sup>

Due to the advantages of in-game modding, Sotamaa stresses that out of the different types of modding practised by gamers, creation of user game content is the most successful all over the world.<sup>488</sup> In the context of modding of console games, this is only made possible by the initial modification of the console itself, which is only made possible by either a mod chip or the soft-modding of the console.

### **(3) SHARING OF INFORMATION - PEER RELATIONS**

The third feature of gaming culture rests on the integrated free flow of information that is willingly shared over the web. Anything conceivable in gaming, whether it be cheat codes, walkthroughs or hacks can be virtually obtained in the Internet, whether legally or illegally obtained.<sup>489</sup> Indeed, the Player-Authors Project survey, which analysed the copyright implications of user-generated content by gamers, found that a large proportion of gamer participants have created content related to video games shared content online, and do so because they enjoy being creative with intention to amuse peers and others.<sup>490</sup> McArthur emphasised the importance of relationships and interactions of the "geek subculture" where information is freely obtainable from websites, blogs, forums or image boards, and these places allow

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<sup>484</sup> Neiborg et al. above n 456, 178.

<sup>485</sup> Renyi Hong, "Game Modding, Prosumerism and Neoliberal Labor Practices" (2013) 7 *International Journal of Communication* 984, 984.

<sup>486</sup> Postigo above n 460, 311.

<sup>487</sup> de Zwart above n 459, 112.

<sup>488</sup> Sotamaa above n 33, 3.

<sup>489</sup> Miller above n 165, 463.

<sup>490</sup> Lawstoka above n 479, 127. Moreover, they spent an average of 5 hours per week creating content related to video games.

geeks to “unite in a chat space that creates a gathering point and common ground... effective across time and space”.<sup>491</sup>

Yet there are some limitations as to how open gamers are to share knowledge, as McArthur points out that generally geek subcultures are resistant to the mainstream culture in terms of appearances and entertainment – primarily through the use of in-language and memes that are only understandable to them.<sup>492</sup> O’Donell, in studying modding groups, for instance described the communications between members as coded for themes and rhetorical tropes.<sup>493</sup> McArthur further asserts that self-identification is very important for “geek” subcultures, and thus only welcome likeminded individuals tentatively into their group.<sup>494</sup> In studying children's conduct in gaming, Johanes concluded that children who play games mainly communicate issues relating to gaming through their friends or peer relations, while their parents and other authority figures participate in the fringes.<sup>495</sup> Klevjer synonymously concluded that the exclusivity of gaming subcultures using online gaming communities are spaces of social interaction that exist in relative independence to traditional mainstream culture.<sup>496</sup> This is due to an online game acting as a persistent world where gamers interacting, socialising, battling and growing, have become much like societies of their own with elaborate and constantly negotiated social, economic and legal structures.<sup>497</sup> However, through the Internet, gamers are using websites, forums, blogs and chat rooms to seek out other gamers and are using the internet to share their “geekiness”.<sup>498</sup> Through these, Sotamaa asserts that gamer groups and individual gamers “regularly update thousands of websites to promote the achievements of a particular clan, to share the significant information pieces and to keep contact with other games.”<sup>499</sup>

Free flowing information however raises political and legal issues, where gamers freely share information that subverts the rules established by the law and the games industry. For instance, industry members have raised concerns regarding UGC in terms of its legality under copyright law and also how UGC could

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<sup>491</sup> McArthur above n 454, 65.

<sup>492</sup> Ibid, 66.

<sup>493</sup> O’Donell above n 82, 4.

<sup>494</sup> Ibid

<sup>495</sup> Fromme above n 451, 16. The study found that games are more often and more closely connected to peer relations than to family life.

<sup>496</sup> Klevjer above n 447, 75.

<sup>497</sup> Ibid.

<sup>498</sup> McArthur above n 454, 66.

<sup>499</sup> Sotamaa above n 34, 4.

be used to alter the balance of the game and enable forms of hacking and cheating.<sup>500</sup> The free share of information also extends to the piracy of games whereby despite the illegality of game trading or sharing, the sharing of games is considered an integral part of the growth of video game culture.

In general, the OECD Report identified cultural motivators to piracy in economic terms as:

1. “Market Potential” as motivations in which parties may engage in piracy by the attitude towards piracy, or the presence of a reciprocity mechanism or that monetary payment is involved;
2. “Market Exploitation” as the technologies that facilitate the processes of production and distribution of digital product which depends closely on the growth of the market for personal computers; and
3. “Market Risks” as factors which determine the risk involved in digital piracy, including the degree of social control and quality of institutional and the legal and enforcement risks.<sup>501</sup>

Similarly, a CIBER report into digital piracy lists key evidences which drive consumers and users to pirate software including the widespread domestic use of broadband Internet and the arrival of social media as a medium for users to communicate and share content.<sup>502</sup>

Others have attempted to explain the piracy norm using characteristics such as gender<sup>503</sup>, income<sup>504</sup> and the national ethnographic norms.<sup>505</sup> Neri, on the other hand, ascribes to social norm theory to explain informal and social moral standards of a particular group which regulates the behaviour of individuals within that group.<sup>506</sup> Social norm theory explains the interrelationship of law and society and found complete or partial disregard to copyright law.<sup>507</sup>

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<sup>500</sup> Lawstoka above n 479, 140

<sup>501</sup> *The Economic Impact of Counterfeiting and Piracy* (2008) Organisation for Economic Co-operation and Development < <http://www.oecd.org/fr/sti/ind/theeconomicimpactofcounterfeitingandpiracy.htm> > 1, 47.

<sup>502</sup> Robert Hunt, Peter Williams, Ian Rowlands and David Nicholas “Copycats? Digital Consumers in the Online Age” (2009) *CIBER* 1, 6.

<sup>503</sup> See Roger G. Morris, Matthew C. Johnson and George E. Higgins “The Role of Gender in Predicting the Willingness to Engage in Digital Piracy among College Student” (2009) 22(4) *Criminal Justice Studies* 393, 393. Also see Al-Rafee Sulaiman and Timothy Paul Cronan, “Digital Piracy: Factors that Influence Attitude toward Behavior” 63 (2006) *Journal of Business Ethics* 237, 237.

<sup>504</sup> Seung Kyoong Shin, Ram D. Gopal, G. Lawrence Sanders and Andrew B. Whinston “Global Software Piracy Revisited” (2007) 47(1) *Communications of the ACM* 103, 105. Evidence implies that poor countries are more involved in software piracy. Also see William Crittenden, Christopher Robertson and Victoria Crittenden “Hard Facts About Software Piracy” (2007) 18(4) *Business Strategy Review* 30, 30.

<sup>505</sup> See Bryan W. Husted “The Impact of National Culture on Software Piracy” (2000) 26(3) *Journal of Business Ethics* 197, 200. Also see Ian Condry “Cultures of Music Piracy: An Ethnographic Comparison of the US and Japan” (2004) 7(3) *International Journal of Cultural Studies* 343, 347.

<sup>506</sup> Neri above n 123, 746.

<sup>507</sup> *Ibid*, 747.

In the context of copyright, and as there is a lack of public acceptance that breaching copyright is wrong, there is little reason for people to follow the laws.<sup>508</sup> Ogbu asserts that copyright fails to be legitimatised by users because of the "vagueness about what is and what is not permissible".<sup>509</sup> This is exacerbated by the fact that some "netizens" may conclude that everything online is in the public domain and can be used or distributed freely.<sup>510</sup> Mackaay further argues the Internet amplifies the "corrosion" of the "older fences" including intellectual property law, thus creating the appearance of an open field in which all can take whatever they can click their mouse on.<sup>511</sup> In the context of gaming, Miller says that "the gaming industry is sending mixed messages" as it is difficult to draw a line saying hacking in the virtual world is fine, but hacking in the real world is not.<sup>512</sup> Adams conversely states that "when enough people feel that it's OK to do a thing, that thing ceases to be wrong in their own cultural context".<sup>513</sup> Such justifications, according to Choi and Perez, derive from the open-source distribution protocols by which the early technologists and scientists interacted.<sup>514</sup>

This is evident with the gaming culture which revolves around file sharing and distribution, as well as the cooperation between pirates and gamers.<sup>515</sup> Newman illustrates the impact of piracy on the establishment of gaming cultures as:

Group of friends often club together to buy a range of titles they copy among themselves.

Moreover they can use their games as capital to swap with other groups, thus increasing their collection of games and widening social networks.<sup>516</sup>

Gaming culture thus features a number of norms recognised in the literature. However, while gamers continue to maintain the culture, and grow along with the gaming industry, the activities clash with the industry. In particular, the free flow of information, along with open philosophy and collaborative

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<sup>508</sup> Tom R. Tyler, "Compliance with Intellectual Property Law: A Psychological Perspective" (1996) 29 *New York University Journal of International Law* 219, 226.

<sup>509</sup> Cecilia Ogbu, "I Put Up a Website About My Favorite Show and All I Got Was This Lousy Cease-And Desist Letter: The Intersection of Fan Sites, Internet Culture, and Copyright Owners", (2003) 12 *Southern California Interdisciplinary Law Journal* 279, 283.

<sup>510</sup> Ibid. Some even consider the medium a borderless, self-policing domain where traditional laws do not and should not apply.

<sup>511</sup> Mackaay above n 42, 18.

<sup>512</sup> Miller above n 165, 461.

<sup>513</sup> Ernest Adams, *The End of Copyright*, (28 November 2005), Gamasutra, <[http://www.gamasutra.com/features/20051128/adams\\_01.shtml](http://www.gamasutra.com/features/20051128/adams_01.shtml)>.

<sup>514</sup> Choi et al above n 144, 170.

<sup>515</sup> Vitale above n 450, 297.

<sup>516</sup> Newman above n 455, 162.

partnerships in the gaming community, appear to diverge from the legal and political norms of society described below.

### **6.3 TO PIRATE OR NOT TO PIRATE**

The gaming industry, through litigation, lobbying and legislation try to deter gamers from using console modification to do any activity that has not been approved by the games manufacturer. Any activity other than playing legitimate games on the approved console is from their perspective considered illegal. The use of the consoles to develop new games to utilise other games or to work out bugs in existing games are not considered by the industry to be legitimate uses of the console.

Yet from the prior literature review, gamers' beliefs in the free flow of information and experimentation conflicts with the game manufacturer's restrictive approach, particularly the belief that their use of the console for other purposes within the gaming community is perceived as legitimate. In this arena, gamers challenge established copyright law which Clark argues restrict access to games through legislative means and "leaves a sour taste for most of the people who work with and play video games".<sup>517</sup> He further asserts the "IP wars" have angered gamers because "in the United States, most of the lobbying and legislation have favoured the American intellectual property owners".<sup>518</sup> In the literature Adams supports Clark, accusing the American copyright law as a "travesty" as it does not "promote the progress of science" but rather "actively discourage it."<sup>519</sup>

On the other hand, Fisch suggests the "videogame publishers or videogame trade groups should sue individuals who distribute their products illegally over the internet".<sup>520</sup> Further, where the music industry has failed in prosecuting pirates, the videogame industry may succeed because game piracy uses torrent networks, and "while only a small fraction of sharers would receive subpoenas, many would quit using torrents once word of the lawsuits got out".<sup>521</sup> Ironically, Fisch concedes "as long as we are rational human beings, we will pirate because piracy is the rational thing to do".<sup>522</sup> Adams synonymously agrees

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<sup>517</sup> Clark above n 52.

<sup>518</sup> Ibid

<sup>519</sup> Adams above n 513, 2.

<sup>520</sup> Ian Fisch, *Fighting Piracy: Bring on the Lawsuits!*, (1 May 2009) Gamasutra, <[http://www.gamasutra.com/blogs/IanFisch/20090504/1318/Fighting\\_Piracy\\_Bring\\_on\\_the\\_Lawsuits.php](http://www.gamasutra.com/blogs/IanFisch/20090504/1318/Fighting_Piracy_Bring_on_the_Lawsuits.php)>.

<sup>521</sup> Ibid at 2.

<sup>522</sup> Ibid

that pirating is culturally accepted amongst the video gaming community.<sup>523</sup> Yet he disagrees with Fisch because “the lawsuits, the spyware, the DMCA: these are the death struggles of an outdate business model”.<sup>524</sup> These views express the conflict between the alternatives of strong support for game manufactures rights and cultural rights perceived as rights by gamers. Litigation against users, consumers and gamers themselves has not prevented the use of console modification, and attempts to deter these activities have been ineffective in preventing copyright infringement on a commercial scale since “game players and game creators both rightfully watch the future of video game legislation with interested, sometimes anxious eyes” because the “choices made by legislators and governments around the world may have the power to influence how games are crafted and experienced”.<sup>525</sup>

Other commentators argued that piracy is a necessity. Fahey discusses piracy as a serious issue in developing economies because consumers in less wealthy markets will seek cheaper (or free) alternatives to paying full price for products.<sup>526</sup> For instance, Law and Wong attribute the affordable price of pirated software as the most common rationale for software piracy amongst university students.<sup>527</sup> Similarly, Wingrove, Korpas and Weisz found the general public viewed downloading and sharing very differently from shoplifting because the lack of physical object and harm convinces them that digital piracy is harming no one.<sup>528</sup> The incorporeal nature of of digital games creates a notion of “free-games” in developed countries that connotes unlimited supply.<sup>529</sup> Yet this notion of “free-games” was capitalised by piracy, and Fahey argues that “legal and moral unpleasantness” has led to the “commoditisation of legal grey”, denying any possibility of better business models for gamers.<sup>530</sup> On the other hand, Vitale discusses piracy as a serious issue in developing economies because consumers in less wealthy markets will seek cheaper alternatives to paying full price for products.<sup>531</sup> Vitale, using the Philippines as a case study, further adds that individuals whose livelihood depends on piracy may find it “rational (and necessary) to

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<sup>523</sup> Adams above n 513, 1. “When enough people feel that it’s OK to do a thing, that thing ceases to be wrong in their own cultural context. You can complain about moral relativism all you like, but the facts are inescapable.”

<sup>524</sup> Ibid, 2. Adams compare to the “modern-equivalent of throwing the Christians to the lions in an effort to discourage Christianity. It didn’t work for the ancient Romans and it won’t work now.”

<sup>525</sup> Clark above n 52, 7.

<sup>526</sup> Rob Fahey, *The Free Trade*, (17 July 2009) Gamesindustry.biz, <[http://www.gamesindustry.biz/articles/the-free-trade\\_7](http://www.gamesindustry.biz/articles/the-free-trade_7)>.

<sup>527</sup> Law et al above n 144, 269.

<sup>528</sup> Twila Wingrove, Angela Korpas and Victoria Weisz, ‘Why were Millions of People not Obeying the Law? Motivational Influences on Non-compliance with the Law in the Case of Music Piracy (2010) 9(1) *Psychology, Crime and Law*, 1, 11.

<sup>529</sup> Tadhg Kelly, *An Endless Choice of Free Games*, (19 May 2009) Gamasutra, <[http://www.gamasutra.com/blogs/TadhgKelly/20090519/1405/An\\_Endless\\_Choice\\_of\\_Free\\_Games.php](http://www.gamasutra.com/blogs/TadhgKelly/20090519/1405/An_Endless_Choice_of_Free_Games.php)>. File sharing has made music effectively free both directly through piracy and – as a response – indirectly through Napster.

<sup>530</sup> Fahey above n 526, 2.

<sup>531</sup> Vitale above n 450 298.

partake in the illegal industry rather than to find a legitimate livelihood.<sup>532</sup> These studies highlight a prominent culture in the digital revolution which, as Sugden points out, “accepts downloading of music and films as a norm and morally acceptable”.<sup>533</sup>

The literature does identify that video game distribution is rapidly moving to digital distribution. Digital distribution is predominantly used for personal computer games as demonstrated by STEAM, and the uptake for digital distribution has been rapid, allowing gamers to download content and games from the comfort of their own console.<sup>534</sup> Gabe Newell, founder of Steam, recognised the internet’s capability of being an enormous distributing channel as digital distribution is not inhibited by physical settings such as shelves and marketing costs.<sup>535</sup> Independent developers use Steam to market their games without the additional costs of marketing and physical distribution.<sup>536</sup> Steam has achieved a “pretty universal thumbs up from everyone” and while gamers may pirate everything, they are likely to purchase games from Steam.<sup>537</sup> Gaming consoles have also recently embraced this approach, with the Sony Playstation 3 and Microsoft XBOX 360 allowing gamers to purchase their games and access other services such as Netflix or YouTube without the need for a PC.<sup>538</sup> Game distributor, Good Old Gaming (GoG) has also stated digital distribution can be advantageous in the fight against rampant piracy as it can almost completely mimic the ease of acquiring and accessing games as a torrent tracker:

We see pirates as our competition... Because our goal is to be as close to the ease of use as a torrent tracker, where the process for finding a game on a torrent tracker is your search for the game name, you download it, you play it, that’s it. In our case, you search for the game name, you pay for it, you download it and you play it. And you really can’t subtract any of those steps and still have a legit enterprise happening here.<sup>539</sup>

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<sup>532</sup> Ibid, 319.

<sup>533</sup> Sugden above n 13, 391.

<sup>534</sup> Steam (2014) Steam <<http://store.steampowered.com/about/>>.

<sup>535</sup> Good Game TV, Interview with Gabe Newell, Co-founder and CEO of Valve Software (Web Exclusives interview, <<http://www.abc.net.au/tv/goodgame/webexclusives/>>, 20 July 2009).

<sup>536</sup> Indie Games on Steam (2014), Steam, <<http://store.steampowered.com/genre/Indie/>>. This webpage lists some of the independent games developed by non-major developers.

<sup>537</sup> Cliff Harris, *Talking to “Pirates”* (2008), Positech Games <<http://www.positech.co.uk/talkingtopirates.html>>.

<sup>538</sup> For more information, refer to chapter 3.

<sup>539</sup> Tim Colwill, *We See Pirates as our Competition, We don’t see Steam as our Competition”: GOG.Com on Hatemail, Torrents, and Sharing Games Legally* (16 July 2013) Games.On.Net < <http://games.on.net/2013/07/we-see-pirates-as-our-competition-we-dont-see-steam-as-our-competition-gog-com-on-hatemail-torrents-and-sharing-games-legally/>>.

However, digital distribution is confined to the regional distribution model which not only allows developers and publishers to change prices depending on the users locations<sup>540</sup>, but also restricts game availability<sup>541</sup> as well as abiding with local and regional legislation that place additional restrictions such as censorship classifications banning or requiring modification to games to enable their release.<sup>542</sup>

## **6.4 GAMERS AND DEVELOPERS SPEAK**

Despite the economic repercussions of piracy and mod chips, the available computer literature belies an anti-DRM atmosphere. An empirical study by Ip and Jacobs into territorial lockouts found gamers are not supportive of the lockouts because “the market-related reasons for the use of regional lockouts are generally not considered justifiable”.<sup>543</sup> This is reflective of how gamers consider these lockouts as a demonstration of “corporate bullshit” and “encourage chipping, imports and piracy”.<sup>544</sup> More importantly, DRM has been condemned in the gaming communities as a nuisance with more pronounced downsides than positives:

DRM is always uncompromising, and its restrictions run from irritating to profoundly limiting: there's the requirement of an internet connection just to activate a game, while others need a mandatory disc-check, and many more place a limit on the number installations permitted. Look at almost any gaming forum and you'll find consumers complaining about what they feel is a compromised experience - proof positive of the old marketing adage that if a consumer feels well treated they'll tell a handful of people, and if they feel badly treated, they'll tell anyone who will listen.<sup>545</sup>

In other words, gamers have expressed frustration and annoyance regarding TPMs employed in gaming consoles. This was recently demonstrated when the DRMs Microsoft announced they will implement to the XBOX One console included daily online authentication and restrictions on game sharing.<sup>546</sup> The resulting backlash from social media, blogs and gaming media ultimately forced Microsoft to sensationally

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<sup>540</sup> Shaun Prescott, *Steam Prices Look Set to Increase in Australia as 10% Tax Hike is Confirmed* (11 May 2015) PCGAMER <<http://www.pcgamer.com/steam-prices-look-set-to-increase-in-australia-as-10-tax-hike-is-confirmed/>>.

<sup>541</sup> *Steam Publishing Services* (2014), Steam, <<http://steamgames.com/steamworks/publishingservices.php>>.

<sup>542</sup> Graham Templeton, *Australia Bans Saints Row 4, Children Now Safe in Outback* (25 June 2013) GEEK <<http://www.geek.com/games/australia-bans-saints-row-iv-children-now-safe-in-outback-1560040/>>.

<sup>543</sup> Ip and Jacobs above n 357, 515.

<sup>544</sup> *Ibid* at 514.

<sup>545</sup> 'Law of the Brand', *EDGE Magazine* (London) August 2010, 72.

<sup>546</sup> A full list of the removed DRM plans can be found in Adam Barnes, *Xbox One Used Games, Always-On Internet & DRM Explained* (7 June 2013) NOWGAMER <[http://www.nowgamer.com/news/1955170/xbox\\_one\\_used\\_games\\_alwayson\\_internet\\_drm\\_explained.html](http://www.nowgamer.com/news/1955170/xbox_one_used_games_alwayson_internet_drm_explained.html)>.

abandon the DRM plans, opting to instead allow gamers to share their games, sell their used games and remove region locks.<sup>547</sup> This event exemplifies the extent gamers are willing to go to protect their investments and hobbies and ultimately retain the status quo of accessing content with little hindrance.

Industry professionals are also divided in their views about DRMs. Ip and Jacob's study has one professional developer claiming that DRM is a "fraud upon the consumer, artificially inflating prices."<sup>548</sup> This view is indicative of the futility of the TPM provisions and DRM, and studies have clearly shown that selective harmonisation has not ceased the mass piracy and rebellion amongst gamers.<sup>549</sup> For example, the ESA discovered that over 9 million illegal copies were downloaded worldwide in December 2009 and in Australia, the iGEA has measured that 51% of pirated games in Australia come from copies made by family and friends.<sup>550</sup> As such, technological measures are clearly ineffective because the means of circumvention are a few mouse-clicks away for gamers.<sup>551</sup> Internet websites with video tutorials of circumventing the regional codes are easily accessible.<sup>552</sup> In addition, independent developers continue to release non-infringing applications for consoles as a last resort against restrictions perpetuated by game developers or console manufacturers.<sup>553</sup> For instance, a hacker known as "Geohot" implemented a workaround that lets users install Linux for the PS3<sup>554</sup> after Sony removed this compatibility citing security concerns.<sup>555</sup>

In defence of piracy, Fahey claims "pirates can distribute your software more quickly, to more people, at a lower cost and more efficiently than your own distribution methods can and the product they distribute is often more functional and appealing, with fewer restrictions on consumers' use of it, than the one being

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<sup>547</sup> See Schreier above n 118. The backlash was further compounded by the comments of Microsoft stating that if gamers could not comply with the Xbox One DRM, then they should purchase the Xbox 360 instead. Also see *Don't Like Xbox One DRM? Buy an Xbox 360, says Microsoft* (13 June 2013) Expert Reviews <<http://www.expertreviews.co.uk/games/1300414/dont-like-xbox-one-drm-buy-an-xbox-360-says-microsoft>>.

<sup>548</sup> Ip and Jacobs above n 357, 515.

<sup>549</sup> Dan Hewitt, U.S. *Copyright Industries Release Report Exposing Countries that Violate Intellectual Property Rights* (17 February 2009) Entertainment Software Association, <[http://www.theesa.com/newsroom/release\\_detail.asp?releaseID=47](http://www.theesa.com/newsroom/release_detail.asp?releaseID=47)>. Studies conducted in December 2008 with respect to member-selected game titles revealed that Western Europe is home to some of the world's most active countries engaged in online game piracy: Moreover, the study found that users across 223 separate countries, territories and colonies downloaded illegal copies of games. Downloads of the two most popular titles were estimated to have been made across 219 countries, territories and colonies.

<sup>550</sup> Owen Good, *ESA Estimates Nearly 10 Million Games Illegally Downloaded In December* (19 February 2010) Kotaku, <<http://www.kotaku.com.au/2010/02/esa-estimates-nearly-10-million-games-illegally-downloaded-in-december/>>. The countries with the highest number of unauthorised downloads were Italy (20.3 per cent of the total), Spain (12.5 per cent), France (7.5 per cent) and China (5.7 per cent). Also see *IA9: Interactive Australia 2009 (2009)* Interactive Entertainment Association of Australia <<http://www.igea.net/wp-content/uploads/2009/08/IA9-Interactive-Australia-2009-Full-Report.pdf>> 1, 47.

<sup>551</sup> See Ip and Jacobs above n 357, 521.

<sup>552</sup> A cursory Google search on how to modify gaming consoles gives 30,200 instructional videos with commentary and links.

<sup>553</sup> Damien McFarren, *Hacking Group Claims to have Discovered Wii U Homebrew* (24 February 2014) Nintendo Life <[http://www.nintendolife.com/news/2014/02/hacking\\_group\\_claims\\_to\\_have\\_discovered\\_wii\\_u\\_homebrew\\_exploit](http://www.nintendolife.com/news/2014/02/hacking_group_claims_to_have_discovered_wii_u_homebrew_exploit)>.

<sup>554</sup> Brian Ashcraft, *Hacker Working To Save PS3 Linux Support* (30 March 2010) Kotaku, <<http://kotaku.com.au/2010/03/hacker-working-to-save-ps3-linux-support/>>.

<sup>555</sup> Luke Plunkett, *PS3 Loses Linux Support* (29 March 2010) Kotaku, <<http://www.kotaku.com.au/2010/03/ps3-loses-linux-support/>>. Ironically, many have blamed hackers such as "Geohot" for Sony deciding to remove the Other OS support from the PS3.

legally distributed”.<sup>556</sup> Adam also argued that removing the static geographical game distribution model may mean nobody gets mega-wealthy anymore but it would make the giant ‘dinosaurs’ that currently dominate the distribution channels” adapt to new business models.<sup>557</sup> Piracy of video games also transcends physical and geographical borders.<sup>558</sup> This is indicative of piracy being a cultural norm amongst gamers. With these advantages, a number of digital distributors of video games, such as Steam and GoG, have taken aspects of piracy in designing their distribution protocols. GoG for instance has designed its distribution process to simplify access to the content in order to compete with pirates:

So we’re doing everything we can to make it that simple, as opposed to if you’ve got DRM, you have to make the account on the service you’re buying the game from, then you have to download the game, then you have to make the account on the service the developer has, download the updates, start the game, see you have more updates, download those updates and then eventually you’ll be able to play the game. That’s like nine steps to get to play your game, where as we really do try and make it four and then you’re done.<sup>559</sup>

Nevertheless, this culture in the Internet and gaming communities remains misunderstood for the reason that “while there’s a certain awareness and respect for the cultural and economic importance of the gaming sector, that same culture creates other unique regulatory concerns” which are not usually in the same page with the legislation.<sup>560</sup> Debates in the literature though identify that gamer culture accepts piracy as acceptable conduct and a norm regardless of methods or research or descriptions.

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<sup>556</sup> Robert Fahey, *The Forbidden Kingdom* (21 March 2009) Eurogamer, < <http://www.eurogamer.net/articles/the-forbidden-kingdom-article>>.

<sup>557</sup> Adams above n 513, 3.

<sup>558</sup> Robert Fahey, *Congress Identifies Piracy Priority Countries* (21 May 2009) Kotaku <<http://www.kotaku.com.au/2009/05/congress-identifies-piracy-priority-countries/>>. According to the article, the Congressional International Anti-Piracy singles out Canada, Russia, China, Mexico and Spain to cut down on software piracy.

<sup>559</sup> Colwill above n 539.

<sup>560</sup> Clark above n 52, 3.

## CHAPTER 7- ECONOMICS OF CONSOLE MODIFICATION AND PIRACY

### **7.1 THE ECONOMIC IMPACT OF PIRACY - THE DISPLACEMENT OF VALUE**

Copyright is an international private law right established by international treaties.<sup>561</sup> Copyright bestows exclusive rights subsisting in original works of authorship fixed in any tangible medium of expression for a fixed period of time. The ownership rights under s 31(a) of the Act include the ability to reproduce the works in a material form, to communicate the work, to publish the work, and to have the right to obtain payment from the reproduction of the work. This is essentially an economic right to obtain monetary reward for the result of intellectual, not just physical, labour of the production. These rights are afforded to authors even with the convergence of information technology.<sup>562</sup>

In economic terms, piracy is described in the free rider principle and refers to a person obtaining a benefit from the copyright without paying for the cost of the benefit they obtain. In terms of Lessig's definition of piracy, the free riding principle does not distinguish between the "copy shop" and "taking" types of piracy, although statistics do prefer the "copy shop" definition. The difficulty with this principle is that it leads to the under provision of goods or services or to an overuse or degradation of a common resource. In copyright, free riding in the Internet occurs every time a person downloads a game, movie or song without payment being made to the copyright owner. This free riding practice is characterised as detrimental to the copyright work but the work itself is not degraded as technically it still exists to be sold as digital works become an inexhaustible supply of a work with no degradation. This economic and cost benefit assessment contradicts with the cultural perceptions of gamers on the use of the work and their beliefs as illustrated in the last chapter.

The free-riding of copyright content has severely undermined the economic benefits and returns to owners copyright. Intellectual property intensive industries supported at least 40 million jobs and accounted for about \$5.06 trillion or 34.8% of the U.S. GDP.<sup>563</sup> By the same token, copyright contributes

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<sup>561</sup> *Berne Convention for the Protection of Literary and Artistic Works*, opened for signature September 9, 1886, Paris Act of July 24, 1971, (entered into force September 28, 1979).

<sup>562</sup> See WCT above n 155, Preamble. "Desiring to develop and maintain protection of the rights of authors in their literacy and artistic works in a manner as effective and uniform as possible."

<sup>563</sup> *Intellectual Property and the U.S. Economy* (13 April 2012) The United States Patent and Trademark Office <[http://www.uspto.gov/about/ipm/industries\\_in\\_focus.jsp](http://www.uspto.gov/about/ipm/industries_in_focus.jsp)>.

\$93.2 billion to the Australian economy and over 900,000 people are employed in copyright industries.<sup>564</sup>

These figures thus exemplify the need to protect copyright because the absence of laws and regulations “may stymie technology, cultural and intellectual advancements”.<sup>565</sup>

In light of these figures, it is important to examine the literature surrounding the economic impacts of piracy. The thesis however acknowledges that the literature in this field is incomprehensibly vast, and it is impossible to examine the intricacies of the economic issues of copyright law and piracy. Another consideration is the fact that most piracy impact studies bundle all the creative mediums for each study, making video game specific statistics difficult to measure accurately. Indeed, Drachner contends that whilst there is a multitude of studies available that illustrate wide scale video game piracy, there is minimal objective information available about the relative magnitude of piracy, or its distribution across different countries or across game titles or game genres.<sup>566</sup> This methodological problem is a reoccurring theme in the literature which will be illustrated below. This chapter will therefore focus on the “copy shop” concept of piracy in general, and the purported costs associated with it. Moreover, the review will analyse the literature discussing social inequality and income as a source for piracy given the economic impact of piracy in developing and developed nations.

When an economic sector grows as rapidly as copyright, the motivation for the receptiveness of government to take action is understandable given the vulnerability of copyright content to the advances of technology. It is acknowledged that digital distribution is, by and large, a response to the emergence of pirated digital products. The opportunity to commit an offence in the digital era has been discussed many times in the literature, but advances in information technology have generally provided pirates with access to creative content and complete liberty in copying and distributing the contents to the world.<sup>567</sup> From the photocopier, to the home video and personal computer, new technological advances have created challenges for the protection of intellectual property. As the OECD report concedes:

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<sup>564</sup> *The Economic Contribution of Australia's Copyright Industries 1996-97 to 2010-11* (2012) PWC <<http://www.copyright.org.au/pdf/PwC-Report-2012.pdf>>, 4.

<sup>565</sup> Nicole Leeper Piquero, 'Causes and Prevention of Intellectual Property Crime' in Jay S. Albanese (ed) *Intellectual Property Theft and Fraud: Combating Piracy* (Transactions Publishers, 2009), 45.

<sup>566</sup> Anders Drachner, Kevin Bauer and Robert W.D. Veitch, 'Distribution of Digital Games via BitTorrent' (2013) 5(1) *MindTrek* 233, 240.

<sup>567</sup> See Husted above n 5505, 200. Also see Martin Peitz and Patrick Waelbroeck, 'The Effect of Internet Piracy on CD Sales: Cross Section Evidence' (Working Paper Series No. 1122, CESifo, January 2004) <[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=511763](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=511763)> 1, 5.

One thing for sure is in the future consumer electronics technologies are only going to get faster, have larger storage capacities, and develop more ways to access vast amounts of content from any place with a connection, fixed or wireless, at home, work or on the move. In each of these evolutions the ability to up and download and to share and copy unauthorised materials becomes increasingly easy.<sup>568</sup>

The report further acknowledged “the world of the digital consumer is an environment, indeed a series of ‘ecosystems’, subject to rapid change that means many predictions about the future of the Internet and digital convergence quickly become outdated”.<sup>569</sup> Given the precursors of an ever shifting copyright environment, the free-riding piracy concept still remains an economic issue that is comprehensively examined, however the means of examining the issue differs.

In studying piracy, research has focused on determinants operating in various contexts. Prior to the proliferation of copy technology, early piracy research analysed the different ways piracy manifests and operates under organised crime groups, claiming that “using a substantial amount of investment capital, large transnational networks of professional and semi-professional criminals can work cooperatively to get a stolen product to market”.<sup>570</sup> McIllawan further analysed the process of how business of film piracy is conducted, focusing on the distribution of “hardgoods” piracy (contained in optical discs) and “soft good” piracy (digital piracy).<sup>571</sup>

The advancement of technology to the point where a hypothetical high school student working part-time can reasonably afford a basic laptop with a pre-installed Wi-Fi adapter, a disc burner and sufficient HDD storage has challenged this viewpoint. Hashim, Kannan and Maximiano argued that adolescents and young adults are generally recognised to constitute that sector in population extensively engaged in digital piracy because of reasons such as their technical expertise, their limited financial means and general

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<sup>568</sup> Hunt et al above n 502, 4.

<sup>569</sup> Ibid, 6.

<sup>570</sup> Jeffrey Scott McIllawan, 'Intellectual Property Theft and Organized Crime: The Case of Film Piracy' in Jay S. Albanese (ed) *Intellectual Property Theft and Fraud: Combating Piracy* (Transaction Publishers, 2009), 15.

<sup>571</sup> Ibid, 21. According to his analysis, the flow of film piracy begins after individuals with digital video cameras referred to as “runners”, record the film during the first public screenings of the film. Other runners on the other hand obtain copies of DVD screeners from motion picture industry sources which yield comparatively better quality copies of the film compared to the digital video recording from a public screening.

acceptance of piracy.<sup>572</sup> McIllawan himself conceded that with the rise of the Internet and affordability of personal computers, any individual, “who otherwise is a model, law-abiding citizen, can engage in it rather simply and with expenditure of little or no capital”.<sup>573</sup> These arguments contradict studies which depict piracy as primarily driven by organised crime groups.

## **7.2 THE EFFECTS OF PIRACY - RELIABILITY OF DATA**

### **(A) SUBSTITUTION EFFECT**

Piracy as an economic phenomenon and the displacement of profit and costs associated owners and rights holders is a lingering issue still contested profusely. Mackaay argued that in spite of a flourishing shareware market and rampant piracy, the software industry does not appear to be "moribund".<sup>574</sup> In this case, Aguiar and Martens argued the crucial point is to know whether the displacement of profits caused by piracy would have to be converted into legal consumption in the absence of illegal consumption channels.<sup>575</sup> Indeed, this argument was extensively examined by Joe Karaganis in his ground-breaking research of piracy in emerging economies, wherein he explained that piracy studies should take into account two effects.

Firstly, Karaganis argues there should be more emphasis on the *substitution effect* of piracy, or the likelihood that a pirated copy substitutes for a legal sale or increased media consumption in general.<sup>576</sup> This effect has been considered primarily by industry surveys which predominantly paint piracy as causing harm to the economy. However, under the substitution effect, these studies fail to consider the concept of valuation of the content based on the perspective of consumers or pirates in that the consumer would have bought the content legitimately had she not downloaded it (in this case sale displacement would have occurred). This is a dilemma observed by Lessig in his discussion of piracy, where piracy does not automatically result in harm to the economy because piracy can either subsequently benefit the owner, or does not result in infringement to copyright at all.<sup>577</sup> This is where serious methodological challenges arise in the argument that piracy equates to loss in jobs or profits.

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<sup>572</sup> Matthew K. Hashim, Karthik N. Kannan and Sandra Maximiano “Digital Piracy, Teens and the Source of Advice: An Experimental Study” (2013) *Journal of Management Information Systems* 1, 2.

<sup>573</sup> McIllawan above n 570, 15.

<sup>574</sup> Mackaay above n 42, 18.

<sup>575</sup> Luis Aguiar and Bertin Martens *Digital Music Consumption on the Internet: Evidence from Clickstream Data* (2013) Joint Research Centre: Institute for Prospective Technological Studies, < <http://ftp.jrc.es/EURdoc/JRC79605.pdf>>, 1-35.

<sup>576</sup> Joe Karaganis, 'Media Piracy in Emerging Economies' (2011) *The American Assembly*, <<http://piracy.americanassembly.org/>> 13.

<sup>577</sup> Lessig above n 145, 68, 71 and 72.

Foremost, the legitimacy of the piracy statistics released by industry and research bodies over the years has been questioned. Baumgärtel argued the numbers released are highly questionable, and that the institutions that do this research are “financed by media and software industry, and therefore have a vested interest in making the losses caused by piracy as big as possible”.<sup>578</sup> Furthermore, the author argued that the numbers reached are not only estimates, but are most likely highly exaggerated estimates. This observation is surprisingly shared by the United States GAO, which argued that the lack of reliable data is a primary challenge for quantifying the economic impacts of piracy knowing that industry associations refuse to disclose their proprietary data sources and methods therefore making it difficult to validate their estimates.<sup>579</sup> McIllawan expands on the flaws of the reliance on these proprietary data sources since this data represents private, not public concerns. McIllawan further argued these press releases are anecdotal and are of no substantive research value considering that the valuable data is usually unavailable for the public to analyse beyond very superficial press releases aimed at deterring others from committing similar crimes.<sup>580</sup>

Karaganis postulated that the increased industry lobbying for the reform of copyright law and enforcement, industry research and statistics must therefore be transparent and must provide not only the general descriptions of their methods but also the assumptions, practices, or data underlying their work. The secrecy, he further argued, has become counterproductive in “an environment which hyperbolic claims have undermined confidence in the industry research enterprise”.<sup>581</sup> It is thus best that these reports be taken with a grain of salt in substantiating the real value of piracy and intellectual property theft.

Recent studies however have attempted to legitimise the findings by observing the actual file-sharing behaviour of a large population to assess the impact of download on sales. Oberholzer-Gee and Strumpf's research paper is one of the first studies to analyse the impact of music piracy using data on actual downloads of music files. The study found that file sharing has had only a limited effect on record

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<sup>578</sup> Baumgärtel above n 57, 377.

<sup>579</sup> GAO Report above n 6, 16. According to the report, one of the major problems with piracy data and surveys are they are treated as fact despite being excessively fragmented and anecdotal which are at best lacking and unsubstantiated opinions

<sup>580</sup> McIllawan above n 570, 18. In all fairness to the associations that produce these reports, they are not meant to serve as data sources for researchers as they are actually produced by the public affairs arms of these associations.

<sup>581</sup> Karaganis above n 576, 7.

sales.<sup>582</sup> Rob and Waldfogel, using college students as a sample in examining music piracy, found some displacement, concluding that piracy of hit albums has a much lesser impact in profits compared to smaller artists.<sup>583</sup>

Other studies however have contested Oberholzer-Gee and Strumpf's study. For instance, Smith and Telang have comprehensively analysed the methodologies employed in the Oberholzer-Gee and Strumpf's study to determine how piracy impact sales of media products.<sup>584</sup> Through their analysis, Smith and Telang surmised that a large body of evidence finds that piracy harms media sales, and at the same time they have contested the methodological approaches and conclusions of previous studies done to prove displacement.<sup>585</sup> On the other hand, Aguiar and Martens found that the growth and availability of legitimate channels to consume media positively affects copyright owners and decreases piracy.<sup>586</sup> Similarly, Danaher and Smith concluded the shutdown of major file sharing websites such as Megaupload can result in the increase in digital sale units of movies.<sup>587</sup> Other authors have subsequently found that piracy causes significant harm to the economy.<sup>588</sup> Clearly, the issue of whether piracy causes significant displacement of sales is still heavily contested in the literature as no consistent methodology or figures have been accurately provided for research.

## **(B) COUNTERVAILING EFFECT**

Karaganis argued that piracy studies must not neglect the *countervailing effects* of piracy to both industry and consumers, because any model of economic impact caused by piracy should consider the importance of treating piracy as part of the economy rather than simply a drain on it.<sup>589</sup> Choi and Perez listed four positive consequences of online piracy which include: (1) the innovation and legitimate business creation

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<sup>582</sup> Felix Oberholzer-Gee and Koleman Strumpf, 'The Effect of File Sharing on Record Sales: An Empirical Analysis' (2007) 115(1) *Journal of Political Economy* 1-42.

<sup>583</sup> Rob Rafael, and Joel Waldfogel 'Piracy on the High C's: Music Downloading, Sales Displacement, and Social Welfare in a Sample of College Students.' (2006) 49 *Journal of Law and Economics* 29-62.

<sup>584</sup> Michael D. Smith and Rahul Telang 'Assessing the Academic Literature Regarding the Impact of Media Piracy on Sales' (Working Paper Series, 19 August 2012) < [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2132153](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2132153) > 1 - 22.

<sup>585</sup> Ibid, 3-7. The authors presents a high level overview of the statistical challenges associated with measuring the impact of piracy, and analysed the main methods used in the literature for addressing these challenges.

<sup>586</sup> Aguiar and Martens above n 575, 1-35.

<sup>587</sup> Brett Danaher and Michael D. Smith "Gone in 60 Seconds: The Impact of the Megaupload Shutdown on Movie Sales" (Working Paper Series, 7 March 2013) < [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2229349](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2229349) > 1, 4.

<sup>588</sup> See Brett Danaher, Samita Dhanasphong, Michael D. Smith and Rahul Telang 'Converting Pirates without Cannibalizing Purchasers: The Impact of Digital Distribution on Physical Sales and Internet Piracy' (Working Paper Series, 3 March 2010) < [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1381827](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1381827) > 1, 3. Also see David Bounie, Marc Bourreau and Patrick Waelbroeck, 'Piracy and Demands for Films: Analysis of Piracy Behavior in French Universities' (Working Paper Series No. 06-12, Telecom Paris, 10 October 2006) < [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=936049](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=936049) > 1, 5. Also see Brett Danaher and Joel Waldfogel, 'Reel Piracy: The Effect of Online Film Piracy on International Box Office Sales' (Working Paper Series, 16 January 2012) < [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1986299](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1986299) > 1, 1.

<sup>589</sup> Karaganis above n 576, 13.

given that online piracy pioneered the use of new technology, (2) provision of valuable market insight, (3) contribution to new market creation, and (4) has directly or indirectly spurred the creation of legitimate and innovation business models.<sup>590</sup>

Connor and Rumelt's study of piracy as an alternative means of content distribution described piracy as an efficient way to distribute content because all of the costs of the 'gift' are borne by the consumer rather than by the content owner.<sup>591</sup> Nobuya further argues that under the economic theory, firms may initially lose sales through piracy but will be able to earn profits that are larger than their losses because expanded user networks will make the product more attractive to potential customers.<sup>592</sup> Essentially, consumers who pirate goods to “sample” music, movies or video games may inevitably lead to the purchase of a legitimate copy, hence will lead to an increase in sales of legitimate goods. Posner supports this belief, arguing that piracy may not necessarily mean a lost sale, and could benefit the copyright owner as well as create a demand or accelerate the spread of the software to obtain a network monopoly.<sup>593</sup> There is evidence to show that some industries might experience potentially positive effects from knowing the consumption of pirated goods. Karaganis, for example, found that U.S. file-sharers buy 30% more music than their non-sharing counterparts, with the study concluding that file-sharers may be the music industry's best customers.<sup>594</sup> Likewise, OFCOM reported that movie, music and TV pirates spend much more than the average consumer.<sup>595</sup> Digital game distributor GoG has also expressed its conviction on converting pirates into legitimate consumers by arguing that pirates should be seen as a market competition and their ways of downloading games with ease should be the market standard for digital distribution.<sup>596</sup>

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<sup>590</sup> Choi and Perez, above n 144, 169.

<sup>591</sup> See Kathleen Reavis Connor and Richard P Rumelt, Software Piracy: An Analysis of Protection Strategies, (1991) 37(2) *Management Science* 125-139.

<sup>592</sup> Nobuya, Fukugawa, 'How Serious is Piracy in the Videogame Industry?' (2011) 10(3) *The Empirical Economics Letters* 225, 227.

<sup>593</sup> Richard A. Posner, *Economic Analysis of Law* (Wolters Kluwer, 8th ed., 2011), 53.

<sup>594</sup> Joe Karaganis, *Where do Music Collections from?* (15 October 2012) The American Assembly: Columbia University <<http://piracy.americanassembly.org/where-do-music-collections-come-from/>>.

<sup>595</sup> *UK Movie Pirates Spend (Way) More at the Box Office* (22 November 2012) TorrentFreak <<http://torrentfreak.com/uk-movie-pirates-spend-way-more-at-the-box-office-121122/>>.

<sup>596</sup> Colwill above n 539.

### **7.3 - THE RELATIONSHIP OF INCOME AND PIRACY**

Empirical research into piracy also extends to the examination of piracy costs in terms of income inequality of developing and developed nations. The literature includes Andres<sup>597</sup>, Law and Wong<sup>598</sup> and Vitale.<sup>599</sup> The most prevalent issue in this field of study is the drive to pirate content caused by social inequality given that income levels can influence the ability of consumers to purchase software, and can consequently influence software piracy attitudes and behaviours. As Kyoon surmises, there is an income effect where the level of a consumer's real income changes the way the consumer obtains content.<sup>600</sup> Indeed, observations have been made regarding the differences in the form of piracy employed, particularly between developed and developing nations. For instance, Crittenden et al. in examining the political spectrum to determine the geographical and economic impact of piracy, concluded that countries which embrace a socialist side of economic ideology continuum, including Asia, the Middle-East and Africa, are more likely to have a population that pirate than nations that accept egoism and capitalism.<sup>601</sup> Lessig described this phenomenon in his book *Free Culture*, where he argued that piracy in Asia and Europe conduct businesses "that do nothing but take other people's copyrighted content, copy it and sell it."<sup>602</sup> Baumgärtel expanded on this estimating that more than 100,000 people in the Philippines earn a living by being part of the supply chain for pirated media, and he notes that while developed countries have embraced digital distribution, optical media piracy in the Philippines remains large whereby pirates rely on more "traditional" methods of distribution which includes messengers and personal delivery, and using long distance busses and fishing boards for the delivery of content that are bound to physical objects such as CDs, VCDs and DVDs.<sup>603</sup> In reference to these studies, Crittenden et al have subscribed to the idea of a "global village", whereby the issue is viewed geographically rather than as a unified perspective of copyright because there are significant worldwide regional differences in software piracy.<sup>604</sup>

Karaganis however argued that the studies which highlight national rates of piracy lead to the skewing of evidence because there is little evidence that in developing nations, the enforcement efforts have had any

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<sup>597</sup> Antonio Rodrigues Andres, 'The Relationship between Software Protection and Piracy: Evidence from Europe' (2003) *European Journal of Law and Economics* 21 (1) 1-26.

<sup>598</sup> Law and Wong above n 144, 263-273.

<sup>599</sup> Vitale above n 450, 297

<sup>600</sup> Kyoon et al. above n 504, 104.

<sup>601</sup> Crittenden et al above n 504, 32.

<sup>602</sup> Lessig, above n 145 63.

<sup>603</sup> Baumgärtel above n 57, 382.

<sup>604</sup> Crittenden et al. above n 504, 31.

impact on the overall supply of pirated goods. By examining the copyright enforcement practices in Brazil, Russia and South Africa, he found that copyright laws remain ineffective in these developing countries due to a number of exogenous factors including high media prices, low local incomes and technological diffusion.<sup>605</sup>

This is best illustrated with the Australian Attorney General George Brandis describing Australia as the “worst nation for piracy on the planet”<sup>606</sup> citing a finding that Australians were amongst the top illegal downloaders of the popular Game of Thrones television series.<sup>607</sup> While the Attorney General accuses the lack of protection against online piracy as the main reason, the issue of the high price of media and regional locks arising in a parliamentary inquiry in IT pricing and the purported “Australia tax” confirms Karaganis’ comments. Indeed, the report titled *At What Cost? IT Pricing and the Australia Tax* revealed many arguments which found that restrictive business methods and the high price of IT products inevitably drives many consumers to disregard copyright and consumer law completely. For instance, the report found that the imbalance of copyright rights between owners and users persists due to “unmet demand for access to copyright works” caused primarily by the disproportionate pricing of IT software, especially since Australian consumers are paying up to 50% more for IT products.<sup>608</sup> The report also found that companies are using technological measures such as regional locks to artificially inflate prices and limit access to content that can easily be accessed through piracy.<sup>609</sup> The Australian Digital Alliance surmised that these locks are a fairness issue which drives Australians to pirate because they “do not like being ripped off”.<sup>610</sup> These assertions are subsequently supported by right holders and distributors such as comedian Louis CK<sup>611</sup>, Channel Nine<sup>612</sup> and Google<sup>613</sup> to be the main reasons why Australians pirate.

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<sup>605</sup> Karaganis above n 576, iii.

<sup>606</sup> Luke Hopewell, *Australia Worst in the World for Piracy, According to our Attorney-General* (2 June 2014) GIZMODO, <<http://www.gizmodo.com.au/2014/06/australia-is-the-worst-in-the-world-for-piracy-according-to-attorney-general/>>.

<sup>607</sup> Ernersto, *Game of Thrones Season Finale set new Piracy Record* (16 June 2014) TorrentFreak <<https://torrentfreak.com/game-thrones-season-finale-sets-piracy-record-140616/>>.

<sup>608</sup> Standing Committee on Infrastructure and Communications, Parliament of Victoria, *At What Cost? IT Pricing and the Australia Tax* (2013), 96. Also see CHOICE, Submission No 75 to Standing Committee on Infrastructure and Communications, *At What Cost? IT Pricing and the Australia Tax*, 16 July 2012, 4. Also see Nicola Suzor and Paula Dootson, Submission No. 121 to Standing Committee on Infrastructure and Communications, *At What Cost? IT Pricing and the Australia Tax*, 27 March 2013, 2.

<sup>609</sup> Standing Committee on Infrastructure and Communications, Parliament of Victoria, *At What Cost? IT Pricing and the Australia Tax* (2013), 101 and 112.

<sup>610</sup> Paul Smith, *Online Piracy Fuelled by “Australia Tax” Price Gouging* (29 July 2014) Financial Review <[http://www.afr.com/p/technology/online\\_piracy\\_fuelled\\_by\\_australia\\_sTHHmyBeds918mmdk4zoDM](http://www.afr.com/p/technology/online_piracy_fuelled_by_australia_sTHHmyBeds918mmdk4zoDM)>.

<sup>611</sup> Gregg Hughes and Anthony Cumia, Interview with Louis CK (Radio Interview, 25 February 2014) <<https://www.youtube.com/watch?v=d458sm5ToWk>>.

<sup>612</sup> Luke Hopewell, *Channel Nine finds half of Pirates surveyed would pay for Content if it was available in Australia* (18 July 2014) GIZMODO, <<http://www.gizmodo.com.au/2014/07/pirate-survey-channel-nine-finds-half-of-pirates-surveyed-would-pay-for-content-if-it-was-available-in-australia/>>.

Posner however postulates that studies that generally examine income inequality do not provide clear-cut guidance for social policy or income inequality because it only provides a brief snapshot of people or societies in different stages.<sup>614</sup> These factors ultimately affect the enforcement of copyright in developing countries. Enforcement at their current levels also comes up short because it overlooks the legal and social features that are unique to developing nations, which differs from developed countries, and that cultural perception about such acts also varies significantly. Drachner, Bauer and Veitch's study in video game piracy through monitoring the BitTorrent P2P file sharing protocol complements this, finding that P2P game piracy is extraordinarily prevalent and geographically distributed.<sup>615</sup> However, while a significant number of pirates do download games, the study noted the piracy rate eventually diminishes or tapers off depending on the popularity of the title. This is an important distinction, according to Drachner et al., since data collected over time in piracy research is done over a short interval of time which can result in the under or over estimation of piracy. As such, conclusions based on "snapshot" methodology runs the risk of wrongfully interpreting the economic impact of piracy.<sup>616</sup>

There are conflicting views in regard to the economic impact of piracy and little in the way of confirmed empirical analysis of infringers as demonstrated by the literature. The issues of displacement of sale and the determinants of piracy in terms of social income and inequality are still hotly contested. Moreover, the cultural values, the technological issues and legal doctrines of copyright continue to be discussed in tandem with the economic impact of piracy. The thesis does not aim to expand or elucidate on these arguments as separate concepts but rather, will take a holistic approach into the issue of whether the coveted rights of users and owners are balanced in regard to the technological tools, economic uncertainties, cultural forces and legal systems which inevitably affect the copyright regime. Indeed, as demonstrated prominently from the literature, copyright enforcement and defiance goes beyond strictly legal terms. The thesis takes this approach in order to yield new perspectives and insights into the issue.

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<sup>613</sup>Luke Hopewell, *Google: Australian Piracy is an Availability and Pricing Problem* (11 March 2014) GIZMODO <<http://www.gizmodo.com.au/2014/03/google-australian-piracy-is-an-availability-and-pricing-problem/>>.

<sup>614</sup> Posner above n 593, 627.

<sup>615</sup> Drachner, et al. above n 566, 233-240. Olivia Solon, *BitTorrent Study Challenges Video Game Piracy Misconceptions* (15 May 2013) Wired <<http://www.wired.co.uk/news/archive/2013-05/15/bittorrent-gaming-study>>.

<sup>616</sup> Ibid. Also see Karaganis above n 576, 2.

## CHAPTER 8 - METHODOLOGY

This thesis applied grounded interpretive qualitative research techniques to examine the re-adjustment of the Act and the access rights provisions identified in the previous chapters. Limited research has been conducted to ascertain whether the access rights provisions met the desired goals of the Explanatory Memorandum in the context of video games and console modding. The thesis explores the data through the theoretically derived questions described in Chapter 1. This chapter will discuss the methods applied in order to complete the present study, commencing with a description of the chosen methodology, methods of data collection, data analysis and other sampling issues in order to answer the research question: Is a re-adjustment of the access rights provisions required and how might this be achieved?

### **8.1 RESEARCH DESIGN AND APPROACH**

This thesis applied grounded interpretive qualitative research techniques to the Act provisions relating to the games industry and gamers. Constructs of copyright between the industry and users often takes different forms from those conceptualised in research literature, so it was imperative to question relevant groups of participants and users, being video gamers and industry representatives. The primary aim of the study using qualitative techniques is to describe and explain the pattern of relationships. The only way this can be achieved is through the use of conceptually specified analytical categories. Themes were deductively derived from the copyright, computer technology, cultural and economic theory literature. A pattern matching method of qualitative research was also applied to isolate and define categories during the process of research and to identify patterns of interrelationships.<sup>617</sup> Since both deductively and inductively derived categories are valid techniques of analysing, the thesis adopted both approaches to analyse the nature and consequences of the TPM provisions of the Act on gamers and professionals in the games industry, looking for emerging patterns whilst matching with current theoretical concepts.

The thesis examined these two perspectives by qualitative research methods to collect data, being *focus groups* for gamers and *semi-structured interviews* for industry members. The participants' interviews assessed their knowledge of copyright and its purpose and use, together with considerations of why they were not or did not abide by copyright. *Data display analysis* is used to describe the research results.

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<sup>617</sup> Grant McCracken, *Qualitative Research Methods Series 13* (Sage Publications, 1988), 16.

## **8.2 CHOICE OF RESEARCH METHODOLOGY**

Silverman succinctly infers that while "'qualitative research' seems to promise that we will avoid or downplay statistical techniques and the mechanics of the kinds of quantitative methods used in survey research or epidemiology", these approaches are never substitutes for another.<sup>618</sup> Qualitative research in turn allows the researcher to isolate and define the categories during the process of the research. This feature of data reporting is distinct to qualitative research methodologies. The patterns of interrelationship between the categories identified from the literature will be examined and analysed to define the meanings, views and experiences of respondents.<sup>619</sup>

Qualitative research methods were undertaken to gain access to the cultural categories and assumptions through which the gamers and gaming industries perceive copyright.<sup>620</sup> Moreover, given the various attitudes and beliefs displayed in the literature by gamers and industry members, qualitative methods are appropriate, such as observation of participants rather than experimentation being required.<sup>621</sup> The collection of personal testimonies from parties whom the literature identifies as being directly affected by the TPM provisions and exceptions of the Act to discover how the respondent sees the world is a qualitative methodology which allows for the analysis of difficult questions.<sup>622</sup>

Qualitative research is a social inquiry focused upon people in the interpretation of the world in which they live in. Methods to study and analyse the reality and social life of people is done by observation, in-depth interviewing and focus groups. The research question in this thesis involves analysing the perceptions of gamers and the industry members which requires a design to capture the differences in their perspectives. Focus groups were used for gamers and semi-structured interviews for industry members. These research instruments are most appropriate for this research because it allows "the participant's perspective on the phenomenon of interest... (to) unfold as the participant views it, not as the

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<sup>618</sup> David Silverman, *Interpreting Qualitative Data* (Sage Publication, 2006, 3rd edn), 33. Also see Ibid, 18.

<sup>619</sup> Richard A. Powell and Helen M. Single, 'Methodology Matters - V: Focus Groups' (1996) 8(6) *International Journal for Quality in Health Care* 499, 499

<sup>620</sup> McCracken above n 617, 17.

<sup>621</sup> Silverman above n 618, 8.

<sup>622</sup> McCracken above n 617, 21.

research views it".<sup>623</sup> More importantly, these qualitative methods allow the testimonies to be elicited in an unobtrusive and nondirective manner.<sup>624</sup>

### 8.2.1 Focus Groups

The method of focus group interviews utilises a key characteristic shared by selected individuals. Focus groups involve semi-structured small groups, moderated by a group leader, held in an informal setting, with the purpose of collecting information on the effects and knowledge of the research topic at hand. Focus groups are considered the preeminent research method for the examination of beliefs and culture that influence behaviour.<sup>625</sup> Powell and Single explain:

The interactional, synergistic nature of the focus group allows participants to clarify or expand upon their contributions to the discussion in the light of points raised by other participants, thus expanding on contributions that might be left underdeveloped in an in-depth interview.<sup>626</sup>

This group dynamic enables respondents to collectively engage in debate<sup>627</sup> about the effects of the TPM provisions of the Act. The group dynamic provided an additional opportunity to discover new and often unexpected directions through challenging the participants' reality and encouraging them to discuss the inconsistencies that arise between participants.<sup>628</sup>

The conduct and context of focus groups can be classified into two groups as defined by Calder: everyday knowledge and scientific knowledge.<sup>629</sup> Everyday knowledge is distinguished by the terms and language people use to give meaning to their everyday world. In contrast, scientific knowledge employs the use of numerical measurement to test constructs and hypotheses.<sup>630</sup> The thesis conducted focus groups for gamers to illuminate the collective experiences, opinions, knowledge and beliefs of gamers in determining whether their gaming activities had been affected by the strengthening of TPM rules and DRMs in the Act, thus focusing on everyday knowledge. The focus groups enabled participants to debate the

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<sup>623</sup> Catherine Marshall and Gretchen B. Rossman, *Designing Qualitative Research* (Sage Publications, 1995) 80.

<sup>624</sup> McCracken above n 617, 21.

<sup>625</sup> Isabella McLafferty, 'Focus Group Interviews as a Data Collecting Strategy' (2004) 48(2) *Journal of Advanced Nursing* 187, 189.

<sup>626</sup> Powell and Single above n 619, 504.

<sup>627</sup> Jenny Kitzinger, "The Methodology of Focus Groups: The Importance of Interaction between Research Participants" (1994) 16(1) *Sociology of Health and Illness* 103, 103.

<sup>628</sup> *Ibid.* 106 -107.

<sup>629</sup> Calder, Bobby J. and Alice M. Tybout "What Consumer Research Is..." (1987) 14 *Journal of Consumer Research*, 136-140.

<sup>630</sup> McLafferty above n 625, 187.

legitimacy of console modification, DRM's and piracy, while at the same time challenging the reality construct of gaming culture. The research thus deems focus groups to be the appropriate data collection method from gamers to explore the research question. In contrast, the industry members will be interviewed using standard open-ended questions.

### 8.2.2 Standard Open-Ended Interview

In exploring the effects and perceptions of the Act for industry professionals, the study used the *standard-open interviewing* typology. This is considered the appropriate method for the following reason;

- (a) Enables in-depth data collection of feelings and thoughts;<sup>631</sup>
- (b) It is heuristic and exploratory in nature.<sup>632</sup>
- (c) Allows for each subsequent interview to build on the previous interviews.

The standardised open-ended interview enabled in-depth data collection where the questions, carefully worded and open-ended to ensure some differences in response, are planned before the interview and the interviewees are asked the same questions.<sup>633</sup> Clarifications or elaborations made are written into the interview itself.<sup>634</sup> The open-ended questions were designed to gauge and understand the response of industry professionals in regards to the TPM provisions and its enforcement.<sup>635</sup> Understanding how professionals in the games industry think and feel about copyright lent itself to the heuristic and exploratory nature of semi-structured interviews. Standard-open interview is characterised by the depth of conversation, which moves beyond surface talk to a rich discussion of thoughts and feelings categories.<sup>636</sup> As evidenced by the questions in Appendix E, a standardised open-ended interview allows for the interviewees to unfold their perception of whether the Act is a successful tool in curbing gaming piracy and protecting their IP through the extended TPM rules.

## 8.3 RESEARCH SAMPLING

As identified there are two distinct groups involved in the gaming industry. The people who play or consume the games as individual or online players and industry members, namely professionals who work

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<sup>631</sup> Pamela Maykut, and Richard Morehouse, *Beginning Qualitative Research: A Philosophical and Practical Guide* (The Falmer Press, 1994), 80.

<sup>632</sup> A.N. Oppenheim, *Questionnaire Design, Interviewing and Attitude Measurement*, (London and New York: Pinter Publishers, 1992), 67.

<sup>633</sup> Marshall et al. above n 623, 80

<sup>634</sup> M.Q. Patton, *Qualitative Research & Evaluation Methods*, (Sage Publications, 2002, 3rd edn.), 346

<sup>635</sup> Marshall et al. above n 623, 80

<sup>636</sup> Maykut et al. above n 631, 80.

in the gaming industry, not necessarily limited to developers but also journalists and publishers. Both parties require specific identification and sampling for the methodology. The participants in this study were selected using non-probability purposive sampling techniques.<sup>637</sup> Ascertaining and illuminating the perceptions of the access rights provisions between gamers and professionals in the gaming industry, meant non-probability sampling was appropriate because it allows researchers to choose a sample that best illustrates the feature or process examined.<sup>638</sup> To meet these demands, the sample consisted of two groups: gamers, and representatives from the gaming industry.

### 8.3.1 Gamers

Focus group participants were selected to represent the demographic identified in the literature as the relevant target audience. Gamers are a wide demographic from children to middle aged individuals. Such a complete study of all individuals is beyond the scope of this thesis and therefore participants for focus groups were identified utilising IA9: *Interactive Australia 2009* study devised by Bond University and the iGEA, which provided statistical data about the gaming demographic in Australia.<sup>639</sup> From this study, 84% of Australians within the ages of 16 to 25 play computer games.<sup>640</sup> The average Australian gamer is an adult, and 29% of gamers are either attending university or have achieved a university degree.<sup>641</sup> These statistics indicated the relevant target audience parameters. As such, the focus groups were composed of university students aged 18-25, as this represented a large portion of the gaming population. The sampling process for focus groups does not aim for a representative sample of a population but rather, the sample group must be compatible in relation to the particular conceptual framework of the study.<sup>642</sup>

The prospect of recruiting random gamers within a university community is statistically irrelevant. Furthermore, asking random gamers to participate in the focus groups defeats the purposive homogenous sampling of gamers. In order to address these issues, a number of concessions were taken during the recruitment and selection process. Firstly, names of gaming clubs were collected by visiting the websites of major Victorian universities including: Monash University, University of Melbourne, RMIT, La Trobe,

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<sup>637</sup> Silverman above n 618, 102.

<sup>638</sup> Ibid, 128.

<sup>639</sup> IA9: *Interactive Australia 2009 (2009)* Interactive Entertainment Association of Australia <<http://www.igea.net/wp-content/uploads/2009/08/IA9-Interactive-Australia-2009-Full-Report.pdf>> 1, 1.

<sup>640</sup> Ibid, 5. The study also found that the average age of computer and video game players in Australia is 30 years old.

<sup>641</sup> Ibid., 17.

<sup>642</sup> Clive Seale, Giampietro Gobo, Jaber F Gubrium and David Silverman, *Qualitative Research Practice* (Sage Publications, 2004), 68.

Deakin, University of Ballarat and Swinburne University. Recruitment involved visiting the student union websites of each individual university, which lists clubs that students can join. The recruitment and selection processes were conducted by visiting the consenting groups and recruiting club members during their club meetings or get-togethers. In total, 30 participants agreed to participate in the focus groups, and four further interviews were conducted for participants who could not attend the focus group but were willing to participate in the study. Appendix D tabulates the number of participants for each university. Though this method delineated the relevant sample participants for the focus groups, an additional requirement was the appropriate number of focus groups and sample size for each group; this is a consensus issue.<sup>643</sup> Merton, Fiske and Kendall recommend a focus group should not be so large as to be unwieldy and prevent adequate participation by members, nor should it be too small that it fails to provide substantially greater coverage than that of an individual interview.<sup>644</sup> Furthermore, Stewart and Shamdasani suggest the number of groups can be determined according to the homogeneity of the potential sample, and the ease of the research application.<sup>645</sup> From these recommendations, the focus group interviews consisted of around five groups<sup>646</sup> and each group contained between three to five participants.<sup>647</sup> Moreover, to maximise data quality it was also proposed that post-focus group interviews would be conducted to allow participants to clarify their views.<sup>648</sup>

The composition of the focus group should be homogenous in terms of age, status, class, occupation and other characteristics as they will influence whether participants interact with each other.<sup>649</sup> Moreover, a homogenous group that shares common traits, interests or issues are precisely the people who might naturally discuss such topics, and often challenge each other on contradictions between what they were

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<sup>643</sup> McLafferty above n 625, 190. There are three different types of focus groups: (1) full groups, in which there are ten to 12 people; mini-groups, which have four to six participants, and telephone groups, which are linked by telephone conferencing facilities.

<sup>644</sup> Robert Merton, Marjorie Fiske and Patricia Kendall, *The Focused Interview: A Manual of Problems and Procedures* (Free Press, 2nd ed, 1990); cited in Isabella McLafferty, 'Focus Group Interviews as a Data Collecting Strategy' (2004) 48(2) *Journal of Advanced Nursing* 187, 190.

<sup>645</sup> David W. Stewart and Prem N. Shamdasani, *Focus Groups Theory and Practice* (Sage Publications, 1990); cited in Isabella McLafferty, 'Focus Group Interviews as a Data Collecting Strategy' (2004) 48(2) *Journal of Advanced Nursing* 187, 190.

<sup>646</sup> See Adeline Nyamathi and Pam Shuler, Focus Group Interview: A Research Technique for Informed Nursing Practice, (1990) 15(11) *Journal of Advanced Nursing* 1281; cited Isabella McLafferty, 'Focus Group Interviews as a Data Collecting Strategy' (2004) 48(2) *Journal of Advanced Nursing* 187, 190.

<sup>647</sup> See David L. Morgan, 'Focus Groups', (1996) 22 *Annual Review of Sociology* 129; cited Isabella McLafferty, 'Focus Group Interviews as a Data Collecting Strategy' (2004) 48(2) *Journal of Advanced Nursing* 187, 190. Morgan comments that smaller groups are easier to manage especially if the topics are highly charged and there is much discussion. Also see M.A. Carey 'The Group Effect in Focus Groups: Planning, Implementing, and Interpreting Focus Group Research', J. Morse (ed.), *In Critical Issues in Qualitative Research Methods*, 225; cited in Isabella McLafferty, 'Focus Group Interviews as a Data Collecting Strategy' (2004) 48(2) *Journal of Advanced Nursing* 187, 190. Carey however cautions that smaller groups can be more labour intensive.

<sup>648</sup> Kitzinger above n 627, 301.

<sup>649</sup> McLafferty above n 625, 189. Also see Kitzinger above n 627, 105; Powell and Single above n 619, 500.

professing to believe and how they actually behaved.<sup>650</sup> To this end, the research determined that a homogenous group of gamers within the defined parameters of the selected demographic was relevant for the thesis and was therefore appropriate.

### 8.3.2 Industry Members

This group of participants was conceptually driven by the framework underpinning the need to interview professionals involved in the video gaming industry. In doing so, the research utilised the list of association members of the Game Developers' Association of Australia (GDAA), an industrial association which advocates on behalf of gaming companies in Australia. Members of this association were contacted by email and phone from their respective websites.<sup>651</sup> Other avenues of recruiting the participants were also conducted, including attending conferences and video gaming events to personally recruit gaming professionals to be interviewed. Initially, the major gaming corporations being Nintendo, Sony and Microsoft were contacted for participation but due to non-response, they were omitted from the research sample. This meant the group of industry participants had to be broadened. In this case, the professional's occupation was not overly important to the research, but it was necessary for them to be currently working within the industry, or part of the industry, at the time of the interview.

After a number of rejections and non-replies, only 5 agreed to participate. Figure 8.2 tabulates the profession of the selected participants.

Table 8.1 Interview Composition

<i><b>PARTICIPANT</b></i>	<i><b>ROLE</b></i>
<b>P1_De</b>	Developer
<b>P2_Wr</b>	Writer
<b>P3_Pu</b>	Publisher/Distributor
<b>P4_Pu</b>	Publisher/Distributor
<b>P5_Jo</b>	Journalist

<sup>650</sup> Kitzinger above n 627, 105.

<sup>651</sup> *Games Careers and Info* (June 2014) Game Developers' Association of Australia <<http://gdaa.com.au/games-careers-info>>.

## **8.4 DATA COLLECTION AND PROCESS**

### **8.4.1 Focus Groups**

In order to collect the data, the focus groups utilised semi-structured questions (see Appendix F) as it was necessary to direct the participants to the copyright constructs. In this case, the focus group sessions were designed to be free-flowing and relatively unstructured, although the moderator, in tandem, followed a pre-planned twenty prescribed questions derived from the literature review with the objective of examining the TPM provisions and its effects on the participants.

The focus group participants were contacted through email to attend at a convenient time and location. Two reminders were also sent a week and a day before the session to ensure participation and pre-empt absences. The focus group sessions lasted around 90 minutes. The sessions were hosted in various locations. One was held in the Monash Caulfield Research Centre, while 4 other focus groups were held during the gaming club's monthly meetings. The five recorded sessions were extracted into nVivo for further transcription and analysis. The group dynamics and interactions for certain types of narratives were also noted, such as jokes and anecdotes.<sup>652</sup>

The sessions were initiated by a brief introduction by the researcher or moderator about himself and the topic at hand, and proceeded with everyone in the group introducing themselves in order for the participants to interact informally. The participants were informed that the session would be audio-recorded, and that their identities would remain confidential for the thesis and future publications.

### **8.4.2 Standard Open-Ended Interviews**

The questions formulated for the interviews were sourced from the findings discussed in the literature review, the objective of the thesis and intrinsically, the "thoughts and hunches" about what areas might be important to cover in the interview.<sup>653</sup> The final interview questions comprised 14 pre-determined questions (see Appendix E). These questions acted as a guide to important issues and enabled

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<sup>652</sup> See Jenny Kitzinger, "Introducing Focus Groups" (1995) *BMJ* 301, 311. This is important to note given it is the one of the most prominent features of focus group data which is the recognition of the group dynamic and the interactions between research participants.

<sup>653</sup> Seale et al above n 642, 17.

developments to be covered. The subjectivity and openness of semi-structured interviews allowed for the focal questions to be contrasted to direct questions that were predetermined.<sup>654</sup>

For all interviews, the participants were provided with an explanatory statement which lists the aims and objectives of the thesis, and also reminded that they can leave at any moment during the interview. Before the questions were asked, the participants were asked to sign a consent form for their approval of the audio recording of the interview and use of the recording for the thesis and future publications. The participants were also reminded and reassured of the confidentiality and anonymity of their identity, and that they will be identified using codes established by the researcher.

The interviews were conducted at the convenience of the participants; one participant was interviewed face-to-face, while three participants were interviewed by phone. Another participant was interviewed through Skype as it was geographically inconvenient for both researcher and participant to meet face-to-face at that time. The researcher believes the variant ways of conducting the interviews - face-to-face, telephone and Skype - did not impede on the quality of the data collected.<sup>655</sup> All interviews were recorded using a digital recorder and the recorded audio was extracted into nVivo.

## **8.5 DATA ANALYSIS - DATA DISPLAY**

Data collected was analysed using Miles and Huberman's data display model to bring order, structure, and meaning to the mass of collected data.<sup>656</sup> This data display's strength lies on its reliance on visual analysis where the researcher can draw conclusions and take action through illustrations.<sup>657</sup> This thesis will utilise data display by following the progressive display model of analytical abstraction by Carney's three interconnected stages in data display including: 1) *Summarising and packing the data*, 2) *Repackaging and aggregating the data* and; 3) *Developing and testing propositions to construct an explanatory framework*.<sup>658</sup> This progressive method uses sequential analysis methods such as framework analysis, where the matrix-based

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<sup>654</sup> Steinar Kyale, and Svend Brinkman, "Interviews: Learning the Craft of Qualitative Research Interviewing" (SAGE Publications, 2nd ed 2009), 131.

<sup>655</sup> See Judith E. Sturges and Kathleen J. Hanrahan "Comparing Telephone and Face-to-Face Qualitative Interviewing: A Research Note." (2004) 4(1) *Qualitative Research*, 107. Also see Amanda Holt "Using Telephones for Narrative Interviewing: A Research Note" (2010) 10(1) *Qualitative Research*, 113. Also see Paul Hanna, "Using Internet Technologies (such as Skype) as a Research Medium: A Research Note" (2012) 12(2) *Qualitative Research* 239. The internet is seen as a viable research medium for overcoming issues around access and distance. Moreover, Skype as a research medium allows the researcher to reap the well documented benefits of face-to-face and telephone interviews in qualitative research.

<sup>656</sup> Matthew B., Miles A. and Michael Huberman, *An Expanded Sourcebook: Qualitative Data Analysis* (SAGE Publications, 2nd ed, 1994) 91. Also see Marshall et al. above n 623, 111.

<sup>657</sup> Ibid.

<sup>658</sup> Ibid.

approach of analysis is used to synthesise and interpret the qualitative data in a systematic procedure that improves the reliability and theoretical depth of analysis.<sup>659</sup>

### 8.5.1 Summarising and Packaging the Data

The first stage involved building the display format by constructing matrices with defined rows and columns. The display format and shape of the entries is a precursor to the actual analysis. The matrices facilitated the organisation of the raw data into segments of key ideas and recurrent themes based on the questions asked during the focus groups and interviews. The data is summarised and packaged through the familiarisation of the data, which involved transcribing the data, reading observational notes to facilitate the organisation of key ideas and recurrent themes for the matrices. Identifying recurrent themes was done via the coded grouping method, which is dependent on the frequency of which the participants referred to key terms identified in the coding process. A sample of the packaged themes in focus groups can be seen in Appendix G.

Afterwards, the familiarised data sets are organised, segmented and indexed into identified and generated key themes for further analysis. The key themes are identified through the coding process, which allows for the organisation of material into segments before bringing meaning to the information.<sup>660</sup> At this stage, descriptive statements are formed and an analysis is carried out on the data collected from the focus groups and interviews.<sup>661</sup>

### 8.5.2 Repackaging and Aggregating the Data

The second stage of data display is the repackaging and aggregation of the data. Repackaging the data aims to search for the relationships in the data and find out where the emphases and gaps in the data are. This stage involved labelling the segmented categories and abbreviating important terms<sup>662</sup> and inter-connecting the data under the indexed codes from both focus groups and interviews.<sup>663</sup>

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<sup>659</sup> Catherine Pope, Sue Ziebland and Nicolas Mays, 'Analysing Qualitative Data' (2000) 320 *British Medical Journal* 114, 116. Framework analysis utilises five interconnected stages including: 1) *Familiarisation*; 2) *Identifying a thematic framework*; 3) *Indexing*; 4) *Charting*; and 5) *Mapping and interpretation*. Also see J.W Cresswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (Sage Publications, 3rd ed, 2009) 185. Cresswell similarly introduces four analytical procedures (sans the charting step) including: 1) Data Organisation; 2) Coding Process; 3) Identifying and generating key themes and; 4) Data interpretation. Also see Fatemeh Rablee 'Focus-Group Interview and Data Analysis' (2004) 63 *Proceedings of the Nutrition Society* 655, 657. Rablee describes how framework analysis can be used in focus groups, and lists the stages of processing the information for analysis.

<sup>660</sup> Cresswell above n 659, 186.

<sup>661</sup> Rablee above n 659, 657.

<sup>662</sup> *Ibid*, 657.

<sup>663</sup> Kitzinger, above n 627, 301.

The initial coding process was conducted by copying and sorting the raw quotes that best fitted the thematic content under the four major headings established in the analysis: technological, economical, legal and cultural. Further, repackaging also necessitated the reduction of the data, and this was achieved through the indexation and classification of the data into categories identified in summarising the data stage. These categories are used to interpret the data collected and are useful for making inferences and finding themes and relationships to the research question and aims. Further emerging sub-categories, however, were refined using Strauss and Corbin grounded theory coding techniques.<sup>664</sup> In this case, the codes were derived from the data itself and from the theoretical framework employed in the research or from the terms the participants used themselves ('in vivo'). An advantage to this method is that once a category is identified, remembering the categories becomes much easier, because in vivo codes allow the analyst to use catchy terms that immediately draw attention to the category, and explain the category in a succinct and often humorous manner. Moreover, this method aids in depicting the problems, issues, concerns and matters that are important in the context of what is being studied in order to develop ways to examine the properties and dimensions to further differentiate it to sub-categories.

This process was repeated in coding the semi-structured interviews. Consistent with the pattern matching feature, the overall data analysis codes used for this analysis were derived from the four factors and packaged based on the focus group and interview questions. The transcribed and coded data from the focus groups and interviews are indexed along the lines of the nature of the responses, and summarily charted in matrices using the qualitative analysis package nVivo.<sup>665</sup> A sample of the matrix can be seen in Appendix G.

### **8.5.3 Developing and Testing Propositions to Construct an Explanatory Framework**

The final stage involved the reduction of the raw data for analysis, and identifying the trends for final analysis, is the development of the explanatory framework allowing for the cross-checking of tentative findings and the major themes of the data. This stage essentially implements the matrices to “define

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<sup>664</sup> Anselm Strauss and Julie Corbin, *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (SAGE Publications, 2nd ed, 1998), 230.

<sup>665</sup> Powell and Single above n 619, 502.

concepts, map the range and nature of phenomena, create typologies and find associations between themes with a view to providing explanations for the findings”.<sup>666</sup>

The mapping and interpretation of the explanatory framework essentially focuses on implementing the data presented using the previous two steps to gain new insights from the data. As it can be broken down into parts, connections can be made between concepts which will provide the basis for new descriptions.<sup>667</sup> In this case, the data will be mapped to find connections between concepts and themes identified in the previous chapter, and subsequently interpreted to find new descriptions and arguments relating to the research topic.

The data analysis will proceed as follows. The emergent themes from both focus groups and interviews will be mapped under prominent headings which display the intent of the theme. The mapped data will closely follow the four headings already conceptualised, beginning with the legal factor, followed by the cultural, technological and economic factors. The analysis will continue by interpreting the emergent concepts and theme; as well as finding explanations to these interpretations using literature and other materials.

## **8.6 ETHICAL CONCERNS AND CONSIDERATIONS**

Given the two methods used to collect data and data display analysis, it is required that theoretical sophistication and methodological rigour are conducted to ensure reliability and validity of the data, analysis and findings.<sup>668</sup> For both methods, it is imperative the data analysis approach meets these requirements, and this was achieved by the following steps.

To ensure validity and reliability, the chosen samples, being the chosen industry members for the interviews, and gamers for the focus groups, must be suitable. The chosen participants for the industry are individuals who are working in the industry, and thus have extensive knowledge and experience in the gaming industry. This was affirmed by the GDA from taking into account their profession, experience

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<sup>666</sup> Ibid. Also see Richard A Kruger, *Focus Groups: A Practical Guide for Applied Research* (Sage Publications, 1994); in Fatemeh Rablee 'Focus-Group Interview and Data Analysis' (2004) 63 *Proceedings of the Nutrition Society* 655, 658. Krueger lists seven established criteria, which suggest the following headings as framework for interpreting coded data: words, context; internal consistency; frequency and extensiveness of comments; specificity of comments; intensity of comments; big ideas.

<sup>667</sup> David E. Gray, *Doing Research in the Real World* (Sage Publications, 2004), 213.

<sup>668</sup> Silverman above n 618, 209. Validity is defined as the extent to which an account accurately represents the social phenomena to which it refers. Reliability refers to the degree of consistency with which instances are assigned to the same category by different observers or by the same observer on different occasions.

and positions within the industry. As for the chosen gamers, the selection process was determined through the *L49* report which statistically found the suitable sample for gamers. The recruitment and selection processes are thus valid and reliable given the sources and studies used to recruit and select the samples needed for the study.

As researchers anticipate data collection, there is also a need to ensure that participants are treated with respect, and the data collected ethically. In this case, the author ensured the taking of the appropriate steps in order to conduct the data collection process within the ethical standards of Monash University. Foremost, before the data collection process commenced, the researcher sent out a copy of the explanatory statement to all participants which gave them ample time to read and to ask questions about the research topic. The explanatory statement described the research topic, and indicated the qualifications of the researcher, the institution, the interview and focus group processes in data collection and how the data would be treated. Importantly, the explanatory statement declared their participation is voluntary, and that they can remove them self from the research at any point. These explanatory statements can be found in Appendices B and C

The researcher also made sure to explain the research topic in a manner that is easily understandable to people that are not knowledgeable in copyright law. Moreover, a separate information sheet was also handed out to participants before the interview or focus group which details the current copyright laws, key terms and definitions that are relevant to the thesis. The conductor also routinely reminded all the participants that their identities will be protected through the use of coding procedures to preserve their anonymity, and that the data collected will be secured and destroyed after five years post-publication of the thesis. Lastly, all participants were made to sign a consent form which details all the information above. Only those who willingly agreed to the conditions participated in the data collection processes.

To assess the accuracy and credibility of the findings, from the standpoint of the researcher, the participant and the readers of the accounts require validation of accuracy by the participants of their statements.<sup>669</sup> To ensure this, the transcripts of the interviews and focus groups were returned to the industry member and club president respectively in order to give the participants the opportunity to check

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<sup>669</sup> Cresswell above n 659, 196.

whether the transcriptions were accurate, and also to censor any comments they do not wish to be included in the research. Secondly, the researcher spent a prolonged time in the field by visiting conferences and attending club member meetings in order to gain an in-depth understanding of the case under study. Moreover, visiting the sites and familiarising the required field lends credibility to the narrative accounts displayed in the data analysis and findings. Thirdly, the researcher sought assistance from experienced qualitative researchers within Monash University to review the interview and focus group questions and sought their advice on how to improve the data collection process.<sup>670</sup>

The data analysis chosen must also be appropriate in order to convey the correct findings for the thesis. The researcher believes data display analysis allows this because the approach allows for a systematic way for the researcher to reflect on the original accounts and observations of the data collected, and this is considered important in ensuring validity and reliability of the knowledge collected. This means that going through the steps of data display analysis allows for the checked and controlled analysis of the data collected to remove personal bias and prejudice.<sup>671</sup> Moreover, the systematic approach of framework analysis allows greater consistency and trustworthiness of research findings given the repetitive and procedural analysis method. This is evident in the transcribing step, whereby the procedural approach of framework analysis allows for a consistent way of categorising and coding the major themes that arise from the data collected.<sup>672</sup>

## **8.7 CONCLUSION**

The research attempts to illustrate whether re-adjusting the access rights provisions of the Act is viable by analysing the perceptions of gamers and the gaming industry using console modification as a case study. The chapter demonstrated that answering the central research question required the adoption of two methods: focus group and standard open interviews. Moreover, the method of data collection and analysis used, framework analysis with appropriate coding, has been supported. It demonstrated and described the use of focus groups and interviews, and also framed the sampling justifications for gamers and industry members. Finally, the chapter illustrated steps taken to ensure the sampling, data collection, findings and the data analysis approach are reliable and valid.

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<sup>670</sup> Ibid, 197.

<sup>671</sup> Kyle and Brinkman above n 654, 242.

<sup>672</sup> Ibid, 205.

## CHAPTER 9: CONSOLE MODIFICATION AND THE ACT: ISSUES IN DETTERENCE AND EFFECTIVENESS OF THE LAW

Qualitative data analysis is a rigorous and logical process through which data is given meaning. The analysis process progressed from an initial description of the data and was broken into smaller parts to establish new concepts and connections, providing the basis for fresh descriptions. Indeed, the analysis procedure can be an ongoing process because data analysis involves continual reflection about the data and occurs concurrently with gathering data, making interpretations and writing reports.<sup>673</sup> Moreover, qualitative research involves the teasing out of patterns, themes and groupings in the data. In this case, the themes and patterns were conceptualised and identified under the four factors and emergent sub-factors using the *data display analysis*. To make conclusions from the themes and patterns identified, attempts were made to find consistencies “so that generalisations can be drawn and compared with the relevant body of constructs and theories for verification”.<sup>674</sup> The data were then synthesised and condensed for analysis by summarising, packaging and aggregating them into coded categories.

This chapter illustrates the last step to the data display analysis through the construction of an explanatory framework in order to “define concepts, map the range and nature of phenomena, create typologies and find associations between themes with a view to providing explanations for the findings”.<sup>675</sup> According to Gray, qualitative data analysis allows for the researcher to gain new insights from the data as it can be broken down into parts, then connections can be made between concepts which will provide the basis for new descriptions.<sup>676</sup> In this case, the data will be mapped to find connections between concepts and themes identified in the previous chapter, and will subsequently be interpreted to find new descriptions and arguments relating to the research topic.

Interesting sub-factors have emerged while coding the focus groups and interviews. The following subchapters will list and explain the sub-factors arising from the four thematic headings. The emergent themes from both focus groups and interviews will be mapped under prominent headings which display

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<sup>673</sup> Cresswell above n 659, 184.

<sup>674</sup> Gray above n 667, 319.

<sup>675</sup> Ibid. Also see Kruger above n 666, 658. Krueger lists seven established criteria, which suggests the following headings as framework for interpreting coded data: words, context; internal consistency; frequency and extensiveness of comments; specifying of comments; intensity of comments; big ideas.

<sup>676</sup> Gray above n 667, 319.

the intent of the theme. The mapped data will closely follow the four headings already conceptualised, beginning with the legal factors, followed by the cultural, technological and economic factors. The analysis will continue by interpreting the emergent concepts and themes using diagrams which detail the relationships between the themes as well as finding explanations to these interpretations using literature and other materials.

## CHAPTER 9.1 – LEGAL FACTOR

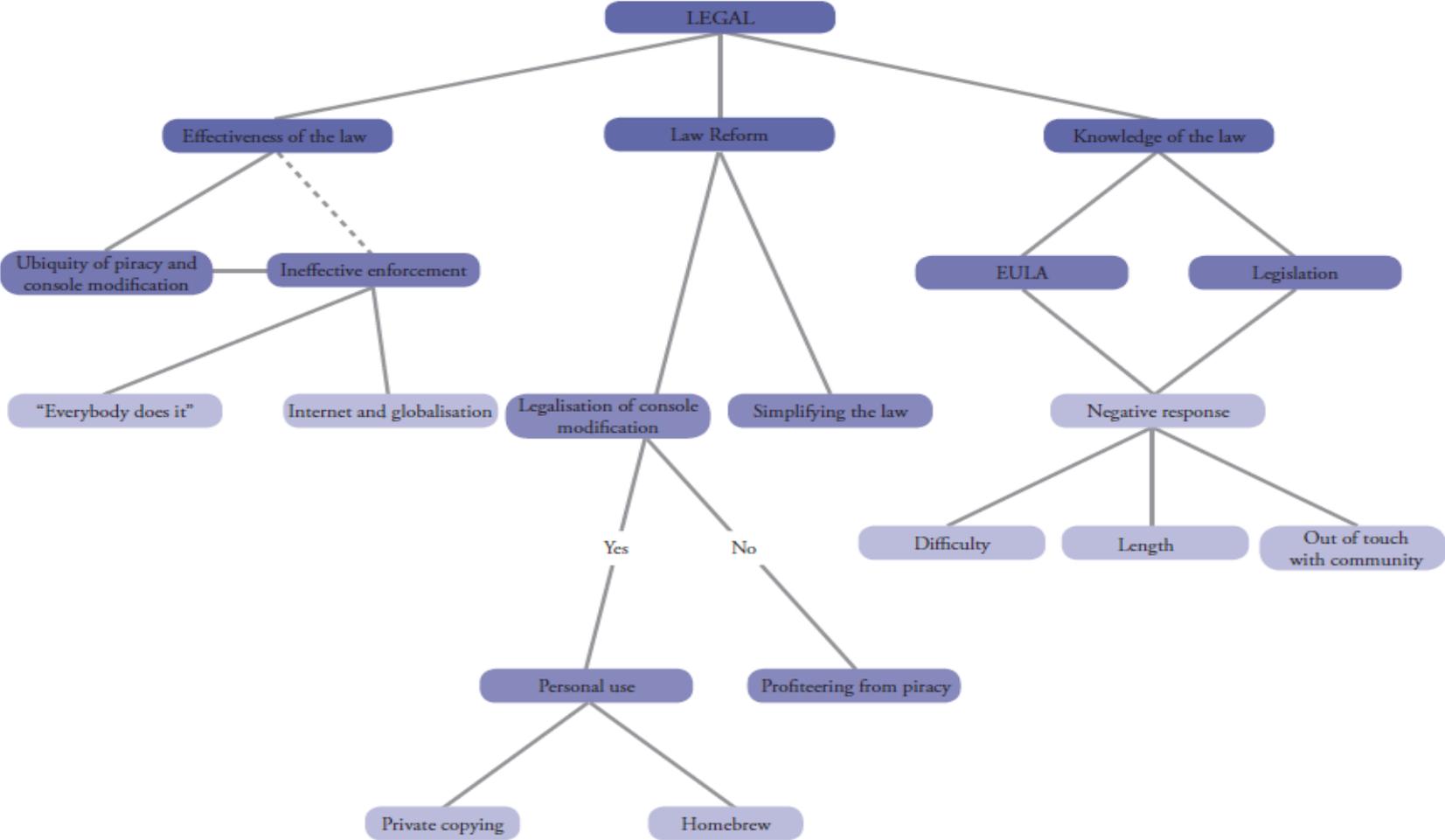
The legal factor illustrated emerging attitudes in the gaming community and industry about the policy issues involved in console modification, piracy and copyright enforcement. Copyright in Australia contains protections, restrictions and exceptions in regards to the establishment and circumvention of TPMs. Despite the legal restrictions, their effectiveness is questionable in light of findings about the communities' acceptance of piracy and the ease of circumventing DRMs. The question therefore is, why isn't the law effective? Moreover, what measures can legislators take to legitimise the law to gamers?

This chapter aims to examine these issues and other contributing factors that emerged from the interviews and focus groups. The theme established in the above presentation can be summarised under three significant perspectives:

- (1) The gamers and industry members consider the law as ineffective;
- (2) The participants had limited knowledge and awareness of the law;
- (3) Changing the law to accommodate a number of non-infringing functions of modding.

The emergent legal sub-factors are illustrated in Figure 9.1.

Figure 9.1 Key Findings for Legal Factor



### **9.1.1 THE GAMERS AND INDUSTRY MEMBERS CONSIDER THE LAW INEFFECTIVE**

In line with the literature review, the majority of gamers in the focus groups and members of the industry believed pirates and gamers who partake in modifying consoles are immune to sanctions from the Act. The participants expressed their lack of faith and confidence in the effectiveness of the law because "*people don't care about the legislation because... the risk of being caught is so low versus the reward of free entertainment*".<sup>677</sup> This has significant implications on lawmakers and to the industry, as it identifies that the Copyright act is not deterring community behaviour. Technological innovation and the Internet have developed the potential for anonymity, and the globalised nature of the Internet has bolstered the confidence of users who believe they are immune to the law as the effects are not local but somewhere else. Many gamers believe that the risks of being caught are slim, and professionals argue the illegality of the conduct by criminal law will not prevent piracy and console modification. One group rationalised their attitudes:

*P1\_FG1: I don't think it has stopped anything - it's like they stopped the wrong thing really.*

*P4\_FG1 Personally, unless they start taking individual gamers to court I don't think it will impact on me at all.*

These attitudes support the characterisation of piracy and modding in the gaming community due to lack of copyright law enforcement. A number of participants in the focus groups recognised that the penalties of piracy are substantial, with one participant recalling the amount a defendant had to pay due to pirating music; the same gamer conceded the practice of suing individuals for piracy is commonly used as a scapegoat to deter present and future users from pirating content:

*P3\_FG2: Not really. I mean it's the same with the girl that got fined for having 24 songs she downloaded and she got fined for \$1.2 million. I mean it's very, extremely unlucky for them but courts mainly do it to make an example for, to try to scare other people into not doing it.*

Another group responded:

*P3\_FG3 There is one thing with it being illegal and another thing with the law being acted upon which is often with the case in piracy, with music and movies. I mean there are laws in place but they are never acted*

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<sup>677</sup> P2\_INT2

*on and when it is, they often target one person who might have for some reason downloaded one movie and it might've been the first time they have done it.*

*P1\_FG3: So essentially they are using these people as scapegoats and this could happen to you. But in reality it's probably not going to happen.*

These groups, though, did not express any fear of being caught personally for the activities of piracy and modding. It was expressed by the third person as an activity that would never happen to them but has happened to others. Gamers believed that the litigated individuals were seen as an anomaly and out of proportion to the level of infringement being litigated. Anecdotal evidence supports the belief the law to be an ineffective mechanism in halting piracy of games in the internet. The gamers did not provide solutions to this legal anomaly as they believed eliminating manufacturers or distributors will just lead to others filling the void:

*P3\_FG3: It will have no effect - just like Pirate Bay. Um that is being shut down so many times it's not funny, and they actually post on their website all the abusive emails they receive from government, and their quite hilarious replies. Anyways, with mod chips, they ban one company from making it, another one will pop up, which is probably the same company under a different name. It might have a different CEO, which is actually a figurehead.*

*P1\_FG3: And if anything I think that almost relates back to my original statement about PC gaming piracy you know, it's the whole world against the one company. So you can target a few and you can bring down one or two but there is always going to be more, there will always be one to fill in their shoes?*

One participant vehemently argued that enforcing the law against mod chip manufacturers is a futile effort:

*I think it's a waste of money. A waste of money and time. The reason the way these things are happening - the mod chips manufacturers aren't manufacturing because they didn't know it was illegal or they didn't know there was a risk of going to court - they are doing it because there is a profit and there is a market for it. So*

*unless, for everyone they cut down, another one or two will sprout out cause the market and profits are still there.*<sup>678</sup>

On the other hand, some participants have acknowledged that bringing mod chip manufacturers to court is "understandable"<sup>679</sup> because "they just want to protect their profits ultimately".<sup>680</sup> As such, they recommend prevention rather than punishment:

*P2\_FG2: Yeah because they will just find another way. They should really find ways to prevent it rather than trying to punish people. That's the best way the money can be spent.*

*P3\_FG2: They are only going to bring one or so often. If there were court cases on it, it's going to happen once every so often and yeah, why put money into that to get one person done when you can put money into trying to prevent millions of people from actually doing it themselves. I think there is a bigger picture rather than picking out a couple of people who have done it.*

Alternatively, one group reflected that perhaps the industry can take advantage of their talents to bolster the TPMs employed in the consoles and should only seek legal recourse to the end-users who use piracy for commercial copying of games:

*P4\_FG1: I don't understand why they are taking them into court and not employ them. Ok if these people are hacking their softwares and destroying your product, shouldn't these people be working for you first? And I guess at the end of the day these people are the ones who should be working for your company.*

This view is similarly argued by de Zwart, who stated that modders can add value to the industry and they provide a recruiting pool for new developers, who do not need any formal training.<sup>681</sup>

The emerging comments from this sub factor support an issue recognised by Wingrove, Korpas and Weisz, who measured the non-compliant attitudes of American college students in regard to downloading

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<sup>678</sup> P2\_INT2

<sup>679</sup> P3\_FG3

<sup>680</sup> P1\_FG3

<sup>681</sup> de Zwart above n 459, 113. Also see Postigo above n 460, 311. Postigo argues that game companies can benefit from the intangible gains when fan communities serve as producers and testers of future games. Fan-programmers, for their part, benefit from their association with game companies and from providing such expansive content: A design company may eventually hire them.

music. The study found, while deterrence has some effect in the short-term, it is not an “effectual long term influence on compliance”.<sup>682</sup>

Much like the arguments purported in the focus groups, the professionals remarked that the law in general is ineffective. As one professional noted:

*I think in general a good example is the case where the guy was sued for uploading Super Mario Bros Wii.  
- I don't know... I'd say that the case provided some form of deterrence, but I think that's as far as it goes.*<sup>683</sup>

Another professional synonymously commented the futility of the law as a deterrence against piracy, adding that although the courts and the industry can “choose to sort of address it through legal means, or just sort of restrict it through providing, you know increasing value”, the effectiveness of these efforts will yield “ultimately not a thing”.<sup>684</sup> One professional in the interviews further explained: “it might have had a small impact but not in any game changing or any way”.<sup>685</sup> These comments indicate copyright law enforcement is very low because the personal risks associated with piracy are small since the number of individuals litigated represents a small percentage of the overall downloading community.<sup>686</sup> In effect, enforcing copyright law against one pirate or downloader does not deter others from piracy or console modification. As one gamer perfectly stated: “if it is supposed to be a deterrent, it's not working”.<sup>687</sup>

Analysing these conversations indicates copyright law has not been successful in deterring gamers from pirating or console modification. Ultimately, many users simply rationalise software pirating by the belief that “everyone does it”.<sup>688</sup> This attitude provides the impression to many users that the law is grossly unenforceable given the scale of piracy and the nature of the internet. In essence; “why can they be bothered sticking it to me when you've got a million other people using it to steal games?”<sup>689</sup> What are the implications?

The gamers and industry members in this study concurrently argue that Australian gamers are not deterred by the court cases (which are already lacking) or by the severe punishments associated for piracy or

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<sup>682</sup> Wingrove et al. above n 528, 12.

<sup>683</sup> P5\_Jo

<sup>684</sup> P2\_Wr

<sup>685</sup> P5\_Jo

<sup>686</sup> Ibid.

<sup>687</sup> P1\_INT1

<sup>688</sup> Crittenden above n 504, 31.

<sup>689</sup> P2\_FG3

breaching copyright law. It also implicates policy makers and the industry based on the realisation that compliance with the law is inherently impossible in the age where anyone can be a pirate. This illustrated the omnipresent nature of the Internet effectively making it virtually impossible to catch all gamers who partake in piracy and modifies console for nefarious uses. A professional summarised the situation as follows from his own experience:

*In countries like Singapore, the rightful owners of the IP will use the legal avenue to stop this thing from being sold in Singapore. In fact, in the past couple years; there have been several mod chips that have been seized by the police - by the consumer affairs people - and other people. And although that is what the government is doing to try to help but as you know, all it takes is to go the internet and buy something over the net and it will arrive in a couple of days. There is really no use in these avenues because effectively gamers if they set out to want to buy a certain item, they will do that, they will do so. And there are a lot of people out there who won't be able to do that. Whatever the industry is trying to put a stop to it, you might just end up making a product costlier (sic) or pissing gamers off.<sup>690</sup>*

These comments give the impression that behind the Internet veil, users are practically invincible. To this end, it's safe to conclude that any respect for copyright law is nullified due to the nature of the Internet. Yet the lack of compliance with copyright law is not solely limited to this for two reasons. Firstly, the focus groups and interviews demonstrated the copyright law as static and unmoving and could not prosecute and punish all internet users who were ever-shifting and anonymous. Flew, Leisten and Hearn postulated that:

Laws which criminalise significant sections of the population should only be implemented when benefits clearly outweigh social costs. Laws which are regularly broken by a wide cross-section of the public, to which authorities frequently turn a blind eye, are most likely in need of change.<sup>691</sup>

Secondly, legal compliance, according to Tyler, is affected by the way people are obligated to obey the law due to the legitimacy of the authority or legislation.<sup>692</sup> Generally, if authorities are legitimate and the laws are respected, people are generally willing to accept the rules imposed on them. The participants'

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<sup>690</sup> P4\_Pu

<sup>691</sup> Flew et al above n 397, 90.

<sup>692</sup> Tyler above n 508, 229.

responses indicate strongly that the copyright law is not deterring the conduct it was believed it would prevent. In this instance, the obligation to comply with the law and policies was hampered by the complex nature of the legislations and the state of contracts contained in end-user licence agreements.

### **9.1.2 THE PARTICIPANTS HAD LIMITED KNOWLEDGE AND AWARENESS OF COPYRIGHT LAW**

In conjunction with the participants' attitudes regarding the unenforceability of copyright in light of mass piracy and anonymity, the second factor demonstrated further ineffectiveness due to lack of awareness or knowledge of the laws affecting gaming. Most participants did not have a legal background; it was understandable that they had limited knowledge of the copyright law. Moreover, the industry members declined to comment and they divulged limited information because of the sensitive nature of this issue. Surprisingly, one gamer was aware of the general changes to the Act, particularly in relation to gaming and regional locks.

*P1\_FG5: For example, there have been attempts to ban the use of region locking and the best example of that is a DVD player. The ACCC has ruled that every DVD player must be able to be made region free.*

Another interesting point which emerged from the discussion was the participants' willingness to enquire about the laws affecting their gaming habits. The participants when given a document which detailed the legislation and sections involved in the study, and the opportunity to ask questions<sup>693</sup> led one gamer's focus group to believe they would have a better understanding of how the gaming environment works if they had a better grasp of the rules at play:

*All\_FG4: Yeab*

*P2\_FG4: Vaguely*

*P4\_FG4: Most definitely*

*P1\_FG4: Yeab it'd definitely be better for all parties involved I think to have a clear and unambiguous ruling as to the legalities of what is available and what is not.*

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<sup>693</sup> This document is attached in Appendix H.

Despite these outlying factors, it was expected of the majority of gamers to either have a vague understanding of the law or none at all as reflective of the literature.

Their ignorance of copyright law was not entirely by choice since many participants complained they knew of the existence of copyright but were cognisant of the complexity of copyright and its inaccessibility to the general public because “*they use a lot of jargon*” which cannot be understood by “*the average video gamer [who] is under 25*”.<sup>694</sup> One gamer specifically highlighted the legal complexity:

*P4\_FG1: From my opinion as a gamer it's not our job to be instructed of what we're supposed to be abiding by their laws and regulations. Anywhere you go you get stated the rules and requirements that you're supposed to be abiding by. It just seems with games we're supposed to know independently what the rules and regulations are, the changes in the statute are because there are considerable changes. Something you knew 6 months ago could change and unless you practically search for this stuff, you never going to know.*

*P3\_FG1: And each different like companies use different wording or changes around it - there is no general consensus as to what is legal and what isn't because each company say well yeah we don't want them to do this and another company says oh we don't mind if you do this.*

In the same vein, the participants were also confused and perplexed about which laws were relevant to them. They were unsure which legal rules applied when playing games since “*it's such an Americanised industry in some regards and in America where in each State you got different laws... just you have all these barriers cause it's just come from all this different parts of the world*”.<sup>695</sup> Considering these complaints, gamers who encountered these issues in understanding copyright law are much less likely to comply given the inaccessibility of the law to this demographic.

Complaints regarding the complex nature of the law were not restricted to copyright law but also extend to the contractual forms and policies the gamers used when playing games. These agreements, more commonly known as EULAs, are usually presented to gamers prior to playing games or accessing services relevant to the game. The gamer must in turn press “I accept” to be able to access the game or feature.

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<sup>694</sup> P1\_INT1

<sup>695</sup> P1\_FG1

Despite the importance of these contractual obligations, almost all the gamers interviewed had no desire to read or understand the contractual terms:

*P3\_FG2: EULA? The thing that says I accept or I decline and you scroll down the bottom and not read a single word of it?*

*All\_FG2: Nah*

On the contrary, many participants bluntly exclaimed their annoyance and frustration when dealing with EULA, and almost all simply choose to click "I Accept" to circumvent the tedious labour of reading these lengthy contracts. As such, any discussion regarding EULA quickly turned to criticisms regarding the length and fine print contained in the contract:

*P2\_FG5: Maybe they do that so you won't read it*

*P1\_FG5: I think there should be a limit because like I can't be bothered reading that much.*

*P3\_FG5: There should be a summary button to summarise the whole terms and agreement things.*

*P2\_FG5: Like what percentage, - is there even a point where - I wonder how many percentage of people do you think who read.*

The views expressed by the gamers were also shared by one professional who argued that:

*Basically they are being sneaky and they kind of sit there, and they've got - they should make EULA a lot more understandable by the generous populous I think and tactics like that where you are hiding controversial things in like page 20 in like a 50 page contract is pretty bad. But more often than not I just click I agree so yeah.<sup>696</sup>*

Other professionals presented similar arguments towards EULA. For instance, a professional who had extensive knowledge of publishing games acknowledged that while EULAs are necessary in the "*process of signing up*" into games and services, not everybody would read it.<sup>697</sup> Instead, those who enforce EULAs should aim to make "*it clear at points where it needs to be clear and where it is to be enforced*".<sup>698</sup> On the other hand,

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<sup>696</sup> P1\_De

<sup>697</sup> P3\_Pu

<sup>698</sup> P3\_Pu

another professional critiqued that gamers do not accept EULAs because they fail to discriminate between legitimate users and the pirates:

*Personally I see those tactics as very like - I feel like doing that is kind of, it's an example of something that hurts legitimate purchaser of a product as opposed to affecting the pirates, or having the affect that they want to make.<sup>699</sup>*

In contrast, one gamer explained how it is the industry's main tool for punishing and enforcing rules without legal recourse:

*P3\_INT3: I just press "I accept" and get on with the game. I don't know of any gamer keen on reading it. I mean there are so many things that - you can't mod but everybody does it... And at the end of the day, if gaming companies they put it in so if it gets out of control, I think it's like a fallback, so if things get out of control, they can bring in "oh this is what you signed, so we are going terminate your account or whatever because you violated it."*

Recognition of its importance did not deter many gamers from describing EULA with vitriol, as one gamer described the use of fine prints as "pretty damn disgusting".<sup>700</sup> This attitude towards EULA supports Lastowka's description of the law as a major part in suspending the pleasure of gaming. Lastowka argued that while games are voluntary and designed to provide pleasure the legal system is not designed to be pleasurable but rather is a formal "mediation of the coercive and violent mechanisms of the state".<sup>701</sup> Furthermore, Lastowka stated the rules of law are more complicated than the rules of games.<sup>702</sup> Lastowka's conceptualisation of the polarised views in law and gaming resonated with the emerging discussion by gamers and industry members. One gamer for instance refused to acknowledge the importance of EULA by arguing that EULAs are not enforceable or recognised by the law:

*P3\_FG3: And each different like companies use different wording or changes around it - there is no general consensus as to what is legal and what isn't because each company say well yeah we don't want them to do this and another company says oh we don't mind if you do this.*

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<sup>699</sup> P1\_De

<sup>700</sup> P2\_FG2

<sup>701</sup> Lawstoka above n 446, 25.

<sup>702</sup> Ibid, 26.

It is evident the gamer participants perceived they had no obligation to follow the rules in the EULA or copyright law because they perceived them to be illegitimate in their gaming activity. On the other hand, the focus group and interview participants also gave their opinion to the means of simplifying EULA or copyright law and these will now be examined.

### **9.1.3 LAW REFORM TO ACCOMMODATE CHANGING NEEDS OF GAMERS**

The surface conversations of humorous and vitriolic criticism of EULA and copyright law led to the appearance of a sub-factor discussing remedial thoughts to these problems. The major concern amongst gamers and industry members was the perception that copyright fails to accommodate the needs of the community and that it also fails to be presented as a tool for the everyday person. Among the chief criticisms were statements about the copyright legislation being out of touch with the community:

*P2\_FG1: I think the law is normally fair towards the industry but in this particular case, the law is outdated. They're not really fair towards us*

*P1\_FG1: Law seems to favour corporations, yeah but I think this is out of date as opposed to being unfair.*

Another participant took a similar stance but referred to the legislators:

*P3\_FG4: It's quite interesting - the legal battlegrounds between producers and customers are alike because the copyright act - it wasn't made right, they are made by governments that have no real interest in the industry and such. They might not actually know what a computer is. I doubt Julia Gillard is into that much gaming myself. You know, but these people making all these copyright amendments and yet they don't really know much about the industry itself.*

These highlighted discussions are worth considering in this thesis. Firstly, that copyright law is considered by the participants to be out of touch from the gaming community. Comments regarding the unfairness of the law were expressed with frustration and annoyances during the discussion, particularly given the laws were created by members of policy-making bodies which do not necessarily understand the community. Indeed, one professional summarised the perspective:

*And also we don't necessarily have, at a federal or state level, policy-makers who understand games, consoles and how game consoles work and want the industrial and consumers like it then, basically all they see the examples from other creative industries so I don't think you can solve it through policy.<sup>703</sup>*

Many participants view the copyright law as outdated hence; it is unsurprising to hear discussion of unfairness and the unjust conduct by the industry in enforcing the rules:

*P2\_FG3: Well most consumers don't even - basically they are like us. And they're like well we haven't bothered to look closely so - whereas businesses are like they've got all their lawyers*

*P3\_FG3: It's like the whole thing will apply, they just sue everyone - I think the lawyers just do it for fun.*

*I think companies who do that - they just sue for the sake of suing and that's wrong...*

These perceptions are not entirely unfounded or novel. Academics continue to criticise copyright as an outdated mechanism in promoting and protecting works or innovation in the Internet age.<sup>704</sup> The gaming community also opposes DRM and other technological protection measures that prevent access to their games.<sup>705</sup> As one professional noted: "*You can pass a law - there are laws like piracy is illegal, [but] I don't see it stopping*".<sup>706</sup> The participants comments support consideration that legal enforcement has been outpaced by technological advances and evolving cultural norms on the Internet.

While changing contractual terms and copyright law might be impractical, the participants did share suggestions to at least address these problems. For instance, the gamers suggested ways of legitimising some functions of console modification, although it is highly dependent on the premise that users will only use it for legitimate uses such as private copying and development of homebrew:

*P3\_FG1: Depending on its functions*

*P1\_FG1: I think if it was legal you'd have a better chance of policing it and the manufacturers would have more say on what's going on - like if you lock it people will just find another way to run their own code.*

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<sup>703</sup> P2\_Wr

<sup>704</sup> See Grosso above n 166, 19. Grosso states copyright is in trouble and it is in its death throes. Also see Stephanie Walker, "Piracy in Digital Media" in Marcia J. Bates *Understanding Information Retrieval Systems: Management, Types and Standards* (Auerbach Publications, 2011) 227, 235. Stephanie remarks legislation governing copyright and technology has tended to lag behind the pace of technological developments, and much newer legislation is controversial.

<sup>705</sup> Hernandez above n 116.

<sup>706</sup> P2\_Wr

*P2\_FG1: It would give people freedom to create things, and then you can better regulate that other than telling them no, and then forcing them to do it secretly.*

One participant further remarked that “*it probably should be legal for a private modification thing but you can't really do it as a business, just more of a private thing for your personal use*”.<sup>707</sup>

On the other hand, a number of participants also highlighted the potential for modding as a business incentive for increasing creativity and innovation in the market:

*P3\_FG2: It all depends. Like is there a way to legalise the mod chip yet companies who develop games can make money. Because that's what it comes down to.*

*P2\_FG2: They can create an open-source sort of thing so people can submit their own applications and whatever they have made to the companies so they can pay them a bit of money and then the game companies just make money off that.*

While these conversations created great enthusiasm, some dwelt on the fact that allowing modification will not solve the piracy problem. One participant was most sceptical when asked whether mod chips should be legal, to which the participant retorted:

*P3\_INT3: I believe that there is an issue there because there are some people abuse the fact that it is legal... But then of course there is the other side where people would be taking advantage of the fact that you can pirate games and not pay for content.*

Suggestions for simplifying EULAs were also given. A participant suggested that in constructing the EULA, the policy maker must “*put all the important stuff at the top, in bold letters*”.<sup>708</sup> Another group stated that EULA should be minimised to a length that can be read by anyone:

*P1\_FG3: I think there should be a limit because like I can't be bothered reading that much.*

*P3\_FG3: There should be a summary button to summarise the whole terms and agreement things.*

Another group provided another example in simplifying EULAs:

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<sup>707</sup> P1\_FG2

<sup>708</sup> P3\_FG2

*P4\_FG5: The way the Android works is quite good in that the sense if they don't have long ones, they just tell you what they are accessing, what they are not allowed to access – it's really summarised into major points. If you want to go into more depth, well you go into the google website and you can do it that way. But I think the way they have laid it out is more user friendly and easy than massively long list.*

*P2\_FG5: And also Steam access all your - same with Origin, they know what programs you have installed so like it wasn't there something about Origin selling?*

#### **9.1.4 CONCLUSION**

From these discussions, regulating or legalising mod chips are to be enforced with caution. There is evidence that copyright and the EULA are perceived as too complex to be comprehended by the average gamer. From the conversations, it appeared they are aware of the general concept of copyright but because of the ease of console modification and fact that gamers are unlikely to ever be litigated there is little acceptance of the terms of the EULA or copyright law. To this end, legally and politically, a conundrum thus exists. The simplification of EULA will not change the fundamental attitudes of gamers nor will increasing awareness equate to a heightened proportion of gamers complying with the EULA or copyright law. Changing copyright law in this case is not practical, nor will setting a new standard be possible due to reciprocity obligations in the Berne Convention and TRIPS agreement. These international obligations are beyond the comprehension of gamers and the community in general. Moreover, as will be revealed in the next few chapters, any means of realistically legalising the 'legitimate' uses of mod chips and modding will be abused by the users. It is stressed that legislators need to realise balancing the rights of owners and users is impossible by mere application of legal principles. Further presentation and analysis of the cultural, technological and economic factors will shed light on other means of balancing the rights of owners and users outside the legal realms.

## CHAPTER 9.2 – CULTURAL FACTOR

The cultural theme examined the existence of social norms and attitudes in the gaming community.

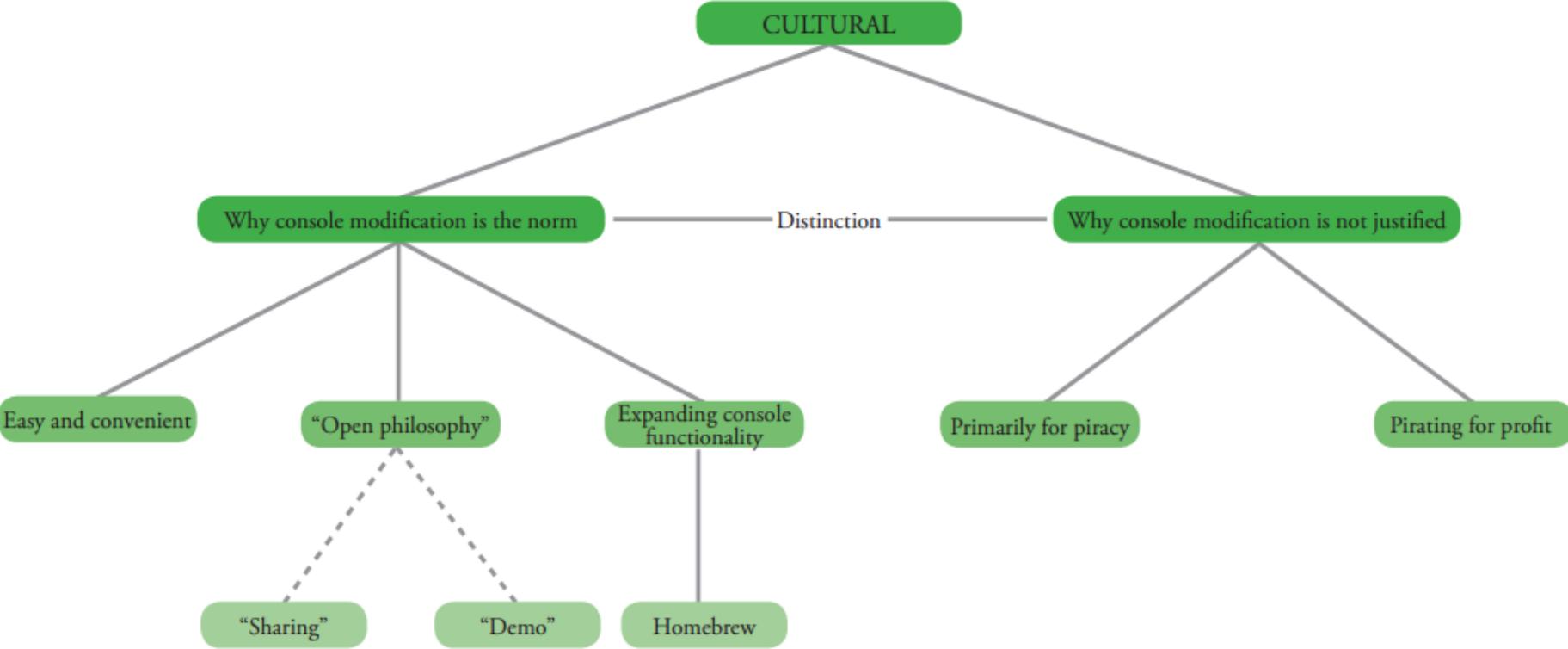
Participant responses emphasised the beliefs shared by the gamers about console modification, piracy and the traditions present in the community. The discussion among the participants on the legal themes pre-empted a number of cultural factors. For instance, the strengthened legal policies to deter piracy and illegal circumvention of TPMs were culturally believed to be ineffective due to the complex nature of the law and the Internet, therefore it meant the chances of being caught and sanctioned were low.

These findings question the deterring effect of legal reform upon piracy without consideration of the cultural attitudes of the relevant target audience. The application of legal principles as the solution was believed to be ineffective by both gamers and professionals in this study. The development of a holistic perspective to the TPM provisions, utilising cultural norms from the behaviour and beliefs of the gaming community to assist in the development of copyright laws that can achieve both benefits for authors and consumers, revealed three emergent sub-factors:

- 1) Gamers and industry members recognise piracy and console modification as norms in the community.
- 2) Gamers and industry members acknowledged that the numerous functions of mod chips complement the cyber culture of sharing and expansion of hardware functionality.
- 3) Both parties recognise that the popular use of console modification is not a justified activity, but it would be disingenuous to ignore the legitimate uses.

The thesis examination of the cultural aspects raised by the participants is represented in Figure 9.2.

Figure 9.2 Key Findings for Cultural Factor



### **9.2.1 RECOGNITION OF MODDING AND PIRACY AS A NORM**

This emerged as a reflective rationalisation by gamers and the professionals of modding and piracy. Before delving into the deeper conversations, it is noteworthy to state all participants had prior knowledge of console modification, ranging from a vague awareness of the device to a deeper understanding that can be considered within the realms of expertise. Given that all the participants interviewed were gamers as well, it was thus unsurprising the participants sympathised with the norms associated with piracy and modding. Indeed, one professional recognised that piracy and modding will always be inevitably: "*part of the game development and game player's culture*".<sup>709</sup> In regards to this, the gamers and professional were able to list reasons why mod chips are prolific. Chiefly, one group reasoned that mod chips are popular because they are "*quick and effective*":

*P1\_FG2: Cause it's quick and effective.*

*P3\_FG2: Yeah you don't have to buy games.*

*P1\_FG2: And as students as well, we are not as financially adept as other people so we can't really just sit and watch everybody else enjoy a good game while we don't, we can't afford it. So resorting to piracy is our best option.*

Otherwise, as one professional argued, gamers "*don't need much justification to want something for free*".<sup>710</sup> After further clarification however, the participants and professionals listed other notable reasons in using the mod chip. Perhaps the most notable rationale for using modding and piracy was the high prices of games, in that gamers cannot afford to "*spend \$200 a month for the different types of games they want to play*".<sup>711</sup> This economic justification however might not be isolated in Australia, as will be illustrated later in the economic factor. Yet this can also be characterised as a cultural factor as it is the shared opinion of almost all the participant gamers, as one particular participant expressed:

*P2\_INT2: Most of the time they are younger people who have no access to disposable income I think...*

*Like they weren't necessarily doing it on moral grounds, it was just about the bottom line.*

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<sup>709</sup> P2\_Wr.

<sup>710</sup> Ibid.

<sup>711</sup> P1\_De

Such economic rationalisation of modding and piracy by the participants supports the interpretation that within gaming it is a norm for gamers to modify and pirate because the cost of games is too high. However, this was not the only rationale according to the focus groups and interviews. The mod chips ability to play pirated and copied games is also recognised as a means to share games. Indeed, one gamer reasoned out that being able to play copied games and then sharing the copies is the primary reason why mod chips persist. Game sharing is not a new concept, as one participant illustrated his belief of its historical background:

*P2\_INT2: Definitely. Well a lot of people grow up with it so it's a cultural thing. The LAN scene was a very insular community so sharing games there did become a habit later on. It's sort of; we all became media junkies from that I think.*

This norm nestled and derived from an original principle that information should be shared to everyone and to the gaming community closely follows this tradition. This tradition is analogous to the era before digital distribution whereby professionals in the IT field would share data through CD and floppy disks. Indeed, this activity was quite common in gaming conventions, where a gamer will give the installation disk to other gamers who do not have the game in order for all the users to play the game:

*P2\_INT2: It's sort of funny because we grew up in a lot of LAN parties. If you wanted to play at a LAN, and only one person has it, then everyone would share it. There were a couple of games that picked up on that really well - like Warcraft 2 and Starcraft. But yeah most of the time we would just share stuff just so we can all play the same game.*

In this case, console modification for the sake of economic convenience emerged as a primary reason for the use of mod chips. However, further discussions with the interviewees, provided evidence of divergence between legitimate purposes and piracy. In regards to the former, the professionals argue the uses of mod chips allow gamers to use the console devices their own way. For instance, one professional narrated how his peers would purchase the "flashkart" for the Nintendo DS because of the functions:

*P2\_WR: But I probably should have bought one because it is so convenient like I could buy all the DS games but carrying them around is difficult so in that sense the r4 chip is a really cool tool that I would have enjoyed had I bought one. Because I have friends and when they go on overseas trips they have everything like*

*games on the one hard drive. And they may have not have paid for some of those games but they have all those games and it's definitely easier than carrying them around and looking for cartridges so yeah.*

Trading and sharing games have been present even before digital distribution was perceived as the norm in information proliferation. Miller expressed this tradition as the "open philosophy" of the gaming culture, which is described as the readiness to share strategies, secrets and knowledge about how to defeat a game. He expanded this into the readiness of the gaming community to share information by taking advantage of the Internet.<sup>712</sup> Miller's beliefs speak true in this situation as such activities were usually constrained within insular communities, such as "*between your friends*", and the nature of the Internet has made this open philosophy "*kind of... global*".<sup>713</sup> The global nature has thus brought conflict between proprietary rights and the general norms developed from a between friends originating culture.

Of course such reasoning fails to uncover another dimension to the "sharing" norm, which is the "try before you buy" philosophy. Try-before-you-buy is a concept derived from commercial sales where individuals would listen to albums before they purchased them or played games in store before purchasing them. While sharing allowed gamers to freely distribute their games to others, playing a demonstration version or "demo" allowed gamers to try out the game before purchasing. Acquiring a demo in this case would usually involve getting a copy, playing it, trying it and then purchasing it: "*because you don't want to spend all that money and then not enjoy it*".<sup>714</sup> Other participants admitted that if they found the demo to be to their liking, they are more likely to purchase the game legitimately:

*P4\_FG3: I'd say it has probably increased the number of hours I spend on gaming because it allows me to play games that I otherwise would not have spent my time. I would have said "you know it's too expensive, I wouldn't want to waste my time on this". Whereas taking this approach its more "Well I'll check it out, if it is actually good then I might end up investing my money on it but yeah that's probably the biggest impact.*

This emergent theme is most applicable to Australian gamers who complain of the high price of games obtained in store or online that it would be preferable if they can try a demo first. The perceived high price

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<sup>712</sup> Miller above n 165, 463.

<sup>713</sup> P4\_FG3

<sup>714</sup> P3\_FG1

of games compared to other markets meant one gamer believed gamers are willing to break the rules habitually: “*I always see if I can get it online before I put my money towards it.*”<sup>715</sup> This reasoning was a very popular justification for mod chips as illustrated by two groups:

*Group 1*

*P2\_FG1: It can be yeah. Like the user can be like gauging whether or not it's worth the purchase.*

*P4\_FG1: Try it before you buy kind of a scenario.*

*Group 2*

*P3\_FG3: It's like a game where Crysis 2 or Duke Nukem Forever. When it first came out, it was \$90. You can now buy it for \$20 at EB games, literally 4 months after it was released, the price went down to \$20. But the price that they released at is a price where everyone is just gonna pirate because with all these hype up, is the game actually going to be good? So with the mod chip, you can actually try and then they find out it's actually crap, so they just end up deleting it and never playing it again.*

Furthermore, demos can be used to gauge how games perform without the influence of marketing:

*P2\_FG1: I think another reason is um hype that's produced by marketing for games. They tend to hype things up and then you find out that what you end up buying is not what you were promised. Like Peter Molyneux... so um there is a certain risk in buying games because you're not always gonna get what you paid for. There is no um it's not an enforced thing.*

Most professionals subscribed that gamer's use modding for its convenience. For the most part, such justifications usually involve the cost of games whereby gamers resort to modding in order to acquire games for free:

*P1\_Dev: I think that mod chips and piracy in general, it has gained the most that where the audience doesn't care about the game enough to buy it or the target audience for this particular game is an audience that doesn't have enough disposable income and if they want to play as many games as they want to play they need to chip their console and because they can't then spend \$200 a month for the different types of games they want to play.*

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<sup>715</sup> P2\_INT2

Inferred norms for modding and piracy are influenced by two forces. Firstly, economic factors such as the high cost of games drive gamers to modding and piracy; and this can further lead into the sharing of games. Secondly, the sharing of games is a reflection of the open philosophy tradition that stems from old practices. These traditions have allowed gamers to share games in insular communities, and eventually grow into the global communities made possible by the internet. In an extension to this, gamers resort to modding and piracy in order to acquire a "demo" copy of the game so they can gauge how it is outside the influence of marketing hype and without paying for it. While these forces are influenced by economic factors, it is apparent the social norms are guided by the open philosophy belief espoused by practices of sharing that predate the internet. Indeed, the responses from the focus groups are synonymous to Ogbu's assertion that the culture of free information may lead consumers to understand and appreciate "the strong prevailing social norms that support widespread and indiscriminate copying".<sup>716</sup> In this case, copying or downloading games and using mod chips as a quick and effective way to share games or to acquire a demo before purchase are common rationales supported widely by gamers. On the other hand, while these norms are guided by economic forces, the focus groups also discussed another norm guided by technological forces.

### ***9.2.2 GAMERS AND INDUSTRY MEMBERS ACKNOWLEDGED THE FUNCTIONS OF CONSOLE MODIFICATION WHICH COMPLEMENT THE TRADITIONS OF SHARING AND EXPANSION OF HARDWARE FUNCTIONALITY***

The previous sub-factor illustrated the norms influenced by economic forces, and how gamers resorted to sharing in order to circumvent the high cost of games. Another dimension to the norms associated with modding and piracy is the technological aspect which allows gamers to expand the functionalities of consoles through mod chips.<sup>717</sup> Perhaps the most prevalent argument for console modification argued by the gamers was the fact that modding enable users to expand the functionalities of the console. Allowing gamers to personalise their consoles is unsurprisingly a feature embraced by many gamers and discussed by

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<sup>716</sup> Ogbu above n 509, 284.

<sup>717</sup> Brisbaji above n 140, 427.

the professionals. For instance, while the previous sub-factor illustrated that gamers use the mod chip due to its convenience, other gamers claim that modding allows for more legitimate uses:

*P2\_FG4: Well the obvious answer is for gamers to acquire gamers cheaper or in some cases for free. However there are more other legitimate uses for the mod chip: such as playing homebrew software or software which hasn't been developed by an approved software developer for that system. And the other big one is to play out of region games, so games that have been imported because of lack of local release or price disparity.*

One professional acknowledged the development of mod chips and homebrew applications has spawned an entire community of developers that “go out of the way to develop interfaces or develop features where the original console cannot do”.<sup>718</sup> The gamers synonymously rationalised that modding allows the users to install and develop interoperable personal features:

*P3\_FG2 It also brings in a personalisation feature. Like mod firmware you can pretty much, you can mod it however you want it to be and I suppose it gives the individual choice.*

These features come in many forms. For instance, one participant detailed how modding the XBOX console has expanded its features by making it into a media centre:

*P3\_FG4: I guess for me - I have a modified Xbox and one of the primary use of it is purely to use xpmc media centre, which started out as xbox media centre but moving into other platforms - it's not xpmc. It had been illegal and that kind of thing from the start development would not have started. So I guess from that perspective, it would probably but I guess from a gaming perspective - not so much. It would be more about the legitimate uses of it that would not have been possible such as homebrew games.*

Another participant admitted that modding has made it possible to expand the lifespan or utility of their consoles:

*P2\_FG5 Um basically I wasn't interested with the Wii fairly early on so I was looking for things to muck around and do on the Wii and that's what I did. And it extended the usage of the wii for a couple of week.*

This desire to mod the console hardware is consistent with the cyber culture tradition to “tinker” with the device to find out how it works. This intimate relationship between the industry and the gamers fosters a

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<sup>718</sup> P4\_Pub

sense of entitlement which inevitably justifies gamers to modify their consoles in ways which could impede the law. Pursuing this view, a professional expands this entitlement to have become a core value in the wider technological community:

*P3\_Dev: Yeab I think that's definitely - that all comes from the same place which is that's like - what you own you should be able to change, how as a, how do you want to change it. Like if I buy a toaster, I don't want to be disallowed breaking that toaster into parts and using it make something else or something like that. I think that once you bought something you should have the rights to change it however you want. And I think that's kind of built into the core of technological community where that for a lot of people that, for instance, for me to see a lot of people who love to open up their PC and move stuff around and upgrade things and that kind of stuff. Yeab it's definitely coming from a similar place.*

A professional extrapolated that gamer's tinker with their devices because of "*the sense of ownership that people feel over the hardware which is totally fine because they bought the hardware*".<sup>719</sup> Another professional explained how gamers and hackers "*felt invested in it and they had fun*", *through the ability to modify technology*.<sup>720</sup> This mentality, according to one professional, is attributed to the gaming community's sense of ownership over the hardware, which is divorced from the understanding of copyright ownership and the fact that gamers only have a license to use the copyright. The same professional expanded this view, believing the industry is partly responsible for this ownership,

*...part of the issue there is that the industry has cultivated this community with their audience which is very intimate. They deliberately done that because they believe they can sell better games but what that means is that the audience of games feels far more ownership than the creative industry perhaps do.*<sup>721</sup>

This sense of ownership further allows hackers to express their creativity with more freedom and ultimately benefit themselves and the industry:

*P1\_FG3: But on the counter-argument, people are also saying that it gives more freedom and also gives garage developers for homebrew software, which is a term originating from the PSP equivalent.*

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<sup>719</sup> P4\_Pub

<sup>720</sup> P2\_Wr

<sup>721</sup> P1\_De

*P3\_FG3: Well if they don't have the money to develop and retail their stuff, they can still build their own games and maybe spread it around their friends. They might end up developing it far enough where a major game company and say "look, we are interested in your game" and they might be able to get it to profit production and get a real backing behind it.*

Neiborg and der Graaf attribute this tradition to the advent of digital technologies in the mid-1990s when possibilities for users to “decentralise and diversify” media content occurred.<sup>722</sup> A number of participants have adapted to this creed, arguing the capabilities of console modification allows users to decentralise and diversify the features of the console. Indeed, the community of modders believe they are entitled to mod their consoles, and as commented by one professional, efforts to “lock these off” may “start a hornets’ nest, and you have all these people trying to get what they deserve, or think they deserve from the product”.<sup>723</sup> Modding of this nature is considered a facet of “innovation” that takes place among gamers, and shared mostly by limited groups of enthusiasts.<sup>724</sup> For instance, one participant divulged that homebrew applications in the PSP allowed the development and creation of features which could not even be possible without modification:

*P2\_INT2: Yeab that is definitely a positive like with the PSP I got, I have emulators, and I wouldn't even use the bloody thing if it weren't for that.*

This is in contrast with the open philosophy norm detailed above which is driven primarily by economic constraints. Modding consoles is also driven by the need to circumvent protection measures. The discussions among the focus groups reveal that modding also allows access to games that would normally be inaccessible without modification:

*P2\_INT2: I don't think I would. It would be a problem because some games are released in other countries and you can't run them without the mod chip. Even if it was released here, it would be very difficult to find games a lot of the time so it's almost like, torrents have become a public access library sort of. Like I would never have played Shadow of the Colossus if it weren't for the pirated copy to have come out.*

This subset of the culture of modding is recognised by Downing, whose research on the “retro gaming” subculture revealed that those who subscribe to playing retro or old games are obligated to collect these

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<sup>722</sup> Neiborg et al. above n 456, 178.

<sup>723</sup> P2\_Wr

<sup>724</sup> Sotamaa above n 33, 3.

games. Downing explains that retro gamers who use mod chips to pirate games not readily available in the market have recognised that access to these games would often require either a large monetary investment or willingness to pirate a game.<sup>725</sup> In this case, the response cited above highlights the dynamic subcultural status of modding and piracy, whereby some gamers are willing to “sacrifice or diminish” their status as legitimate consumers in order to access games otherwise inaccessible through legal channels.<sup>726</sup> Indeed, a gamer made an example using fan translations of foreign games:

*P3\_INT1: Also fan translations, because a lot of games are released in other countries and not translated into English. Like the Nintendo facebook page was bombarded about a week ago with Xenoblade, Pandoras Tower because these were games that the gamers were really wanting to play but Nintendo is saying like ha we don't wanna bother translating for us so people are just gonna download it and get a fan translation.*

This dimension of the modding culture is evidently driven by financial and technical constraints. While these uses for console modification are recognised as legitimate in the eyes of the community, gamers have made the distinction between modding for legitimate reasons such as those discussed here, and other reasons for modifying consoles which brings the ire of some gamers. In other words, “*the actual chip isn't illegal; it's what you do through it*”.<sup>727</sup>

### **9.2.3 GAMERS AND INDUSTRY MEMBERS DO NOT BELIEVE CONSOLE MODIFICATION IS A JUSTIFIED ACTIVITY**

While the previous sub-factors depicted gamers accepting modding and piracy as a norm for different reasons, it emerged these rationales do not justify the activity. Although the reasons are understandable, the activities are not justified, as one gamer puts it:

*P2\_INT2: I think - I wouldn't go out to justify it, but I would say it's understandable. Whether it's justifiable is debatable, because there are two sides to the argument, but I think it's understandable. Um certainly from a gamers perspective.*

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<sup>725</sup> Downing above n 14, 757

<sup>726</sup> Ibid, 758.

<sup>727</sup> P4\_FG5

This perception became clear when the participants were asked if the reasons for using the mod chip were justified, with the participants replying in the negative:

*All: No*

*P1\_FG2: In an individual scale yeah. But if I was to like, zoom out a little bit.*

*P2\_FG2: I would say they are not really that justified. People still go out and buy games and we're just going the easy option.*

One participant however dissented, arguing the justification for mod chips lies in its inherent ability to allow personal private copying:

*P4\_INT4: Yeah it's pretty justified because it's for personal use. Imagine if you purchased the Mona Lisa and you're a really good painter so you completely and perfectly copy it down and just keep it for yourself - is that really a big problem? I don't see any problems with that. You're just copying content and you're not selling it so it's perfectly fine.*

However, a majority of participants distinguished that while its uses are useful, most gamers do not follow such principles. At its core, there is a proportionality problem in regard to the primary use of the mod chips, with one participant arguing that “easily 90% of the people that came to get from when I was working there, just wanted free games and movies”.<sup>728</sup> This argument was expressed in the other focus groups as well:

Group 1

*P2\_FG5: I think most people will use it for piracy*

*All: Yeah*

Group 2

*P1\_FG3: From my experience I would say it would definitely - I would be heavily weighted towards the piracy end.*

*All: Yeah*

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<sup>728</sup> P2\_INT2

*P2\_FG3: Yes definitely. The way these mod chips marketed is basically around the cheap or free games mantra, instead of the unlocking the power of these consoles to do things that aren't possible with the restrictions in place.*

Prevalence of gamers who use mod chips for legitimate purposes was also argued by the professionals to be in the minority. One professional theorises that while some “people who will use it to mess around with the extra things like homebrew”, he stated that “most people would not use [it] but for the sake of piracy”.<sup>729</sup> This was also the belief of the professionals who claimed that gamers who modify consoles for legitimate purposes represent the smaller and tech-savvy sections of the community,

*P4\_INT4: I think it's - yeah I think - especially in the PC community that's the case. I don't know if it is the norm but I think it's certainly a small percentage in the community, and only the hardcore really smart tech-savvy gamers, so it's definitely not the norm. And it's definitely a sort of strong community.*

These beliefs have serious implications on the legitimacy of the mod chip and modding in general. Many commentators have defended the right to use mod chips or circumvent DRMs for legitimate purposes. Indeed, one professional asserted that it would be disingenuous to only argue that mod chips are for piracy when it could also be used for other legitimate purposes:

*P5\_Jo: Yeah I mean they totally can and those are legitimate uses, but to say those are the only reasons would be disingenuous. But at the same time people who are attacking the mod chips, saying they can only be used to play pirated games is also disingenuous, like the reality is they can use for a whole different things.*

Recognition of the other legitimate uses, despite being only used by a small proportion of gamers, is this also acknowledged by the professionals. Nevertheless, it is evident the professionals believe the legitimate uses of mod chips for legitimate purposes are only present in small tech-savvy sections of the gaming community. One professional believed that while there are communities that consider modding as normal, it is “not normal as a whole” and finding the relevant information to pursue these activities requires in-depth research:

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<sup>729</sup> P1\_Dev

*P3\_Pub: It's not really normal in the gaming community as a whole, but there are communities where it is normal. Like entire websites devoted just for that kind of content. Companies making their money on the fact that people might make that money out of homebrew and that is how they advertise it.*

These comments raised questions about the primary uses for console modification. Brisbaji researched whether this is the issue under the fair use exception in the USA and concluded that while console modification may allow interoperable software to be used on a console, mod chips are a "pure circumvention device" that may have little or no economic value, and the threat of piracy alone may be enough to subdue public policy.<sup>730</sup>

While this factor highlighted the norms present which allow for acceptance of mod chips for the "convenient and easy" features it holds, the participants also identified that the moral issues associated with piracy do not totally justify modding and piracy. There appears to be a fine line to this dichotomy, as stated by:

*P4\_INT4: I think it's from both sides that change needs to come. Because the mentality is that nothing is wrong with stealing the game or modding your console. Personally I think modding your PS3 to play your own games is fine but there are a lot of people who steal content. I feel that is morally questionable.*

These discussions provided alternative views to the primary usage of the mod chip, given by legal authorities and the industry creators. A professional argued that despite the numerous legitimate uses of mod chips, these functionalities are "just excuses to do the wrong thing".<sup>731</sup> This view is shared by Soghoian who questioned the moral right to hack, believing that while it is easy to sympathise with those who reverse-engineer technology for legitimate purposes, those who do so to evade DRM to unfairly "leech resources" are on shakier moral grounds.<sup>732</sup> If the overall moral argument is weak, then why then do gamers keep on using mod chips?

Given the legal and cultural implications of piracy and modding, the participants were able to distinguish that modding and piracy in general have become the accepted norm in the community. Questions of

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<sup>730</sup> Brisbaji above n 140, 411.

<sup>731</sup> P1\_Pub

<sup>732</sup> Soghoian above n 94, 71.

ethics and morals are essentially absent in the issue. For instance, a participant believed the act of modding and piracy is essentially instilled into the gamer at the time when their moral compass was still being formed:

*P2\_INT2: Yeab, it wasn't at all because, like you usually get into modding your gaming when you're 13 or 14, and that's when your moral compass is being formed. If people's parents are doing the same thing, obviously they're going to grow up thinking its fine.*

This viewpoint is particularly important in this sub-factor given that norms are defined as the perception that one's family and friends have about committing illegal behaviour. In this case, if the family, peers or the gaming community consider piracy and modding as an acceptable activity, then any moral or ethical issues are ultimately put aside. More importantly, the participants in this study have been critical of the legitimacy of the law that essentially influences the intention to use mod chips for illegitimate reasons in the future. The literature generally concurs with these arguments. Wingrove et al., in their research to determine why college students pirate music, have determined that music piracy is so widespread among college students and that the students perceive their peers as encouraging and approving of continued downloading.<sup>733</sup> Glass and Wood synonymously assert this stance, claiming that software piracy amongst pirates is not perceived as an ethical problem, “but as a result of the individual’s evaluation of distributive fairness, comparing the ratio of outcomes and inputs”.<sup>734</sup> In effect, the literature has generally found that moral reasoning has a weak relationship to software piracy because gamers in the community ultimately resort to what is “quick and convenient.”

As an extension to the discussion, informal standards or constraints were imposed in the gaming community in regards to modding.<sup>735</sup> In this case, modding is considered to be acceptable if used for personal private copying or homebrew purposes. However, once it is used to make a profit, then gamers become immorally engaged with the activity:

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<sup>733</sup> Wingrove et al. above n 528, 4.

<sup>734</sup> R. S. Glass and W. A. Wood ‘Situational Determinants of Software Piracy: An Equity Theory Perspective’ (1996) *Journal of Business Ethics* 1189-1198; cited in Husted above n 505, 198.

<sup>735</sup> April Mara Major, "Norm Origins and Development in Cyberspace: Models of Cybernorm Evolution" (2000) 78(59) *Washington University Law Quarterly* 59, 62.

*P4\_FG1: Yeah, and I think that's the thing if you actively going out and selling these copied and try to make a profit from it - that's the difference between a home independent user for personal use.*

It was also suggested that if possible, sanctions should also be given out if this rule is infringed:

*P4\_INT4: The gaming community should ostracise these people who are you know just stealing content and not paying for it and that sort of thing. I think it's from both sides then change needs to come. Because the mentality is that nothing is wrong with stealing the game or modding your console.*

In this case, modding and piracy is considered to be an acceptable activity “as long as they're not making money of it”.<sup>736</sup> This expectation illustrates that piracy or modding for economic gain is not tolerable within this community’s social norm spectrum. To this effect, both parties indicate that modding and piracy to an extent is acceptable for personal use. This may include using the mod chip to share the game with others, to play a downloaded copy as a demo before purchasing or to develop homebrew software. However, when the culture allows for the community to mod and pirate as they wish, the moral issues are contrary to the reasoning listed in this sub-factor. Notwithstanding the issue of piracy, the participants simply believe the legitimate uses of modding do not justify the majority of users who mod consoles for illegitimate reasons because the most likely scenario is that the proportion of pirates will heavily overshadow the legitimate developers or users.

#### **9.2.4 CONCLUSION**

This chapter illustrated a deep and complex perspective into the gamers’ mindset about mod chips and piracy. On the surface, it emerged that gamers’ mod and pirate for reasons of ease and convenience. Further discussions, however, revealed the dynamics on how gamers rationalise the normalcy of mod chips and piracy. Firstly, it became known that gamers accept mod chips for allowing gamers to “share” games amongst peers. This open philosophy initially stemmed from the sharing of games derived from copying physical media into CDs. The Internet however has expanded this “open philosophy” from an insular community into the global community. The participants also reasoned that modding and piracy are acceptable for purposes of trying out a demo. Secondly, gamers defended the use of modding as it allows developers and users to expand the capabilities of the console or developer homebrew programs.

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<sup>736</sup> P2\_FG2

Otherwise, gamers argue that modding allows for the circumvention of DRMs, with most of them commenting that they use mod chips to circumvent region locks in games. Lastly, despite these arguments, the participants concede that modding is unjustified due to the mass proportion of gamers who use it for illegitimate and often illegal purposes.

The norms which influence gamers with mod chip and its uses are malleable and with different intensity depending on the circumstances involved.<sup>737</sup> Most gamers depict modding as ethically unjustifiable because of the moral underpinnings of piracy. Despite this, the social norm of “open philosophy” belief on the use of modding illustrates that its cultural dimensions in the conduct is pragmatically condoned. This has profound effects on the policy-making and legal enforcement principles introduced in the legal factor because while gamers ignore the law due to ineffective enforcement, this issue is further compounded by the social norms which effectively depict modding and piracy as the normal (or otherwise right) thing to do. However, the picture remains incomplete as this norm has illustrated that a number of norms emerged due to technological and economic overlaps. In effect, a deeper and further examination of how gamers and professionals reacted to the technological and economic aspects of the argument is required to fully comprehend the proper way to balance the rights of owners and users.

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<sup>737</sup> Major above n 787, 63.

## CHAPTER 9.3 – TECHNOLOGICAL FACTOR

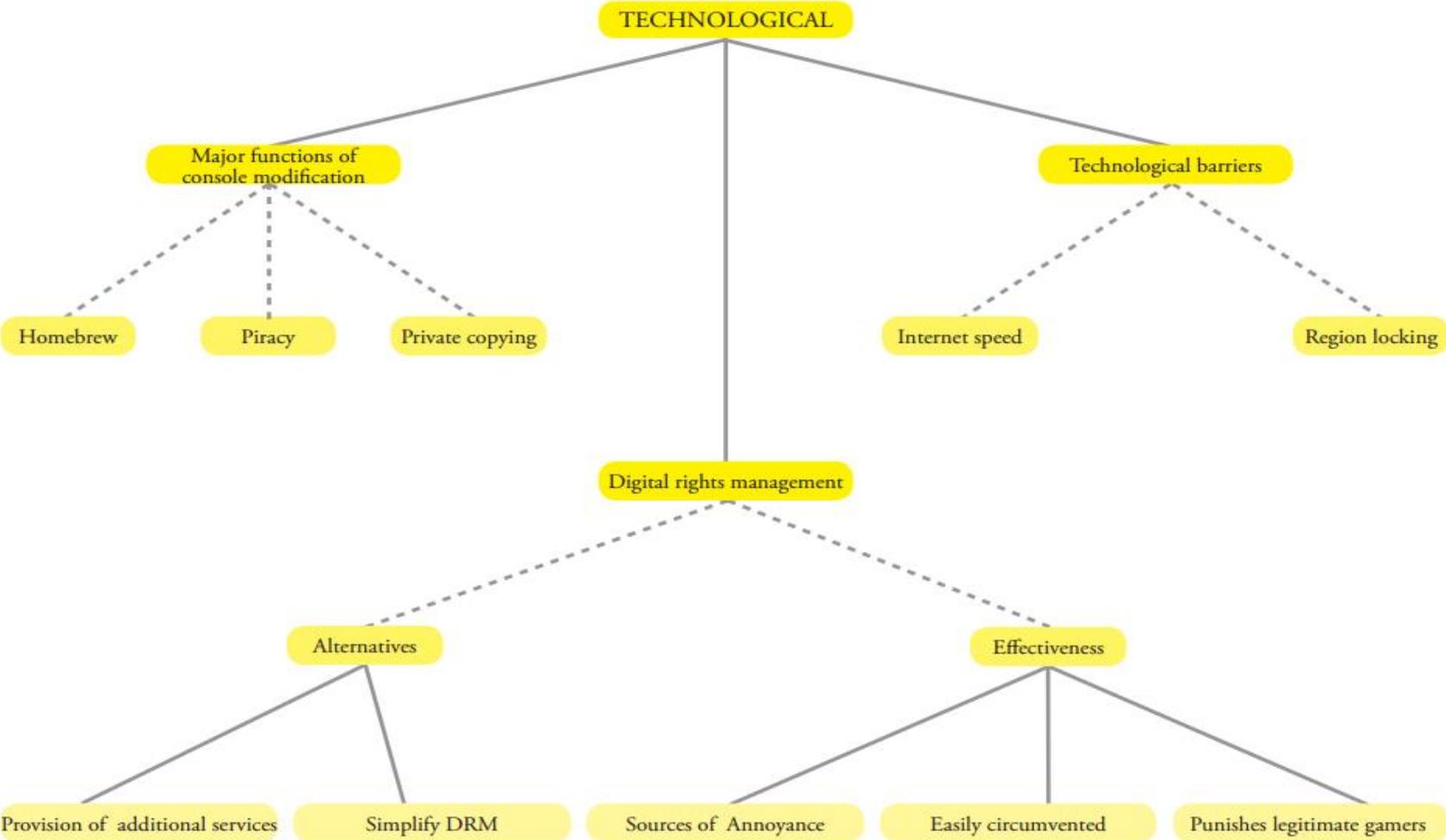
Technology and its advances were highlighted in the attitudes of gamers and gaming professionals about the technological measures used to protect consoles and games from piracy. The primary technological considerations recognised from the previous factors include the acknowledgement of the ease of pirating content with modern technology, modifying consoles to access pirated content, and the development of homebrew software. Participants also discussed the ineffectiveness of DRMs and the ease of circumventing such measures employed by the industry. These come into play in the examination of the technological measures employed by the industry described as anathema to gamers, and a mere annoyance to some industry members which consider these measures as frustrating.

These preliminary observations are similar to the findings established under this factor. The cultural norms discussed in the previous chapter support the belief that DRMs are a source of annoyance to the participants regardless of the legal sanctions afforded to DRM circumvention. Moreover, the participants' acknowledgement of deeply seated traditions from early technologists and scientists explained why gamers readily open up their consoles in order to develop additional features and capacities to the machine. These observations highlight how inclusive and expansive is the issue of balancing owners and users rights in the copyright regime because the machine has been used as the solution, but it's important to consider all factors because the solution is not the machine itself. In this regard, the technological factor adds to the picture through three significant findings:

- 1) Gamers and professionals argue that while most DRM's are not effective and are a source of annoyance and frustration to legitimate consumers, new technological measures are emerging which can cease modified consoles.
- 2) Gamers and professionals acknowledge that DRMs are necessary but suggest alternatives which could prove to be more effective and consumer-friendly.
- 3) Gamers and professionals argue that mod chips open up consoles to other features not readily available.

The thesis examination of the technological aspects raised by the participants is represented in Figure 9.2.

Figure 9.3 Key Findings for Technological Factor



### **9.3.1 GAMERS AND PROFESSIONALS FRUSTRATION AT DRMS**

The technological dimension revealed a prevailing theme that DRMs are inevitably sources of annoyance for legitimate consumers as much as for pirates. Further, the intended purpose of DRMs to deter gamers from pirating games is unsuccessful since "*it sucks!*"<sup>738</sup> Most gamers indicated DRMs introduced unnecessary barriers and annoyance to gamers, and believed they did more harm to the legitimate customers than actually preventing piracy. Participants discussed the frustration, anger and annoyance with a humorous or cynical attitude on how easily these measures were circumvented. For example, in one focus group:

*All: No*

*P2\_FG4: I think the cracks come out three days after release*

*P1\_FG4: It stops a few people who don't know how to do that*

*P2\_FG4: Yeah it slows it down but most people know they can hack it*

*P3\_FG4: Yeah it's not as expensive*

*P1\_FG4: I'd say it stops a fair few people by people who don't know that much who want to pirate games*

*All: Yeah.*

Their cynicism and criticism acknowledged amongst the other groups support the lack of confidence the gamers have in the effectiveness of DRMs. A gamer, for instance, disputed whether restrictive measures of DRMs may frustrate consumers:

*P3\_Dev: That's basically the key complaint that gamers have with DRM is taking away from the experience playing the game, and taking away the gamers' rights to be able to play the game when they want to, how they want to.*

The general annoyance of gamers that DRMs were ineffective was very strong amongst the interview participants. Common responses included the notion that DRMs will inevitably be cracked by hackers and

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<sup>738</sup> P1\_FG1

that “*they are always going to find a way around the DRM*”.<sup>739</sup> This is because pirates and hacking communities are “*so well established that their technology has surpassed from the simple burning of the DVDs*”; as such the technological measures employed “*doesn't matter because most of these technologies are outdated or superseded*”.<sup>740</sup> Ultimately, where hackers, pirates and modders are able to easily circumvent DRMs, legitimate consumers are otherwise subjected to being punished by these DRMs and are prevented from playing. A professional commented:

*And so all you'll end up doing is punishing legitimate customers and making it so they are better off pirating a pirated version that might not have online requirements and yeah the main challenge there is DRM is progressively becoming more and more invasive, you have to be always on-line, you have to jump certain hoops to work.*<sup>741</sup>

When asked to explain how DRMs hurt legitimate customers, one focus group explained the requirement to be always connected in the Internet to play games as one of the main sources of frustration for many legitimate gamers:

*P4\_FG5: Probably the issue of DRM - the need to always be online to play some games. Stuff like that completely - it would stop me from completely buying new games.*

*P1\_FG5: Yes look at the controversy from Ubisoft's From Dust and its release on the PC. When it was released it required an always on connection and to enforce this it also kept saves into a cloud system. However due to public outcry, they have recently patched this requirement out of the game.*

*P4\_FG5: And you think because that sort of outcry has happened so much that they would stop from doing it. But they do keep doing it.*

One professional synonymously stated that the restrictive measures of DRMs may frustrate consumers for a number of reasons:

*P1\_Dev: For instance, with the always-on DRM strategy, if you legitimately bought the game and but you have to be disconnected from the internet at some point, then no one will be able to play the game, like that*

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<sup>739</sup> P3\_Pub

<sup>740</sup> P4\_Pub

<sup>741</sup> P3\_Pub

*directly harms someone who legitimately bought the game and should be able to play whenever they want and however they want kind of thing. That's basically the key complaint that gamers have with DRM is taking away from the experience playing the game, and taking away the gamers rights to be able to play game when they want to, how they want to.*

Impeding gamers from accessing games proved to be a contentious point for gamers as discussed by one professional:

*P3\_Pub: Mainly because it is frustrating. If you're a customer and you want to play a game across all three computers because you might have a computer in your house or your office or your holiday house, some DRMs don't allow that. So you bought the game that you bought legitimately but it actually punishes you from doing what you are trying to do because DRM does that. That's why, there is also a whole other reasons that DRM does - always on-line, the online servers go down you can't play your game while the servers are done - that is an extreme example but there is a plenty of examples of that where the DRM has blocked players from playing a game they bought.*

The constant internet connection requirement to enable playing games is exacerbated by the poor internet connection in Australia according to one gamer:

*P3\_FG1: Especially cause Australian internet is crap like even if you just have capped internet you can usually not play these games. It doesn't matter if you have some sort because the DRMs through everyone and the servers are packed. So you're stuffed no matter what.*

Other participants specified that the technological measures employed to impose regional lockouts are draconian which annoys gamers especially in Australia:

*P1\_FG5: Absolutely, the region lock is an artificial restriction, there is almost no difference between an Xbox sold in Australia and an Xbox sold in the US apart from a setting in the software that makes it play only in that region.*

*P4\_FG5: It used to be an issue with the older consoles with the differences between PAL and NTSC but now with the advent of HD video, that doesn't exist. It's completely artificial.*

With these arguments, it is then perhaps easy for gamers to inevitably conclude that DRMs hurt legitimate consumers more than pirates because while legitimate consumers must abide by these protocols: “*the people who didn't buy it don't have to do any of that*”.<sup>742</sup> This is further supported by the literatures description that of DRMs in nearly all forms of content are ambient, ubiquitous and omnipresent. The professionals from the interviews have similarly acknowledged that DRMs in their present form serve to disrupt the enjoyment of legitimate consumers rather than punishing the pirates:

*P3\_Pub: I don't like it because they are always going to find a way around the DRM. And so all you'll end up doing is punishing legitimate customers and making it so they are better off pirating a pirated version that might not have online requirements and yeah the main challenge there is DRM is progressively becoming more and more invasive, you have to be always on-line, you have to jump certain hoops to work.*

These remarks serve as a reminder of the open philosophy norm discussed in the cultural sub-chapter, and its ever-present influence on gamers, and also on the industry mindset. One issue that came up is that when old technologies used to serve consumers and provide somewhat free access, copyright law has encroached into this and legitimised not only the deterrence to piracy, but as a failsafe measure, also towards content access, as acknowledged by Clapperton and Coronos.<sup>743</sup> There is also poor recognition of the restrictions imposed by DRM which essentially allows right owners to introduce “perpetual rights through the simple mechanism of not making DRMs recognise a closing date for rights enforcement”.<sup>744</sup> To this end, while DRMs could deter gamers from pirating content, the end result of impeding access to the control from legitimate consumers may actually be doing more harm as argued by one professional:

*P2\_Wr: It's just a big inconvenience for paying customers, especially when you consider from our perspective it doesn't stop piracy. So when gamers see that they get frustrated and they see that all this hassles and all these difficulties that is obscuring my experience and making it difficult for me to play, it's for nothing and I think that is the real issue.*

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<sup>742</sup> P3\_FG1

<sup>743</sup> Clapperton et al. above n 257, 657

<sup>744</sup> Christopher May, “Digital Rights Management: The Problem of Expanding Ownership Rights” (Elsevier, 2007), 93.

One group however did not believe the need for constant internet connection was a major issue:

*FG2\_P3: I don't mind activating online - I just hate the fact that you buy like Star Craft 2 came out, and you have to actually log in online first before actually playing LAN so that's annoying. But I don't mind activating online at all.*

*FG2\_P1: So those people who aren't able to receive the internet won't be able to play the game at all?*

*FG2\_P3: Yeah but these days.*

*FG2\_P2: Who doesn't have the internet?*

*FG2\_P3: You can just go to a library and activate a game as well if you want it to, for a PC.*

These contradictory beliefs indicate that gamers themselves are fragmented in their assessment of the usefulness of DRMs. Few gamers believe that DRMs are gradually becoming more effective in halting modification of consoles:

*P1\_FG5: Yes there are now a lot more risks in utilisation of mod chips because you are in constant communication with the manufacturers of the console. When we go back to the previous generation, such as the PS1, there was never any ever communication to the manufacturer and therefore very little to know and the risk of being detected by the manufacturer.*

The most popular method utilised is the banning of modified consoles from accessing online services:

*P3\_FG5: Um I say yes especially because they can patch to the console and kind of see a lot of the times what has been done with it and then if they see something is wrong then they will shut down your console remotely and you can't connect anymore.*

*P4\_FG5: In some additions of the 360, there isn't really a chip that allows Microsoft to self-destruct consoles...*

*P3\_FG5: I'm not sure like - I actually ended up buying a used console from GameStop and it had been banned from LIVE. It still works offline but as soon as you connect it on LIVE at all, this message*

*would pop out and say this console has been banned and I couldn't play it at all even though if I played it offline. And I guess I just made that mental note I guess and it stopped working.*

*P4\_FG5: With the increased offering, at least with the XBOX 360, um pirating games and having to hack your console - it ruins your online experience. You can't play online and if you get caught you do get screwed over. I don't know how it is compared to the other consoles.*

Evidence of these opposing viewpoints exist where gamers reconcile that while DRMs may be a source of annoyance and frustration, they may still be a necessary tool in protecting the industry from rampant piracy and anti-circumvention in an increasingly internet connected society. Indeed, as demonstrated by the cultural factors, one professional recognised that the gaming community "*go out of their way to develop features where the original console cannot do*".<sup>745</sup> However, beyond this need to modify consoles to add other features belies a technical justification not necessarily constrained within the concept of unlocking consoles. In terms of this, the professionals identified that circumventing DRM is itself a game, and the excitement of cracking technical measures is acknowledged to be one of the main reasons behind these activities. For instance, one professional claims the "*the ease of which they are constantly hacked... shows that the value for the people hacking them isn't necessarily by passing the DRM, it's about feeling that they have hacked them*".<sup>746</sup> The professional further acknowledges the thought processes involved in hacking consoles or that DRMs are of such depth that they have become a competition between hackers and the industry:

*P5\_Wr: That level of technical sort of consideration and thought and planning, like that's not about the DRM, that's about beating someone else right. I think that as long as people are producing hardware that has some restrictions, people will be trying to break them. It's inevitable.*

Another professional believed that hacking consoles and DRM may be a display of intellectual prowess:

*P2\_Wr: I think DRMs have just provided a challenge for people you know. Especially on communities who love to show that they are smarter than them.*

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<sup>745</sup> P4\_Pub

<sup>746</sup> P2\_Wr

This ‘arms-race’ in DRM protection and circumvention inevitably gives fuel for hackers and modders to develop circumvention technologies that one professional recognised as having surpassed traditional models of circumvention:

*P4\_Pub: If you look into the countries like maybe Malaysia and Indonesia - the production house they are actually pirating all these games. But there is so much - they are very advanced. So it doesn't matter because most of these technologies are outdated or superseded.*

This description as an ‘arms race’ has been acknowledged as a side-effect of the increasing reliance on DRM in the protection of copyright content as Craig argued it is a battle between technically savvy users and powerful content providers that "is destined to never be won".<sup>747</sup> For instance, the BBC News identified that in hacking the PSP console, whenever a new firmware is released by Sony, hacker teams compete to see who can decode, examine and inevitably unlock the firmware first.<sup>748</sup> The inevitability of such conduct illustrates the intimate relationship with the gaming technologies giving them a belief that it is within their right to hack consoles. As one professional commented:

*P3\_Pub: I think the lesson there are always going to be users who will try to bypass any means to get the content they want. No matter what security you put in place, there are always going to be people who will try to get around that via software or mod chips.*

Copyright control through anti-circumvention provisions has led participants to express fears that DRMs may not only succeed in impeding access to content but may also serve as a means to monitor consumer activity. Indeed, Geist argues that DRM “affects a shift in social power by extracting greater control over information, and, more crucially, knowledge”.<sup>749</sup> Furthermore, through DRM, copyright owners will be able to secure their rights by extending limits on use, by limitation of the actual possibilities of technologies.<sup>750</sup> As such, DRM will essentially have the effect of firmly directing greater protection powers to owners’ rights, with a “considerable diminution of social rights of public access, and an effective denial of any process of balancing”.<sup>751</sup> As one professional stressed, overreliance on restrictive DRMs may end up with gamers resenting these protection measures because “it hinders the gamers from enjoying the content as a

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<sup>747</sup> Craig above n 120, 184.

<sup>748</sup> Rubens above n 91.

<sup>749</sup> Geist above n 380.

<sup>750</sup> May above n 744, 62.

<sup>751</sup> Ibid, 64.

*whole.*<sup>752</sup> This has already been achieved by the implementation of the ‘always-online’ DRM, whereby gamers are forced to connect their gaming consoles to the internet to be able to access some features of games including multiplayer content or downloadable content:

*P1\_Dev: For instance, with the always-on DRM strategy, if you legitimately bought the game and but you have to be disconnected from the internet as some point, then no one will be able to play the game, like that directly harms someone who legitimately bought the game and should be able to play whenever they want and however they want kind of thing.*

While this DRM has been perceived as an annoyance, one gamer believed the utilisation of always-online DRM may also pose security dangers to legitimate consumers. This security threat was demonstrated when Sony’s online gaming services Playstation Network was hacked and gamer accounts were stolen.<sup>753</sup> Cohen identified the dangers of DRM in the online environment and the privacy incursions enabled by DRM.<sup>754</sup> Although it is important to note that DRM, in its current form, has allowed for some leeway in regard to limiting restriction and opening up avenues to accommodate “openness” in the way of accessing and purchasing content. This is the challenge in contemporary DRM development, where the ongoing design effort is to eliminate inconveniences or at least reduce it to tolerable levels:

*P5\_FG3: Yeah. If they can figure a system where it's not getting in the consumers way too much but still kind of protecting their profit.*

*P1\_FG3: Yes, there has to be a balance between their product and protecting their customer's interest. And once they swing too far away from the customer's interests, they will lose sales due to not willing to put up with the DRM to play a game.*

### **9.3.2 SUGGESTED ALTERNATIVES TO DRMs**

Gamer’s belief that DRMs were evolving beyond their primary function contrasted with general apathy expressed by the professionals. Despite these contrasting views, DRM is subject to illicit circumvention which has resulted in distribution being controlled past the posting of the first sale through all subsequent

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<sup>752</sup> P4\_Pub

<sup>753</sup> Amy Lee, *Congress Asks Sony to Explain Playstation Network Breach* (29 June 2011) Huffpost Tech <[http://www.huffingtonpost.com/2011/04/29/congress-asks-sony-playstation-network-hack\\_n\\_855700.html](http://www.huffingtonpost.com/2011/04/29/congress-asks-sony-playstation-network-hack_n_855700.html)>.

<sup>754</sup> Cohen above n 388, 121.

transfers, as strongly stated in the literature.<sup>755</sup> Surprisingly this thesis found the participants are supportive of DRM in so far as the fact that an alternative to DRM is hard to conceive. Gamers expressed the view that DRM is probably the only means to protect the industry from piracy:

*P4\_INT4: Um I feel perhaps they are justified in some way because there are a lot of people who just don't even bother paying for the game and just use it and they just use the content, enjoy the content and just completely avoid paying for it.*

Gamers identified that DRMs serve an important role in ensuring that gamers will not utilise cheats or hacks in multiplayer games:

*P3\_FG5: Yeah - so I think that is the reason why I haven't seen much of an effect other than a couple of times online. I've seen aim bots being used.*

*P4\_FG5: And it is obvious when it is happening*

*P3\_FG5: Oh yeah*

*P1\_FG5: And I personally have confidence in the services that they utilise to ensure a level playing field.*

*P4\_FG5: But at least with the Xbox 360 and Xbox live, with my experience from Halo 3 and Halo: Reach, it's very rare that you get hackers these days. I know that in COD, with the first XBOX, there were many different backing exploits, but with halo 3 and halo: reach, it hasn't been a problem.*

*P1\_FG5: That's partly due to the technological improvements. And also partly due to an increased in enforcement of the use of these pieces of technology.*

While anti-DRM rhetoric is well-represented in literature, DRM justification is less represented but is deemed to be an equally important viewpoint to examine in this case. The primary goal of DRMs is to protect content against unauthorised copying, and Sookman declares that by extension, right holders have turned to DRM to protect their market rights.<sup>756</sup> Indeed, DRM at its most basic is essential to limiting the ease of carrying out copyright infringement in an environment where businesses have trouble competing

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<sup>755</sup> Deborah S. Tussey, 'From Fan Sites to Filesharing: Personal Use in Cyberspace' (2001) 35 *Ga. L. Rev.* 1129, 1166.

<sup>756</sup> Sookman above n 382, 26.

with "free services" that are based entirely on free pirated copies of the same content.<sup>757</sup> One gamer for instance sympathises that: *"they need to protect their shareholder interest and trust and products from being stolen, because it is essentially getting stolen"*.<sup>758</sup>

Picker believes DRMs exert power for authors to exercise control distribution of their work by regional coding or exclusive licensing. This is the strongest justification for the use of DRM, and gamers recognised the importance of DRM in this context saying it *"has to be the way it has to go really"*<sup>759</sup>, in protecting copyright content from piracy. Sookman expanded that in an age where content can be acquired for free without repercussions, DRMs assist in providing assurance to right holders in internet transactions because without them "right holders have no practical means of enforcing terms related to licensed uses of works protected by copyright".<sup>760</sup> Professionals have also acknowledged the importance of DRM in the protection of games, yet they conceded the necessity will inevitably harm legitimate consumers:

*P2\_Wr: Well they have to do something don't they, that's why they have to continue using them... I guess on the back of their mind they are hoping that they will come across a method that will work...*

The need for DRM is understandable as gamers have stated they readily resort to piracy or modding as it is "convenient and easy". In this case, development of DRMs intertwined with online content and gameplay may become a mechanism against pirates and hackers:

*P2\_Wr: And I think that stems from the idea that if we are going to have a lot of people go online all the time while they are playing the game we may as well add an online functionality so I think that's quite intertwined.*

Nevertheless, if the above discussions are any indication, the necessity of DRM lies in its ability to protect the industry from illegal piracy and modding, but such measures inevitably hurt legitimate consumers as well. As one participant bluntly argued:

*P1\_Pub: Obviously, most of the time it blocks malice use but it's also going to block legitimate users in certain situations.*

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<sup>757</sup> Ibid.

<sup>758</sup> P1\_INT1

<sup>759</sup> P2\_INT2

<sup>760</sup> Ibid, 28.

However, the challenge facing DRM legitimacy is the balancing of user rights to access the content legitimately without impeding the rights of content owners. McCullagh and Homsy acknowledged that it has become "fashionable" to complain about DRMs, and that critics are quick to propose remedies to end the use of DRM, but the effectiveness of alternatives is strongly debated.<sup>761</sup> Sookman argues that DRMs may be an essential key to a successful market implementation which could lead to greater consumer benefit:

Reduced piracy means greater economic incentive to make content available in digital form, and perhaps add indexes, categories and background material to public domain material that might not otherwise exist. DRM can [also] lower the transaction costs for right holders to enforce their copyright, and permit economically efficient price-discrimination.<sup>762</sup>

The exploration of alternative methods of open technological measures is the current objective in DRM implementation, which would ideally act as both the guardian of content and also as the means to distribute the content with extra services provided. Indeed, whereas the old adage that the 'answer to the machine is the machine' is still in play, content owners and distributors such as Apple and Google have developed improvements in DRM in regards to quality and affordability, while keeping a step ahead of decryption systems. Such advancements are acknowledged by the participants, citing the popular PC game application called Steam as a role model for proper DRM implementation. The participants in this case highly commend Steam for implementing a simple DRM that offered additional services including ease of access, the implementation of real-time updates and the ability to purchase games digitally:

*P1\_FG4: And you also have the other benefits of it being hooked up on an online account, you have real times updates when you need them to be updated, that's an excellence feature right there. If anything that's probably one of the main reasons why I like Steam. It keeps everything in one place, and very easy to access. As soon as you logged in, you've got your list of games and you are ready to go.*

*P3\_FG4: And you can buy games without it being installed. It can just sit there and waiting for the day when you go "Oh I might play it now" and you just click on it, it will download it off the servers and off you go. I think one thing Steam has done is, if you lose your DVD, you can't call up the company and make*

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<sup>761</sup> McCullagh et al. above n 350, 10.

<sup>762</sup> Sookman above n 382, 10.

*them send another one. If you lose the installer, you just download another one off Steam. So that's another reason why a lot of people do it because there is no risk of you losing the game.*

The same group praised Steam's ability to allow gamers to play and access games without the need for a CD and integrated all services into one online account:

*P1\_FG4: With particular reference of Steam as a DRM that works, it doesn't interrupt the gamer I think is the big thing. Well not in a way that other DRMs do.*

*P3\_FG4: You don't need a CD for one.*

*P1\_FG4: Yeah that is right...*

*P3\_FG4: You don't need to go to the bookshelf to be able to play it. It just log into your Steam account and says right, this is a legitimate game, we checked it with all the records and it will let you play.*

*P2\_FG4: It doesn't lock into just one PC.*

*P3\_FG4: Yeah as long as you can sign into your account, you can install it in as many PCs as you want.*

One gamer acknowledged that with these features, Steam has cultivated a community of gamers who use the application:

*P1\_INT1: Also Steam is a community, you can play with your friends it's - it brings people together - they supply the game for relatively cheap prices. They have a ton of sales. So they do appeal to a more financially - not as well off community. But yeah it encourages people to buy the games and play them with your friends.*

Steam provided a counter-insight into the inconvenience debate to DRMs to legitimate consumers. One professional agreed with the assessment of DRMs and extra service provision being a positive advance:

*P2\_Wr: If you're going to do something like that you might as well build a range of services around it to make it work for the users. And I think it's good for businesses as well because if create something that Ubisoft has done people just get angry cause they don't see the benefit for them. They should do something that works for both the user and the company that developed the game. I think that's the ideal solution.*

Another professional concurred, referring to Steam as the best possible example of proper DRM implementation as it reinforced positive use of DRMs by providing extra services to legitimate consumers:

*P1-Dev: I think Steam does it in a good way. I think that one of the things Steam does really well is focusing on positive reinforcement for customers who have bought the game legitimately versus punishing the pirates. Like for instance, if you buy the game through Steam, you've got access to Steam achievements and you've got cloud software through Steam and Steam has good games and that kind of stuff so. I think they are a good example of... and also they don't do anything very prohibited like if you want to play a game offline I'm pretty sure that you can do that just by. So yeah I think Steam is a pretty good example of DRM done right where it doesn't affect the legitimate consumer negatively and in fact, it rewards the legitimate consumer for having bought the games.*

It is reasonable to assume that despite the advantages that Steam brings, gamers will still be wary of DRM and cautious when it comes to buying products with DRM, unless it is clear that the benefits will outweigh the costs. Gamers stressed that in implementing DRMs, balancing the needs of gamers to access the games and the need for the publisher to protect the software from piracy or circumvention must be maintained:

*P5\_FG5: Yeah. If they can figure a system where it's not getting in the consumers way too much but still kind of protecting their profit.*

*P1\_FG5: Yes, there has to be a balance between their product and protecting their customers' interest. And once they swing too far away from the customers' interests, they will lose sales due to not willing to put up with the DRM to play a game?*

The question that needs to be asked is whether the DRM's inherent technical strength is enough to deter potential thieves while facilitating enough use by paying customers to produce a content distribution business. This is clearly still an ongoing process.

### **9.3.3 GAMERS AND PROFESSIONALS ARGUE THAT CONSOLE MODIFICATION OPEN UP CONSOLES TO OTHER FEATURES NOT READILY AVAILABLE**

While much of the discussion of the technological issues has focused on the effects of DRM, the participants were also very vocal about the technological uses of the mod chip. Console modification was primarily used for the illegal playing of copied games, but participants also acknowledged a number of non-piracy uses. The participants described this as the "personalisation" of consoles and acknowledged "they use it to play copied games" as well as to share games with their peers.<sup>763</sup> The personalisation justifications are imparted by gamers who claim ownership of games is directly influenced by this feature:

*P4\_INT4: Obviously there is the issue of backing up your own game. I mean since you buy the game it sort of belongs to you.*

Moreover, gamers described how mod chips allowed for the transformation of consoles to other forms of media:

*P1\_FG4: For a variety of reasons. The reason why I put a mod chip into my Xbox and I did a software mod for my Wii and also hardware mod for my PS. The reason for the Xbox one was partially because I'd like to try games before I bought that and obviously you can also go out and rent games and like that but from friends if they needed games they knew I was able to rip the game into my drive, play it for a while and if I liked it I will then go out and buy it. Worked pretty well for me but it also added a lot of features in particular. With the Xbox, I was suddenly able to playback movies and DVDs and stuff like that without the prerequisite controller, browse the internet and all that other stuff. It was kind of useful.*

One professional further stated:

*P2\_Wr: Yeah I mean they totally can and those are legitimate uses, but to say those are the only reasons would be disingenuous. But at the same time people who are attacking the mod chips, saying they can only be used to play pirated games is also disingenuous, like the reality is they can be used for a whole different things. So yeah if anyone is basing their entire argument on that then perhaps they are not looking at the whole picture or perhaps they have an agenda.*

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<sup>763</sup> P4\_Pu

Another professional subscribed to the belief that “*you should be able to modify your hardware to play what you want*”, with console modification.<sup>764</sup> Indeed, as illustrated in the cultural issues above, one professional recognised that the gaming community “*go out of their way to develop features which the original console cannot do*”.<sup>765</sup> It is thus important to stress the facet of console modification which has two sides: the obvious usage of pirated software and the less recognised modding to unlock the console. This sub-factor aims to examine the latter point of view, as one professional for instance recognised that console modification unlocks the potential of the consoles as a computer:

*P2\_Wr: Like a lot of the times these things help unlock the potential of the device and I think it has helped a lot of tech-savvy consumers develop their stuff and I totally understand that sort of idea.*

An extension to this transformative feature of consoles is that console modification, as discussed in the cultural chapter of this thesis, allows gamers to install homebrew applications or other operating systems when such features are not readily available or were removed by the manufacturer. The participants on this issue gave the Playstation 3 and the Linux OS as relevant examples;

*P4\_FG1: And take an example of how Linux OS run in terms of their users very interactive in terms of their updates and changes to products and offering everything exclusively. I don't know if something similar like that with the homebrew channel where everyone can input their own sort of stuff and at what price they want for it.*

*P1\_FG1: A really interesting thing about Linux is that the PS3 originally had the ability to run the OS on it and Sony removing that and that's so they can police and enforce. After removing that, the hacking community found their own work-around to run their own code and actually led to piracy and it did more damage in the long run than if they had just kept it in. Because these people just want to be able to run code on anything like there is a running joke within the community that I want to run Linux in a potato. If you give them a playground - if you give them that custom OS and let them play around with that then most likely, like they were fine for so many years until they took that out. Then after that they found a new playground - they made their own way to be able to tinker.*

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<sup>764</sup> P3\_Pub

<sup>765</sup> P4\_Pub

Tangent to this discussion, another participant described how specific modifications of console peripherals, such as controllers, assisted in gameplay improvement:

*P3\_FG4: It allows you to customise the controller to do what you want. To be able to use rapid fire instead of single fire. It gives you more freedom of your controller basically, it makes it more of a PC gamer's controller.*

In Chapter 2, many features the mod chip made available to gamers, including the installation of interoperable software, backing up games and removing the region lock verification in consoles, were discussed. With these features, one gamer justified the modding of consoles because it "*brings in a personalisation feature. Like mod firmware you can pretty much, you can mod it however you want it to be and I suppose it gives the individual choice*".<sup>766</sup> This personalisation conforms to the technological culture of freedom of ideas and hardware functionality. Thus console modification has been acknowledged as an "integrated part of game development and marketing practices" in the gaming industry.<sup>767</sup> Moreover, the design and re-design of integrated circuits (or mod chips) to improve existing or provide new applications are integral to the gaming culture. As such, an argument for the use of mod chips for console gaming from the users perspective, which need not be limited to the console itself, can also extend to the introduction of new practices and doing new things with technology:

*P1\_FG4: For a variety of reasons. The reason why I put a mod chip into my Xbox and I did a software mod for my wii and also hardware mod for my PS. With the Xbox, I was suddenly able to playback movies and DVDs and stuff like that without the prerequisite controller, browse the internet and all that other stuff. It was kind of useful.*

These justifications are common within hardware hacking activities, which is acknowledged to only subsist among groups of enthusiasts:

*P1\_Pub: It's not really normal in the gaming community as a whole, but there are communities where it is normal. Like entire websites devoted just for that kind of content. Companies making their money on the fact that people might make that money out of homebrew and that is how they advertise it.*

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<sup>766</sup> P2\_FG2

<sup>767</sup> Sotamaa above n 33, 2.

Nevertheless, the ability of console modification to "come in and expand the functionality" of consoles to do something it was never intended to do, is integral in technological explanation of the 'do-it-yourself' ethos of the hardware hacking community.<sup>768</sup> A gamer who modified the PSP to expand its functionalities outside gaming, from emulators to transforming the console into a media player and eBook reader, acknowledged this, saying;

*P2\_INT2: Yeah that is definitely a positive like with the PSP I got, I have emulators, and I wouldn't even use the bloody thing if it weren't for that... because it was a cheap portable platform. Like I have an e-book reader on it as well. After hacking it I can use it to play .ogg files, flac, mp3, mp4 and everything like that. You can actually get like pds software. There was a hack so you can set up a keyboard for it. There's whole other open source stuff like they were putting quake 2 on there, and out of that came hexxon and Duke Nukem 3d port there as well.*

Console modification as such allow hackers to go beyond the "glossy, finely manicured shells" to "figure out what else can be done with or to improve them".<sup>769</sup> There is thus a great deal of reasons for gamers to be tempted to install mod chips since many hackers and developers "go out of their way to develop features where the original console cannot do".<sup>770</sup> This in turn has repercussions mentioned in the previous chapter in culture, although it can be expanded in the viewpoint of how such technological methodologies continue to persist despite the legal concerns. Grand, for instance, recognised that hardware hacking and do-it-yourself projects by hobbyists and tinkerers have been popular in recent years primarily due to their free-spirit and unconventional nature.<sup>771</sup> His assessment has been confirmed in the gaming community as well, given the number of gamers who admitted to modifying their consoles to expand on their functionalities.

### **9.3.4 CONCLUSION**

The technological factor established a number of overlapping themes that were discussed in the other factors, but are more refined in the technological perspective. For instance, the cultural underpinnings that were explained in the previous chapter seem to have an ever-present influence. The participants determined that one of the major reasons why gamers continue to dismiss DRM and actively circumvent

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<sup>768</sup> Grand above n 40, 49.

<sup>769</sup> Ibid, 44.

<sup>770</sup> P4\_Pub

<sup>771</sup> Grand above n 40, 49.

these protection measures is because it is perceived as annoying and frustrating to deal with. The analysis illustrated a number of ways why DRMs frustrate gamers including the obvious impediment to legitimise access to games and the introduction of invasive protection measures. However, the participants also extended their reasoning by citing that the failure of DRMs to generally deter gamers from copying content is largely due to the ease of circumventing these protection measures despite the persistent introduction of stronger and more invasive technology. Contrary to this however, the participants surprisingly acknowledged that despite the frustration, they conceded that DRM is necessary in an age where anyone can pirate content at their whim. Thus the participants suggested improvements to the operation of DRM, with many of them citing Steam as a model due to its capabilities of not only protecting games from piracy but also serving as a platform for extra services and community needs. Lastly, the discussions also noted that despite clear evidence that many gamers use the mod chip for nefarious reasons, they acknowledged a small community of hardcore hackers and do-it-yourself developers use mod chips to innovate and develop new content.

The technological issues that were examined support the "open sharing" philosophy in the gaming community, where technological measures that impede this culture are frowned upon. On the other hand, gamers are not so quick to dismiss the usefulness of DRM, with some accepting its utility in an era where anything can be copied without legal recourse. It was further emphasised that the mod chip introduces a dilemma for gamers and policy makers alike, and the use of legal means to rectify this dilemma is not possible due to the technological and cultural underpinnings already explained above. The mod chip, despite its nefarious uses, seems to also be a product of "hobbyists and tinkerers" that partake on hardware hacking and do-it-yourself projects in an age where such technology is commonplace.<sup>772</sup> The picture however remains incomplete. The technological and cultural influences to modding are very strong; however, we must also examine the economic effects of modding and the influences which drive gamers to mod.

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<sup>772</sup> Postigo above n 460, 300.

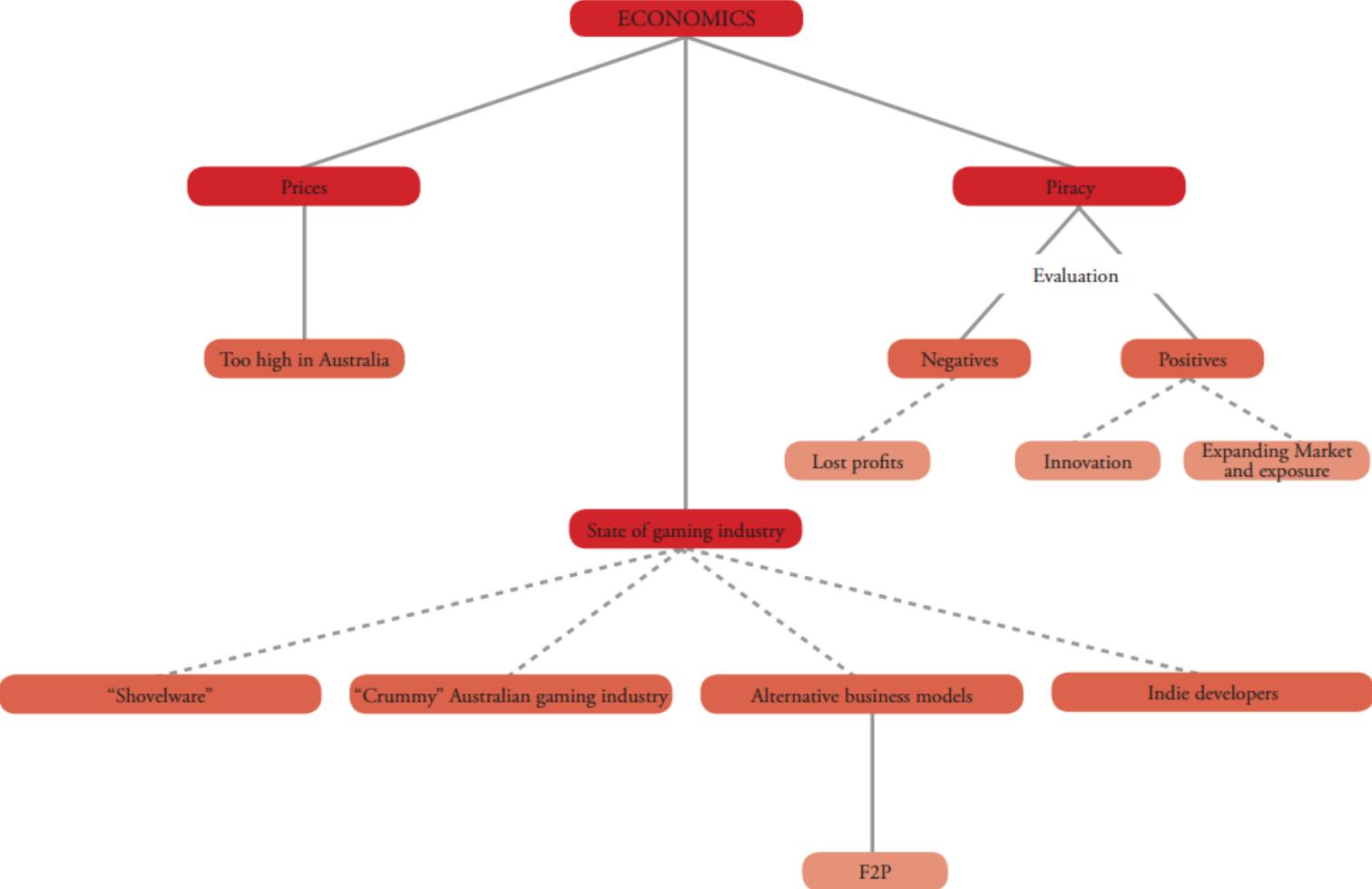
## CHAPTER 9.4 – ECONOMIC FACTOR

The economic factor aims to highlight the economic issues relating to console modification and piracy in the gaming industry. This factor identifies key economic perceptions from the participants regarding the most prevalent issues in the gaming industry and in the communities as well. The focus groups and interviews that were conducted yielded many issues that reflect the current state of the gaming industry and communities that are not limited to the rhetoric of modding and piracy. It must be stressed that the focus groups and interviews were not aimed at measuring their economic knowledge about piracy or about the state of the industry. Rather, the questions asked were to identify the distinctions and similarities between gamer and industry opinions and views regarding the economic aspects of the issue. Given the questions were not solely knowledge based, intriguing arguments and opinions have emerged. Unsurprisingly, the most apparent were complaints regarding the price of games as the primary reason for console modification to use and subsequently pirate games. Others, however, also described the current state of the industry, with particular attention given to the state of the Australian gaming industry. Lastly, many participants described alternative business models to accommodate the changing gaming environment and to combat piracy. These findings can be filtered down into four sub-factors:

- 1) Gamers find the price of games to be exorbitant which motivates gamers to modify consoles in order to access pirated content. The industry members however acknowledged several factors which have an effect on the price of games.
- 2) The gamers and industry members also recognised that the economics of gaming is changing swiftly, although not all changes are advantageous as indicated by the lacklustre Australian gaming industry.
- 3) The gamers and industry members highlighted the rise of independent gaming development, a stark contrast to the conventional development of games through large publishers.
- 4) There is acknowledgement that the perception of piracy differs in specific contexts. While some perceive piracy as the cause of economic disruption in the industry, others view piracy as a force of change in marketing and exposure.

The thesis examination of the economic aspects raised by the participants is represented in Figure 9.4.

Figure 9.4 Key Findings for Economic Factor



### **9.4.1 GAMERS FIND THE PRICE OF GAMES TO BE EXORBITANT AND INDUSTRY JUSTIFICATION**

The economic factor aroused a number of contemptuous responses from the participants. Many gamers were extremely critical of the price of games sold in Australia, citing it to be one of the biggest reasons why gamers continue to modify consoles and pirate games. The focus groups also emphasised that recent economic trends in Australia have made the high price of games unjustifiable. Given these price factors, the gamers expressed frustration and annoyance citing that gamers will ultimately resort to piracy because they refuse to pay the full price. In contrast, the professionals were more enlightened and provided insight as to why such prices persist. While this complaint is a prominent argument in the other factors, the discussion relating to its effect to low-income gamers and families will be demonstrated, and how it inevitably leads to piracy.

This sub-factor is certainly one of the most highly debated issues. In this case, most participants argued that *“one of the biggest ones [issues] in Australia right now is price fixing because games are significantly more expensive here than they should be”*.<sup>773</sup>

*P2\_FG1: The retail price in Australia for video games.*

*P3\_FG1: Yeah, it's kind of ridiculous.*

Synonymously, the industry members also acknowledged the high price of games. In this particular case, a professional believed the complaints from the gamers are legitimate:

*P1\_Dev: So I think that it's kind of legitimate complaint from gamers saying that games are too expensive, because they are quite expensive and there is definitely a large gap between the amount of gamers that would want to play a lot of the - like \$100 games and the ones that can actually afford a lot of those games.*

Income disparity is perhaps most relevant given the demographic of the gamer sample in this case. For instance, one participant acknowledged that given the low income demographics of gamers in Australia, being able to afford new games released constantly is a present impossibility:

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<sup>773</sup> P2\_INT2

*P1\_INT1: And as students as well, we are not as financially adept as other people so we can't really just sit and watch everybody else enjoy a good game while we don't, we can't afford it.*

Other participants, however, consider the price of games not only restricting to students, but to families as well:

*P3\_INT3: But a lot of gamers, especially the casual gamers, have a family - they can't really justify forking out \$100 for a game that they're going to be playing an hour and half a night or just on the weekends with your mates.*

These arguments are not limited to income disparity however. The price of games in Australia is a pivotal issue of piracy and console modification, acknowledged by Kotaku as a top issue but to which "publishers avoid like the plague" because even though the Australian dollar has gained strength and maintained parity to the American dollar, "gamers have been complaining that we pay way too much for videogames in Australia. And it's true that, compared to the US, we are paying a lot more."<sup>774</sup> Many of the participants are surprisingly aware of the greater economic factors which may affect the price of games in Australia. Perhaps the most poignant arguments put forward by the groups are the disparity of prices due to a number of factors. One factor is the price disparity of video games between Australia and the United States despite recent parity in currency values:

*P3\_FG1 Well back when the games were originally like starting to come into Australia and the Australian dollar was worth half of the American dollar - I think that when they set the prices then it was alright to have the prices here at a \$100 but nowadays I don't see why they are charging twice as much for something that everyone overseas gets for half as much as us like a lot sooner.*

This is synonymously argued by another group, expanding that:

*P2\_FG3: I would like to personally see equality out of the pricing of regions.*

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<sup>774</sup> Mark Serrels, "Objection! Do We Complain About Game Prices Too Much?" (30 November 2011) *Kotaku* <<http://www.kotaku.com.au/2011/11/objection-do-we-complain-about-game-prices-too-much/>>.

*P1\_FG3: Like I can understand why there is a price increase from the US to Australia because of increased shipping cost and everything - but with the dollar at parity once again, there is no reason why it should be double the price.*

*P1\_FG3: And the box the size of a DVD case does not cost an extra \$40 to ship compared to the US.*

One gamer weighed in on this factor:

*P4\_INT4: Other than that speaking being in Australia and being an international student, video games are ridiculously expensive here and um it's not just the retail games, it's also the online games as well. I can understand when the AU dollar wasn't as strong as the US dollar, I can understand then but now the AU dollar is as strong as or stronger than the US so it just doesn't make sense. So I think price is a big concern for us.*

One professional similarly argued the inconsistency is resulting in an “unfair” pricing of games in Australia:

*P4\_Pub: We are definitely priced unfairly here. The worldwide regions and regional pricing and things is difficult because there is no reason why - well retail, we gotta spoil the market and so retail it costs more to ship games here so naturally that's going to occur.*

Certainly this rhetoric prevalent in the literature has acknowledged the high price of consumer goods can be a strong motivator to pirate goods. Karaganis' study into piracy in emerging economies shed light into this, stating the "high prices of goods, low incomes and cheap digital technologies are the main ingredients of global media piracy".<sup>775</sup> Karaganis further believes piracy subsists because these conditions are ubiquitous. In this case, where the price of the game is high, then the alternative of downloadable, cheap, (often) free, DRM games supports individuals desire to pirate. The implementation of regional lockouts and DRM has also been argued to artificially inflate the prices of games.

*P1\_FG4: Plus they are enforcing this price disparity amongst the regions using regional lockout - so you can't buy a game in American and guarantee it will work in an Australia console.*

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<sup>775</sup> Karaganis above n 576, i.

Evidently the participants perceive the inequality of prices in different regions as a prominent justification for modifying consoles to access pirated content. This is despite technological advances in digital distributions which could remove this inflation.

*P4\_FG3: Well as a gamer living in Australia - the price disparity between Australia and the other regions is a huge issue - especially with the advent of digital distribution systems that require no real - there is no discernible difference between the games delivered from one delivered in Australia to one from the US. So we are being charged a lot more for games and that is a big issue for me.*

*P4\_FG3: It is literally twice as much here. Like I've looked at EBGames which is like your GameStop and it is literally twice as much.*

*P1\_FG3: It's the same company...*

*P4\_FG3: Yeah I know.. It's just...*

*P1\_FG3: I guess I would be the same. I would certainly have more games for the Xbox360 if they didn't just cost so much at release.*

*P1\_FG3: Plus they are enforcing this price disparity amongst the regions using regional lockout - so you can't buy a game in American and guarantee it will work in Australia console.*

Regional or territorial lockouts that forced incompatibility of hardware and software originating from the three main segments of the video game markets, namely Western Europe, Japan and the USA, has contributed to the costs as examined by Ip and Jacobs's study of regional locks in video games. This study found that publishers in the gaming industry questioned the legitimacy of regional lockouts, with one professional in the study remarking that such measures are a "fraud upon the consumer, artificially inflating price".<sup>776</sup>

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<sup>776</sup> Ip et al. above n 357, 516.

These arguments put forward regarding the high price of games in Australia relative to foreign costs and distribution costs, means gamers will resort to piracy and console modification to access these games at the lower cost. When piracy offered an easier, more convenient and often free option to acquire games at the lowest cost, “*piracy is our best option*”.

*P1\_FG2: Way too expensive compared to the rest of the world.*

*P2\_FG2: You can see why piracy is inflating really; it's just way too expensive.*

Contrary to the gamers' complaints and the reasons illustrated above, the industry members gave further insight to a number of external factors that have an effect on the price of games. Members identified the shifting global economy and market as having a huge impact in the determination of the price of the games in Australia. This was highlighted by one member in discussing the price of games:

*P2\_Wr: Game prices, there just so many things that can influence what game prices are. You can never really say game prices are too high because that is the market. Game prices are what they are because people pay that and the market decides what game prices are.*

Other professionals also introduced the concept that the price of games depends upon the perception of the gamer. In this case, the perceived high price of games could be influenced by the ‘value’ of the game as regarded by the purchaser or gamer. Value in this case is measured by the amount of time the gamer would take to complete the game, against the cost of the game, as one professional stated that:

*P2\_Wr: I won't buy a game that I know I won't get any value out of it. So if you get 10 hours of something out of a \$100 purchase I think that's pretty good, that's like \$10 an hour which is not bad.*

Recent changes in gaming distribution also had a significant impact on the price of games, and the perception of value as well. Whereas console games may remain costly, games released via digital distribution or through mobile application stores are comparatively cheaper, and this has had an effect in the perception of value and price in video games, according to one professional:

*P1\_Dev: There are a lot of games out there where you can get, which you can buy for \$5 or \$10, or pay for what you want. For instance, the humble indie bundle and that kind of stuff. So for the gamers who are*

*complaining that games are too expensive, I think that their complaints are targeted towards those triple A, or those games that are you know like \$100 or more in resale. And it's a valid argument towards those games, but if their argument is "Oh we can't play anything because it's too expensive", I don't think that is a valid argument. It's more of "I can't play the top tier games because it is too expensive". That's a kind of a fair argument.*

Furthermore, the perception of value has also shifted in the industry, with developers introducing payment models where “piracy doesn’t really make sense”:

*P1\_Dev: Other parts in the industry is evolving towards developing games where piracy really doesn't make much sense to them, like free-to-play games or cheaper games, games where you can pay as much as you want to purchase them and that kind of stuff.*

These shifting economic influences affect not only the price of games but the whole industry as well. Moreover, the perception of value in games can also have an influence on what gamers are willing to pay. However, despite these reasons, one professional bluntly stated that gamers will always find game prices to be too high, unless they find the game to be worth purchasing:

*P4\_Pub: Gamers will always find that prices are too high. I think they will always do that unless they feel that it is worth it. If you give them a title where they feel that is good then yeah, they will pay even if it is \$200.*

The participants claimed that the high price of games inevitably led many to console modification and piracy so as to access content for free.

### **9.4.2 GAMERS AND INDUSTRY CONCERNS OVER THE STATE OF THE GAMING INDUSTRY**

This sub-factor emerged in recognition of the gamers and professionals acknowledgement of a number of issues which affect the state of the gaming industry itself. The views expressed by the participants were detailed even if they had limited economic backgrounds. For instance, many gamers recognised the changing demographics of gamers, with one participant remarking that the industry is “*getting more and more*

*gamers everyday... and they're getting younger as well*'.<sup>777</sup> Moreover, despite the proliferation of piracy in the community, one gamer claimed the industry is *"making more money because gaming is a growing trend"*.<sup>778</sup> Assertions of prolific piracy and copyright infringement may not have dampened the growth of the industry according to these participants. However a number of concerns were also raised.

Chief amongst their concerns was the mediocre state of the gaming industry in Australia, which many of the participants claim to be in a *"bit of a crush and dump"*.<sup>779</sup> A number of participants attempted to explain this predicament. For instance, one participant explained the "crush and dump" can be attributed to several studio closures, lack of an individual union for those employed in the Australian gaming industry and managerial incompetence.<sup>780</sup> Another group sharing this opinion highlighted the dismal position of the Australian gaming industry in regards to funding and lack of innovation in game development:

*P2\_FG1: Our industry has a lot of crummy developers.*

*P1\_FG1: That's the thing with Australia. Australia's only got, I think, it's like an insanely low number of people actually in the industry. I think there is like 2,000 people who actually have jobs in Australia in that capacity because the people making the decisions in these companies don't understand gaming at all. A guy I actually know who worked for RedTribе, he just had so much issue because the people who designed the game don't understand what gaming is...<sup>781</sup>*

One facet dominantly discussed by the professionals was the current state of the Australian gaming industry and the problems that arise from the high cost of the Australian dollar and lack of government assistance. This is perceived as a big threat in the longevity of the Australian gaming industry, according to one professional:

*P3\_Pub: Quite a few - the dollar is very high. So it's very difficult for companies to invest down here at the moment because you know you can get much cheaper dollar overseas. And you know contrast that with the fact that the pay conditions here are really high too so the average salary for a developer is high. There is*

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<sup>777</sup> P1\_FG5

<sup>778</sup> P3\_IN3

<sup>779</sup> P1\_INT1

<sup>780</sup> P2\_INT2.

<sup>781</sup> P1\_FG1

*certainly no shortage of talent here, but they are potentially looking overseas for work. I'd say those are the main challengers that we are facing here in that the fact that the costs are quite high and the incentives from the government are not as strong as Canada or other places.*

Another professional concurred by elaborating on the loss of talent and innovation due to the current situation of the Australian economy:

*P1\_Dev: Well I think um the big issue the Australian gaming industry is facing at the moment is just a lack of funding due to Australian dollar rising over the past few years in comparison to the US dollar, we are not as attractive as a place to spend development money for US companies which were the majority of income is from. The OZ gaming industry is in a kind of time of change where we have to figure out where we are going to get the money from, whether we have to get funds and whether we get some money back from projects or all that kind of stuff. I think that because the industry has been contracting for a while. The only big issue is that, like overseas, it has become more attractive for people just coming out university or entering the job market and so we are probably losing a lot of talent overseas because we don't have those structures for people to come into.*

However, the high price of operation is not only isolated in Australia. One professional explained from experience, other nations are experiencing similar problems:

*P4\_Pub: Issues that we are facing include the rising cost of operations. Things are getting more expensive. Although they have been new technologies that are coming out of promise, new ways of operation like cloud computing and virtualisation of servers, the cost is too high in terms of internet bandwidth etc. - So it's a high cost of manpower especially in Singapore and Malaysia as well.*

This overview of the gaming industry has inevitably affected the talent pool in the industry according to one group, claiming that “there is not that many developers in Australia anymore” because “they are either getting bought out or shut down”.<sup>782</sup> While this certainly is a grim view of the current state of the Australian gaming industry, the participants also expressed concern at the lack of innovation in game development, stating the industry was resorting to formulaic game constructs. In this regard, the participants coined the term

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<sup>782</sup> P1\_FG3

shovelware, for such games described by participants as “*half-assed attempts at getting money off some latest movie franchise*”.<sup>783</sup> One group perfectly encapsulates this concern:

*P1\_FG4: In terms of developing new games - there is a lot of "sequelitis" I guess. There are too many sequels and not enough risks being taken.*

*P3\_FG4: Too many franchises and not enough new content.*

*P2\_FG4: I think like the big companies are afraid to go out and try new things. They just want to stick to what is safe and even though that is good, you can't cut out other projects just because you know that this one will probably do better. You still need to release new things.*

The “sequelities” argument rang true for the other groups, with complaints ranging from games having become “repetitive” and developers just focusing on “what is safe so they get a working recipe for a game”.<sup>784</sup> The development of shovelware however was also acknowledged as a consequence of the rapid growth of the gaming industry and the increased competition can become “fierce so they are all trying to develop something more”, but could “lead to a rush release of a console or a game”.<sup>785</sup> These comments certainly highlight concerns that game development innovation has slowed down wherein games have become recycled or formulaic in order to maximise profits.

### **9.4.3 GAMERS AND INDUSTRY VIEWS OF ALTERNATIVE BUSINESS MODELS**

Whereas the above sub-factors dealt with present problems in the video gaming industry, this sub-factor sought to inquire where the participants saw changes in the state of the industry. The most discussed issue by the participants were business models and distribution methods of games that different from the current conventions. In this case, the recommendations are divided into two models: digital distribution and free-to-play.

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<sup>783</sup> P3\_FG4

<sup>784</sup> P3\_INT3

<sup>785</sup> P1\_FG2

### I. Digital distribution

The consensus indicates that digital distribution is the future and this is apparently advantageous in the digital age according to another participant who stated;

*P3\_INT3: ...the online world is growing, everything is online. So, the more components that becomes online components, the multiplayer components - the more people that will be paying for the game because you can't access the multiplaye or online content if your game is modded or pirated...*

The advantages of digital distribution compared to conventional off-the-shelf sale of games are widely recognised by many gamers. To reiterate from the technological factor, digital distribution is favoured by gamers because “it offers a better experience”.<sup>786</sup> Indeed, one focus group argues that digital distribution, if used as a platform like Steam, can be a “better alternative”, if used to offer other services “like a community to offer additional features... and you can get all these extra things like leaderboards, a cloud setting system and achievements and stuff like that...”.<sup>787</sup> Another gamer optimistically believed that digital distribution can bring game prices lower “due to lack of manufacturing costs” and “there are no costs associated with packaging”.<sup>788</sup>

The acknowledgement by both gamers and the professionals signify the relevance of digital distribution in the changing face of gaming, which was acknowledged positively by the professionals, praising the success of distribution models such as Steam in changing the paradigm of video game business models. As one professional highlighted:

*P2\_Wr: Well you see Steam provides value right? Like Steam provides a sense that - again it's about that community trust. Steam provides sales and it provides value on top of just a game and if you wait for a sale, or if you are in the US, the games can be quite cheap. And also the convenience of being able to just click and have it there so there's that.*

Digital distribution models like Steam have also added to the perceived value of the game through the introduction of additional services:

*P3\_Dev: I think Steam does it in a good way. I think that one of things that Steam does really well is focusing on positive reinforcement for customers who have bought the game legitimately versus punishing the*

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<sup>786</sup> P1\_INT1

<sup>787</sup> P1\_FG1

<sup>788</sup> P2\_INT2

*pirates. Like for instance, if you buy the game through Steam, you've got access to Steam achievements and you've got cloud software through Steam and Steam has good games and that kind of stuff so. I think they are a good example of... and also they don't do anything very prohibited like if you want to play a game offline...*

## **II. Free-to-Play**

The participants also subscribed to the idea of the free-to-play model, whereby developers or publishers will provide the game for free but with limited access, content and service, and can only be acquired if the content user pays to access such content and service. In this case, one participant found the business model “a pretty good alternative” because “there is a lot of culture and a lot of other things you can spend on”.<sup>789</sup> Furthermore, the participant found the prospect of micro-transactions as a method of “donating money to the creators or developers”, which they found to be “encouraging”.<sup>790</sup>

One group favoured free-to-play because the prospect of having acquired the game for free means that “nothing is lost initially” and anything purchased increases the engagement of the consumer to the gaming world and community involved:

*P1\_FG3: Another aspect that they have - or another aspect that have been done really really well are actually free-to-play, well recently free-to-play with the case of Team Fortress 2. And also League of Legends. Because these two games, they are free-to-play, nothing is lost initially and anything that is actually purchased is in game so this brings up a whole idea virtual credit and virtual item ownership that is paid by real money. That stuff that is going back to all their master servers so it can't be lost, and people are genuinely paying for these stuff if they are interested and engaged enough in the game to say hey, I'm willing to set aside time and money to actually pay and play for this because that's what interests me.*

*P3\_FG3: There is another game that has started out well which has separated free-to-play and payment very well, which is Runescape. Literally you can play the game perfectly fine free-to-play, there is not that much restriction in it. But it's effectively a different game if you purchase it. It's like a completely different world if you pay for it. You get all these new quests, extra items, more customisations; you can get haircuts in the*

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<sup>789</sup> P1\_INT1

<sup>790</sup> Ibid.

*game, where you can change the hairstyle of your actual appearance. There are more things you can do, you can venture into new areas in the game. There is no - basically your game has a list of keys in the game - and it just checks whether your game matches the keys.*

However the same group also opposed the prospect of having micro-transaction payments in order to experience the full game:

*P3\_FG3: It's a hard one because a lot of the time say some of the casual games like Farmville, where you can start the game and play it, but if you want to do anything actually good with it you have to pay and I think that's what really gets me because a lot of the time, especially with LOTR online, if you wanna do anything good or be good, you have to actually still pay. And I lot of those things turn out to be more expensive than just actually buying the game outright.*

*P5\_FG3: But that is just with PC games - like MMORPG's they are free to play as well - like Maplestory or something. You make money through buying like massive rare items or stuff like that. So yeah it can work out for free-to-play games like that.*

The business model of free-to-play was also highlighted during the interviews, with particular emphasis on the probability that it could shift the paradigm in digital distribution and in combating piracy as argued by one professional:

*P2\_Wr: I think free-to-play is really interesting cause you break piracy completely.*

Moreover, it could potentially change the business model for games because it provides an incentive for gamers through micro-transactions to add value to a game without the initial purchasing price:

*P2\_Wr: And also it's sort of a weird way of thinking about it right, like this idea that you can give something away for free and a small number of people will be spending a lot more money than everyone else. So yeah, definitely it's one way of combating piracy.*

However the same professional added a caveat for the free-to-play model, illustrating the business model may not work for all games for reason of compatibility issues and overall appropriateness in the context of the game:

*P2\_Wr: That's what I am saying I guess. Or it cannot be applied to all games, simple as that - it can only be applied to certain games. So the solution for some games but it is not the solution for everything. It's not a patch you can put on everything.*

Another professional also stated the dangers of free-to-play, explaining that giving out games for free as an incentive could be a dangerous path in gaming distribution as it may change the perception of the value of games by both the industry and gamers in general:

*P3\_Pub: I don't really like free-to-play because it changes the way you think about making games. When you are selling a game, you are just trying to make a great game that people want to buy. With free-to-play, you're also making a great game but the minute you get people playing it you try to make hooks or something that makes them want to pay, so I think it totally changes the way you think about creating games... So while free-to-play is very strong and good now, and I think there will be a saturation point where everyone just expects it to be free then it becomes harder and harder to do that and you get them to pay. So I think it is a dangerous thing - while it might be working for some people now but I think more and more developers adopt the method, it will become less effective.*

#### **9.4.4 GAMER AND INDUSTRY PERCEPTION OF PIRACY DIFFERS IN SPECIFIC CONTEXTS**

This sub-factor emerged from gamers' perception of the economic effect of piracy brought into the gaming industry. In this case, the focus groups determined that piracy inhibits the profitability of the gaming industry, which in turn decreases innovative new games: "Piracy is theft. The businesses don't want kids stealing their product."<sup>791</sup> Indeed, one group specifically noted how piracy may inevitably lead to closure of developer studios and loss of innovation:

*P2\_FG1: Have we said the obvious where it can cut through publishers profit and developers profit then people get laid off. Developer studios get shut down.*

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<sup>791</sup> P2\_FG1

*P4\_FG1: A lot of the independents don't even bother making them in the first place because they're afraid of pirates.*

One group succinctly stated the negative aspect of piracy simply lies in the fact that it reduces profits:

*P1\_FG3: Well big issue is piracy. If the manufacturers don't get money for their games, it's not a profitable enterprise.*

*P4\_FG3: Simple as that basically.*

Another gamer stated that there is no positive effect of piracy stating: “*it's all negative*” because “*game companies are losing money because people are just downloading*”.<sup>792</sup>

The arguments presented have highlighted that piracy and console modification are means to inhibit the economic profitability of the industry. Despite these, the groups listed positive points worth noting, for instance, piracy has been noted to have a positive influence in the market because “*more people play games because of it*” and “*it is changing the market*”.<sup>793</sup> Another gamer agreed stating that with piracy, “*you are sort of opening up and expanding your game to a much bigger crowd and when those people do have money they will actually purchase the game cause they know by experience you do make games*”.<sup>794</sup>

This statement supports the assertions made in the cultural factor discussed, whereby gamers resort to piracy in order to try out the games before purchase. This model seems to be, again, supported by many gamers in the research. Indeed, perhaps the ultimate positive result of piracy is that it might inevitably lead to more sales and exposure as argued by two groups:

Group 1

*P2\_FG1: Sometimes it can lead to more sales through people talking about the game.*

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<sup>792</sup> P3\_FG2

<sup>793</sup> P2\_INT2

<sup>794</sup> P2\_FG2

*P1\_FG1: Um I think one good example is... Deus Ex: Human Revolution um that game got leaked a while ago and people would be apprehensive about it because it's a much-loved franchise and the previous games was pretty poorly received... so people were all like it's a different developer, it's 10 years later and they don't know if they are going to do it justice. But the game has come out and people, through pirating it, people are just going "Oh I actually like what they have done with it. I like the direction they have taken with it. I'm gonna pre-order it". So it's generating a lot of spin. So it has also gone viral in YouTube.*

## Group 2

*P1\_FG3: Beyond that though: I can't really see why they wouldn't want their works of art to be distributed widely as possible.*

*P4\_FG3: I know with Steve Vaughn, the head of Microsoft, has said if you are going to pirate an OS, at least pirate ours.*

The themes that emerged from the shifting global economics of gaming have aroused deep discussions from the interviews. Not only did the professionals openly embrace the change in digital distribution as an adaptation of the globalised economy of gaming and the Internet, but they also recognised that independent gaming is on the rise due to the ease of isolated gaming development outside from the big publishers. Independent developers have found success in Australia despite the high price of operations and lack of government assistance according to one professional:

*P2\_Wr: It's becoming very difficult for publishers to justify the costs because of the strength of the Australian dollar so I think that is quite a challenge although you see a lot of independent developers experiencing massive success like half-break and Firemint and I think a lot of these guys who have been laid off from the major studios in Australia - that is the goal for these guys to be in small studios that can succeed the same way that Firemint has and so their goal is towards that. So I think on the one hand they will face a lot of challenges in Australia but on the other hand I think we are on the verge of something interesting so something that we should keep an eye on.*

The operation of independent developers is also a stark contrast from big publishers in regard to their response to piracy in developing games as acknowledged by one professional who stated that they can respond more “intelligently” to piracy:

*P5\_Jo: ... they can respond far more humorously, far more personally because there is only two people and because the internet has given people access to twitter and social media and all these marketing channels its individuals and they can connect directly with the audience and see what's working. Like I know, and also build that sense of value like someone like Farb in Canberra, he sells early access to his games so he can get feedback from what's happening which again provides value for the audience. As long as the audience is big enough to sustain the development as a project and enough to make a living then he wouldn't need to care who will pirate the game because those people don't add value and to the experience for the community. So I think the indie sector can experiment with the alternatives from the boxed product model and sort of respond with more agile to piracy.*

Indeed, the professional also commented that compared to established developers and publishers, independent developers are more flexible and are able to cultivate the community in a more personal fashion using social media:

*P5\_Jo: I think they can but it's harder for them because they're like big giant ships and they need to change directions. I think it's easier to cultivate that sense of community with just having a conversation with two people on Twitter.*

However these statements are opposed by one professional, arguing that independent developers may be affected by piracy comparatively more than their bigger counterparts given that they could ultimately dissuade independent developers from developing any games further if the content is unsuccessful due to piracy:

*P1\_Dev: I think that um, indie developers are a good point because I think that they are the one that get affected negatively the most by piracy. For the big companies, they have a large advertising and large audience who is willing to buy their games or any I believe that for the most part, piracy isn't a big problem for them. But for certain indie games, you can feel like for them piracy is the difference between success and*

*failure and I think that there a lot of failed indie developers out there who are probably able to show statistics of like "Oh yeah only .01% of people who played my game bought it". So piracy is the reason I didn't succeed".*

### **9.4.5 CONCLUSION**

This examination of economic factors raised by participants illustrated underlying economic issues and factors that drive gamers to modify consoles and resort to piracy. The analysis highlighted the gamers', and in some ways the professionals' frustrations regarding the high price of games in Australia. Their frustrations are exacerbated by claims that digital distribution should have curtailed the prices, but the cost of games are still deemed to be significantly higher than our international counterparts. Moreover, the regional locks imposed on Australian gamers contribute to the unfair pricing of video games. The participants discussed the state of the gaming industry, with emphasis on the lacklustre state of the Australian video gaming industry and thereafter, the low talent pool available and lack of support from the Government. More importantly, the participants also acknowledged the changing state of the video gaming industry, with noteworthy discussion including digital distribution of games and the free-to-play model. Lastly, the participants discussed the varying perceptions of piracy with some participants quickly defining piracy as a detriment to the industry, whilst others have noted that piracy could be a driving force for increased market exposure.

The responses to the economic factors show that the effects of console modification are not as black and white as depicted by detractors. The value of games for instance is a strong indicator of whether gamers will ultimately modify their consoles to resort to piracy. Moreover, the changing state of the gaming industry indicates there is a shift in gaming behaviour in purchasing and accessing games. These points add more into the complex picture of TPM enforcement given its static format. What needs to be considered is whether the economic themes in the analysis can be factored into the re-adjustment given there is a strong link between economic convenience of accessing games and piracy. These will be discussed in the next chapter.

This chapter charted the data gathered from the focus groups and interviews under the four headings established in the research methodology. As a prelude to the actual analysis in the subsequent chapters, this chapter illustrated the themes that emerged from the data.

Firstly, the legal factor illustrated that users affected by copyright policies are unaware of the intricacies and statute that inevitably affects their gaming habits. Particularly, the presentation showed the participants had limited knowledge of the legalities in the use of modification chips (which they readily acknowledged to be illegal) and legitimate uses such as backing up games. Other participants have also expressed their frustration at the complex nature of the law, with emphasis on unfair and unintelligible contracts such as EULAs.

The cultural factor addressed the emerging social norms and attitudes that exist in the gaming community. The most pervasive norm that subsists in this community is the common acceptance of piracy as a justification for “sharing” games to others. The participants also recognised that the community has flourished from the insular cyber community into the thriving global community that espoused the ‘open philosophy’ perspective of cyber communities of old.

The technological factor highlighted the ineffectiveness of DRMs, nullified by gamers who detest these encryptions. However, both the gamers and professionals acknowledged the myriad of uses of mod chips in the context of both legitimate and illegitimate uses. One interesting sub-theme to emerge from this factor is the professionals’ acknowledgement that an arms race persists between hackers and the industry in regard to the development and inevitable circumvention of DRMs.

Finally, the economic factor highlighted a number of issues including the high price of games in Australia and factors that affect this perceived high price. This factor also presented the recognition that gaming as an industry is changing in light of technological shifts such as the move from retail distribution to digital distribution and new business models that accommodate such shifts.

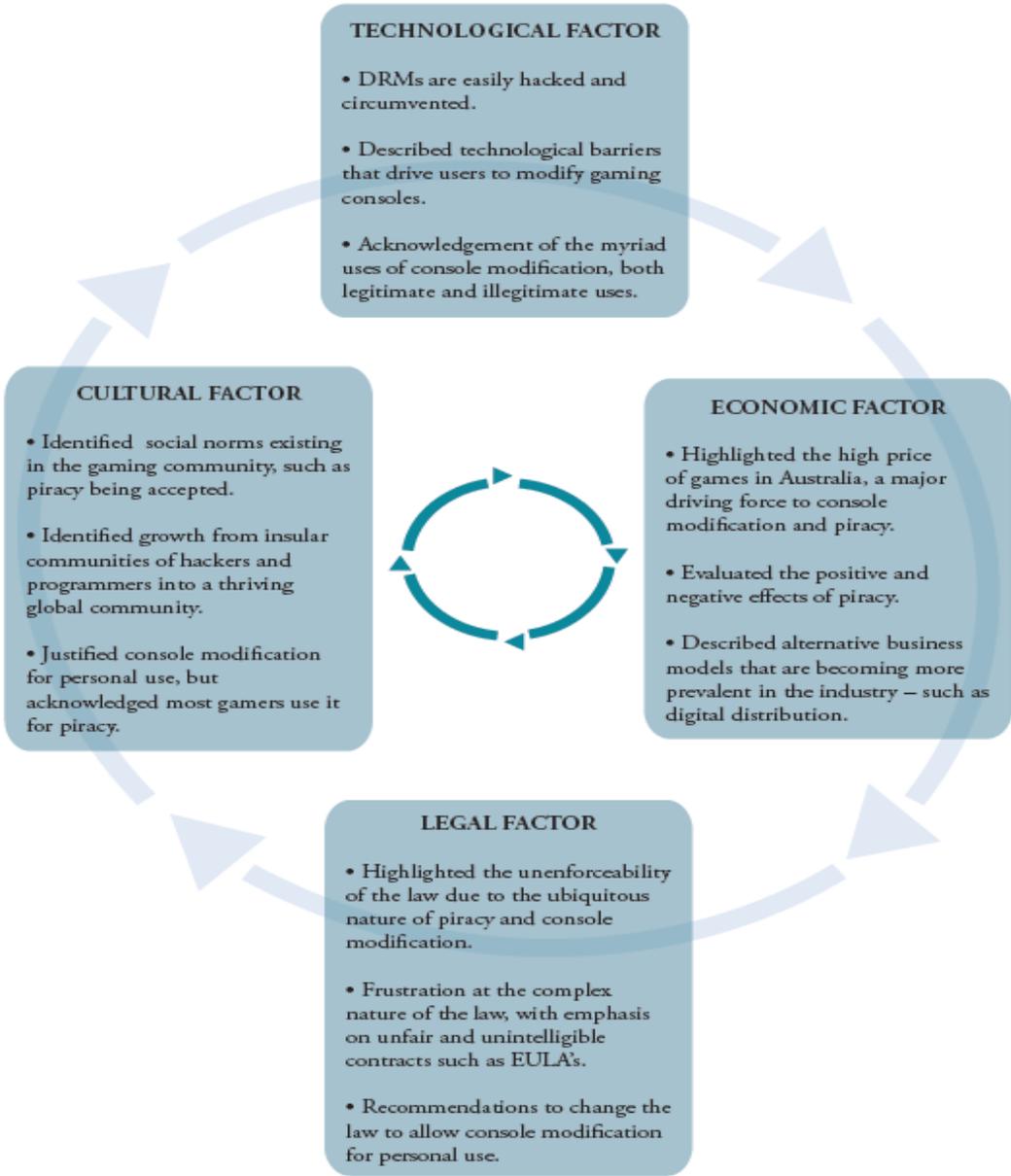
The presented data illustrated insightful concepts and useful arguments to consider in achieving the aim of striking a balancing of rights between owners and users amidst the digital age. Following this, the data

transcribed and collected from both focus groups and interviews will be separately categorised under the four thematic factors that will be used to determine whether the rights of owners and the users are balanced under the Act.

# CHAPTER 10 RESULTS AND FINDINGS

The previous chapter analysed and illustrated the participants’ view of a range of prevailing issues introduced in this thesis. Under the four strata of legal, cultural, technological and economic factors, the analysis determined the issues are not as superficial as mere disagreements with the law and these findings yield a more holistic approach for future policy and attitude changes in copyright law. To fully appreciate the analysis performed in the previous chapter, Figure 10.1 compartmentalises the significant findings that emerged from the analysis:

Figure 10.1: Major Results and Findings



## **10.1 LEGAL**

In light of the legal discussions portrayed in the data analysis chapters, the consensus of the participants was a negative attitude towards copyright. The discussions illustrated a number of conceptions which contribute to their discontent for the law.

### **10.1.1 Ignorance of the Law**

Firstly, despite the participants' limited knowledge and awareness of copyright, the emergence of strong negative pre-conceptions and experiences were the chief findings in the study. These were not entirely novel given the strong literature background which found that copyright users are usually clueless about the extent or nature of the law. These attitudes strongly reinforced the negative perceptions that copyright users hold towards the complex and ubiquitous presence of copyright in the gaming environment.

Indeed, the gamers expressed apathy in regard to their poor, or lack of, awareness of copyright that affects them for a number of reasons. Chief amongst the reasons was the complexity of the copyright regime with many unaware of how it even impacts their hobbies as gamers. As portrayed in the analysis, many gamers expressed their incomprehension of the nature of the policies with the complex “jargon” and length of typical legislation. This was demonstrated where one participant noted how one would require extensive knowledge of law to even grasp the basic principles of the copyright regime. This is an impossibility for many gamers who believed copyright was out of touch with society. Ironically, such comments are a reflection of a 1995 study by the U.S. Department of Commerce which found that even lawmakers fail to comprehend this "highly specialised area of law", giving credence to the notion that copyright is not as simple and intuitive as lawmakers portray it to be.<sup>795</sup> The lack of understanding of the law is considered to be a part of the

In lieu of the 2006 Australian copyright amendments and the need to streamline the laws to accommodate the changing technology and community needs, these views are indicative of the failure to achieve these aims. Indeed, with the comments made in the previous chapters, the participants acknowledged copyright laws are out of touch with the community.

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<sup>795</sup> Neri above n 123, 748.

### 10.1.2 Variations and disparities of copyright law

An extension to these arguments included discussions of the difficulty in establishing what laws apply to in the first place. This is a notable problem in copyright as the Berne Convention, TRIPS, trade treaties and national court decisions mean multiple legal interpretations and implementations of copyright measures relevant to the use of copyright material on the internet exist. Weatherall acknowledged the disseminated nature of copyright law, arguing that copyright law is a bundle of national rights.<sup>796</sup> However this has created problems in legitimising the copyright law given the disparities between the legal systems and the encroachment of the United States copyright agenda since much of the litigation action is sourced from America.<sup>797</sup> Moreover, key American industry players have campaigned and lobbied to create new laws and technologies to suit their interests. Evidently, the assumption the industry is "Americanised" has created barriers for gamers to understand and grasp the copyright laws that affect them.

### 10.1.3 Enforceability of the law

The issues on ignorance of the law and variations and disparity of copyright laws severely affected the enforceability of copyright law. Many participants simply felt invincible and believed that the risk of getting caught for pirating one game or modifying their personal gaming console is slim compared to the millions of other individuals doing it in a global scale. Michael Kirby similarly argued that:

Worthy individuals and citizens, many of them children (some maybe even judges) are knowingly, ignorantly or indifferently finding themselves in breach of international and national copyright law. And they intend to keep on doing exactly as before.<sup>798</sup>

Schultz's study supports these assertions, explaining that in as much as people do not know about the laws; users tend to be overly optimistic about their chances of evading detection.<sup>799</sup> This is despite the existence of substantial and often criminal penalties that may result from prosecution, for instance imprisonment for up to 5 years according to s 136(1) of the Act. Nevertheless, such cases were seen as means of using scapegoats to deter present and future pirates. Moreover, anecdotal evidence showed that stopping

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<sup>796</sup> Kimberlee Weatherall, Submission No. 127 to Standing Committee on Infrastructure on Infrastructure and Communications, *At What Cost? IT Pricing and the Australia Tax*, 25 April 2013, 8.

<sup>797</sup> See Melchor Raval, "Game Over for Mod Chips? The Aftermath of Sony v Stevens and the Australian-US Free Trade Agreement" (2012) 34(2) *European Intellectual Property Review*, 95-107.

<sup>798</sup> Michael Kirby, 'Foreword' in Brian Fitzgerald and Benedict Atkinson (eds), *Copyright Future, Copyright Freedom* (Sydney University Press, 2011) 2, 5.

<sup>799</sup> Mark F. Schultz, "Reconciling Social Norms and Copyright Law: Strategies for Persuading People to Pay for Recorded Music" (2009) 17(59) *Journal of Intellectual Property Law* 60, 71.

distributors and manufacturers of pirated games and mod chips will not stop the activity but will only allow other groups or individuals to fill the void. Such views are indicative of the inability of copyright in general to control an increasingly criminalised activity.

In this case, Harms states that despite the trend of criminalising piracy, many people are "prepared to knowingly purchase or obtain pirated works without considering themselves as thieves".<sup>800</sup> Peukert expands on this, explaining that people who partake in file-sharing are able to 'neutralise' the moral and ethical conflicts of piracy by disengaging themselves. Applying it in the context of gaming, gamers who partake in console modification and also pirate games basically convince themselves that legal standards do not apply to them through disabling the mechanism of self-condemnation.<sup>801</sup>

#### **10.1.4 Confusion and enforceability of EULAs**

There are also concerns the legal barriers are not limited to copyright awareness but also restrict contracts imposed under EULA. Notwithstanding the importance of these contracts in regard to the copyright owners, the participants felt the contractual rights imposed by these EULAs are too complex and lengthy for the typical gamer to understand. Indeed, almost all the participants proclaimed they never read the EULAs they are obligated to accept. This inevitably may lead to further issues in regard to content owners putting unfair terms and conditions in the contract, thus hurting legitimate consumers since these contracts do not discriminate between legitimate consumers and pirates. Leung supports this assertion, claiming that with the increase of industry regulations along with the speed at which information travels, the key players are creating "fictional" conditions and implement it into the contracts.<sup>802</sup> The industry members conversely dispute the enforceability of EULAs given the difficulty to comprehend the wording of the contracts and the appropriate jurisdictions.

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<sup>800</sup> Louis Harms, The Enforcement of Intellectual Property Rights by Means of Criminal Sanctions: An Assessment, prepared for the WIPO Advisory Committee on Enforcement, WIPO/ACE/4/3, 7 September, 16, cited in Carlos M. Correa, 'Anti-Counterfeiting: A Trojan Horse For Expanding Intellectual Property Protection in Developing Countries' in Christopher Geiger (ed.) *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research*, (Edward Elgar, 2012), 73.

<sup>801</sup> Alexander Peukert, 'Why do 'Good People' Disregard Copyright on the Internet' in Christopher Geiger (ed.) *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research*, (Edward Elgar, 2012), 163.

<sup>802</sup> Haidee Leung, "Myth of the Digital Dilemma: Deciphering the Legal Antagonism Towards Online Piracy" (2009) 15 *Cantebury Law Review* 67, 96.

### **10.1.5 Simplifying the law**

Despite the negative attitudes presented, the participants did concede that copyright was necessary to protect content owners considering their acknowledgment that piracy harms the economy, and thus made a number of recommendations to legitimise the policies. Foremost was the suggestion to simplify copyright with their argument that a holistic relationship between gamers and the industry will be better fostered if both parties "*have a clear and unambiguous*" understanding of the rules that affect their gaming habits. Mackaay summarises the need to simplify the law because "it has to rely on rules that can be understood and applied by people of varying ability in different contexts".<sup>803</sup> This was expressed in light of the recognised problems of the variations and disparities of the appropriate laws which apply to gamers on an international scale. The participants also suggested methods to simplify EULAs to the extent the conditions must be presented and written in a way that can easily be comprehended by a typical consumer without any legal background. Essentially, the participants did not express it as a plain English concept, but as a simplification into do's and don'ts.

### **10.1.6 Legalising console modification**

Apart from simplifying copyright and contractual terms, there were also discussions on legalising console modification depending on the functions and more importantly, the premise that gamers will be using it for 'legitimate' purposes. The participants particularly stressed the belief that console modification must only be done for private and personal purposes. These uses support the definition of personal use by Tussey who wrote that the consumption or adaptation of intellectual properties by individual users for their own purposes such as private copying of games and development of homebrew is permissible.<sup>804</sup> The permissible uses however are limited to the extent that it should be prohibited or made illegal to use console modification for commercial purposes, including selling pirated copies of games. These recommendations are considered to be an impossibility for both gamers and industry members, who sardonically remarked that while allowing console modification may entice gamers to develop innovative applications, it will not stop the rest of the community from using it to pirate games. As such, it's probable that any means of legalising mod chips should be enforced with caution and regulations should

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<sup>803</sup> Mackaay above n 42, 19.

<sup>804</sup> Tussey above n 755, 1134.

dictate what is allowable. Yet realistically, any means of legalising mod chips and modding will definitely be abused by the users. Indeed, an attempt to legalise console modification, albeit for homebrew and other legitimate uses was denied twice by the Library of Congress in 2012 and 2015 because of console modifications close association with gaming piracy which undermined the value of console software as a secure distribution platform.<sup>805</sup>

In view of these arguments, there is clear evidence the legal policies and contractual conditions imposed on gamers in general will fail to capture any sense of legitimacy. The complexities of copyright laws and the global nature of the internet have manifested an apathetic attitude towards the effective enforcement of copyright against law breakers, which has instead become a source of annoyance to legitimate consumers who are impeded from accessing content.

To this end, legally and politically, a conundrum thus exists. As stated in the Legal Findings chapter, the simplification of EULA or copyright law will not change gamer attitudes. Changing copyright in this case is neither impractical nor will setting a new standard be possible due to reciprocity obligations Australia has with international treaties, unbeknown to the consumers. Moreover, a purely legal and economic approach of enforcing copyright will result in the impoverishment, not enrichment, of our understanding of the nature of piracy because as gleaned from the previous chapters, non-economic motivations play a more critical role.<sup>806</sup> Does this mean the Act has successfully balanced the rights of owners and users? The answer is no because the cultural, technological and economic factors influence the effectiveness of the legislation, especially in gaming where it must adapt and accommodate to the changing norms.

## **10.2 CULTURAL**

The interviews and focus groups yielded views and beliefs in relation to the norms present in the gaming industry about piracy and the concept of file-sharing. Largely, the discussions emphasised beliefs as social norms that complement console modification and the culture of sharing and expansion of hardware functionality. Yet interestingly, the participants did acknowledge that in the overall scheme of events,

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<sup>805</sup> See *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies* (28 October 2015) Library of Congress <<http://copyright.gov/1201/2015/fedreg-publicinspectionFR.pdf>> 1, 69.

<sup>806</sup> Andrea Weschler, 'Criminal Enforcement of Intellectual Property Law: An Economic Approach', cited in Christopher Geiger (ed.) *Criminal Enforcement of Intellectual Property: A Handbook of Contemporary Research* (Edward Elgar, 2012), 148.

console modification is neither a justified activity nor an acceptable alternative if presumably used for economic gain. These will be discussed in length below.

### **10.2.1 Piracy and modding are considered norms because they cater to the accepted culture of sharing**

Both industry members and the participating gamers acknowledged piracy and console modification are norms in video gaming. The notion that modding and piracy yield quick and effective results certainly highlights the significant advantages which console modification and piracy can bring to gamers in the age of now.

However the most significant findings are the norms recognised to be embedded deeply in the culture of game players and also in game development. Indeed, participants affirmed the act of console modification can be sourced from a culture historically born from pre- Internet traditions. These activities involved trading and sharing CDs and floppy disks among colleagues, friends and families. This open philosophy of sharing content between friends and families has inevitably grown from insular communities of geeks and nerds to the open web of the Internet. Indeed, Tussey postulated that with the growth of the Internet, the scope of what users consider as personal uses of intellectual property, including copyright, has broadened considerably, with many user activities overlapping in both online and offline environments.<sup>807</sup> In fact, most gaming piracy, according to the participants, now occurs online since bandwidth limits have increased. Inevitably, the increasing availability of pirated content has motivated more gamers to pirate content using the Internet and openly share it with friends and family. US District Court Judge Marilyn Patel concluded similarly in *RealNetworks* that:

Once the distributive nature of the copying process takes hold, like the spread of gossip after a weekend in Vegas, what's done cannot be undone.<sup>808</sup>

Thus it is evident that gaming piracy is an accepted norm in the gaming culture, and by extension, console modification in order to play pirated content.

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<sup>807</sup> Tussey above n 755, 1158. Also see Bryan Lufkin, *The Weird, Sketchy History of Internet Cafes* (23 November 2015) GIZMODO <<http://www.gizmodo.com.au/2015/11/the-weird-sketchy-history-of-internet-cafes/>>. Lufkin states that internet cafes were breeding grounds for piracy since internet pirates jonesing for free movies and music ...at the turn of the millennium — around the same time Napster became popular — sharing music online did, too. And people in pursuit of illicit MP3s started filling internet cafes again.

<sup>808</sup> *RealNetworks v DVD Copy Control Association* 641 F. Supp. 2d 913, 969 (N.D. Cal., 2009).

The norms however also answer a very important question: why do normally "good people" pirate even though they know that it is illegal? The answer lies in the fact the interviews and focus groups have illustrated a community of gamers that are essentially and morally disengaged from the criminal nature of piracy. Notions of morality and values fly out of the window when piracy is discussed because all that matters is "*the bottom line*". Indeed, the fascinating possibilities made possible by console modification, in tandem with p2p software like BitTorrent, allow millions of gamers to pirate games with no technical skills required. Moreover, Levin extrapolates that there is no norm against file sharing, hence there is no counter culture against the norm that accepts the copying of copyright protected digital files.<sup>809</sup> Given these features, Peikurt perfectly summarises that there is infrastructure support for what he termed as the "anthropological constant" to accumulate games in the digital realm, giving rise to fascinating possibilities to amass games for their private collection, or to share with others.<sup>810</sup>

### **10.2.2 Pirating games and modifying consoles to try out before purchase**

A new perspective in the norms also presented itself in the form of pirating games and modifying consoles to allow the "demoing" of games. This activity presents an interesting situation for gaming piracy in that whilst the majority concede that piracy allows for the quick and effective acquisition of content for free, acquiring demos to play the game before purchase also highlights another dimension in the economic justification. In fact, a number of participants revealed beliefs that if the game is good, then it is more likely they will purchase the game. This perhaps bears more relevance for Australian games in this situation since the participants have shown that game prices in Australia are higher compared to the US. Other gamers have also expressed the need to modify consoles in order to play games from overseas that are not localised in Australia, or retro games that have since become unavailable to purchase legally.

These facets of piracy and console modification are thus driven primarily by an economic constraint and are further evidence of the substitution effect at work. While piracy literature has so far examined the rate at which consumers substitute counterfeit or pirated products for legitimate, this finding has indicated a positive substitution effect in that gamers would purchase a legitimate copy of the game once they have

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<sup>809</sup> Levin above n 427, 132.

<sup>810</sup> Peukert above n 801, 163.

tried out the demo through piracy. This is a positive effect acknowledged by the US Government Accountability Office<sup>811</sup> and by Posner.<sup>812</sup>

### **10.2.3 The expansion of hardware and software functionality**

One of the most prevailing reasons for console modification aside from piracy is its ability to run homebrew applications. This is essentially an extension to the social norm of sharing content, whereby the tradition of tinkering with hardware or software derives from an entitled ownership over the technology in order to remove the technological constraints and add features. In fact, a number of gamers and professionals acknowledged that console modification if done legitimately allows developers and hackers to create innovative applications and express themselves creatively. For instance, one gamer described how the PSP through modification can act as an emulator to play ROM from past games. This is an important contrast to the economic justifications previously cited considering that this subset of the culture of modding acknowledges that console modification drives savvy individuals and groups to create innovative uses for consoles.

### **10.2.4 Despite the innovative uses of console modification, it is not a justified activity**

Paradoxically, while console modification and piracy are considered norms in the community, the moral disengagement of the illegal activities is limited to the ultimate motive of the user. Indeed, despite the plethora of advantages of console modification and piracy brought to users, these activities are described as taking the "*easy option*." This is a significant finding because the extent of users pursuing or actively participating in these illegal activities is constrained by a number of unspoken rules which illustrate that the moral disengagement argument is not absolute.

A number of participants for instance argued the mass proportion of gamers who modify their consoles use it for nefarious reasons, including piracy. This argument profoundly affects the legitimacy of mod chips and console modification given that the participants who are by and large members of the gaming community have readily admitted that mod chips are primarily used for piracy. Indeed, as one professional

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<sup>811</sup> See *GAO Report* above n 6, 14-15. The study found that consumers may use pirated goods to sample music, movies, software, or electronic games before purchasing legitimate copies, which may lead to increased sales of legitimate goods.

<sup>812</sup> Posner above n 593, 55. Posner postulated that people will pay more for a CD if they are allowed to share it to others over a peer-to-peer network because the CD becomes a form of currency for arranging advantageous swaps and even "buying" new friends. Moreover, allowing users to swap and share content acts as free advertisement for copyright owners.

acknowledged, while some gamers will use it to "*mess around with the extra things like homebrew... most people would use it for the sake of piracy*".<sup>813</sup> This viewpoint is a detriment to the other features of console modification that may legitimise it. Other participants have also pointed out a fine line between what is acceptable when pirating games. In this case, a number of gamers have argued that selling pirated copies of games draws the line on what is acceptable, and piracy should only be done "*as long as they're not making money out of it*".<sup>814</sup>

The cultural dimension of the issue adds to the complexities of maintaining the balance of rights between owners and users. Whereas the legal factor illustrated a lack of faith and respect towards the law, the cultural factor establishes a norm that promotes and encourages the breaking of relevant laws. Indeed, many of the practices involved in console modification and piracy are embedded in old traditions that predate the Internet, and these norms have been carried over to the gaming community. The advent of the internet has exacerbated this, where norms once contained in old hacker and open source communities have proliferated globally. These norms include the accepted culture of sharing content between peers and also the tinkering of hardware devices to expand their features.

Paradoxically however, the moral disengagement is not absolute based on a number of arguments introduced by the participants. These include the fact that proportionally, only a minority of gamers modify their consoles for legitimate reasons while the majority use it for piracy. Other participants also argued that those who sell pirated copies of games for economic profit should be ostracised from the gaming community.

In this case, it is demonstrated that while the norms in the vast array of gaming communities accept file-sharing and console modification as culturally acceptable, there are limits to the extent they can morally disengage themselves from the law, evident from their statements that console modification is not justifiable. This implication supports the establishment of some form of control to control console modification which will aid legislators in balancing protection with allowable access. Controlling allowable

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<sup>813</sup> P1\_Dev

<sup>814</sup> FG5\_P3

access however still remains a fundamental challenge, and while legal enforcement has been largely ineffective, the examination of the technical solutions provided insights on how gamers treat the technical measures that aim to control and deter gamers from modifying their consoles.

### **10.3 TECHNOLOGICAL**

The technological factor of the study revealed many interesting concepts and arguments which highlight the contentious issues surrounding console modification and DRMs. The most contested aspect of this factor is the argument that DRM, despite its importance, remains a source of frustration and annoyance to many gamers. Nevertheless, the participants acknowledged that current DRMs are harder to avoid or ‘crack’ and arguably are not totally restrictive. Discussions on how console modification opens up the potential for the interoperability of applications not readily available in gaming consoles were also a prominent justification for participants conduct.

#### **10.3.1 DRMs are annoying and hinder legitimate gamers from accessing content**

Perhaps the strongest anti-DRM argument presented by the participants was that DRM is a source of annoyance and frustration for gamers. Indeed, given the strong anti-DRM sentiment presented in the literature review, their reactions are not totally surprising. DRMs at core are "fences" such as copy protection and encryption aimed at protecting the content from illegal access and reproduction.<sup>815</sup> However, the inconveniences that gamers must endure to be able to legitimately access content was the main reason for the anathema expressed towards DRMs. Furthermore, while attempts to deter and prevent gamers from pirating or modifying their consoles may be effective, impeding legitimate consumers from accessing content through invasive and restrictive methods actually encourages them to pirate more.

For instance, the participants argued that gamers who subject themselves to restrictive DRMs illustrate a situation where legitimate users are "punished", whilst pirates are able to acquire and access games without the DRMs due to the ease and swiftness of the circumvention of DRMs by savvy hackers. This was most notable with the always-on technological measures, with many participants contending that the lack of reliable internet speeds and connectivity in Australia means that legitimate consumers are severely disadvantaged by this technical measure. The participants also strongly believed that regional locks

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<sup>815</sup> Mackaay above n 42, 16.

imposed on gamers only disadvantage legitimate consumers by imposing artificial fences that impede gamers from accessing content, and could also artificially inflate prices. Legitimate consumers insist these fences only serve to unfairly limit the access to copyright material.

Other participants noted that DRM at its worst only serves to disrupt the enjoyment of legitimate consumers from accessing the content, giving credence to the argument that it only hinders gamers from enjoying the content as a whole. This is in fact a recognised problem within the gaming industry, whereby the problem with DRM is that it aims to prematurely attack piracy using a blanket wide method, rather than specifically confronting individuals or groups who aim to circumvent such technological measures:

DRM is not quite all things to all men. With video games, the term refers to security measures employed to protect software... from piracy. It also, for legitimate consumers, often means intrusive and unwelcome restrictions on something they've paid for, a system that seems designated to pre-empt the possibility of criminality rather than confront it.<sup>816</sup>

Given this issue, it is of no surprise that gamers are willing to circumvent these DRMs or pirate a copy void of such hindrance to be able to access the content.

### **10.3.2 An arms-race exists between hackers and DRM**

An interesting factor that emerged from the issue of DRMs hindering access to content is the acknowledgment that an arms race exists between DRM technology and savvy hackers focused on circumventing protection measures. Indeed, the gamers argued that despite the strength and complexities of modern DRMs, cracks and patches are usually released one day after release date. This opens the argument that in the midst of increasing DRM technologies, savvy hackers continue to crack these technical measures, in most cases for their enjoyment and egos. A number of professionals have argued that these groups and communities of hackers exist purely for this very reason, and being the first to hack the newest and strongest DRMs displays their intellectual and hacking superiority over other groups. Such reasoning is influenced heavily by the cultural norms of tinkering with devices and technical measures to

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<sup>816</sup> 'Law of the Brand' above n 545, 71.

determine whether it can be hacked. While obviously illegal, these communities continue to thrive in the internet, often competing against each other whenever new games are released in the market.

### **10.3.3 DRMs despite being a source of frustration for consumers are still necessary**

Contrary to the general anathema illustrated by the participants in this study to DRMs, some participants acknowledge the importance of DRMs in an age wherein anything can be acquired on or via the Internet. Primarily, support for DRM is sourced from their acknowledgement that publishers and developers "have to do something" to prevent mass piracy. Moreover, the participants also recognised that alternatives for DRMs are hard to conceive, and DRMs may be the best solution at this point, supporting Sookmans argument that in an age where content can be acquired for free without repercussions, DRMs assist in providing assurance to right holders in internet transactions because without them "right holders have no practical means of enforcing terms related to licensed uses of works protected by copyright".<sup>817</sup> Inevitably, the need to protect content from illegal reproduction through restrictive technological measures is necessary. Therefore, as recognised by a number of participants in the study, the need to protect against "malice" will inevitably also affect legitimate consumers. Nevertheless, the participants did share insights into how DRMs can be tolerated by consumers.

### **10.3.4 There are potential alternatives to make DRMs more acceptable**

While DRMs are considered a necessary evil to prevent rampant piracy, other participants have suggested ways to legitimise and make DRMs more acceptable. The exploration of open technical measures resulted in recommendations to implement DRM that makes additional services accessible to legitimate consumers. Essentially, instead of hindering access and implementing restrictive technical measures, DRMs should offer something more to neutralise the disadvantages. In this case, the participants offered a number of suggestions, using Steam as a primary example given the services it offers focusing on positive reinforcement and rewards. In this case, the participants highlighted that DRMs should offer services "*to make it work for users*" whilst providing the necessary protection for developers and publishers. This particular sub-factor perfectly encapsulates the arguments of maintaining the necessary balance between overprotection and the need to protect content from rampant piracy. Clearly, as illustrated in the

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<sup>817</sup> Sookman above n 382, 28.

interviews and focus groups, this balancing act is still an ongoing process, as is the need to balance the copyright rights of owners and users.

### **10.3.5 Console modification offers many technological advantages outside of piracy**

Arguments over the restrictive nature of DRMs opened up the discussions on the open nature of console modification. In particular, while the participants acknowledged the blatant use of console modification for piracy, there were also discussions of the other uses which may legitimise the activity. Most obvious is the ability to create backups of games for archiving and to share with peers. The transformative interoperable applications made possible by console modification are perhaps the most intriguing arguments however, given that the participants have argued that when discussing console modification, it is disingenuous to ignore these features.

In this regard, the participants highlighted that console modification brings a "personalisation feature" which allows individual choice and customisation not readily available. This in turn gives a plethora of advantages to gamers, including the installation of interoperable applications such as emulators to play games not available in the console, and transformative programs such as third party media players that can play media files that wouldn't normally be supported by the console. More importantly, console modification also illustrates the ethos of tinkering with devices derived from the norms of hardware and software hackers. This technological ethos reverberates with many of the norms established in the examination of cultural factors, particularly the norm of expanding and altering the software and hardware capabilities of a device.

In light of these sub-factors, the question of maintaining the balance of rights between owners and users is not only confined to the enforcement and wording of the legislation, but has since expanded to the very tools which aim to enforce these rules. Indeed, the participants supported that DRMs in general are an anathema to many legitimate gamers given that they hinder legitimate consumers from accessing the game. More importantly, DRMs are perceived as a source of annoyance considering they only served to punish legitimate consumers who are subject to the restrictive technical measures, whilst pirates are able to download the copy without hindrance. The intrusive and restrictive nature of DRMs thus gives more

reason for gamers to modify consoles. Surprisingly, this in turn led to revelations that despite the anathema towards DRMs, it is a necessary evil in the fight against rampant piracy. Given the importance of these technical measures, the participants identified a number of ways to improve and legitimise DRMs, particularly using Steam as an example of how to do it properly. Participants also discussed the advantages of console modification, such as allowing interoperable applications to run in consoles and personalisation features to expand the functionalities of consoles that are not readily available. These advantages are determined to be illustrative of the norms to tinker and expand the functionalities of hardware and software.

This factor demonstrated that the balancing of rights between users and owners is not confined within the legal realm. With the anti-circumvention protocols of the Act, the balancing act thus extends to the development and enforcement of DRMs. In this regard, there needs to be a balance between the need to protect content from rampant piracy, and the need to allow access to content without hindrance and frustration. Moreover, there also needs to be some recompense to recognise the legitimate and innovative features of console modification. The balancing act remains difficult but the aim has become clearer given the legal, cultural and technological factors that all parties must consider in recognition of their rights. To complete the picture, the remaining field of power, the economic factors will now be discussed.

#### ***10.4 ECONOMIC***

The emergent issues recognised in the economic chapter primarily dealt with the key perceptions of the cost of games and the changing gaming industry. The cost of games in Australia was hotly debated from the interviews and focus groups, which in turn is a key motivator for many consumers to pirate games. The participants however also recognised key economic issues in the gaming industry, including the changing state of the gaming industry, with particular attention given to game development and the dearth experienced by the Australian gaming industry. In light of the changing state of the industry, many participants also discussed alternative business models to suit the changing gaming environment and to combat piracy. These key findings will be discussed in length below.

#### **10.4.1 The prices of games in Australia are too high, leading to more piracy or importation of games**

A key theme that echoed throughout the whole thesis is the argument that the price of games in Australia is very high. Indeed, critical amongst all the motivators for piracy was this sole reason, and the participants have argued the price of games in Australia is unjustified for a number of reasons. Foremost is that the low-income demographic of gamers in Australia means being able to afford new games is a challenge for gamers and families. As such, gamers resort to piracy to escape these costs. Their frustrations were also evident when discussing price disparities between the prices of Australian games compared to their American counterparts. CHOICE found evidence which supports these arguments, finding that the prices of games were between 40 and 90 percent more expensive in Australia.<sup>818</sup>

The disparity is not only limited to physical games, but also to digital games purchased online, with many gamers puzzled as to why the price of digital games remain high despite the fact that these copies need not be physically shipped or sold in physical shops. The views expressed by the participants are strongly supported by the highly publicised Australian report regarding the infamous "Australian tax" imposed on digital products, wherein the Committee of the report found that price discrimination is most present in the case of digitally delivered content, even though "the products delivered are essentially identical when downloaded in Australia, the United States or elsewhere."<sup>819</sup> This is despite the fact that digital delivery means that there are no costs, for packaging, shipping and physical delivery.<sup>820</sup>

This is a typifying point in the overall question of why these "good people" ultimately resort to piracy. Outside the norms established above, it can be surmised that most gamers pirate because of the high price of games. These findings affirm and complement the Australian Government Report regarding the pricing of software in Australia. The report found the high price of copyright material can have a significant impact towards infringement, and can undermine the legitimacy of Australian copyright.<sup>821</sup> Suzor and Dootson submitted in the report that content restrictions and price discrimination can affect the legitimacy

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<sup>818</sup> CHOICE, Submissions No. 75 to Standing Committee on Infrastructure and Communications, *At What Cost? IT Pricing and the Australia Tax*, 16 July 2013, 4.

<sup>819</sup> Standing Committee on Infrastructure and Communications, Parliament of the Commonwealth of Australia, *At What Cost? IT Pricing and the Australia Tax* (2013), 23.

<sup>820</sup> Ibid.

<sup>821</sup> Ibid 94.

of illegal downloading because "the apparently unjustifiable difference between prices in Australia and comparable European and US markets are likely to lead consumers to infringement."<sup>822</sup>

However, there are dissenting arguments to counter the assertions made above. For instance, many participants acknowledged that parity of the currency values between the US and Australia should have reduced or equalised the prices does not hold today due to the subsistence of the price disparities two years after currency parity.<sup>823</sup> One professional also dissented, claiming that gamers will always find game prices too high, and will only purchase a game if the perceived value exceeds the costs. Indeed, there is strong evidence to affirm that consumers will always seek to access material in the most cost-effective manner, despite the damage that piracy can cause and the industry explanation as to why protection of copyright content is necessary.<sup>824</sup> Other professionals agreed with this assertion, while introducing other arguments which supplement this conclusion. It is also important to note that while economic reasoning's of console modification and piracy may undermine the Act, Weatherall argues that these realities are not attributable to the amended Act.<sup>825</sup> The high price of games and limited availability of contents are realities sourced by copyright owners or publishers, and it is entirely predictable that users avoid these restrictions through means that are in breach of copyright, such as using mod chips to play games from another region. However, the amended TPM definitions are not the source of these issues, and Weatherall argues that AUSFTA may only play an indirect part to it.<sup>826</sup>

#### **10.4.2 The perception of value influences the price of games**

While the gamers vehemently argued that game prices in Australia are too high, the professionals however acknowledged the perception of value in games can influence what is perceived as the appropriate prices for games. In this case, the professionals acknowledged the determinant high price of Australian games is influenced by external factors such as the state of the gaming market and surprisingly by internal factors such as the perceived value of games. In regard to the latter influence, the professionals explained that the perceived value of games is measured by the amount of time a gamer would take to complete the game as

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<sup>822</sup> Nicola Suzor and Paula Dootson, Submission No. 121 to Standing Committee on Infrastructure on Infrastructure and Communications, *At What Cost? IT Pricing and the Australia Tax*, 27 March 2013, 2.

<sup>823</sup> *Ibid* 83.

<sup>824</sup> *Ibid* 93.

<sup>825</sup> Weatherall above n 320, 10.

<sup>826</sup> *Ibid*.

against the cost of purchasing the game. The expectation is that a game that takes longer to finish would be expected to cost more, but this again is a contentious issue.

The perceived value of games can also be influenced by the very means of how it is distributed. As recognised in the previous findings, there is the expectation that digital distribution of games should yield cheaper prices. Moreover, the perceived value of games in the digital sphere is also determined by the actual market environment. For instance, mobile or independently developed games are perceived to be of less value in price compared to console games, where development and production values are comparatively higher. This findings yield interesting results in demonstrating how the perceived value of a game shifts depending on the influence.

#### **10.4.3 The state of the industry is changing**

Whereas the participants argued extensively on the costs of games, they also shed light into their opinions of the changing state of the industry. For instance, a number of participants acknowledged that gamers "*are getting younger*"<sup>827</sup> and that despite the prolific piracy and console modification, the industry is growing and is more profitable than ever. However, other concerns were raised including the state of the Australian gaming industry which is described as a "*bit of a crush and dump*".<sup>828</sup> This was in part a result of a number of factors which include the lack of government support, the expensive nature of the Australian economy and loss of talent to big publishers overseas. Indeed, the professionals raised concerns over the loss of talent and management issues that plague the Australian gaming industry.

However such issues are widespread in the industry with the participants noting changes in game development have detrimentally affected the quality of games. Foremost is the issue that games are too formulaic, that is, there is a lack of innovation in game development and instead a focus on "*what is safe*." The gamers coined these "*half-assed*" attempts at game development as shovelware, which raised concern over the repetitiveness of games in terms of game play and quality. However, this could be also be an indication of the fast-paced gaming development environment and increased costs. All these factors and issues certainly illustrate a changing gaming industry which, for the most part, indicated a depressing

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<sup>827</sup> P1\_FG5

<sup>828</sup> P1\_INT1

overview of the Australian gaming industry and the lack of innovation in game development. Yet the changes are not all negative, as new and promising business methods are rapidly changing how games are distributed.

#### **10.4.4 The participants introduced alternative business models**

Despite the negative outlook with which the participants viewed the gaming industry, the participants discussed present and future directions the gaming industry is shifting to, most notably in regard to how games are distributed. Two specific business models were discussed from the study: digital distribution and free-to-play models.

In the first instance, digital distribution was the most advantageous model to be used given the growth of the Internet and the offering of additional features which distributors like Steam can provide. This can include cheaper and more efficient distribution of games, community service and most importantly, the convenience of being able to purchase and download games at one's convenience. These services indeed are being promoted by these distributors as a legitimate way to acquiring games without resorting to piracy.

Alternatively, the participants discussed a new business model which promotes the idea of acquiring games for free and paying for extra content through micro-transactions. Referred to as free-to-play, this business model seemed to be more attractive towards small independent developers, given they do not have the budget to market their games compared to large and more established businesses. Its advantage however lies in its inherent ability to allow gamers and consumers to engage with the developers in that gamers are only "*genuinely paying*" for content "*they are interested...and engaged*" in. More importantly, the notion that "*nothing is lost initially*" is illustrated by one professional to be a form of combating piracy.

However, some participants dissented at this business model, with some noting that free-to-play does not work for most games especially hard-core games. Indeed, having to pay micro-transactions to experience the full game could lead to an imbalance in how player's access content whereby those who can afford the content are allowed to access more content compared to those who cannot afford to pay the extra costs. More importantly, there are dangers associated with free-to-play because the expectation that games

should be free of charge has the risk of distorting the perceived value of games in that developers will struggle to justify the costs of games if the alternative to having them free exists under this business model.

#### **10.4.5 The economic effects of piracy vary, and not all of them put the gaming industry at a disadvantage**

Not surprisingly, the emergent discussions of the economic effects of piracy yielded a number of interesting results. In this case, two schools of thoughts emerged. Firstly, there was overwhelming support for the idea that piracy will ultimately inhibit the profitability of the gaming industry and is essentially an activity that is synonymous to "theft", according to one gamer. Indeed, the effects of piracy are immense, given that loss of profit can result in reliance to formulaic games or shovelware that will certainly yield profits; or the inevitable closure of businesses, particularly of small independent developers, which cannot cope with the loss of profits from overwhelming piracy. This simple fact sheds a negative light into piracy as a whole and to an extent, the file-sharing norm.

Despite these overwhelming negative points, there are positives about piracy that were mentioned. Foremost is that piracy can be a powerful tool for marketing since it allows games and content to be distributed to the masses without any restriction. These features may inevitably lead to increased sales of games, and also increased awareness of games developed by independent developers who might not have the budget for mass marketing. Indeed, piracy may be more beneficial to independent developers according to the industry professionals as they can "respond more intelligently" through increased word-of-mouth and engagement with pirates through social media if their game turned out to be popular. This occurred with the *Deus Ex Human Revolution* game, where a preview build of the game that was leaked into torrent sites contributed to its popularity and high sales as it impressed gamers who downloaded the leaked copy.<sup>829</sup> However this is a double-edged sword advantage, because while independent developers can take advantage of the widespread piracy in marketing their games, they are affected more by piracy than their bigger counterparts, effectively discouraging many developers from publishing any games if their content is unsuccessful.

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<sup>829</sup> Alistair Pinsof *Leaked Deus-Ex Preview Build Impresses Fans* (2 June 2011) *The Escapist* <<http://www.escapistmagazine.com/news/view/110548-Leaked-Deus-Ex-Preview-Build-Impresses-Fans>>.

The emergent economic issues from the interviews and focus groups illustrated a complex and varied perspective into the state of the gaming industry as a whole. While the foremost prevailing issue recognised was the high cost of games in Australia, it was also interesting to note that this reasoning has a high impact on the rate of piracy. Yet what constitutes a high price in games is also determined by the allocated value of the game. For instance, higher production games would be expected to cost more, similar to games that would take much longer to finish. In contrast, games that are independently developed would be expected to cost less. Moreover, the manner of distribution also affects the perceived value of the game, with digital games expected to cost less compared to physical copies. These findings illustrate a shifting perception of value dependent on external factors. However the economic issues are not limited to the perceived costs of games. The participants also looked into the state of the industry, in particular the "crush and dump" state of the Australian industry and the widespread issue of formulaic quality of games, with the lack of innovation and risk taking in game development. These problems are a result of the fast-paced gaming development industry and the increased costs. Given these issues, the participants also discussed a number of present and future business models in game distribution, with much commendation given to the cheaper and more convenient method of digital distribution. In contrast, free-to-play models were more suited for independently developed games as they offer a flexible approach in micro-transactions and engagement with customers.

Two schools of thought also emerged in regard to the effects of piracy. On the one hand, piracy only results in loss of profits and brings no benefit to the industry. On the other hand, piracy can be a powerful tool for marketing as it allows content to be distributed to the masses without any restriction.

The economic implications discussed in this chapter reveal many issues that should be examined in regard to maintaining the balance of rights. In this connection the high price and the value perception of games seemingly have a high influence on whether gamers will resort to piracy. Indeed, this is despite the acknowledgment that piracy does not benefit the industry at all. Moreover, the poor state of the industry and the lack of innovation implemented in gaming development have pushed many gamers to pirate content since they perceive such games to be not worth the price. However, the business alternatives

listed are a number of tools that borrow heavily from the positive aspects of piracy. Digital distribution, for instance, allows for the mass distribution of games and the convenient offering of added services on top of it. Free-to-play on the other hand gives the opportunity for gamers to set the price they are willing to pay for the game through micro-transactions. These aspects of the economic issue highlight methods that borrow from the norms recognised in the cultural chapter. Indeed, subjecting the file-sharing norms into these business methods can be the bridge which may align the cultural, legal and technological issues recognised above.

Having examined all the four fields of power, the answer to whether a reform of the Act is required to balance the access rights provision is clearly a yes. The four factors illustrate that the current state of the TPM provisions do not accommodate the perceived rights of users and extended owners' rights. Though this study has limited the examination within the gaming industry, console modification encapsulated the struggles that copyright must deal with in light of the cultural, economic and technological implications of the device. Devices such as smart phones and tablets already offer the same capabilities without the need for modification, yet many of the applications available already infringe on copyright. The situation will worsen given the soon to be implemented fibre internet, and 4G technologies. The added effects of the file-sharing norms and the ambivalence that consumers feel towards copyright exacerbate the issue. Moreover, the frustration expressed by consumers regarding the complex copyright legislation and restrictive DRMs demonstrates over restrictive policies. The question therefore is: how can the legislation be re-adjusted to protect content from piracy while offering gamers a fair, flexible and simple legislation in regards to how they use and access content? The next chapter lists a number of recommendations to address this question.

## CHAPTER 11 – CONCLUSION

The findings of the study demonstrate the limitations of mere legal application in controlling behaviour and also support Wiersma's consideration that it is a multifaceted issue. Moreover, in light of the conclusions made in the previous chapter, users believe the access rights provisions are too strongly focused to right owners and fail to be legitimate due to the legal, economic and technological factors recognised. Given these findings, the thesis proposes a number of recommendations that may address the issues raised by the participants with regard to console modification, legitimate uses and DRMs. While these findings may not eliminate the plethora of issues introduced, many of the recommendations acknowledge and complement the recommendations adopted by Government reports.

### **11.1 RECOMMENDATIONS**

#### **1) Clarification of the law**

Copyright is a truly complex law. The intricacies of copyright are not only dependent on national sovereignty, but are also influenced by treaties, trade agreements and industry lobbying. The legal factor indicated the inaccessibility of the law, compounded by the language, length and content of the Act. Awareness of the details of the law was very low from both industry members and the gamers in Australia.

While educating users about copyright will not eradicate illegal infringement, participants supported the need for education through better understanding of the law from both industry members and gamers. This they believe will foster a better relationship between parties. Indeed, while it may not form an effective basis for deterring illegal activities, a better awareness of the legal rules will offer gamers an understanding of the implications of their activities. Moreover, offering gamers a simplified version of the Act with more “do's and don't” may also result in a greater acceptance of the law, leading to observance.

Past education programs have so far proven ineffective in generating greater awareness of copyright law. Government attempts to deter gamers through legislative changes have not been dissipated to the relevant gamer community. In addition, industry lawsuits have not stopped illegal infringement due to the difficulty and expense in enforcing what is otherwise a global issue. As such, it is recommended that a joint effort between legislators and the industry be implemented in clarifying the copyright law to developers and gamers. While government authorities and industry bodies have in the past provided education and

intrusive notices via mandatory EULAs, the research proposes that providing gamers with interactive and simplified versions of EULAs and law notices be sufficient to enhance education and deterrence. Information dissemination can be achieved through games itself, using an easy-to-read format should be mandatory, but at the same time not be intrusive to the accessing of the game itself. Alternatively, gamers can be directed to a website for the terms of use. One game that has utilised this adequately is Minecraft where the terms of use are written in an easy to understand language, with the main principle of the contract diluted into:

In order to protect Minecraft (our “Game”) and the members of our community, we need these end user licence terms to set out some rules for downloading and using our Game. We don’t like rules any more than you do, so we have tried to keep this as short as possible. If you break these rules we may stop you from using our Game. If we think it is necessary, we might even have to ask our lawyers to get in touch.<sup>830</sup>

The law and the enforcement of copyright provision should thus strive to be less obscure as many gamers perceive the law to be beyond the comprehension of gamers. Such measures may include formatting EULA that contain less legalese and focus on clarifying the important provisions, such as what the Minecraft EULA has done. Moreover, clarity in the application of which jurisdiction or law will apply in case of a breach would enhance understanding. These can all be achieved without the need to resort to complex wordplay, formatting and definitions, knowing that such measures could only exacerbate the lack of understanding of the law by gamers.

If law reform, however, is an inevitable possibility, the reform should not increase the convoluted copyright policies but identify appropriate boundaries informed by the gamers and consideration of legitimate uses. Submissions to the ALRC Report on TPM exceptions also recommended this, adding that "reform should ideally promote clarity and certainty for creators, right holders and users".<sup>831</sup> While the report acknowledged that copyright will always be complex, it endorses the view that an accessible copyright law will benefit all parties to copyright, not just users in terms of transaction costs and

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<sup>830</sup> *MineCraft End User License Agreement* (11 December 2013) MOJANG < [https://account.mojang.com/documents/minecraft\\_eula](https://account.mojang.com/documents/minecraft_eula)>.

<sup>831</sup> Australian Law Reform Commission, *Copyright and the Digital Economy*, ALRC Report 122 (2014), 64.

enforcement.<sup>832</sup> McKeough argued that copyright law needs to become better understood and more effectively communicated to enable Australians to be “lawfully digital citizens”:

Copyright law needs to be able to respond to changes in technology, consumer demand and markets. Copyright also needs to have a degree of predictability so as to ensure sufficient certainty as to the existence of rights and the permissible use of copyright materials, leading to minimal transaction costs for owners of users and avoiding uncertainty and litigation.<sup>833</sup>

The thesis supports this view. The law should at least be clarified, but not simplified to the point where inconsistencies arise when interpreting the law. Moreover, attempts to reform copyright law must be aimed at clarification rather than mere simplification because the overall simplification without substantive change to the law will cause greater incoherency.<sup>834</sup>

Likewise, government, copyright societies and peak industry associations such as the iGEA can teach, market, train and educate the developers and communities about the copyright provisions to ensure knowledge dissemination. Copyright agencies, schools and universities should provide courses about copyright law to students and budding game developers or enthusiasts.

The enforcement of EULAs is also addressed in the *Copyright and the Digital Economy Report*, where copyright owners may ‘contract out’ some or all of the statutory exceptions. This is relevant for TPM enabled DRMs, where publishers may contract out rights of gamers to engage with the fair dealing (or fair use if implemented) exceptions with the games. The Report recommends that such contractual terms that limits the doing of any act otherwise permitted by the libraries and archives exceptions be unenforceable.<sup>835</sup> The thesis also agrees with this recommendation, although it may not be fair for copyright owners if all exceptions cannot be contracted out as “risks reducing the flexibility of the copyright regime, and the scope to develop new business models for distributing copyright materials.”<sup>836</sup>

Thus a balance must be achieved between permissible contracting out of some statutory exceptions or

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<sup>832</sup> *ibid.*

<sup>833</sup> Jill McKeough “Copyright Review: Issues for Cultural Practices” (2012) 17(2) *Deakin Law Review* 309, 312.

<sup>834</sup> Australian Law Reform Commission, *Guiding Principles for Reform* (2014) ALRC <<http://www.alrc.gov.au/publications/issues-paper/guiding-principles-reform?print>>.

<sup>835</sup> Australian Law Reform Commission, *Copyright and the Digital Economy*, ALRC Paper 122 (2014), 435

<sup>836</sup> *Ibid.*, 457.

private activities and at the same time, any attempt to contractually prohibit certain public fair dealing exceptions (such as circumvention of a TPM for criticism or for review) should be unenforceable.

## 2) Introduction of Legitimate Use provisions

One of the issues introduced in this thesis is the need to acknowledge the legitimate uses of console modification. These uses include (1) playing international games that are not released locally in Australia; (2) backing up of games; and (3) interoperability of homebrew applications.

In Australia, the Act presently prohibits most cases of TPM circumventions, with some limited exceptions in the fair dealing provisions. In light of these exceptions, console modification does not fit into any of them. Console modification however has commercially significant purposes other than the circumvention of TPM, and the thesis has emphasised the need to acknowledge the intention of the user when engaging in console modification. The study proposes the need to expand the exceptions to acknowledge that user intention is allowable in specific circumstances. In the first instance, the specific exclusion of the regional access coding in the TPM definition is beneficial to Australian gamers.<sup>837</sup> This means modifying consoles to allow the playing of a non-regional compatible video game is not deemed a circumvention of the TPM although only to this extent. Moreover, the present report by the Standing Committee cements the exclusion of regional locks in the s 10 (1) provision.<sup>838</sup>

In contrast, while the exceptions for interoperability and private copying of computer programs are already included in the Act, the scope of the fair dealing exceptions are considered to be too narrow. Fair dealing under the Act only deals with cases of research and study, criticism, parody, reporting the news, judicial proceedings and for the provision of professional legal advice.<sup>839</sup> Personal copying in the digital environment is a complex issue, as Weatherall has identified two problems: a great deal of copying is going on, and most of the copying infringes copyright law.<sup>840</sup> For instance, the private copying exceptions only permit the backing up of VHS tapes, while interoperability is permissible only to original computer

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<sup>837</sup> See Explanatory Memorandum, Copyright Amendment Bill 2006 (Cth.), para 12.10.

<sup>838</sup> Standing Committee on Infrastructure and Communications, Parliament of the Commonwealth of Australia, *At What Cost? IT Pricing and the Australia Tax* (2013) 110.

<sup>839</sup> See respectively sections 40(1), 41, 41(A), 42 and 43(2) of the *Copyright Act* 1968 (Cth.)

<sup>840</sup> Kimberlee Weatherall, 'A Comment on the Copyright Exceptions Review and Private Copying' (Working Paper 14/05, The University of Melbourne Legal Studies Research Paper, 2005) 1, 4.

programs and must not involve the infringement of any copyright before implementation. Unfortunately, literature recognises that fair dealing under copyright law has received little judicial attention in Australia.<sup>841</sup>

To accommodate this recommendation, two plausible solutions can be implemented. Firstly, these legitimate uses can be permissible under a fair use exception test.<sup>842</sup> This argument relies on the recognition that TPMs most often prevent or inhibit users from accessing and copying works regardless of whether they intend to infringe copyright in the works or use them for fair use purposes. Harris Jr. asserts that with evidence of other personal and non-commercial uses, console modification can be protected.<sup>843</sup> Otherwise, an expansion of the fair dealing exceptions to allow specific circumventions could be an alternative, with the need for user intention consideration.

With the advent of digital technology, internet pirates are copying and releasing content over the internet at an alarming rate<sup>844</sup> and each pirated copy is argued to be a lost sale and a copyright infringement. However, the illegal uses of console modification should not lead to a total prohibition of the practice. Indeed, the WIPO treaties attempted to avoid such condemnation of devices or practices which are designed for legitimate purposes but which could potentially be used for circumvention. The key therefore is to look for the appropriate balance.

### **(A) Private Copying**

The research has shown that participants support an exception for private copying to be allowed. This confirms Weatherall's lament on the limited scope of permissible private copying for users, while the exclusive rights are primarily left to owners of copyright.<sup>845</sup> The limitations thus leave many consumers unwittingly and unknowingly infringing copyright law, which Weatherall has argued "undoubtedly" makes a very large proportion of Australian infringers of copyright law.<sup>846</sup> The issue of private copying of video

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<sup>841</sup> de Zwart above n 174, 20.

<sup>842</sup> S.107 of the DMCA provides that fair use is a limitation on exclusive rights for purposes such as criticism, comment, news reporting, teaching, scholarship, or research.

<sup>843</sup> Harris Jr. above n 195, 124. Indeed, it was argued that "users of mod chips could use them to ensure the interoperability of an independently created computer program, protected by the DMCA's 'reverse engineering exception'".

<sup>844</sup> Sugden above n 13, 391. The internet gives previously unavailable speed and dissemination possibilities to pirates and an ability to escape detection by a "here today, gone tomorrow" ease of establishment and relocation, which means that removing the infringing items no longer removes the piracy.

<sup>845</sup> Weatherall above n 838, 20.

<sup>846</sup> *Ibid.*

games has been addressed in the last review of the TPM exceptions in 2009 but with little success.<sup>847</sup> However, the possibility of a private copying exception resurfaced in the 2013 Copyright and the Digital Economy Report, with recommendations to reform the fair dealing exceptions of the Act to include backing up for non-commercial private uses.<sup>848</sup> An alternative introduced in the Report is the backing up of a computer program under Division 4A Part III as computer games are computer programs that embodies visual images.<sup>849</sup> Presently however, this technicality is nullified because to play the backup copy of the game; the user must initially circumvent the console DRM to run the game, and this is a separate and prohibited act under s 116AN. Xavier also argued the narrow definition of computer programs fails to acknowledge the backing up of computer programs that is embodied in audio-visual content such as video games.<sup>850</sup> The US Library of Congress have also somewhat allowed permissible private copying of games for archival purposes, albeit with strict limitations.

The thesis finds that the choice to back up copies of video games should be a permissible activity given business models already exists which allow digital copies of games to be backed up.<sup>851</sup> For instance, Sony allows users to authorise two PlayStation 3 consoles to share and access games attached to one user account. The Playstation 4 and Xbox One have similar game sharing system. The games that can be shared are limited to digital games purchased legitimately from the Playstation or XBOX stores. As such, private copying of games have been addressed in existing business models. The thesis however finds that the Act should address this trend further by copying the exception recently added in the DMCA that allows the backing up of hard copies of games for archival purposes. This ensures there is no confusion as to the allowing of backing up of games whether it is a physical or a digital copy.

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<sup>847</sup> *Copyright Exceptions for Private Copying of Photographs and Films: Review of sections 47 J and 110AA of the Copyright Act 1968* (2008) Attorney-General's Department. The review recommended that no change be made to s 110AA. More importantly, the Department did not consider any changes for s 110AA regarding computer games because of insufficient evidence. Although the Department will continue to "monitor the evolution of relevant markets to determine if new products are introduced as anticipated by the film industry.

<sup>848</sup> Australian Law Reform Commission, *Copyright and the Digital Economy*, ALRC Paper 122 (2014), 15.

<sup>849</sup> *Galaxy Electronics Pty Ltd v Sega Enterprises Ltd and Another* (1997) 145 ALR 21. Per Lindren J at 34: Aggregate of the visual images generated by the playing of the video games falls within the terms of statutory definition of ss. 10 and 24 of the Act since the visual images are embodied in an article or thing. The word 'embodied' refers to the giving of a material or discernable form to an abstract principle or concept.

<sup>850</sup> Xavier above n 285, 22.

<sup>851</sup> iGEA, Submission No 192 to Australian Law Reform Commission, *Copyright and the Digital Economy Issues Paper Response*, 29 November 2012, 9.

**(B) Interoperability**

To address interoperability of homebrew applications, the Act can expand the exceptions to circumvention under s 116AN(3). In regard to console modification, software interoperability in the form of homebrew applications for video game consoles allows for the development of independent software such as unofficial games or applications.<sup>852</sup>

The thesis found the gaming industry has shown support to, but also often condemns, the development of homebrew applications.<sup>853</sup> Participants in this research support legitimising homebrew applications as an exception. In this case, homebrewing could be legalised because the advertised use conforms to the requirements of s 116AN(3). Firstly, homebrew applications are advertised with the single purpose of using applications to be interoperable with gaming consoles. Secondly, it allows for the launching of applications not readily available under s 116AN(3)(ia) unless circumvention occurs. However, interoperable applications that allow the backing up of games means it could breach s 116AN(3)(i) and is not among the prescribed acts allowed under s 116AN(3)(b).<sup>854</sup> There is also the questionable playing of infringing games in the case of emulators, because while the emulator itself is a legitimate interoperable application, it may breach the Act through the illegal reproduction of the game to be used in tandem with the emulator. Whether the legitimate uses of homebrew applications outweigh the inherent ability of console modification to play backed up or pirated games is a question for future judicial interpretation. However, given the industry's recent attempts to stop the distribution of the Homebrew Channel<sup>855</sup>, and frequent firmware updates this activity<sup>856</sup> does not support the recommended exception. As such, an expansion of the fair dealing exception may be difficult to implement given the uncertainty of its legitimacy under s 116AN of the Act. Whilst interoperability exceptions for Australia and the US are largely similar, the key difference is that Australia does not require the necessity test for the interoperability defence to

<sup>852</sup> Soghoian above n 94, 50.

<sup>853</sup> Ibid, 52. Microsoft opted its platform with one technical solution: any software that ran on the XBOX needed to be 'digitally signed' by software. The Sony Playstation 3 User guide explicitly allows for the installation of the Linux Operating System in the console. See *Install other OS* (2009), Sony Playstation 3 System Software 3.00 User's Guide, <<http://manuals.playstation.net/document/en/ps3/current/settings/osinstall.html>>.

<sup>854</sup> See John Mahoney, *The only Wii homebrew guide you will ever need*, (31 October 2008) Gizmodo, <<http://gizmodo.com/5071573/the-only-wii-homebrew-guide-you-will-ever-need>>. This page lists the instructions on how to back up games.

<sup>855</sup> See Mike Fahey, *What countries made Nintendo's rampant list this year?* (25 February 2009) Kotaku, <<http://kotaku.com/5160062/what-countries-made-nintendos-rampant-piracy-list-this-year>>. Nintendo has pushed for more stringent IP laws in countries such as Mexico and Canada.

<sup>856</sup> *WiiBrewFAQ* (September 2009) WiiBrew, <[http://wiibrew.org/wiki/WiiBrew:FAQ#Can\\_I\\_use\\_a\\_backup\\_of\\_Twilight\\_Princess.3F](http://wiibrew.org/wiki/WiiBrew:FAQ#Can_I_use_a_backup_of_Twilight_Princess.3F)>. The recent System 4.0 firmware update for the Wii has rendered the previous hacking methods useless. It was however recently been cracked by an exploit called the Bannerbomb, which allows for the installation of the Homebrew Channel.

apply. This could open the development of independent computer programs, interoperable with another device, without the need of proving necessity. Through console modding, the ability to install non-infringing software into game consoles is important in this analysis because no copyright violation should persist if a technology possesses both infringing and non-infringing applications.<sup>857</sup> The participants in this research supports these findings.

While expanding this exception may prove futile due to the inherent ability of console modifications to play backed up games, its ability to play homebrew applications supports protection under fair use.<sup>858</sup> The *Copyright and the Digital Economy Report* into TPM exceptions has examined the possibility of the inception of a fair use-style exception under the Act. By mirroring the structure and interpretation of the US fair use equivalent, the Report fashions the fair use exception to contain a non-exhaustive list of factors to be considered in determining whether the use is a fair use, and includes an accompanying list of illustrative purposes or uses that may qualify as fair use.<sup>859</sup> The Report recommended the four-fairness factors exception to be implemented in the Act in order to provide a broad, flexible standard based on fairness factors that considers whether the use is fair. Likewise, a fair use provision will ultimately be more advantageous compared to a confined fair dealing exception regime, which according to the Report will be less flexible and less suited to the digital age.<sup>860</sup> More importantly, a confined fair dealing exception generally fails to consider the question of fairness. The fair dealing exception does examine fairness of the dealing dependent upon the relevant form of fair dealing, which is limited for purposes of research or study under s 40(2). Uses that may as well be ‘fair’ will continue to be prohibited because it does not fall within the fair dealing list.<sup>861</sup> Although fair dealing does offer consistency in approach, it only adds

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<sup>857</sup> Harris Jr. above n 195, 124. This argument has been raised with each new form of technology, for example in the case of *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417 (1984), where the Supreme Court ruled that time-shifting does not constitute copyright infringement, but is fair use.

<sup>858</sup> See s 116AN(3) and AO(3). This allows circumvention to do an act relating to a lawfully-acquired, non-infringing copy of a computer program, provided that:

- The act will not infringe copyright in the program;
- The act relates to elements of the program not readily available to the user at the time; and
- The act is done for the sole purpose of achieving interoperability of an independently created program with that program or another program.

<sup>859</sup> Australian Law Reform Commission, *Copyright and the Digital Economy*, ALRC Paper 122 (2014), 144.

<sup>860</sup> *Ibid*, 25

<sup>861</sup> *Ibid*, 164. Also see s 40(2) Fair Dealing for Research or Study:

For the purposes of this Act, the matters to which regard shall be had, in determining whether a dealing with a literary, dramatic, musical or artistic work or with an adaptation of a literary, dramatic or musical work, being a dealing by way of reproducing the whole or a part of the work or adaptation, constitutes a fair dealing with the work or adaptation for the purpose of research or study include:

- (a) the purpose and character of the dealing;

‘certainty’ that many uses of copyright material is illegal as argued by Burrell, Handler, Hudson and Weatherall:

Australia’s current system of exceptions only provides ‘certainty’ in the sense that we can be confident that a whole raft of socially desirable re-uses of copyright material are prohibited.<sup>862</sup>

The research found the participants used concepts of fair use to justify their uses of circumvention, and had no knowledge of the fair dealing exceptions available in the Act. It is recommended on this basis that the fair use test be used as a template as it is an exemption of a wider and more general character that affords flexibility, adaptability and fairness, in such a way that is left to the courts to decide given the situation. Through this, the courts can employ fair use to determine the intention of the users in circumventing DRM to implement homebrew exceptions. This is also ideal because the interoperability exceptions for both Australia and the US mimic each other, and both countries recognise the mod chips interoperability of applications to function in the console under s 116AN of the Act and § 1201 (f) DMCA.

While the Australian courts are yet to explore interoperability under the reformed Act, there is an abundance of judicial determinations in America. The decision of interoperability for console modification in *Sony Computer Entertainment v. Connectix Corporation* provides guidance to the implementation of this recommendation<sup>863</sup> In this case, the plaintiff argued a mod chip to circumvent the Playstation DRM is the only way to gain information necessary to access the components of the code for a consumer to independently create software. Without the mod chip, independent software interoperable with the console cannot be created.<sup>864</sup> This argument is important for the feasibility of reverse engineering computer programs under a fair use doctrine that can be used if the “only way to gain access to the ideas

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- (b) the nature of the work or adaptation;
  - (c) the possibility of obtaining the work or adaptation within a reasonable time at an ordinary commercial price;
  - (d) the effect of the dealing upon the potential market for, or value of, the work or adaptation; and
  - (e) in a case where part only of the work or adaptation is reproduced--the amount and substantiality of the part copied taken in relation to the whole work or adaptation.

<sup>862</sup> Robert Burrell, Michael Handler, Emily Hudson and Kimberlee Weatherall, Submission No 278 to Australian Law Reform Commission, *Copyright and the Digital Economy*, 31 July 2013 1, 4.

<sup>863</sup> *Sony Computer Entertainment v. Connectix Corporation* 203 F. 3d 596 (9th Cir. 2000).

<sup>864</sup> *Ibid.* 598.

and functional elements embodied in a copyrighted computer program”.<sup>865</sup> This argument was applied in the *Connitex* case.

**(1) SONY v CONNITEX**

Connitex Corporation attempted to emulate the Sony Playstation console so that the software could be used to play Connitex’s “Virtual Game Station” on household computers.<sup>866</sup> However the only way to create a functioning emulator was to engage in intermediate copying of the Playstation basic input output system (“BIOS”) using a disassembler.<sup>867</sup> Sony alleged this emulator was a violation of the DMCA and obtained a preliminary injunction from the District Court which confirmed it as a circumvention device.<sup>868</sup> But on appeal by Connitex to the Ninth Circuit, the injunction was reversed and the court held that the intermediate copying was a protected fair use.<sup>869</sup>

The Ninth Circuit based its decision on the fact that if the only way to access the BIOS and engage in intermediate copying was through disassembly, this is then a recognised protection under fair use. Fair use of computer programs is important as “the object code of a program may be copyright as an expression, but it also contains ideas and performs functions that are not entitled to copyright protection”.<sup>870</sup> This means that intermediate copying should be protected if it is necessary to gain access to the unprotected elements of the work.<sup>871</sup> The Ninth Circuit examined the four statutory factors for fair use:

- 1) The court inquired into the nature of the copyrighted work, and held that the BIOS was not readily available to the public to be examined because it is an internal operating system.<sup>872</sup> The court thus held that the intermediate copying of the BIOS did not infringe because any other method of extracting the unprotected portions would be inefficient.<sup>873</sup>

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<sup>865</sup> Ibid 602.

<sup>866</sup> Ibid 598.

<sup>867</sup> Ibid

<sup>868</sup> Ibid 600.

<sup>869</sup> Ibid 598-599.

<sup>870</sup> Ibid 602; citing *Sega Enterprises Ltd. v Accolade, Inc.* 977 F.2d 1510 1527-1528 (9th Cir. 1992). Copyrighted software ordinarily contains both copyrighted and unprotected or functional elements.

<sup>871</sup> Ibid 601.

<sup>872</sup> Ibid 603.

<sup>873</sup> Ibid 605. The case cited *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 354 (Sup Ct, 1991), which found that copyright law was not designed to hinder public access to functional concepts.

- 2) The court also inquired whether the “amount or substantially of the portion used in relation to the copyrighted work as a whole” was in violation of law. Because the final product only required the unprotected and non-infringing elements of the BIOS, it thus bears no relevance in the decision.<sup>874</sup>
- 3) The purpose and character of the emulator is deemed transformative because it “creates a new platform, the personal computer, on which consumers can play games designed for the Sony Playstation”.<sup>875</sup>
- 4) The effect of the emulator on the potential market was identified as a “legitimate competitor” to the Sony Playstation since it was a transformative product and not merely something that replaces the console.<sup>876</sup> The court came to this decision because the law “does not confer such a monopoly”, and ruling in favour of Sony would inhibit creative expression.<sup>877</sup>

For these reasons, the court ruled the emulator was protected under the fair use doctrine, although it did not examine the program under the DMCA.

### ***(2) Application of *Connitex to Mod Chips****

The principles and the manner in which the Ninth Circuit used the four fair use limbs in *Connitex* is interesting because applying this judgement to the facts of *Gamemasters* and *Divineo* might significantly change the decision:

- 1) The only way independent developers can create interoperable software for the Playstation is through the mod chip. And since no documentation for the access codes used in the Playstation is available to the public, then the same principle for the BIOS disassembly could apply in the context of the mod chip.
- 2) The authentication sequence of the access codes is duplicated by the mod chip in order to play a backed up copy of a game. This process requires the mod chip to use some of the access codes, but the portion could be substantial.<sup>878</sup>

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<sup>874</sup> Ibid 606.

<sup>875</sup> Ibid

<sup>876</sup> Ibid 607.

<sup>877</sup> Ibid

<sup>878</sup> Brisbaji above n 140, 430.

- 3) The ability of the mod chips to play interoperable programs on the console can be deemed ‘transformative’ because the mod chip allows the playing of games from other platforms in the console. For instance, the Homebrew Channel for the Nintendo Wii allows the gamer to play compatible Playstation games through the installation of a Playstation emulator.<sup>879</sup>
- 4) The effect on the potential market could be positive for Sony, or any console where installation of mod chip is possible. The Playstation 2 was still the best-selling console, which ironically coincides with the ease of installing a mod chip. But in order to utilise the functions of the mod chip, the gamer must first buy the console.

The doctrine of fair use may assist legitimising console modification since the other three factors might have sufficient weight in considering the legitimacy of the mod chip under the fair use and interoperability defences even without the second element. However, a number of issues may detract the interoperability defence for console modification.

### **(C) Issues with Fair Use**

While *Connitex* illustrates a possible application of fair use for console modification, the principle is consistently undermined by judicial interpretation given that the DMCA effectively restricts fair use defences (such as backup copying) in relation to entertainment products.<sup>880</sup> Despite its purported aim to be flexible, Carroll argues that fair use “is so case specific that it offers precious little... to artists, educators, journalists, Internet speakers, and other[s] who want to use the copyrighted work”.<sup>881</sup> Furthermore, while fair use has been extensively judicially interpreted, the doctrine is actually worse off since the gaps, overlaps, ambiguities and inconsistencies in the statutory text make fair use, at best, a “spectacularly” unsuccessful player in copyright theory and practice.<sup>882</sup>

While the ALRC report has been supportive of its introduction, past attempts of a fair use style exception have been brought into question by experts. Fitzgerald and Cifuentes in 1997 have noted that Australia’s limited judicial decisions and clarifications on copyright protection for computer software will

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<sup>879</sup> *PCSX-Revolution* (28 December 2012) WiiBrew, <<http://wiibrew.org/wiki/PCSX-Revolution>>

<sup>880</sup> Jon Festinger, *Video Game Law* (LexisNexis Canada, Markham, 2005), 42. Also see Raval above n 803, 102 and 104.

<sup>881</sup> Giuseppina D’Agostino, “Healing Fair Dealing? A Comparative Copyright Analysis of Canadian Fair Dealing to UK Fair Dealing and US Fair Use” (2008) *McGill Law Journal* 53 309, 351.1

<sup>882</sup> Michael J. Madison, *Rewriting Fair use and the Copyright Reform* (2005) *Cardozo Arts and Entertainment Law Journal* 23(2) 391, 393.

consequently mean that it would require many years for the courts to develop these principles.<sup>883</sup> In addition, the authors criticised the conservative judicial approach of the Australian courts in examining copyright in light of new technologies, which they claim is largely concerned with statutory interpretation and examining parliamentary documents for direction.<sup>884</sup> de Zwart mirrors these arguments in strongly contending the introduction of a fair use exception based on a 2005 Issue Paper which examined fair use and fair dealing exceptions in the advent of the AUSFTA. She found that the fair use test, contrary to popular belief, is not the “general fix-all provision” because of the inconsistent and uncertain application of fair use in America.<sup>885</sup> Indeed, she purports that the already conservative approach taken by Australian courts in interpreting the fair dealing law and copyright law in general will pose problems in the interpretation of the fair use dealing principle, especially for personal use which is varied and complex as it is.<sup>886</sup>

There is also a clear issue with the implementation of fair use with DRMs. While fair use would allow a test that may give rise to a “general purpose” provision that could cover circumvention for interoperability of homebrew applications in consoles, the all-purpose DRMs implemented in gaming consoles may limit its effectiveness. Regardless of the user intent, DRMs will always attempt to cease console circumvention. No legitimate tools are currently available for developers which will allow circumvention for interoperability purposes, and as such, developers are left with the task of circumventing the DRM without the authority of the console manufacturer. As DRMs cannot distinguish between fair uses from copyright infringement.<sup>887</sup> The flexible and vague nature of fair use inevitably makes DRM unable to allow all fair uses without human intervention. Moreover, a system what would have to apply the four factor fair use test for every single access points is infeasible with today’s technology, and such a system would have drawbacks for both copyright owners and users. This would most likely be a heavy burden for the legal system as well, with the fair use being so vague and case fact specific that no one decision can encompass all users’ intent.

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<sup>883</sup> Anne Fitzgerald and Cristina Cifuentes, “Accommodating Computer Interoperability and Computer Software Protection in Australia” (1998) *Telecommunication Law Review* 4(8) 271, 276.

<sup>884</sup> *Ibid.*

<sup>885</sup> de Zwart above n 174, 32.

<sup>886</sup> *Ibid.*

<sup>887</sup> Edward Felten, A Skeptical View of DRM and Fair Use (2003) 46(4) *Communications of the ACM* 56, 57.

Given the already similar copyright principles of Australia and the US, and the free trade agreement which Australia is bound to, it would not be totally unsurprising that Australian courts will interpret the fair use principle in a similar manner. As such, a fair use principle may end up becoming more of a burden rather than a plausible solution for users.

### 3) An "Intention" Provision in regards to copyright exceptions

Failing the implementation of a fair use provision, the *Copyright and Digital Economy Report* also prescribed the expansion of the fair dealing exception, by including a user intention. While the ALRC concedes the exceptions are confined to a list of prescribed uses, the prescribed recommendation calls for an assessment of the fairness of particular uses of copyright material. The Report for instance prescribed a consolidated and simplified private use exception which will allow copyright users to perform a fair use or fair dealing conduct as long as it is for private use.<sup>888</sup> Private use is any use which does not involve sharing the content to others or gaining economic advantage from the use.<sup>889</sup> Thus a gamer who circumvents their console to play their own backed up game, or create interoperable applications for **private use** could fit within this exception. Participants in this research support a private use exception if it enables homebrew and the playing of back up copies of games.

The thesis however recommends that in evaluating the fairness of the private use, the fair use test should not be the required test because of the recognised issues. Instead, the exception should the ECJ approach regarding the dominant purpose of the circumvention device in question.

In implementing this, the question leads to what is the dominant purpose of console modifications, and once identified, there is a need to ask if the dominant purpose is commercially significant so as to avoid the prohibition under s 116AN. However, it is the prohibition of preparatory acts that the literature has focused on due to the need for a detailed examination of texts and legislations. The term preparatory acts

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<sup>888</sup> Australian Law Reform Commission, *Copyright and the Digital Economy*, ALRC Paper 122 (2014), 246.

<sup>889</sup> *Ibid.*

refer to acts carried out before the act of circumvention by those who furnish the means of circumventing the technological measure.<sup>890</sup>

The prohibition of preparatory acts affects console modification and its functions. Historically, it is widely assumed the mod chip was the archetypal circumvention device.<sup>891</sup> For instance, the Homeland Security for the Immigration and Customs Enforcement has judged these “illicit devices” as being created “with one purpose in mind, subverting copyright protections”.<sup>892</sup> The iGEA synonymously argues that “the majority of people who install mod chips do so to by-pass the ‘legitimate product’ embedded codes, to enable pirated discs to be played on the console”.<sup>893</sup> The participants in the focus groups and interviews however argued otherwise, listing legitimate uses of console modification that do not focus on piracy.

This question of predominant and main purpose has been examined extensively in the U.S. literature and in the cases of *Gamesmasters* and *Divineo*. These case “appears to sound the death knell for the use of mod chips within video game systems” but Harris Jr. argues that “with existing valid arguments for significant non-infringing uses and lessons provided by other countries, victories in lawsuits may not be far away”.<sup>894</sup> The *Divineo* case also deemed it irrelevant to examine the potential non-infringing uses of mod chips to override region coding or to allow interoperability with independent computer programs.<sup>895</sup> The US judicial decision has therefore determined that the dominant purpose is irrelevant in the examination.

On the other hand, the recent judgement by the ECJ in *Nintendo and Others v PC Box SRL and Others*<sup>896</sup> provides some guidance in interpreting the legitimacy of circumvention devices that have legitimate uses under recital 48 of the EU Directive. Recital 48 under this Directive made it clear that electronic and multi-purpose services that have a commercially significant purpose are not prohibited just because, in

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<sup>890</sup> Such acts refer to decrypting the DVD format, and completely reproducing the game through a “burner”. The process of burning can simply be found through a search in any web-based search website. For instance, searching ‘How to burn a PS2 game’ in Google revealed 577,000 results, with Youtube videos amongst the result.

<sup>891</sup> Stephen Gethin, ‘Case Comment – Kabushiki Kaisha Sony Computer Entertainment v Stevens’ (2002) 1(50) *IP Australia* 50, 50.

<sup>892</sup> David Jenkins, *Custom agents in biggest ever anti-piracy raids* (2 August 2007) Gamasutra, <[http://www.gamasutra.com/php-bin/news\\_index.php?story=14878](http://www.gamasutra.com/php-bin/news_index.php?story=14878)>.

<sup>893</sup> Interactive Entertainment Association of Australia, Submission No. 43, above n 54, 6.

<sup>894</sup> Harris Jr. above n 195, 113.

<sup>895</sup> *Ibid.*

<sup>896</sup> *Nintendo and Others v PC Box SRL and Others* (Court of Justice of the European Union, C-355/12, 23 January 2014)

proportionality, they are able to circumvent technological protection measures.<sup>897</sup> This was added in order to avoid condemning those manufacturers who place in commerce those products that are designed for legitimate purposes but which potentially could be used for purposes of circumvention.<sup>898</sup>

In lieu of Recital 48, this case introduced a way for EU national courts to evaluate the legitimacy of devices, either qualitatively or quantitatively, which may circumvent effective TPMs but at the same time could have a significant commercial purpose other than conducting unauthorised actions.<sup>899</sup> This would allow third parties to argue that circumventing TPMs to implement homebrew application to game consoles, while unauthorised, can be legitimate as long as proportionally, those interoperable applications are more commercially significant than the act of circumventing the effective TPM.

While the ECJ stressed the ultimate decision is still under the contemplation of national courts to assess these criteria, this decision introduces a balancing test to consider two issues. Firstly, whether the TPM is effective in protective the content from illegal access? Secondly, if it is effective, does the device seek to circumvent the TPM for legitimate purposes? Conversely, it is up to the copyright owner to prove the former test, while the third party must provide real evidence to prove the device has legitimate commercially significant uses other than circumvention.

The decision allows for a greater understanding of the uses of technology which are both legitimate and illegitimate. The balance between these uses need to be made and no longer should a device manufacturer such as Nintendo be entitled to argue that circumvention for illegal purposes is the sole object of circumvention conduct just because the legislation says so. The decision also states it is possible for third parties to argue and provide evidence that their devices in proportion have a commercially significant purpose or use other than to circumvent TPM for unlawful purposes.

While Australia does not have a Recital 48 equivalent in the Act, the Explanatory Memorandum acknowledges the Act should not unreasonably harm nor discourage the development of new digital

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<sup>897</sup> Recital 48. “Such legal protection should respect proportionality and should not prohibit those devices or activities which have a commercially significant purpose or use other than to circumvent the technical protection. In particular, this protection should not hinder research into cryptography.”

<sup>898</sup> Sirinelli above n 7, 5. This accords with the view that it is not the machine that is illegal but the use which it is put to.

<sup>899</sup> *Nintendo and Others v PC Box SRL and Others* (Court of Justice of the European Union, C-355/12, 23 January 2014).

markets, including the recognition for reasonable consumers to use copyright material without being in a significantly worse position than consumers in similar countries.<sup>900</sup> This was also acknowledged in the *Copyright and the Digital Economy* report which recommended a technologically neutral exception that looks at the purpose and nature of the activity rather than the type of technology being used.<sup>901</sup> This has a clear advantage over specific and narrow fair dealing exceptions as it is technologically neutral, and as such better suited for the application of private uses that are often unforeseen and unexpected. Keeping in line with the ECJ decision, the exception or decision should be based on the purpose rather than the technology itself. Given the research participants have argued that console modding should be legitimised so long as the use is not for piracy, the thesis recommends a purposive user intention test should be implemented similar to how the ECJ has considered in the case.

#### **4) Modifying Business Models**

Failing the fair use or fair dealing exceptions, another mechanism is required to acknowledge the needs of gamers and users to shift business models from overprotection to business models that support communities by providing “user-friendly, hassle-free solutions” to technologies and “finding and interacting with fans, so that value comes from a relationship”.<sup>902</sup>

This research and participant responses support the development of business models that were inclusive rather than adversarial. This view supports Schultz’s study in reconciling social norms and copyright law recommendation that rather than the industry employing deterrent practices such as lawsuits and DRM to prevent copyright infringement, business models must (1) adapt to changing circumstances and (2) persuade core consumer groups and subcultures to comply with the law.<sup>903</sup>

To address the first recommendation, adapting to changing consumer behaviour has slowly been adopted in the gaming industry, with the onset of digital distribution as the most successful evidence of adapting to changing consumer expectations. For the second recommendation, Choi and Perez advised that copyright owners should develop mutually beneficial relationships with Internet communities to foster a creative

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<sup>900</sup> Explanatory Memorandum, Copyright Amendment Bill 2006 (Cth.), General Outline

<sup>901</sup> Australian Law Reform Commission, *Copyright and the Digital Economy*, ALRC Paper 122 (2014), 22.

<sup>902</sup> See Ashes Moses, *Music Piracy War: Are the Big Labels Wasting their Time?* (28 March 2011) The Age, <<http://www.theage.com.au/technology/technology-news/music-piracy-war-are-the-big-labels-wasting-their-time-20110328-1ccrl.html>>.

<sup>903</sup> Schultz above n 799, 288.

environment in the creative process.<sup>904</sup> For instance, the developers for the popular video game *Mount & Blade* is praised for including players in the development process by allowing players to modify the game to create and change gameplay aspects.<sup>905</sup>

The enforcement of copyright and cultural norms can also co-exist in harmony by getting "the basics right" through the exploration of innovative business models and delivery methods which "give the people what they want, at what they consider to be a fair price".<sup>906</sup> For instance, Fahey argues that studying how pirates distribute content can be a solution because "pirates can distribute your software more quickly, to more people, at a lower cost and more efficiently than your own distribution methods can and the product they distribute is often more functional and appealing, with fewer restrictions on consumers' use of it, than the one being distributed."<sup>907</sup> While the industry have acknowledged that piracy will never cease<sup>908</sup>, industry experts identify that pirates can be converted to legitimate customers through delivering quality content worth buying<sup>909</sup> and by treating them with respect.<sup>910</sup>

With respect to the previous recommendations, the gaming industry has shifted to business models that allow more freedom for gamers to access games wherever and share content without infringing the law. STEAM for instance is developing a system which allows gamers to share its PC games to other gamers without extra cost, although the user is limited to authorise sharing to only ten devices at a given time, and a shared game can only be accessed by one user at a time.<sup>911</sup> A similar system is implement for the XBOX ONE which will allow users to share their games with up to 10 users in their friends list, although an internet connection is required for both the STEAM and XBOX ONE system. The PS3 on the other hand allows a user to authorise two consoles to play a purchased downloadable digital game and both players can play it at the same time. This shift to allow the sharing of soft-copy games is a big advantage

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<sup>904</sup> Choi et al. above n 144, 178.

<sup>905</sup> Kieron Gillen, *The Horse's Mouth: Mount & Blade Interview* (1 October 2008) Rock Paper Shotgun, <<http://www.rockpapershotgun.com/2008/10/01/the-horses-mouth-mount-blade-interview/>>. The developers praise the community for developing "arguably some of the best mods developed for a computer game."

<sup>906</sup> *Is Piracy Stealing?* (2011), The Sydney Morning Herald, <<http://digihub.smh.com.au/node/2022>>, at August 2011.

<sup>907</sup> Fahey, above n 526.

<sup>908</sup> Mike Bowden, *Piracy Will Never Be Fixed, Says SI Games Boss* (20 January 2009) VG247, <<http://www.vg247.com/2009/01/20/piracy-will-never-be-fixed-says-si-games-boss/>>.

<sup>909</sup> Tim Edwards, *Notch on Piracy: "If A Pirated Game is a Lost Sale, Should Bad Reviews be Illegal?"* (2 March 2011) PCGAMER, <<http://www.pcgamer.com/2011/03/02/notch-on-piracy-if-a-pirated-game-is-a-lost-sale-should-bad-reviews-be-illegal/>>.

<sup>910</sup> Nathan Grayson, *Good Old Games: DRM's Effectiveness "Close-to-None", Often Causes Piracy* (13 April 2011) VG247, <<http://www.vg247.com/2011/04/13/good-old-games-drms-effectiveness-close-to-none-often-causes-piracy/>>.

<sup>911</sup> *Steam Family Sharing* (October 2013) Steam <<http://store.steampowered.com/sharing/>>.

for gamers, especially since gaming consoles are increasingly moving to the cloud, and the need to purchase physical copies of games is becoming less important.

The importance of changing the business model from a restrictive and one point access DRM to a more varied open system which encourages sharing supports the participants belief that interaction and inclusion will result in a better relationship between owners and users but invariably an enforcement of law as well. Indeed, the ALRC report on TPM exceptions found that innovative business models rather than strengthened and restrictive policies will be of most significance in reducing piracy and copyright infringement.<sup>912</sup> Australian consumer group CHOICE however surmised that although better access and more competitive prices are not the silver bullets that will solve the issue entirely, these are factors that must be considered.<sup>913</sup> More importantly, while the participants did acknowledge that pirates will continue to pirate regardless of the available services, improving the current business models to make it more convenient to access and share games will ultimately negate that one key motivation to pirate games according to the participants, which is the convenience and ease of pirating games. This recommendation is supported by the Digital Connection Council who concluded that while it is inevitable that DRMs will be cracked, users are less likely to circumvent DRM that they understand well.<sup>914</sup> STEAM is perhaps the best example of this, and the PS4 and XBOX ONE have followed suit in terms of distribution and access of games.

### **5) Recognition of Cultural Norms**

Recognition of the underlying cultural norms in the gaming community can be the tool in guiding proper consumer behaviour. The findings in this research confirms that culturally the majority of gamers who modify their consoles do it for piracy and only a minority utilise circumvention for homebrew purposes. The importance of recognising this norm is more imperative in this age because there is a "lack of public feeling that breaking intellectual property is wrong" and "in the absence of such a conception, there is little

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<sup>912</sup> Australian Law Reform Commission, *Copyright and the Digital Economy*, ALRC paper 122 (2014), 47.

<sup>913</sup> Smith above n 610.

<sup>914</sup> Horn et al above n 407, 51.

reason for people to follow" the laws.<sup>915</sup> Neglecting the cultural norms will also result in increased use of resources and costly enforcement.

In this case, Vitale argues that for the legislation to effectively guide consumer behaviour, the law must consider the cultural aspects of society because ignoring these norms contributes to the lack of efficacy of laws created to protect the industry.<sup>916</sup> Moreover, the High Court in *Steven's v Sony* acknowledged that interpreting copyright law must be made to "protect the fundamental rights of the individual"<sup>917</sup> as the "implications of the online environment" introduces difficulties in the enforcement and adaptation of copyright to domestic and international economic and legal pressures.<sup>918</sup> Tyler conversely argues that for copyright to be effective in guiding consumer behaviour, legal authorities need to focus on creating the values that underlie voluntary compliance with the law.<sup>919</sup> Once these values and norms are recognised, policy makers and industries can gain an understanding of how consumers will receive and react to regulation.<sup>920</sup>

The ALRC report has made recommendations in regard to acknowledging socially normal practices in the form of a 'non-commercial private use exception', which supports the gamers interest in legitimate uses.<sup>921</sup> This exception will allow for the consideration of social norms and uses that do not harm rights holders, such as backing-up DVDs for private use, which is presently not allowed under the limited format-shifting exceptions. While backing-up a movie from a DVD for personal use may breach a number of copyright provisions (such as circumvention of the TPM in the DVD and the unauthorised subsequent reproduction in the process of backing-up the movie), the reproduced copy ultimately will not hurt the copyright holder as no commercial gain was made in the process nor was it distributed to lead to piracy. However, the participants in the thesis have pointed out that because a practice is normally accepted does not necessarily mean it is justified. The ALRC report also mirrors this sentiment, and warns that not all private uses

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<sup>915</sup> Tyler above n 508, 226.

<sup>916</sup> Vitale above n 450, 328.

<sup>917</sup> See *Stevens's v Kabushiki Kaisha Sony Computer Entertainment* [2005] HCA 58, paras [215] and [224]. Such fundamental rights include: the proper protection of fair dealing in works or other subject matters entitled to protection against infringement of copyright; proper protection of the rights of owners of chattels in the use and reasonable enjoyment of such chattels; the preservation of fair copying by purchasers for personal purposes; and the need to protect and uphold technological innovation which an over rigid definition of TPMs might discourage.

<sup>918</sup> *Ibid*, para [169].

<sup>919</sup> Tyler above n 508, 226.

<sup>920</sup> Major above n 735, 110.

<sup>921</sup> Australian Law Reform Commission, *Copyright and the Digital Economy*, ALRC Paper 122 (2014), 11.

should be permissible as it may hurt the copyright owner.<sup>922</sup> Furthermore, the law should not be dictated upon by what is socially acceptable because, as illustrated in the thesis, most gamers use console modification to play pirated games, not for homebrew purposes.<sup>923</sup>

The fact the gaming industry is coined as a "cultural industry" also adds value for the industry and lawmakers to recognise the norm of legitimate uses of console modding. These subcultures can inevitably change the gaming field as demonstrated by the XBOX ONE DRM controversies. Moreover, gamers have also somewhat changed Australian law, with regard to the controversial classification laws which for a long time were a source of contempt for Australian gamers. Indeed, the gaming media have acknowledged the influence that gamers pose in shaping the industry, and coupled with social media, the influence only grows stronger. It is thus imperative that Australian legislators acknowledge the importance of soliciting inputs of not only gamers, but consumers in general for policy change in order to ensure that the right balance is achieved in copyright.

## **11.2 LIMITATIONS**

The analysis of the findings to determine whether the access rights provisions in the Act are effective in light of console modification and piracy has revealed two limitations:

- Copyright is a rapidly shifting area of law, and so is technology. While the results complement recent government reports, the topic however will not remain static. Therefore, while the author has attempted to approach the topic in a comprehensive manner, the thesis is both limited in time and resources to accommodate all these new developments. The author has made a conscientious choice to constrain the literature review and issues within this calendar year whilst acknowledging new issues in the conclusion chapters.
- The author had initially intended to interview representatives from Microsoft, Sony and Nintendo. However these companies declined the opportunity to be interviewed. In addition, the emergent issues in regards to the data hacking from Sony occurred during the research which meant larger issues than participation in this thesis were at play. This meant the author could only

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<sup>922</sup> Ibid., 235

<sup>923</sup> Id.

obtain the sample pool from industry members of varying positions. In light of this, the views of the three key members in the console market regarding console modification can be found in public records including media reports and interviews, but not directly from participation in this thesis.

### **11.3 FUTURE RESEARCH PROSPECTS**

Given the rapidly changing state of the industry and copyright law, three areas can be examined as future research projects including:

#### **1) Examination of piracy and console modding in light of next generation of consoles, cloud gaming and DENUVO.**

During the time of researching this PhD, console modification has become harder due to technical advances which require gamers to access the internet and be online to play games. While physical medium will still be necessary, the increased reliability of digital, streaming and cloud gaming, especially for the next-generation consoles, can dramatically shift the copyright enforcement, DRMs, piracy and console modification.

The thesis acknowledges that the future of gaming appears to be approaching a multi-platform online environment rather than a closed company (Sony, Microsoft or Nintendo) specific platform. The DENUVO anti-tamper technology also presents a development in access rights reform as it may be the first protection measure that may successfully stop piracy, albeit limited for PC games. This development of single and multi-player online environments gives rise to another challenge in copyright that is an area of further research that is beyond this thesis.

#### **2) An analysis of the rights access provisions in light of the TPP IP Rights Chapter.**

At the time of writing the thesis, WikiLeaks released a transcript of a secret trade agreement between twelve nations including Australia, which focused on copyright, patents and other intellectual property issues.<sup>924</sup> The trade agreement heavily focuses on enforcement measures against piracy and illegal circumvention of any effective TPMs, proposing to call for signatories to the agreement to introduce

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<sup>924</sup> *Secret TPP Treaty: Advanced Intellectual Property Chapter for all 12 Nations with Negotiating Positions* (13 November 2013) Wikileaks <<http://wikileaks.org/tpp/static/pdf/Wikileaks-secret-TPP-treaty-IP-chapter.pdf>>.

criminal liability for violations of the anti-circumvention provisions, unless the circumvention was conducted by a non-profit entity.<sup>925</sup>

The TPP however has been heavily criticised by internet communities, consumer groups and anti-copyright collectives. The Electronic Frontier Foundation (EFF) has spoken out against the TPP, proclaiming that for people who care about free speech and a balanced intellectual property system, the TPP does not paint a pretty picture.<sup>926</sup> The EFF further argues the TPP is a conglomerate agreement between corporations and industries that is negotiated in complete secrecy and "comes out as an anti-user wish list of industry-friendly policies."<sup>927</sup>

In the same vein, Matthew Rimmer argues the TPP is a "Christmas wish-list for major corporations" and is overwhelmingly supportive of US trade objectives and multinational corporate interests<sup>928</sup> The ACCC also argued the TPP may tilt the balance of favour in right holders to the detriment of competition and consumers.<sup>929</sup> Weatherall's analysis of the TPP is also negative, arguing the secretive TPP discussions as "maddening (and) dispiriting process."<sup>930</sup> Weatherall lists a wide range of issues the TPP poses in Australia, including but not limited to:

- Allowing the seizure of technologies that aim to infringe copyright, even if it is an ordinary company asset like a laptop or server, even if it is primarily used for non-infringing purposes, with no requirement that the actual technology or conduct can or will significantly cause harm;
- Introduce broad criminal provisions for the acts of private individuals and small businesses, along with proposals to increase the damages awarded in IP cases;

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<sup>925</sup> Ibid, Article QQ.G.10. The Treaty proposes that each party shall provide for criminal procedures and penalties to be applied when any person, other than a nonprofit library, archive, educational institution, or is found to have engaged in any foregoing activities.

<sup>926</sup> Parker Higgins, *TPP Leaks Confirms the Worst: US Negotiators Still Trying to Trade Away Internet Freedoms* (13 November 2013) EFF <<https://www.eff.org/deeplinks/2013/11/tpp-leak-confirms-worst-us-negotiators-still-trying-trade-away-internet-freedoms>>.

<sup>927</sup> Ibid.

<sup>928</sup> Phillip Dorling, *Trade Deal Could be Bitter Medicine* (14 November 2013) *The Age* <<http://www.theage.com.au/federal-politics/political-news/trade-deal-could-be-bitter-medicine-20131113-2xh4p.html>>.

<sup>929</sup> Gareth Hutchens, *ACCC airs concerns over intellectual property provisions in Trans-Pacific Partnership* (December 2015) *The Sydney Morning Herald* <<http://www.smh.com.au/federal-politics/political-news/acc-c-air-concerns-over-intellectual-property-provisions-in-transpacific-partnership-20151201-glcef0.html>>

<sup>930</sup> Kimberlee Weatherall, *TPP - Australian Section-by-Section Analysis of the Enforcement Provisions of the August Leaked Draft* (November 2013) From the Selected Works of Kimberlee G Weatherall <<http://works.bepress.com/cgi/viewcontent.cgi?article=1032&context=kimweatherall>>, 1.

- The lack of a Bill of Rights equivalent in Australia means a legislation drafted that complies with the TPP cannot be challenged on privacy or due process grounds and;
- The lack of fair use or flexible exceptions to copyright law means that private individuals and commercial parties are more exposed to potential copyright infringement liability.<sup>931</sup>

The threats posed by the TPP in Australia however might already be mitigated according to Weatherall and the IP chapter already has a number of provisions proposed by the AUSFTA.<sup>932</sup> Nevertheless, she argues the criticisms still stand because certain features and limitations of Australian copyright law, as mentioned above, mean that Australian individuals and businesses are more exposed to infringement.

Along with these criticisms, US Senator Jeff Sessions and presidential candidate Donald Trump have called for the TPP to be scrapped and described as a “horrible deal.”<sup>933</sup> There are also doubts to the economic benefits of the TPP, as the World Bank suggested the deal may increase Australia’s GDP by only .7%.<sup>934</sup> The Australian Trade Minister Andrew Robb has indicated concern over the proposals claiming the government will not support any provisions on copyright in the TPP that would criminalise conduct that is legal in Australia.<sup>935</sup> Australia however has signed the treaty in 2016, despite the criticisms and the demand by community groups to independently assess the economic impact of the deal through the Productivity Commission.<sup>936</sup> The impact of the TPP is beyond the scope of the thesis. However, the proposals introduced by the TPP and future enactment will offer future research possibilities on the continuing need to adjust the rights access provisions. Further analysis of the proposals and the consequences will also add to the debate regarding the balancing act of TPMs and consumer rights.

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<sup>931</sup> Ibid, 2-3.

<sup>932</sup> Ibid, 27.

<sup>933</sup> Peter Mitchell, *US Senator wants TPP scrapped* (March 2016) *The Australian* < <http://www.theaustralian.com.au/news/latest-news/us-senator-wants-tpp-scrapped/news-story/1a1c8cafcf65db0aa4a6f5ec01f5ff96?nk=e49a4b6b5060604d8ea72b87a8835d28-1457848023>>

<sup>934</sup> *Topical Issue: Potential Macroeconomic Implications of the Trans-Pacific Partnership* in *Global Economic Prospects* (January 2016) 219, 227.

<sup>935</sup> John Kerin, Robb Vows to Resist Traps in Trade Deal *The Australian Financial Review* (Melbourne) 18 November 2013, 5.

<sup>936</sup> Gareth Hutchens, *Push to stop Parliament ratifying the Trans-Pacific Partnership* (February 2016) *The Sydney Morning Herald* < <http://www.smh.com.au/federal-politics/political-news/push-to-stop-parliament-ratifying-the-transpacific-partnership-20160202-gmjaiy.html#ixzz3z1CnmgVn>>

### 3) Examination of proposed measures to reduce piracy by extending copyright owners and ISPs powers.

In 2014, the Australian Government proposed the expansion of owners copyright rights over ISPs that would have allowed right holders to block access to websites that offer infringing material and to monitor the volume and impact of piracy.<sup>937</sup> In addition, the reform would give legislative authorisation to ISPs to take steps to discourage or reduce online copyright infringement by actively cooperating with copyright owners to share details regarding the identity of alleged pirates with copyright owners and sending infringement notices to pirates.<sup>938</sup>

At the time of writing the thesis, the reforms had been debated by pro-copyright groups, industry members, ISPs, consumer groups and academics.<sup>939</sup> While these groups have shown contrasting views over the reforms, they however unanimously opposed the measures arguing they are too broad and “could have unintended consequences.”<sup>940</sup> This has led the Communication Minister to declare that “it is back to the drawing board on copyright proposal.”<sup>941</sup>

Although the Australian government must again need to deliberate possible measures to tackle online piracy, it does however illustrate the difficulties of copyright reform in achieving the intended balance between the rights of copyright owners and end-users. This outcome offers potential research prospects because the results are similar with the reaction over SOPA and the TPP whereby legal and technological means to eliminate and control piracy proffered a limited solution. Consideration of the reform breakdown with application of the four factors used in the thesis also poses an interesting research viewpoint to expand the analysis of reform to an international multi-country examination.

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<sup>937</sup> Australian Government, *Online Copyright Infringement*, Discussion Paper 1 (2014), 1.

<sup>938</sup> *Ibid*, 3-4.

<sup>939</sup> Luke Hopewell, *Malcolm Turnbull's Anti-Piracy Forum Live: The News As it Happened* (9 September 2014) GIZMODO <<http://www.gizmodo.com.au/2014/09/malcolm-turnbulls-anti-piracy-forum-live-blog-follow-the-news-as-it-happens/>>.

<sup>940</sup> Matthew Knott, Turnbull: Back to the Drawing Board on Copyright Law Proposal (11 September 2014) *The Sydney Morning Herald* <<http://www.smh.com.au/digital-life/digital-life-news/turnbull-back-to-the-drawing-board-on-copyright-law-proposal-20140911-10fb6h.html>>.

<sup>941</sup> *Ibid*.

### ***11.4 CONCLUDING REMARKS: ADJUSTMENT OF THE RIGHTS ACCESS PROVISION***

The thesis contributes to the existing body of knowledge by empirically examining the academic debates in the literature by obtaining the knowledge and beliefs of users (being gamers) affected by the circumvention provisions of the Act. Empirical evidence of this kind has not been provided in the literature so far. The research has, through the focus groups and interviews, confirmed and negated theories posited by academics and industries about gamers and their intentions to modify their consoles, such as homebrew development in modified consoles. The research however supports the recommendations for amendments of the Act, as gamers beliefs of legitimate uses of console modification have not been considered in establishing the balance between copyright owners and users. The legal, technological, cultural and economic factors examined in this thesis also confirm adoption of different commercial business models to support inclusion of gamers rather than adversarial would support compliance or increased acceptance of copyright. A finding that further education of users by industry in mediums accessible or used by gamers was an unforeseen result as the copyright community believe they are already providing education through society programs. These programs though do not appear to have worked with the relevant users in the thesis.

The prospect of adjusting the rights access provisions is the key theme of the thesis as presented by the research question: do the access rights provisions of the reformed Australian *Copyright Act 1968* (Cth) need re-adjustment in light of console modification in the video game industry?

Given the findings of the focus groups and the interviews, the answer to the research question is a **yes**. The need to amend the access right provisions has been supported by observations made under the four factors in light of console modification in the video game industry.

Firstly, the *legal factor* expounded that the legislation is too complex, and does not consider with many societal norms. Moreover, and despite the restrictions afforded through EULAs and TPM, enforcing these laws is almost impossible given the widespread nature of piracy and console modification.

Secondly, the *cultural factor* illustrated a community that accepts piracy, console modification and file-sharing as the norm. A community of ‘good people’ are therefore able to morally disengage themselves from the legal and economic implications of these activities.

Thirdly, the *technological factor* likewise establishes that these norms presently subsist as a way for users to "tinker" with their software or hardware, and circumvent the DRMs implemented to prevent such activities from occurring. These DRMs are primarily seen as sources of annoyance for legitimate consumers given that they pre-empt piracy thereby subjecting all users to the restrictions. However, while ‘tinkering’ the consoles is seen as an innovative method to introduce interoperable applications, there is the consensus that console modification is only primarily used for piracy.

Lastly, the *economic factor* demonstrated a gaming industry struggling with piracy, lack of innovation in game development and high prices. Indeed, despite the cultural norms established in regard to file sharing, the high price of games seems to be the primary key in driving gamers to pirate. However, the introduction of gaming distribution methods including digital distribution and free-to-play establish positive experiences which borrow from the conveniences offered by piracy and console modification without the illegalities involved.

While the thesis is confined in analysing console modification, the thesis contribute to the existing knowledge as the findings can be applied in the wider society which is increasingly reliant on digital content that is protected by DRMs. The four factors illustrated the current state of the TPM provisions are believed to be solely focused on owners’ rights without consideration of user’s rights, especially when moving to a digital and information accessible society. In this case, console modification encapsulates the struggles that copyright must deal with in light of the gamers protesting what they consider to be the restrictive nature of DRMs through circumvention of DRMs to pirate games and introduce interoperable applications. While console modification is illegal, devices such as smart phones and tablets also offer the same capabilities without the need for modification, whilst many of the applications already available infringe copyright law. The added effects of the file-sharing norms and the ambivalence that consumers feel towards the law exacerbate the issue. Moreover, the frustration expressed by the participants

regarding complex legislations and policies. More importantly, the rights access provisions rely heavily on industrial enforcement without any legal control on how restrictive a DRM should be.

This thesis has discussed and analysed the known beliefs of the participants in the interviews and focus groups conducted. This thesis has also provided recommendations for changing the law. However, no single piece of legislation can possibly balance these issues, especially a legislation that fails to acknowledge these extenuating factors according to the interviews and focus groups conducted.<sup>942</sup> As such, the thesis posits, rather than long and complex legal amendments which will only complicate the issue, the industry should do its part to readjust the policies and technologies implemented to control rights access. This is slowly being unveiled through open DRM methods such as being able to share games via account sharing in STEAM, the PS4 and XBOX One. Furthermore, there is a movement of amalgamating DRM protection with a platform of providing services such as game sales and community interaction. These services also serve as an economic advantage for gamers and the industry by increasing competition globally and locally through internet sales, which may assist in reducing gamer motivation to modify consoles and pirate games.

It was acknowledged that the law is the most authoritative field of power amongst the four factors listed, given that the law ideally represents the interests of authors, publishers the public and society.<sup>943</sup> Indeed, the law can shape behaviour, and ultimately influence the communities perceptions and morals. The thesis finds that the introduction of a fair use principle in Australia can be a plausible solution as it provides a flexible platform for courts to implement copyright law to technologies that have an inherent ability to infringe the law in a theoretically fair and neutral manner. However, given the lack of a freedom of speech or constitutional bill of rights provision in Australian law and the grim pro-copyright application of the principle in American jurisdictions, the effectiveness of the fair use exception is therefore doubtful. Alternatively, simplification or streamlining the laws and contractual rules can make the law more acceptable to users given the overwhelmingly negative perception of the copyright law and EULA primarily due to their complexity and length. This thesis finds the development of a purposive user

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<sup>942</sup> See McCullagh and Homsy above n 350, 8. No legislation is good legislation.

<sup>943</sup> Wiersma, above n 50, 11.

intention test could be the most promising recommendation, as the ECJ has already provided set criteria in its implementation towards devices that circumvents TPM but has significant commercial purposes.

Copyright law needs to adapt to the demands of both consumers and content owners whilst meeting the challenges examined extensively in the previous chapters. This will be an issue that will surely become more complex with the introduction of faster internet and obfuscated treaties such as the TPP that are secretly being discussed away from public scrutiny.

In conclusion, the re-adjustment of the rights access provisions through legislative change is supported by this thesis but it remains a paramount challenge in copyright law. The danger however lies in our current predicament of the vicious cycle of overprotection and hacking. At the time of finalising the thesis, the Sony PS4 was hacked but at its heels the anti-tamper DRM DENUVO may be the very measure that will end circumvention of DRMs and gaming piracy. It is hoped that by moving forward to a new generation of gaming consoles and a cloud-based society, the copyright law will be able to meet the growing demands of protection and rights access without subjugating consumer rights by acknowledging that the issue is not only a legal but is also cultural, economic and technological in nature.

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### **3. LEGISLATION**

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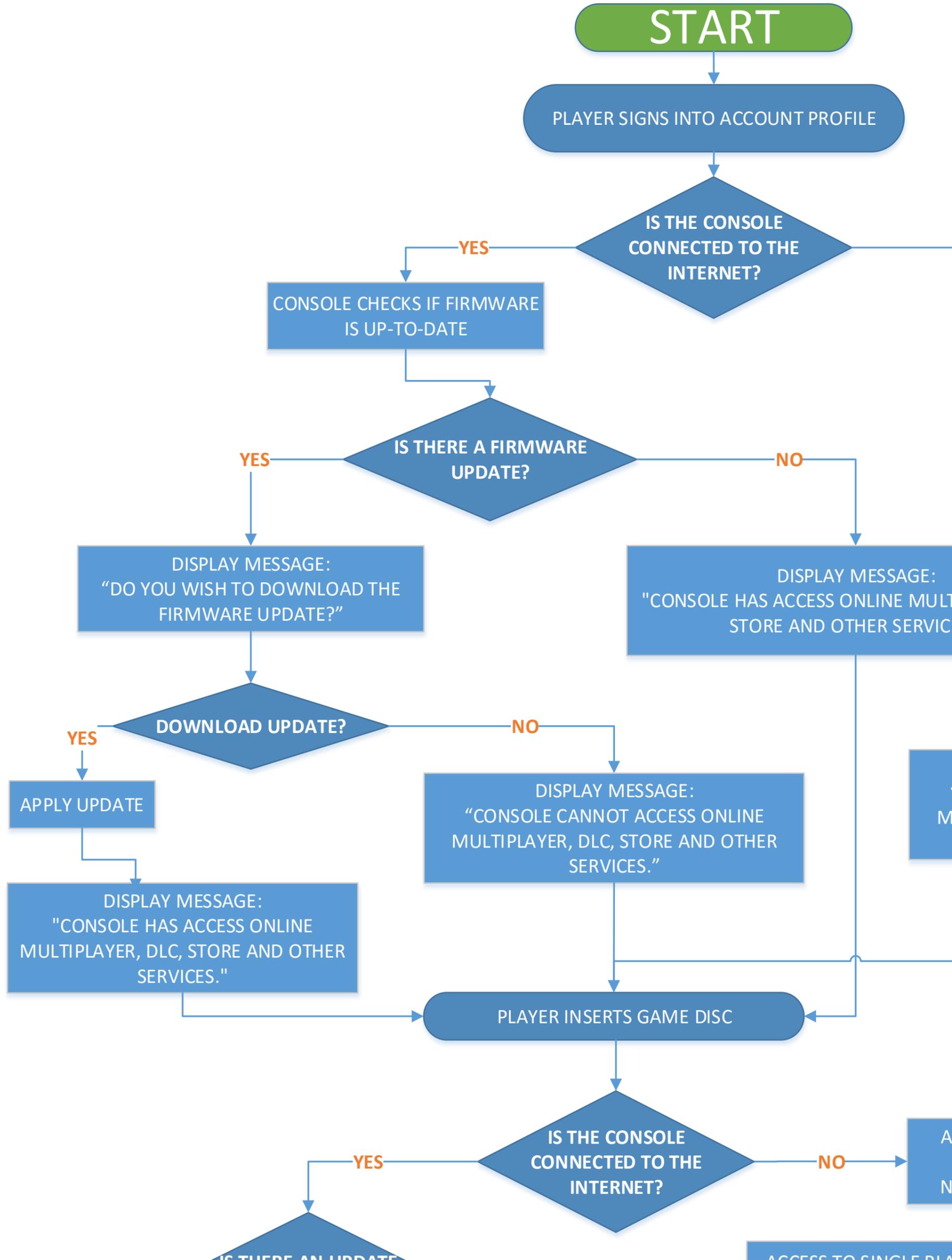
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# APPENDIX A – THE PROCESS OF PLAYING A VIDEO GAME ON A SEVENTH GENERATION CONSOLE



## APPENDIX B – CONSENT FORM AND EXPLANATORY LETTER FOR INTERVIEWS

### Consent Form

**Title:** *The Modification Chip Problem in the Video Game Industry - A Critical Examination of the Owner-User Balance under the Australian Copyright Amendment Act 2006 (Cth)*

**NOTE:** This consent form will remain with the Monash University researcher for their records

I agree to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

#### List all procedures relevant to your data collection – delete those not applicable

I agree to be interviewed by the researcher  **Yes**

**No**

I agree to allow the interview to be audio-taped and/or video-taped  **Yes**

**No**

I agree to make myself available for a further interview if required  **Yes**

**No**

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way.

I understand that I will be given a transcript of data concerning me for my approval before it is included in the write up of the research.

I understand that data from the interview will be kept in a secure storage and accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

**Participant's name**

**Signature**

**Date**



### Explanatory Statement

**Title:** *The Modification Chip Problem in the Video Game Industry - A Critical Examination of the Owner-User Balance under the Australian Copyright Amendment Act 2006 (Cth)*

This information sheet is for you to keep.

#### Student research project

Hello! My name is Melchor Inigo Raval and I am conducting a research project with Paul Sugden a lecturer in the Department of Business Law and Taxation towards a Doctorate of Philosophy degree, at Monash University. This means that I will be writing a 100,000 word thesis.

#### The aim/purpose of the research

The study will explore the technological protection measure provisions of the *Copyright Amendment Act 2006 (Cth)* and the owner/user rights balance through a case study examining the impact of the modification chip in the video gaming industry. The mod chip has divided the gaming industry and gamers because on the one hand, the industry argues the mod chip encourages piracy. Gamers on the other hand argue the mod chip is aimed at making better use of the gaming console.

The interviews aim to find out:

- What developers think of the mod chip and console modifications?
- How console modifications can affect game development and sales.
- If the law is effective in protecting developers from the mod chip and piracy.

#### What does the research involve?

Your involvement is simply to respond to all questions during the interview. However, if you feel you do not wish to answer any particular question, you may refuse to respond without any explanation or consequence.

#### How much time will the research take?

The interview will take approximately 30-40 minutes to complete. The time and venue allocated will depend on the general availability of the respondent.

#### Can I withdraw from the research?

Being in this study is voluntary and you are under no obligation to consent to participation. You may withdraw anytime during the interview.

#### Confidentiality

Participants will be assured that their identity will be kept confidential in the duration of the focus group. In the research, individual participants will be referred to using non-identifying pseudonyms or codes established by the researcher.

#### Storage of data

Storage of the data collected will adhere to the University regulations and kept on University premises in a locked cupboard/filing cabinet for 5 years. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

#### Results

If you would like to be informed of the aggregate research finding, please contact **Melchor Inigo Raval** on [REDACTED]. The findings will be accessible for **5 years** from completion of the thesis.

Appendixes

<p>If you would like to contact the <b>researchers</b> about any aspect of this study, please contact the Chief Supervisor</p>	<p>If you have a <b>complaint</b> concerning the manner in which this research <b>&lt;insert your project number here&gt;</b> is being conducted, please contact:</p>
<p><b>Paul Sugden</b> <b>Lecturer</b> <b>Monash University VIC 3805</b> [Redacted] [Redacted]</p>	<p>Executive Officer, Human Research Ethics Monash University Human Research Ethics Committee (MUHREC) Building 3e Room 111 Research Office Monash University VIC 3800 [Redacted] [Redacted] [Redacted]</p>

Thank you.  
**Melchor Inigo Raval**

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## APPENDIX C – CONSENT FORM AND EXPLANATORY LETTER FOR FOCUS GROUPS

### Consent Form -

**Title:** *The Modification Chip Problem in the Video Game Industry - A Critical Examination of the Owner-User Balance under the Australian Copyright Amendment Act 2006 (Cth)*

**NOTE:** This consent form will remain with the Monash University researcher for their records

I agree to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

1. I agree to be involved in a focus group.  YES  NO
2. I agree to allow the focus group to be audio and video –taped.  YES  NO
3. I agree to make myself available for a further interview if required.  YES  NO

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way. However, if I do consent to participate, I may only withdraw prior to the focus group beginning.

I understand that if I do consent to a further interview session, I can only withdraw prior to the interview session commencing.

I understand that any data that the researcher extracts from the focus group for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.

I understand that any data from the interview or focus group will be kept in secure storage and accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

**Participant's name**

**Signature**

**Date**



### Explanatory Statement –

**Title:** *The Modification Chip Problem in the Video Game Industry - A Critical Examination of the Owner-User Balance under the Australian Copyright Amendment Act 2006 (Cth)*

This information sheet is for you to keep.

#### Student research project

Hello! My name is Melchor Inigo Raval and I am conducting a research project with Paul Sugden a lecturer in the Department of Business Law and Taxation towards a Doctorate of Philosophy degree, at Monash University. This means that I will be writing a 100,000 word thesis.

#### The aim/purpose of the research

The study will explore the *Copyright Amendment Act 2006 (Cth)* and the owner/user rights balance through a case study examining the impact of the modification chip in the video gaming industry. The mod chip has divided the gaming industry and gamers because on the one hand, the industry argues the mod chip encourages piracy. Gamers on the other hand argue the mod chip is aimed at making better use of the gaming console.

The focus groups aims to find out:

- Why gamers use the mod chip.
- What gamers use the mod chip for.
- If the law is effective in deterring gamers from using the mod chip for illegal purposes.

#### What does the research involve?

Your involvement is simply to respond to all questions during the focus group. We would also like you to participate and contribute to the discussions that may arise during the focus group, but if you feel you do not wish to answer any particular question, you may refuse to respond without any explanation or consequence.

#### How much time will the research take?

The focus group will take approximately 30-40 minutes to complete. Times allocated for the focus groups will depend on the general availability of the respondents and the venue. The respondents will be notified of the time scheduled for the focus groups in the near future.

#### Can I withdraw from the research?

Being in this study is voluntary and you are under no obligation to consent to participation. However, if you do consent to participate, you may only withdraw prior to the focus group beginning.

#### Confidentiality

Participants will be assured that their identity will be kept confidential in the duration of the focus group. In the research, individual participants will be referred to using non-identifying pseudonyms or codes established by the researcher.

#### Storage of data

Storage of the data collected will adhere to the University regulations and kept on University premises in a locked cupboard/filing cabinet for 5 years. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

#### Results

If you would like to be informed of the aggregate research finding, please contact **Melchor Inigo Raval** on [REDACTED]. The findings are accessible for **5 years**.

<p>If you would like to contact the <b>researchers</b> about any aspect of this study, please contact the Chief Investigator:</p>	<p>If you have a <b>complaint</b> concerning the manner in which this research <b>&lt;insert your project number here&gt;</b> is being conducted, please contact:</p>
	<p>Executive Officer, Human Research Ethics Monash University Human Research Ethics Committee (MUHREC) Building 3e Room 111 Research Office Monash University VIC 3800</p> <p>██████████ ██████████ ████████████████████</p>

Thank you.

**Melchor Inigo Raval**

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**APPENDIX D - FOCUS GROUP COMPOSITIONS**

<i>INSTITUTION</i>	<i>CODING</i>	<i>MEMBERS</i>
<b>MONASH UNIVERSITY</b>	FOCUS GROUP 1 (FG1)	FG1_P1 FG1_P2 FG1_P3 FG1_P4
	FOLLOW-UP INTERVIEWS	FG_INT1 FG_INT2
<b>SWINBURNE UNIVERSITY</b>	FOCUS GROUP 2 (FG2)	FG2_P1 FG2_P2 FG2_P3
	FOCUS GROUP 3 (FG3)	FG3_P1 FG3_P2 FG3_P3 FG3_P4
	FOCUS GROUP 4 (FG4)	FG4_P1 FG4_P2 FG4_P3 FG4_P4
	FOCUS GROUP 5 (FG5)	FG5_P1 FG5_P2 FG5_P3 FG5_P4 FG5_P5
	FOLLOW-UP INTERVIEWS	FG_INT3
<b>DEAKIN UNIVERSITY</b>	FOLLOW-UP INTERVIEWS	FG_INT4

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## APPENDIX E – INTERVIEW QUESTIONS

### ***OPENING QUESTION***

- 1) Can you please say your name?
- 2) How long have you been working for the industry?
- 3) Why did you choose to work in the gaming industry?

### ***FRAMES THE TOPIC***

**A) Can you list some of the issues that both the industry and gamers are currently facing?**

- > *How do you feel about these issues?*
- > *Are these issues present in Australia?*

*OK, I'm now going to ask a number of questions that focuses on this issue and how it affects the gaming industry.*

### ***FOCAL QUESTIONS***

**B) What are your views regarding the gaming industry's use of DRMs or digital rights management?**

- > *Can you tell me why publishers use DRMs?*
- > *Do DRMs affect how games are developed?*
- > *Why do you think some gamers are not supportive of DRMs in games?*
- > *Do you believe DRMs have been effective in stopping illegal reproduction or piracy?*
- > *Do you think the industry should pursue other alternatives?*

**C) What can you tell us about devices that aim to bypass DRMs, like mod chips (or console modifications)?**

- > *What are your views about the use of mod chips by gamers to circumvent the DRMs?*
- > *How do you think the device affects the industry?*
- > *Gamers argue that the mod chip can be used to play imported games and homebrew apps. What do you think?*
- > *Australian gamers are perhaps known to resort to using the mod chip for piracy because they claim game prices are too high. What do you think?*

**D) We understand how big developers and publishers view current laws but what is your opinion of the current available laws in the Australian Copyright Act that were made to protect games from illegal piracy?**

- > *In your opinion, what could the government or policy-makers do to stop gamers from using the mod chip for piracy?*
- > *What lessons do you think the industry can learn from mod chips?*

### ***CONCLUSION***

**4) Is there anything else you would like to add that we have not covered? Do you have any questions?**

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## APPENDIX F - FOCUS GROUP QUESTIONS

*Hi everyone, welcome to this focus group. Before we begin I'll introduce myself. My name is Melchor Raval and I'm doing my PhD on video game console modifications and copyright right law involved in mod chips. Now I just want to say that this is purely a voluntary task so I wish to thank all of you for endeavouring to come down here to do this. I do however request that for all of you to please attempt to participate in the discussion but in saying that, please respect your peers opinions or views during the discussion. Also if you have any questions, feel free to ask anytime.*

*I just want to remind all of you again that your identity will be kept confidential for the duration of this research, and I will be using non-identifiable pseudonyms or code if I have to present the data in any form of study. Your privacy is very important so I will do my best to keep it all safe. So I will begin the discussion by firstly introducing ourselves around the table and answering a few questions...*

- **Opening Questions**

- 1) What is your first name and what video game console(s) do you own?
- 2) What aspect of gaming attracts you the most?

*Now the next few questions will basically frame the topic and will give us a sense of what you think of some issues that are affecting gamers at the moment.*

- **Frames the topic**

- 3) Can you think of any common concerns for gamers at the moment?
  - *What are your thoughts about these particular issues?*
- 4) Do you think the industry are facing the same issues?
  - *How do you feel about the industry's responses to these issues?*

*Now we get to the bedrock of this study. In this section I ask that all of you please contribute to the discussions.*

- **Focal questions**

- 5) Are you aware of the mod chip and what it can do?

IF NOT - Well mod chips is an umbrella term used to refer to devices or services used to modify or disable built-in restrictions in video game consoles to allow a myriad of functions. At the moment almost every single current-gen consoles can be modified, despite numerous attempts by the manufacturers and government to stop their manufacture. In light of this:

## Appendixes

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6) Why do gamers use the mod chip?

- *How do you feel about these reasons?*

- *Can you elaborate?*

- *Do these devices impact your gaming habits? If so, how?*

7) Can you think of ways the mod chip impacts the gaming industry, both positive and negative?

- *Why do you think the industry is against the mod chip?*

- *How do you feel about this?*

The industry in response have utilised DRMs to disable mod chips from functioning. However, I want to know...

8) How do you feel about the industry and their use of DRMs?

- *Do you believe DRMs have been effective in protecting against piracy?*

- *Do DRMs affect you? If so, how?*

9) Are DRMs still viable today? Why or why not?

- *Do you think the gaming industry should explore other alternatives in protecting their games?*

- *What do you think are possible alternatives to DRM?*

On the other side of the coin, the mod chip has also introduced some tricky legal issues. The industry have been extra vigilant in bringing mod chip manufacturers to court to cease the creation and distribution of the device and services. As games, I want to ask you guys if...

10) Are you aware of the laws that affect the mod chip?

IF NOT - Would you all be curious as to what the legal status of the mod chip was? Would you care if it was deemed illegal?

11) How do you feel about the industry bringing mod chip manufacturers to court?

- *Do you think these cases are effective in preventing gamers from using the mod chip?*

- *Do you think the mod chip should be legal? Why?*

- *And what lessons do you think the industry can learn from the mod chip?*

12) Do you believe the law is fair towards gamers? Why?

- *Likewise, do you believe the law is fair towards the industry? Why?*

- **Ending question**

13) Is there anything else you would like to add that we have not covered?

## APPENDIX G - SAMPLE OF THEMES FROM FOCUS GROUPS

<i>TECHNOLOGICAL</i>	<i>ECONOMICS</i>	<i>CULTURAL</i>	<i>LEGAL</i>
DRM – Annoying 1 Regional lockout Always on-line 1 2 3	Price 1 2	Piracy - Sharing	Effectiveness 1 2 Too much digital free flow of information 1
DRM – Effectiveness XBOX ban 1 2 Deter cheating 1 More or less slowed it down 1	Piracy Positive Expanding market 1 Negative Losing money 1 No positive 1	Piracy – Copying 1 2	Risk 1 I think there is a bigger picture rather than picking out a couple of people who have done it.
DRM – Hurt legitimate customers	Australian gaming industry 1 Nothing majorly huge	Convenient 1 2 3 Quick and effective Easy to get	Enforcement 1
Alternatives	Alternative business models Digital distribution 1 Made a massive difference - Steam Free-to-play 1	Homebrew	Knowledge of the law 1 2 Obviously it is illegal Any gamer would want to know this sort of things
Console modification - Homebrew	Changing gaming industry	Piracy – profiting 1	EULA 1 Illegal for them to have fine print 1 Simplify
Console modification – Personalisation 1 Mod however you want	Shovelware 1 Due to competition	Demo	Changing the law
Infrastructure 1 Internet speeds slow	Demographics Students 1	Justified 1 2 Individually yes – but zoomed out a bit – no	Awareness of the law 1 Not too aware 1
		Piracy - Personal use 1	Compliance 1
			Fairness 1 2 No – we just got drilled 1 Not aware of demographic 1
			Legality 1

Appendixes

			For private modification
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## APPENDIX H – INFORMATION SHEET

### A. Mod Chips

Modification chips(mod chips) is an umbrella term used to refer to devices or services used to modify or disable built-in restrictions in video game consoles to allow a myriad of functions. These functions include the circumvention of region coding, digital rights management, and copy protection for the purpose of running software intended for other markets, copied games, or unlicensed software (homebrew). Furthermore, the mod chip has expanded the hardware capabilities of the console, or even installing an alternative operating system to completely re-purpose the console. At the moment almost every single current-gen consoles can be modified, despite numerous attempts by the manufacturers and government to stop their functioning and distribution.

### B. The Legislation - Copyright Act 1968 (Cth)

The law regarding mod chips is governed by the *Copyright Act 1986 (Cth)*. The law prohibits a number of activities pertaining to the illegal circumvention of effective technological measures in devices such as gaming consoles.

- 1) **The Act prohibits the unauthorised circumvention of technological measures that controls access to the content.**
- 2) **The Act also makes it illegal to manufacture and market such devices that have limited commercially significant purpose of enabling or facilitating the circumvention of a technological measure.**

The law also has exceptions which limits liability.

- 1) **The Act permits copyright users to format shift or privately copy video tapes to computers. However, users are not permitted to format shift DVD's or blu-rays.**
- 2) **The Act also allows users to circumvent a technological measure for the sole purpose of achieving interoperability of a computer program to a device without the authorisation of the owner.**

It is noteworthy that the Act explicitly excludes regional access coding as a legitimate form of protection against illegal piracy or reproduction. Therefore, it is legal to circumvent the regional locks without legal repercussions, although only to this extent.