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DON'T PANIC!: an unhurried critique of
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Christopher L. Moore
University of Wollongong

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DON'T PANIC!: An Unhurried Critique of Copyright and the Potential
for Alternatives.

A thesis submitted in fulfillment of the
requirements for the award of the degree of

Doctor of Philosophy

from

University of Wollongong

by

Christopher L. Moore, BCA, BA (hons)

School of Social Sciences, Media and Communication

2007

CERTIFICATION

I, Christopher L. Moore, declare that this thesis, submitted in fulfillment of the requirements for the award of Doctor of Philosophy, in the department of the Art, School of Social Sciences, Media and Communication, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualification at any other academic institution.

Christopher L. Moore

29 March 2007

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Abbreviations & Acronyms

ACTN	Advisory Committee for Trade Negotiations (US)
AFC	Australian Film Commission
AI	Artificial Intelligence
AIC	Australian Institute of Criminology
AIR	Association of Independent Record Labels
ALAI	Association Littéraire et Artistique Internationale
AT&T	American Telephone and Telegraph
ARPANET	Advanced Research Projects Agency Network
AUSFTA	Australia and United States Free Trade Agreement
BIRPI	United International Bureau for the Protection of Intellectual Property
BSAA	Business Software Association of Australia
BSD	Berkeley Software Distribution
CC	Creative Commons
CIE	Centre for International Economics
CIS	Critical Information Studies
CSS	Content Scrambling System
CRS	Congressional Research Service
CTEA	Copyright Term Extensions Act (1998, US)
DeCSS	Decrypted Content Scrambling System
DFAT	Australian Department of Foreign Affairs and Trade
DMCA	Digital Millennium Copyright Act (1998, US)
DRM	Digital Rights Management
EFF	Electronic Frontier Foundation
EU	European Union
EULA	End-User Licence Agreements
FCC	Federal Communications Commission (US)
FSF	Free Software Foundation
FTA	Free Trade Agreements
FPS	First Person Shooter
GATT	General Agreement on Tariffs and Trade
GNU	GNU Not UNIX
GPL	General Public Licence
GSP	Generalised System of Preferences
GST	Goods and Services Tax
HDTV	High Density Television
IDC	International Data Corporation
IPCR	Intellectual Property and Competition Review (Australia)
ISP	Internet Service Provider
IT	Information Technology
ITO	International Trade Organisation
IP	Intellectual Property
JSCT	Joint Standing Committee on Treaties
MCA	Music Council of Australia
MEAA	Media Entertainment Arts Alliance
MIT	Massachusetts Institute of Technology
MMORPG	Massively Multiplayer Online Role Playing Games
MPAA	Motion Picture Association of America
MUDs	Multiple User Domains/Dungeon
NAFTA	North American Free Trade Agreement
OSD	Open Source Definition

OSI	Open Source Initiative
OSS	Open Source Software
P2P	Peer-to-peer
PC	Personal Computer
QUT	Queensland University of Technology
RIAA	Recording Industry Association of America
SCC	Static Control Components
SDMI	Secure Digital Music Initiative
TPM	Technical Protection Measures
TRIPS	Agreement on Trade Related Aspects of Intellectual Property
UN	United Nations
UK	United Kingdom
US	United States of America
WIPO	World Intellectual Property Organisation
WTO	World Trade Organisation
XML	Extensible Markup Language

Abstract

This study contributes to the field of critical copyright studies through an engagement with the legal and cultural history of copyright doctrine. This thesis considers the prominent philosophies employed to justify copyright and investigates the logic of the incentive argument, which holds that creativity will not occur unless regulatory systems of enforcement are in place. It explores the effects of trade liberalisation and the US Free Trade agenda on contemporary global, American and Australian copyright regimes. This inquiry maps the intersections of copyright law, politics, commerce and digital cultural activities, examining both the conflicts and sites of possible amity in regards to the rights of owners and users of copyright protected materials. This thesis employs three case studies to provide a critique of alternative and complimentary systems of copyright management, examining the potential for copyright licensing schemes to contribute to the expansion of knowledge, innovative behaviours and open content production in the digital environment.

Keywords: Copyright, Australia and United States Free Trade Agreement (AUSFTA), Open Source, Creative Commons, Remix, Online Games.

One of the major selling points of that wholly remarkable book, *The Hitchhikers Guide to the Galaxy*, apart from its relative cheapness and the fact that it has the words “Don’t Panic!” written in large friendly letters on the cover, is its compendious and occasionally accurate glossary. For instance, the statistics relating to the geo-social nature of the universe are all deftly set out between pages 576,324 and 576,326. The simplistic style is partly explained by the fact that its editors, having to meet a publishing deadline, copied the information off the back of a pack of breakfast cereal, hastily embroidering it with a few footnotes in order to avoid prosecution under the incomprehensibly torturous galactic copyright laws. It is interesting to note that a later and wilier editor sent the book backwards in time through a temporal warp and then successfully sued the breakfast company for infringement of the same laws.

- *The Hitchhiker’s Guide to the Galaxy* (radio series), Douglas Adams

Preface

The inclusion of non-academic texts in the following research, ranging from blog posts to online news sources, accompanies the critical examination of primary sources and more traditional works of academic critique and theory. The occasional citation of a *Wikipedia* article, for example, is intended only as a general source of information and is not provided uncritically or unverified. It is a practice that becomes part of the discussion in Chapter Six. Also, given that this is not a legal dissertation and yet deals significantly with the law, much of the legal discussion focuses on secondary analytical sources rather than primary materials; although significant primary legal materials are examined in Chapter Four and Chapter Six when dealing with prominent sources, judicial decisions and relevant legislation.

A non-standard *Harvard* referencing system has been applied with attention to detail and internal consistency. Page numbers for non-scholarly works such as websites, internet forums and blogs, as well as for scholarly works sourced through online databases, are often unavailable. Page numbers are only provided for works directly cited from physical sources or digital scans of physical publications in PDF format. In text references to works by authors with the same surname and year of publication are prefixed with a first name initial e.g. (J Martin, 2002).

Certain products of this research have been published in peer-reviewed academic journals, however, the material included here is not a verbatim copy of those works and varies significantly. The analysis of the Australia and United States Free Trade Agreement in Chapter Four is a revised version of material that appears in Moore (2005a) and an extended discussion of several components of Chapter Seven appears in Moore (2005b).

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I am sincerely grateful to Graham Barwell for the encouraging supervision, tireless patience and keen attention to detail. I have been fortunate to benefit from his considerable wisdom and professionalism, which has kept me on course these past four years. Thank you to David Mercer and Kate Bowles for your contribution and conversation. Most of all thank you to Lucy.

To Harriet, because you beat me to it.

Introduction

Los Angeles Boy Scouts are the latest conscripts in Hollywood's global battle against 'digital piracy'. These Scouts are instructed on the legally responsible attitude towards acts of unauthorised copying, taught the perils of peer-to-peer (P2P) software use and warned against black-market operations distributing illicit copies of movies and music "on the streets" (MPAA, 2006). Earning the Respect Copyrights badge is achieved by visiting the Hollywood studios, often the workplaces of these Scouts' parents and families. According to the Motion Picture Association of America's (MPAA) guidelines Scouts in other states can earn the Respect Copyright badge by creating public service announcements to inform others about the copyright-infringing online distribution of movies and other media that is damaging the American content industries (Associated Press, 2006).

Respecting copyright is an affirmative policy, one that this thesis strongly supports, but it is the expanding and often extreme preoccupation with copyright, to the point where organisations like the Scouts are conscripted to deliver the message, that is the subject of this study. Copyright is undeniably economically advantageous for authors, photographers, artists and other creators of cultural materials, but the tone of current copyright enforcement is not one of respect for the individual's right to access these works. The version of respect for copyright promoted by the MPAA is one of fear of prosecution, where the downloading of unauthorised copies of media files is the equivalent of stealing a car.¹

The popular media has reported on these kinds of copyright inspired public interest stories ever since Napster captured the imagination of millions of internet users in 1999. Napster, and its file-sharing software, provided users with access to an immense

¹ The "You Wouldn't Steal A Car" advertising campaign seen in movie theatres, included on commercially available DVDs and broadcast by commercial television stations was funded in Australia by the Australian Federation Against Copyright Theft (Timson, 2006).

catalogue of unauthorised digital audio recordings linked through a network of personal computers. The briefly in vogue term 'Napsterisation' represented a fascinating cultural moment, in which copyright owners were forced to respond to previously unrealised paradigms of content distribution. As a result of the Napster case, and other more recent P2P courtroom battles, copyright issues are no longer purely legal or economic topics, if they ever were; they suffuse our online activities, our working lives, even our social lives with such a pervasive force that their consideration has finally become mainstream. The uptake has been slow compared to the academic coverage and pace of legislative change, but copyright issues are currently front page stories.²

It has been observed by copyright scholar Pamela Samuelson (1999a, 1999b, 2003a) that recent changes to copyright laws are designed to limit the individual's right to access, rather than protect an individual's monopoly right to sell copies. This is largely because copyright doctrine traditionally regulated a physical copying process; owning a copyright literally means owning the right, the sole privilege, of making copies of the text for the purpose of their sale. This system is logical for printing presses and even photocopying technologies, but in the digital environment, where the text is reduced to software code, anyone can make quick and easy copies with minimal cost.³ One of the features of the research presented in this study is the examination of the repercussions involved in the revision of copyright laws in Europe, the United States and Australia that have introduced technology related access provisions to copyright doctrine to combat unauthorised digital copying practices without fully accounting for their cultural components.

The outcomes of these revisions are made apparent by the ongoing legal cases against individuals who trade in unauthorised digital copies, via peer-to-peer software, which are treated in the same manner as the black-marketers who trade in cheap physical copies. Napster may have been considered as massive piracy within the capitalist order of the content industries, due to the intolerable level of unauthorised and therefore unpaid access to copyright protected materials, but to others it revealed a surprising side of internet users. These users, and current fans of peer-to-peer

² The recording of a U2 concert at the Sydney Telstra Stadium in November 2006 by fans with mobile phones was front page news in the *Sydney Morning Herald*, which also covered the introduction of copyright legislation that may result in new police powers and the issuing of on-the-spot copyright 'fines' to infringing revelers (Murray, 2006).

³ The phrase 'digital environment' is employed in this thesis to encapsulate a broad range of activities, practices, and phenomena made possible by digital technologies. The choice of term is influenced by James Boyle's (2003b: 52) suggestion that intellectual property issues require the equivalent of the environmentalist movement in order to counter the unrestricted privatisation of knowledge and information. The digital environment is regarded in the thesis, not in terms of a virtual or physical space, but instead in terms of access, communication, activity and identity.

software, were not simply downloading music but also volunteering their own computers and internet bandwidth to provide the same materials to others and share their personal record collections. Napster and other P2P software titles are technologies that operate on the simple premise that internet users are capable of sharing successfully. With file-sharing technologies occupying a proportion of internet traffic somewhere between pornography and email spam, it confirmed that online content distribution was not only a contentious, if viable and potentially profitable, venture but also revealed that the Pandora's Box of unrestricted online sharing of popular cultural materials was well and truly ajar.

As a music fan I understood the passion for sharing music with others in an unrestrained fashion, but as someone who worked previously as a journalist and received a number of annual copyright payments I also appreciated the nature of the incentive argument which, as this thesis will show, underpins the economic justification for the global expansion of copyright protection and enforcement. This is not simply a have-your-cake-and-eat-it-too position, or a return to John Perry Barlow's (1994) "information wants to be free" cyberutopian prediction of the death of copyright, but a desire to understand if it is possible to reduce the exclusivity of access in copyright enforcement and at the same time promote alternative methods for providing economic incentive to create. This dichotomy was not being completely addressed in the scholarly arguments and too frequently polarised in the considerations of copyright critics during the initial stages of this research. The central motivation for this inquiry is concerned with determining whether these are two diametrically opposed interests or whether there are options for some kind of practical common ground that these two competing desires can occupy amicably, even productively.

When I began planning this project in 2003, the study of intellectual property and copyright was emerging from the relatively separate legal, economic and philosophical fields. A growing number of academics, the majority being legal scholars, had begun to turn their attention to the ways in which the copyright doctrine interacts with certain cultural activities on a daily basis. Rosemary Coombe (1998), a legal scholar and anthropologist had examined the 'cultural life' of intellectual properties including patents and trademarks in 1998. Lawrence Lessig's first work on the legal treatment of software, *Code* (1999), served as a signal bell for concern about the legislative approach to the control of public and proprietary rights to information, knowledge and

ideas in the digital environment. Questions about the competing economic and political motivations behind amendments to US copyright legislation and their potential consequences were raised by Jessica Litman in 2001. Lessig's involvement in the *Eldred et al. v. Ashcroft* (2003) before the US Supreme Court, a case that represented a choice between limited and a virtually perpetual copyright duration, led to widespread critical examination of US copyright policies and the emergence of the interdisciplinary nature of contemporary critical copyright studies. Lessig's most recent book *Free Culture* in 2004, along with Siva Vaidhyanathan's (2004) *Anarchist in the Library* and Kembrew McLeod's (2005) *Freedom of Expression: Overzealous Copyright Bozos and Other Enemies of Creativity*, all survey the different costs of the allowing economic concerns of major intellectual property owners to dictate copyright law. Following his defeat in the Eldred case, Lessig together with James Boyle and other intellectual property scholars began the Creative Commons movement in late 2002 as a practical response to the limitations of the law, attempting to build "a layer of reasonable copyrights" into the current system (CreativeCommons.org, 2006a). The embrace of the Creative Commons' alternative copyright licences by millions of musicians, authors, web designers, bloggers and other inhabitants of the digital environment has indicated that these scholars were not alone in their concerns about the future of copyright.

Australia has not been without its contributors to the copyright debate. Matthew Rimmer's (2001) consideration of Napster and the alliance between the band Metallica and the major record companies to prosecute their own music fans proved to be an intriguing introduction to the study of the clashes between copyright and culture, technology and the market (Rimmer, 2001: 27). More recently Rimmer, with critical legal scholar Kathy Bowrey, argues that academics need to move beyond their current concern with the legal politics of the situation and to direct more critical attention to the chosen jurisprudence of the courts (Bowrey & Rimmer, 2005). Their methodology is concerned with the politics of copyright disputes that moves beyond framing the arguments in oppositional terms of copyright users vs. owners or "New Economy vs. Status Quo", while maintaining a sympathetic approach to analyses that are concerned with the social costs of recent developments in copyright law (Bowrey & Rimmer, 2005). Bowrey and Rimmer (2005) criticise the historicising of copyright which compresses the historical context of copyright's foundational principles and reduces them to distillate compounds, devoid of the original political and social context, useful only in railing against the "corruption" of copyright law or the "superiority of common

law over the legislature” (Bowrey & Rimmer, 2005). Bowrey and Rimmer (2005) regard the critique of copyright as too readily employing the origins of intellectual property laws to put aside any questioning of the particular contemporary interpretation of the politics of the law.

There are, however, serious advantages for beginning this thesis with a detailed investigation of copyright history. The analysis in Chapter One and Chapter Two focuses on the regulation of culture and information, and the economics of trade as expressed through the foundations of copyright doctrine. The intention is not to “endorse one contemporary interpretation of copyright law and to disempower those with contrary views about its direction” (Bowrey & Rimmer, 2005) but to reexamine the cultural context of the legislative and courtroom proceedings, as well as the wider cultural shifts, politics, philosophical considerations and economic forces that brought their influences to bear on the doctrine. Chapter One first looks at origins of copyright in the English Legislature, and examines two major legal battles over the concept of a limited copyright duration. It considers the European contributions to the doctrine in terms of cultural movements, philosophies of ownership and the influence of concepts like the ‘author’ and ‘originality’. Chapter One expands the frame of reference from the national scale to examine the early internationalisation of copyright doctrine through the Berne Convention for the Protection of Literary and Artistic works in 1886 and compares the different ideologies at work between copyright and patent doctrine as two separate approaches to the regulation of intellectual property.

Chapter Two continues this approach by closely examining the process of global trade liberalisation following World War II and its influence on international copyright regimes. This chapter is designed to identify the social, economic, political and cultural considerations included as part of the emergence of a global intellectual property regime. Chapter Two examines the processes and institutional dialogues of key international organisations, specifically the World Intellectual Property Organisation (WIPO), and explores the degree of influence exerted by the United States in the Uruguay Round (1986-1996) of the General Agreement on Tariffs and Trade (GATT), from which emerged a ‘trade-related’ regime for the increased global enforcement of intellectual property rights.

This methodology has significant advantages; it provides a relevant approach vector for an audience that is unfamiliar with copyright as well as making an informed interdisciplinary contribution to the field of critical copyright studies by engaging with empirical, commercial, rhetorical, technical, political and institutional sources and meshing them with considerations of prominent critical contributors. Rather than producing a particular history of copyright, this approach is designed to contribute to the critique of copyright as part of an ongoing reformation of the regulation of rights of authors and publishers, creators and distributors, users and consumers. This also reminds us that the copyright conversation is not a new experience. As noted in Chapter One, copyright issues occupied the public's interest as the details of court proceedings of copyright cases in eighteenth century London were covered in the daily press.

In the post-Napster era copyright issues have become everyday considerations of activity within the digital environment. Copyright concerns are particularly relevant in the emerging discussions about the political, social, technical and economic potential of 'Web 2.0' internet sites and other online services. The term 'Web 2.0' was coined by Tim O'Reilly (2006) as a means to stimulate discussion of Tim Berners-Lee's original Web 1.0 design and the potential for the internet to serve as a network platform of alternative data and cultural creation, reflecting contemporary graphical design principles and featuring social and open contribution as well as innovative and decentralised management practices. O'Reilly's (2006) basic principle of Web 2.0 is "openness" and the idea is characterised by websites such as *Flickr*, *YouTube*, *Digg*, *MySpace* and *Wikipedia* where content is entirely user generated. There is a greater requirement for users to be aware of their own copyrights in this kind of digital environment. Users need to be competent in their dealings with appropriated materials in ways that do not generate endless potential copyright infringements.

Chapter Three is designed to contribute directly to the emerging field of copyright critique that is currently part of this latest invigoration of copyright issues. Its topic, the US Digital Millennium Copyright Act (DMCA) is the center of two parallel investigations: the first focuses on the economic, political, legal and social context of the DMCA's formulation, while the second examines the broader consequences of the law's provisions which prohibit the creation and distribution of software code designed to circumvent digital copyright controls. Chapter Three discusses the incorporation of anti-

circumvention provisions into Western copyright doctrine through the US and European Union (EU) legislation and WIPO treaties. It explores the effects of the transformation of copyright law into a regulator of technology and the criminalisation of the creation and use of technologies that permit unauthorised access and copying of copyright protected materials.

Chapter Four continues this critique through an investigation of the 2004 Australian and United States Free Trade Agreement (AUSFTA), which introduces the DMCA provisions and other copyright changes to Australian copyright law. The chapter examines what effect this has on the cultural relevance of the concept of 'fair use'; a term which refers to the legitimate exceptions to copyright infringements, in the US jurisdiction, for the purposes of review, scholarship, parody and satire.⁴ Chapter Four also investigates the future of the public domain, a term that refers to the collective body of material which has passed out of copyright protection after the legislatively specified duration. Chapter Four begins the examination of the 'enclosure' metaphor, first employed by James Boyle (2003a, 2003b). It considers the relevance of commons theory as a method for discussing the consequences of extending the duration of copyright protection, which is continued in the case study presented in Chapter Six on the Creative Commons movement.

The methodology of this thesis is closely aligned to the purposes of Vaidhyathan's (2006) Critical Information Studies (CIS), an emerging scholarly field which calls on contributions from economists, sociologists, linguists, anthropologists, ethnomusicologists, communication scholars, lawyers, computer scientists, philosophers, and librarians in asking questions about information, access, costs, and a range of phenomena from electronic voting machines to digital encryption, which involve issues of intellectual property and copyright. Although Vaidhyathan's (2006) work was published towards the end of this research, the CIS interdisciplinary approach reflects the intentions of this thesis at its outset. Vaidhyathan (2006) envisions an audience of scholars for CIS beyond the borders of cultural studies and encourages cultural studies scholars to engage critically with multiple disciplines, but calls for a "jargon-light prose" in order to facilitate broader dialogues. Vaidhyathan (2006) cites Yochai Benkler's article 'Coase's Penguin, or, Linux and The Nature of the Firm' (Benkler, 2002) as an ideal CIS publication. Benkler's (2002) analysis ranges

⁴ Australian law features a similar but further limited exception known as fair dealing, which is also discussed in Chapter Four.

from legal, cultural and economic history topics, to the discussion of the possible modes of production not limited by the traditional modes of corporate development. Benkler's article, according to Vaidhyanathan (2006: 302), has been cited in more than 6,000 online sources and more than 40 scholarly works due to the article's approach, depth, diversity and "in part because he made it available in electronic form on his own open Website".

Given the impact of his work it is unsurprising that Benkler's article was also the independent inspiration for the decision to structure the latter half of this thesis across three separate case studies, each one examining the potential for 'open content production', a phrase which refers to an alternative regime of intellectual property creation and management. Each of the case studies investigates the development and use of alternative copyright licence systems designed to ensure freedom of access for users of intellectual properties and which articulate creators' rights beyond the limitations of current copyright legislation. The three case studies demonstrate the various ways in which alternative copyright licensing systems contribute to the minimisation of costs in the global transfer of information and knowledge.

The first case study, presented in Chapter Five, examines the ideologies expressed by prominent computer hacker, activist, and founder of the Free Software Foundation (FSF), Richard Stallman, who developed the first 'copyleft' software licence to protect the idea that software code should not be kept secret. The case study compares Stallman's and the FSF's work and philosophies with the practices of key Linux programmer Linus Torvalds and the Open Source Software (OSS) movement which takes a much less partisan approach to open content production. The study explores the use of concepts like 'free' and 'freedom' in both movements. It examines the anthropological and sociological research into the motivations of computer programmers engaged with both these software movements in order to ask questions about the participants' incentives to create software without direct financial compensation for their work. It asks under what circumstances copyright protected works can be successfully shared in ways that also supports commercial business models.

The second case study, presented in Chapter Six, discusses the origins of the Creative Commons movement; it explores the processes, philosophies and intentions of the

movement which has established a range of copyright licences enabling individual creators to express specific copyrights over their work. This study further explores the concept of the commons and draws together discussions about the potential of digital commons formations to contribute to open content production from economic, legal, sociological, political and cultural fields. This incorporates Garret Hardin's (1968) criticisms of the commons, and uses the online encyclopedia *Wikipedia* as an example of both the strengths and weaknesses of digital commons formations. The case study continues the analysis of the importance of the public domain and also explores examples of support for and resistance to the transposition of Creative Commons licences to the Australian legal jurisdiction. The central theme for this case study is the degree to which the principles and practical application of copyright can be included as part of the repertoire of digital tools available to individuals to appropriate, criticise, parody and recontribute to the cultural materials available to them.

This theme is continued in the final case study presented in Chapter Seven, which looks to developments in the personal computer (PC) games industry and the dynamic relationships forming between computer games companies, games fans and independent games programmers in the open production of meta-game content; materials that include game add-ons, animation created within a game, and player community organisations that operate both within and outside of the commercial products. This case study employs fandom studies in order to examine the concepts involved in the appropriation and use of privately owned and copyright protected materials for self expression, community formation and entirely new content generation. The case study also explores the implications of corporate copyright licences, called End-User Licence Agreements (EULA), in the production of unofficial computer game content, and the wider issues of participatory culture within the digital environment.

The title of the thesis, *Don't Panic*, refers to the intention behind the work presented here, that discourages an alarmist reaction in favour of recognition of the potential of proactive copyright alternatives. Traditional copyright law has been stretched thin, and augmented with technological provisions, in an attempt to counter the non-traditional possibilities of the digital environment and the non-physical properties of digitally stored information, knowledge and cultural materials. Copyright owners have, understandably, attempted to ensure the exclusivity and restrictions on access that the physical

monopoly right to copy has historically afforded them. This project recognises that the push for greater enforcement, longer durations of protection and harsher penalties against infringement, have been matched by the emergence of practical alternatives which attempt to preserve a balance between the rights of owners and users. This balance arises from a belief that art, culture, knowledge and information are not spontaneously arrived at but generated through the remixing and reformation of generations of previously contributed work. The future of copyright law, despite quite fervent protests from some legal critics, is in the hands of individuals finding ways to establish new paradigms for the creation, distribution and protection of their work and their rights, and this study intends to show how and why this is possible.

Chapter One

Copyright: Road Works Ahead

1.0 Introduction

The rule of copyright has developed from royal decree to global institution over the course of the last three hundred years. In this time copyright has become one of the most internationally adopted legal doctrines and its global popularity is evidence that the doctrine is a highly functional system for the protection of creative works and information of all kinds. Typically underestimated and often misunderstood, copyright has become a powerful application of private property power for controlling works of cultural expression, extending rapaciously into both the private and public spheres. As this chapter will demonstrate, this has been achieved through legislative and common law updates to the copyright doctrine of individual nations and international copyright agencies.

The intention is to examine instances in which copyright and other intellectual property laws have been adapted in response to expanding economic, political, cultural and technological pressures, to the point where the doctrine is now responsible for the regulation of, and access to, the full spectrum of information, innovation and cultural materials. This chapter examines copyright as the product of a range of historical circumstances in which highly specific legal rules, social changes, economic justifications and philosophical movements have all contributed to the foundations of a law that enables ongoing widespread control of intellectual and cultural materials. It is because of such competing factors, traditionally divided between private and public concerns, that the contemporary version of copyright law is not simply a legal right to copy.

Combined with this central analysis is the examination of the arguments historically employed to lobby for the increased enforcement of intellectual property protection. These arguments have, until recently, successfully effaced the consideration of alternatives to the established approaches of copyright management. The most common of these arguments, intended to justify increases to both enforcement and protection of copyright standards, is the representation of intellectual property laws as being crucial to the progress of commerce, industry, science and the arts. This incentive driven argument holds that copyright law is a necessary precondition for individuals to recover their investment of time and energy in the creation of intellectual works. The aim of this chapter is to highlight key historical periods which have contributed to the progression of this copyright justification. This chapter is not a complete account of copyright history. Instead, by examining a selection of the most influential stages in which copyright law, and to a lesser degree patent law, have undergone significant development, this chapter demonstrates that copyright arose out of series of complex relationships between major cultural actors which have been incorporated within the modern regime for the protection of intellectual property.¹

Chapter One begins with English copyright history, before moving to discuss the French system of moral rights and the impact of German philosophies on the rights of the author, and their subsequent influences on the formation of European copyright treaties.² The chapter then turns to the legal, political and cultural institutions of the United States of America (US) which developed different and highly influential copyright traditions; most notably the inclusion of the principles of copyright law within the US Constitution and the omission of an author's moral rights. Because copyright is just one of the major intellectual property doctrines, although it is the central focus of this project, the latter part of this chapter provides contrast with a history of the development of the American patenting regime. The chapter will conclude by examining the first stages of internationalisation of copyright law in the early twentieth century.

¹ These relationships range from the legal contracts between authors and publishers, to the economic arrangements between the market and consumers, and even the informal cultural bonds between authors and their audiences.

² Copyright critics and historians, including Bettig (1996), Boyle (1996) and Drahos (1996), have begun the copyright timeline with references to societies whose traditions of property ownership have not restricted the access to cultural works: the ancient Greek, Chinese, Indian and Arabic nations, for example, all have prominent oral traditions generating extensive invention and innovation, and produced great literary works, public art and performance. These examples are evidence of pre-existing alternatives to the Western copyright regime which currently dominates the global approach to intellectual property regulation. These oral cultures have entirely different set of cultural standards and regulations for the production, distribution and sharing of cultural materials and are a distinct and useful counter to the assumption that copyright is the only method for the regulation and protection of the trade in cultural materials.

These examples have been chosen for their degree of influence on the formation of copyright doctrine, and for the part they play in the expansion of copyright doctrine from the sovereign regulation of the book trade, to the emergence of copyright as a economic dialogue between nations, before becoming a fully international institution for the regulation of trade of all creative works. Copyright law, its traditions and institutions instruct the ways in which individuals are permitted interact with intellectual objects. Copyright may not literally control the use of ideas but it does operate to limit the degree to which individuals can appropriate those ideas. The patterns of history involved in the formation of this copyright regime can provide information crucial to an understanding of how this control and form of power operates. The examination of copyright history, therefore, aids us in the analysis of the form and function of the present global intellectual property establishment and, of equal importance, it gives us a baseline for discussion of the current changes to the doctrine and its possible future.

1.1 The Pre-history of Copyright Law

The pre-history of copyright begins with a simple but ingenious technological innovation in the printing trade. The Chinese Empire had been using wooden and clay blocks in their printing technology for centuries. Printing technologies had spread to Europe where a printing trade emerged during the fifteenth century, but it was the German goldsmith, Johannes Gutenberg, who first experimented with the manufacture of interchangeable lettering and a moveable-type press (Eisenstein, 1979). In 1456, Gutenberg succeeded in increasing the speed and the quality of manuscript printing and this innovation contributed to the transformation of literary culture from a monastic privilege to a popular and profitable industry based on the commercial production and trade of books. Gutenberg's innovation remains one of the most significant technological advances in European history, but it was not immediately revolutionary (Eisenstein, 1979). Bettig (1996: 15) notes the historical irony in which the machine, symbolising the dawning of the capitalist system, was confiscated by a merchant capitalist when Gutenberg defaulted on his loans.

Gutenberg's printing technology was imported into England in 1476 by a merchant named William Caxton seeking to capitalise on the limited but profitable book trade (Feather, 1994: 10). The initial impact of the printing press was restricted, as literacy

and education was predominantly limited to the nobility and the clergy. A system of royal privileges was introduced to encourage printing services as further presses were established. These privileges followed the fifteenth-century Venetian model, where the state granted limited exclusive rights over mechanical inventions, a precursor to modern patent rights (Rose, 1993: 11). The royal grants of privileges were issued to individual printers and, by the mid-fifteenth century, the Stationers Company, a guild of book publishers, printers, clerks and book binders, had secured a London-based monopoly of the English book trade (Rao, 2003: 265). The role of the Stationers Company was expanded in 1557 when Queen Mary I granted the guild national monopoly rights over all printing and book selling (Feather, 1994: 15). This is one of the first legally defensible property rights over the reproduction of texts, but the royal printing licences are also historically significant as a form of censorship. Under the royal licence system, the Stationers were charged with policing their own members and harassing unlicensed printing operations to ensure that only religiously and politically authorised texts would be published. However, Drahos (1996: 22) notes that, while this offered a viable method of censorship, the Crown still preferred more physical methods, including torture and execution, to stop the spread of seditious and heretical material.

In 1557 the Stationers began a comprehensive register of all those who had the rights to provide copies of a text (Feather, 1994: 16). The Stationer's register listed only those texts and printers who had been granted a royal printing licence. The register operated as a form of strict prepublication censorship, effectively limiting the printing trade to the publication and distribution of a select range of authorised classical texts. The Stationers' register served as the central bureaucracy for the book trade and, together with the royal printing licences, it formed the initial English copyright regime. This system had two important functions. The first was a way of controlling what materials were published; regulating the distribution and availability of those texts to the reading population. The second function of the dual register and licence arrangement remains one of the most important features of modern copyright law: the recognition of private property ownership of the right to copy a text. The title holder of text, once registered with the Stationers, was considered to have full private property ownership over the right to reproduce the publication, regardless of how many copies were made and whose hands those copies were in. The register effectively divorced the physical nature

of the printed copy, over which control was virtually impossible after publication, from the idealised and virtual nature of the right to the reproduction of the text.

Feather notes that, by 1579, texts registered with the Stationers were being directly traded and even used to secure loans (Feather, 1994: 18). Only members of the Stationers Company, which was organised like many guilds of the time in a strictly enforced hierarchy, were able to access the register, but it was the royal protection and enforcement of the licences that kept the Stationers in line with the wishes of the Crown. The system ensured a solid monopoly in the English book trade for 150 years (Bettig, 1996: 17). Compulsory registration with the Stationers Company was legislated in 1662 under the Licensing Act, officially institutionalising the register under the law as part of the English copyright system, although the limited term copyright was not yet introduced (Rose, 1993: 31). Opposition by prominent social figures to the prepublication censorship mandate of the Licensing Act increased throughout the second half of the seventeenth century. One of the strongest opponents to the Act's suffocating level of censorship was English philosopher John Locke (Rose, 1993: 32). Locke also believed that authors, not publishers, should be considered the owners of their works. His position was that all individuals have a natural right to the fruit of their labour, be it physical or intellectual (Locke, 1689), and he took a critical stance against the Stationers' monopoly.

Locke gained support in the House of Commons, where he argued that the Stationers' monopoly made books too expensive and that the guild merely made a profit from other people's work rather than contributing to the progress of the industry and the arts as a whole (Feather, 1994: 50). The Printing Act failed to be renewed when the legislation expired in 1694 because it was recognised as an overall burden on the book trade (Rose, 1993: 2). With rival printing operations in Scotland, Ireland and imported texts from Europe working around the Stationers' register, it was clear that prepublication regulation was becoming unmanageable. The resulting vacuum of control over the printing trade eventually led to the introduction of the first fully recognised copyright legislation.

1.2 The Act of Anne

Entitled, *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*, and better known as the Statute or Act of Anne, the legislation was passed by the English parliament in 1709. The law was the first example of national legislation designed to regulate the commercial trade in books by institutionalising the right to copy a text for a limited time. The lengthy title of the Act indicates that at least one of the intentions behind the legislation was to encourage learning which it did by placing a limit on the duration of copyright and therefore encouraging the circulation of cheaper unmonopolised texts. This was the origin of the tradition of legislatively balancing the competing need to encourage the market in cultural products and the need to ensure that cheap and unrestricted access to those cultural products was possible.

When the Act of Anne replaced the tradition of the royal licences it represented a comprehensive push by the English legislature to ensure a nationalised regulation of the publishing trade, but, as Rose (1993: 31) suggests, it also reflected the changing social order of the times. This means that the Act was designed to function as a compromise between two competing concerns. The first was the legal establishment of rights for the governance of trade in books, and the second was a limitation on the time period of the monopoly property rights established by the Act, which was designed to ensure that all creative works are stripped of their exclusionary restrictions and made publicly available after a usefully limited time. The Act limited the term of existing copyrights to twenty-eight years, and it further limited new texts to fourteen years with the renewal option of a second fourteen years term. The Act recognised the need to facilitate the movement of published material from private control to public property. Prior to the Act, a stationer who purchased a text to register, or registered an already existing text, had the right to publish that text in perpetuity. This arrangement was known as common law copyright because disputes over who had the right to copy a text were settled by the courts.

The revolutionary concept of a copyright duration can be attributed as the result of political maneuvering between public and private interests. Prior to the Act, the Stationers had been petitioning the Crown to extend their London-based printing monopoly into Scotland and Ireland where rival printing houses were operating

(Saunders, 1992: 55). Despite heavy influence from the members and financial backers of the Stationers Company, however, the Act formed part of a new measure of social policy, which was nationally motivated to increase the dissemination of ideas and information (Drahos, 1996: 23). Yet Feather (1994) argues that the Act, particularly its title, was merely a screen of respectability; while the law introduced price controls and a limited term, it failed to properly acknowledge the existence of prepublication authorial rights. Feather suggests the Act merely continued the legal and commercial practices that had arisen following the dissolution of the Licensing Act in another guise, benefiting only a small number of copyright owners; and that it left concepts like authorial rights of ownership, and even what it meant to copy a text, only as imprecise and vague notions. The imprecision of the Act and its numerous loopholes meant that very few people actually interpreted what it said and meant in the same way.

The Act of Anne may have been the first legitimate copyright law, but it did not immediately establish all the defining elements of the doctrine. Its most significant contribution was the twenty-eight year limitation and, as the very first copyrights on popular texts began to draw to a close, printing houses began making copies of texts of which the members of the Stationers Guild had previously held a monopoly on. A series of legal cases challenged the Stationers' previously unbridled control over the book trade, but it was two prominent cases, *Millar v. Taylor* in 1769 and *Donaldson v. Becket* in 1774, that would influence the development of Western copyright law and intellectual property rights for the next three hundred years.

1.3 *Millar v. Taylor*

The case of *Millar v. Taylor* was heard in 1769 before the King's Bench, the highest common law court in England at the time. It was a test case for the Stationers, who were attempting to circumvent the copyright duration imposed by the Act of Anne by fighting for the reinstatement of their unquenchable and unlimited common law copyrights. The Act had brought some advantages for the Stationers, such as nationally enforced price regulation, but the statutory copyright limit of just twenty-eight years proved intolerable to the guild, which had previously been in position of near unlimited monopoly control of the book trade. The legal case represented the best opportunity for the Stationers to recapture their former rights and market dominance. The plaintiff, Andrew Millar, had purchased the rights to Thompson's poem, *The*

Seasons, and begun printing the work in 1729. By 1763, when a competitor Robert Taylor published copies of the poem, Millar's copyright had expired under the Act of Anne (Sherman & Bently, 1999: 13).

The central considerations before Chief Justice Mansfield and Justices Aston, Yates and Willes in *Millar v. Taylor*, was whether common law copyright held precedence over the Act of Anne and whether all copyrights previous to the Act were to be retained as perpetual property rights over established literary works (Sherman & Bently, 1999: 13). The Stationers' legal argument concentrated on the Act of Anne as it gave legal recognition of the right to copy the text as initially belonging to the original creator of the work which could then be sold and traded like physical property. In their petition to the court, the Stationers emphasised the growing importance of authors as key social figures and property owners of their work. The Stationers cited the importance of recognising authorship as crucial to the printing trade and the national economy (Sherman & Bently, 1999). The Stationers highlighted the positive social and cultural connotations of a particular and idealised concept of authorial originality as a property right, which helped their case in building a stable legal foundation for the basis of the concept of perpetual copyrights as a market commodity (Jaszi, 1994: 32). The Stationers argued that perpetual ownership over the right to copy was a necessary market stabiliser and that it recognised authors as owners of their work, even if the Act of Anne did not make it clear. This ownership entitled authors to legitimately trade their property to the publisher who then owned the work like any other kind of physical property, making the copyright duration irrelevant. A limit on this ownership, despite it not having been possible to own cultural works in this way before the invention of the printing press, was entirely unacceptable to the Stationers.

The judges questioned whether the Act of Anne had completely removed common law copyright or merely provided additional protection to supplement the underlying common law right to a property that was no different from tangible property rights and therefore unlimited (Rose, 1993: 67). The court found in favour of Millar and Justice Willes linked the decision to the role of property as incentive to motivate creativity and intellectual production. Justice Aston based his justification on the natural right of authors to own the produce of their mental labour (Drahos, 1996: 24). The only dissenting opinion from Justice Yates argued for the limitation imposed on copyright, as he perceived it had a net benefit to the public interest. Yates argued that publication

altered the nature of the property and rendered the author's property subject to the Act (Rose, 1993: 81; Feather, 1994: 88). The decision preserved the Stationers' monopoly, but the case fixed the idea of the author's natural right to literary property in the official discourse of the copyright tradition.

Chief Justice Mansfield, arguing for the existence of perpetual common law copyright, was swayed by the Stationers' argument for an author's prepublication right of ownership, agreeing that it existed previous to the statutory law of the Act of Anne under common law precedents and that it should not be extinguished by either the publication of the work, or the end of the copyright duration under the Act (Rose, 1993: 80). Mansfield argued that it is crucial to guard against two equally prejudicial extremes of depriving artists of the reward of labour and depriving the world of improvement and progress in the arts by finding in favour of perpetual common law copyright (Depoorter & Parisi, 2002). Rose (1993: 68) regards Mansfield's legal powers of persuasion in this case as exemplary. He argues that Mansfield sought to make the law responsive to the needs of a nation that was placing a growing importance on the book trade, by finding in favour of the publication industry's monopoly. The decision in *Millar v. Taylor* to uphold perpetual common law copyright represents the first instance of an ongoing trend throughout the history of the development of copyright, of a general willingness by courts and legislative bodies to tip the precarious balance towards commercial gain, at the expense of the benefits of public access to materials whose copyrights have expired.

1.4 *Donaldson v. Becket*

The decision of *Millar v. Taylor* was revisited five years later with the case of *Donaldson v. Becket*. The *Donaldson v. Becket* case was the first time the principles of copyright and intellectual property had been examined both judicially and legislatively, by the House of Lords, at such length and detail. It was to be the point where the issue of common law literary property rights was reconsidered entirely (Sherman & Bently, 1999: 15). The case created intense national interest and London newspapers ran a series of editorials covering the proceedings (Rose, 1993: 96). Jaszi highlights the importance of the level of public interest in the *Donaldson* case thanks to the widespread newspaper coverage; he reports that crowds had to be turned away from

the viewing gallery during the three weeks the case was debated before the House (Jaszi, 1994: 24).

Fittingly, the case again concerned Thompson's poem *The Seasons*, which had been purchased by the publisher, Thomas Becket, who objected to the unlicensed copying of the work by the Scottish bookseller, Alexander Donaldson (Jaszi, 1994: 23). The arguments of the lawyers were heard by a panel of judges, who then submitted a recommendation before the matter was settled via a vote in the House of Lords. The Stationers were desperate to uphold their judicially preserved monopoly by reaffirming the decision of *Millar v. Taylor*. However, a different style of reasoning was employed in the case that involved a shift from examining the common law nature of literary property protection to a "consequential" and "forward-thinking" mode of reasoning (Rose, 1993: 39). The decision would shape copyright for the future as either a nationwide limited grant, protected and enforced by the government or as an irreducible common law right to be determined on a case-by-case basis.

The decision found in favour of Donaldson, supporting his claim that the copyright for Thompson's work had expired under the Act of Anne. It was an outcome that emphasised government rule and legislation over common law practices. The decision held the Act to be the only legitimate recourse for copyright claims, which had a number of immediate consequences. The first was the Stationers' petition to the House of Commons against the verdict, seeking new legislation that would give them perpetual copyright (Rose, 1993: 93). The appeal was rejected and suddenly, massively popular and profitable texts, such as those by Shakespeare, Bacon, Milton and Bunyan, were introduced to the public domain (Rose, 1993: 97). No longer could a small number of well-positioned publishers in the Stationers Company control the flow of significant cultural materials indefinitely. This presented new opportunities of access to these and other works, and prompted public discussion about the new ideological dimensions of literary property and cultural values of freedom and access to a shared creative heritage. One of the lords to hear the Donaldson case, Lord Camden, argued that a grant of perpetual copyright would have meant that the information and cultural heritage of creative works would be locked up in the hands of publishers forever (Rose, 1993: 40). Camden's argument not only publicly warned against the dangers of allowing intellectual work to be permanently out of reach to the public, it illustrated that even at the formative stages of copyright there were powerful social figures mediating

against the kind of complete dominance over the control of popular cultural texts that would eventually characterise modern copyright.

Michel Foucault, in *What is an Author?* (1980), speculates that it would be worth examining how the author becomes individualised in a culture, by examining what status he has been given and at what moment authenticity and attribution begins. The relationship between the cultural identity of authorship and the rise of copyright has been examined in great detail by copyright scholars, including Rose (1993), Jaszi (1994), Saunders (1992), Feather (1994) and Woodmansee (1994). The case of *Donaldson v. Becket* is one of those moments in the history of intellectual property to have contributed to the role of the author as the dominant figure in literary culture. It is also a crucial moment in the balancing of copyright doctrine, between individual economic benefit and the greater social and cultural good, as a form of social bargain. The decision in *Donaldson v. Becket* recognised that by limiting copyright to a finite duration, the legal system enabled the cheap reproduction of significant cultural works, making it easier for people to access works by popular authors. The commercial and cultural climate following the case was one of immense change for authors as patronage declined and artists were increasingly able to support themselves by writing for the growing numbers of an educated and reading public.

Jaszi (1994: 32) suggests that if *Donaldson v. Becket* had been heard two or three decades later, during a period in which the notion of “original poetic creation” was popularised by writers and colorful social figures like Wordsworth and Coleridge, perpetual copyrights may have been upheld.³ The law, as a result of the Act of Anne and following legal battles, came to distinguish between labour of the mind from that of the body, and the granting of property rights in specific cultural objects rather than focusing on a generalised condition for all products of mental labour. The decision in *Donaldson v. Becket* marked the end of perpetual copyright by affirming the balance between private literary property and the public domain in the institution of Anglo-American copyright well into the twentieth century and it remains one of the most important and formative moments in the history of intellectual property law (Sherman & Bently, 1999: 15).

³Authors became even more important in subsequent debates over copyright duration, as both publishers and authors themselves elaborated and promulgated the importance and social role of the text as the author's property (Rose, 1993: 5).

1.5 *Droit Moral* and the French Influence

The English copyright system of legislative literary property rights remains one of the most influential legal institutions in the development of global copyright and intellectual property laws, but it is not alone. Progress in the internationalisation of copyright law across Europe and the United States follows a pattern of expansion, tempered with considerations of trade, social and literary movements, and even issues of cultural heritage and national identity. As with the English copyright system, French copyright begins with a series of royal privileges. It was during the late Renaissance period that the French Crown regulated the national publishing industry by issuing monopoly grants to publishers.⁴ This was known as the *ancien régime* of copyright, and it was not replaced until France first invested authors with the recognisable copyright protection in 1778. This change meant authors were recognised as the property owners of their work, with the right to sell or licence their work to publishers, and it underpinned the French perspective on the exclusivity of the author's literary property rights. The situation differed from the English Stationers system, as the principles of copyright were accentuated by French publishers who specifically defended their own copyrights by invoking and reinforcing the idea of the author's right to protect the integrity and intention of their work (Ginsburg, 1994).⁵

The French government, the entire legal system and the nation's philosophical, social and cultural identity underwent a turbulent period of change during the late eighteenth century. The *ancien régime* experienced unusual and relatively brutal change as the entire legal system was swept away in the name of Revolution. The eventual replacement was the Napoleonic Code, later called the Civil Code, which institutionalised the changes under the philosophical banner of rationality in which all past prejudices and favoritisms shown towards publishers and the economics of literary trade were eliminated. The justification of the new copyright system was based on the traditions of Roman law, emphasising a general and moral practicality, without the customary privileges and traditions established by the monarchy (Chartrand, 2000). Chartrand (2000) argues that, in forming copyright law, the Code recognised an inherent property relationship between authors and their work; one that does not fully appreciate all the possible cultural contributions and social influences in the

⁴ As with the English royal licences, this was largely a measure of censorship (Ginsburg, 1994).

⁵ See also Ginsburg (2003).

development of the author's skill and the work itself. Chartrand argues that the French Civil Code was the first copyright regime to recognise authors and artists as the 'original' source of their expression, regardless of nationality or location of publication. As a result of the construction of literary ownership under the Civil Code, authors were considered to have an inalienable moral right to their literary property. This meant that even if copyright expired, the author and pre-expiry copyright owner had a right to protect the integrity of the work (Rushton, 1998: 17). There was also a general perception that the French system acted as a role model in the aesthetics of law particularly in terms of simplicity, uniformity and precision (Sherman & Bently, 1999: 74).

Copyright critic David Saunders (1992) takes a different view. He suggests that one of the most culturally significant elements of French copyright law, the concept of the creator's moral rights, known as *droit moral*, was not legislatively institutionalised in the Civil Code. Saunders argues that *droit moral* existed through common law decisions in the legal discourse of the French judicial system, which independently acknowledged an individual author's moral rights. These moral rights epitomised the importance of the author as a social figure in French culture. Saunders sides with literary and legal historian, Alain Viala, in his account of the literary tradition in seventeenth-century France, describing how a theory and the tradition of an author's literary property could exist in the emergent historical consciousness even though no sign of it had appeared previously in written law (Saunders, 1992: 76).⁶ The French copyright system therefore evolved in dual fashion, with the moral rights of authors being separate from their economic and property rights. Economic rights in the French system, according to Rushton (1998: 17), are based on the philosophy of Locke and the natural right to property ownership in objects, which is alienable and therefore transferable, while moral rights are not. Respect for the integrity and design of the original author was so heavily emphasised in the common-law it was considered to exist beyond economic interests. Even if an author sold the economic rights to copy a text, they were still entitled under moral rights to ensure the work's integrity and their full attribution of authorship. Moral rights gave the author ultimate control over the work and the final say

⁶ To outline the unique cultural differences in the French legal system regarding copyright, Saunders refers to the term *jus*, which stands for the subjective nature of the law in operation. *Jus commune* (Latin for common law), in the Civil Code, is compiled by the outcomes of the legal cases and precedents. The subjective nature of this law, meaning how the law is applied, is compared to the term *lex*, meaning the written and objective form of the law. The relationship between formal copyrights and the effective rights of the author in the French copyright system can therefore be understood not as either the explicit legislation or the outcome of court decisions, as was the case with the English system, but rather as the relationship between the *jus* and the *lex*. As Saunders argues, *droit moral* could therefore develop without being a distinctly uniform legislative right (Saunders, 1992: 77).

as to how it was to be treated by others and effectively limited the interpretative and appropriative potential of the public domain to a narrow channel of authorial permitted integrity.

The development of moral rights resulted in a legal system that was prepared to accept a limited duration on the right to copy a work, but would not tolerate a limited duration for the integrity of the original form of the author's work. As will be shown, not all nations have adopted moral rights as part of their national copyright laws. The values expressed by the doctrine of *droit moral* were forged through the adaptive legal practices of the courts and the writings of French legal theorists. Since the Revolutionary period the doctrine has been updated and institutionalised under the practices of the Civil Code, simultaneously constructing an entirely author-centric tradition for French cultural heritage. The doctrine of moral rights continued to develop well into the nineteenth century, expanding to include the rights of attribution of the author, the ability to withdraw works from publication and the right of full disclosure of the author as the original creator. The French high court formally recognised the concept of *droit d'auteur* in 1901, meaning that French copyright system has merged the identity of the artist and their work both legislatively and judicially (Rushton, 1998: 17).

1.6 The German Experience: Rise of the Romantic Author

The landmark English copyright case of *Donaldson v. Becket* and the French post-Revolutionary investment in the moral rights of the author are two examples of the dramatic copyright changes that occurred throughout the late eighteenth and nineteenth centuries in Europe. A new emphasis emerged during this time regarding the importance of national identity, cultural heritage, property rights, and the cultural phenomenon of the role of the author. Other dramatic political, educational, philosophical, jurisprudential, economic and literary changes were also occurring throughout Europe at the time. In the disparate territorial German states unregulated book publishing flourished in the absence of copyright regulation (Saunders 1992: 106). Despite the lack of comprehensive copyright laws in the German states, a thriving literary culture was developing under the creative movement known as Romanticism. During the early romantic period of the 1780s, England and France had been gripped by the philosophical, religious and artistic schools of Rationalism and Enlightenment,

fuelling their respective national reformation processes. The independent German states had not felt the force of these movements in the same manner; instead, leading up to their unification, the people of the German states were experiencing significantly different social developments. The Romantic Movement meant significant changes in the German people's degree of literacy and education (Hauser, 1962: 92). A focus on Romantic literature and art emerged within the bourgeoisie and spread to the vigorously growing intellectual class of German universities. The number of German writers increased from around 3000 in 1773, to more than double that by 1787; many were able to live by the proceeds of their work or by supplementing their income as educators, teachers, tutors and priests (Hauser, 1962: 103). This demonstrates that the incentive argument, promoting the expansion of copyright enforcement to ensure creators are financially motivated, undervalues the potential positive benefits that a relaxed copyright regime has for intellectual industries.

In spite of the absence of a national copyright regime, a new respect grew for German authors such as Lessing, Kant, Herder, Goethe, Schiller and others, who were part of the 'Storm and Stress' creative movement. The literary movement was instrumental in promoting a notion of the author's 'original genius' and fuelled a national mania for originality, championing the rights of the individual (Hauser, 1962: 112 -113). This occurred at a time when generalised book piracy was rampant, but the absence of a copyright regime helped to increase the flow of cheap books and texts that were needed to fill the audiences' appetite (Saunders, 1992: 109). It was the German philosophers, particularly Immanuel Kant, who eventually pushed for national legislative recognition of the author's rights to their literary property:

[Kant] treats the 'author' and the 'book' in terms of the fundamental division of being between the transcendental and the empirical, a dividing-line that is said to bisect author and book, subject and object. The 'author' becomes a formal subject, the necessary prolegomenon to the legal rights that would organise an actual publishing process and book trade. In this way, a study of book-piracy becomes a transcendental reflection on the ideal freedom and integrity of the author as one who speaks in his own person, not just another pamphlet advocating the individual writer's right of literary property (Saunders, 1992: 111).

The concept of the book is treated by Kant as an indivisible part of the author's identity. Copyright then, is a right that is not purely reliant on the legal recognition of labour or

effort as it is with the philosophies of John Locke. Kant does not argue that copyright is necessary in order to promote the production of intellectual work, but instead characterises a right to the property of the book, and therefore to control the sale of its copies, as the innate function or component of the writer within a capitalist system of literary trade. Rushton argues that Kant sought the inclusion of moral rights within the copyright system, because creative works are extensions of the author's personality, thus offering a "non-instrumentalist rationale for copyright, quite different from what developed in England" (Rushton, 1998: 18). The German system of moral rights, *urheberpersönlichkeitsrecht*, meaning the author's right to personality, also differs from the French system by refusing to separate the identity of the author from the economic interest involved in the text (Rushton, 1998: 18). The author's moral rights and property rights are both considered to be empirical extensions of the author's intellectual or creative expression.

Kant's perspective on copyright is part of the historically contingent author function as discussed by Foucault (1980). The formation of German copyright did not follow the English regime which focused on the transferable rights of literary property, but rather legislatively strengthened the rights of the individual personality and combined them with rights of economic interest, which, Woodmansee (1994: 31) argues, helped to redefine the nature of writing and significantly contributed to the modern concept of authorship. Rose (1993), however, claims that this view of authorship could only come after the ground had been prepared by the extensive and long debate over copyrights throughout Europe. Eventually the German legislative focus on the rights of personality converged with the tradition of *droit moral* in French case law in the 1880s (Saunders, 1992: 119), and it provided substance for the first official international treaty on copyright and recognition of authors' rights, the Berne Convention for the Protection of Literary and Artistic Works (1886).

1.7 The American Perspective: Constitutional Precedence

While *Donaldson v. Becket* was being decided in the House of Lords, the events of the American Revolution were the setting for the legislative decisions for copyright protection in the United States. Early American copyright was the domain of individual states and was typically based on a natural right theory of property ownership (Draho, 1996: 27) driven by the demands of the market and availability of books. This situation,

coupled with laissez-faire copyright enforcement, allowed American publishers to copy non-American texts with impunity. A broader national copyright doctrine was eventually formed as part of the legislative provisions of the American Constitution, which emphasised the economic as well as public benefit of rights to literary property.

In 1788 the American Congress introduced copyright into the Constitution with the *Intellectual Property Clause*, otherwise known as the *Exclusive Rights Clause*:

The Congress shall have Power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries (United States Intellectual Property Clause, 1788, US Constitution, Article 1 Section 8).

The Clause authorised the American Congress to grant property rights “where the public good may require them” (Bettig, 1996: 26-27). This Clause became a founding passage in the Constitution, used for the establishment of universities and other public institutions, as well as defining the constitutional control of Congress over the granting of patents and copyrights for the reward of innovators and authors. Rather than legislating for the moral rights of the author as in the French Civil code, and avoiding the heavy rhetoric of personality in the German system, the American Constitution institutionalised copyright with a rhetoric dedicated to the social benefits of texts. Cultural works, under the Constitution, are given status as private property only for a limited time, after which they belong to the public domain. The Clause recognises the availability of cultural material in the public domain as being crucial for the public’s access to inexpensive texts and the subsequent creation of new works.

The Clause is a highly significant passage of the Constitution, which sets out the contract between an author’s economic rights and the institutions and greater cultural influences from which the author emerges. Like the Act of Anne, the Exclusive Rights Clause employed rhetoric promoting the progress of knowledge and learning through the development of copyright law (Loren, 2000). The Clause established the author’s right to profit from the investment of time and energy for a specific period by granting the ability to trade and sell the right to make copies of a text. Conversely the Clause also recognised the potential for their work to benefit the greater good by moving the right to copy the text into the unrestricted public domain after a set period, and therefore encouraging further production and innovation by removing all restrictions on use. The emphasis on science and the arts in the Constitution helped to harness the

economic and property bias of copyright towards a functional national, social and economic policy. In developing Constitutional copyright, the American Congress recognised the important task of ensuring that copyright had a positive effect on cultural and educational innovation in the progress of knowledge and learning, while simultaneously ensuring the regulation of literary property for the health of the growing national economy.⁷

The introduction of the Exclusive Rights Clause was followed by the *Copyright Act* of 1790, which granted American authors copyright for fourteen years, with the option of a further fourteen years, the same duration set out in the Act of Anne eighty years earlier. Netanel (1996) argues that in adopting the *Exclusive Rights Clause* and by enforcing the limited copyright duration in the 1790 *Copyright Act*, the Congress was enshrining in national legislation a provision for the diffusion of knowledge and public education, with the support of a democratic organised society keen to ensure a robust market for original works of authorship:

The Constitution's Copyright Clause and the public benefit rationale for copyright that it embodies dictate that the copyright owner's exclusive rights be limited in time. If copyright's purpose is to promote learning and discourse, then at some point the public must be able freely to copy, modify, and reformulate the works that have become a part of its cultural matrix. Mindful of this need, Congress limited copyright to a once renewable 14-year term in the first federal copyright statute, the Act of May 31, 1790 (Netanel, 1996: 286).

However, Litman (2001: 15) examines the concept of a limited copyright duration in a more utilitarian fashion, suggesting that the Clause represents the principle that neither the creator of a new work, nor the general public ought to be able to appropriate all of the benefits that flow from the creation of a new original work. Saunders (1992: 155) highlights the nationalised bias of the law, in the discrepancy between the protection made available by the Copyright Act to American authors and the commercial activities of American publishers, and the failure to protect non-American authors and publishers. The *Copyright Act* of 1790 permitted the importation and reprinting of any book published outside of the States and it wasn't until much later in 1891 that

⁷ Benkler (2003a) suggests that the *Exclusive Rights Clause* operates as a filter on congressional attempts to create exclusive private rights in information, with the First Amendment of the American Constitution, protecting free speech, acting as an informal overlay to the *Exclusive Rights Clause*. The Clause, when coupled with the First Amendment, also provides a legal defence for the freedom of use of information and cultural products for non-commercial purposes, which later developed into the doctrine of fair use, as discussed in Chapter Three.

American laws began to recognise the economic value of reciprocal copyright arrangements with other nations.

1.8 Patents: The Economy of Ideas

The focus of this study is copyright, yet the histories of other early intellectual property doctrines, particularly patents, provide an interesting contrast that should not be omitted. The history of patents, specifically in the United States, has a very informative role in explaining the shape of current intellectual property regimes. Patent law is very different to that of copyright, and deals with ideas, designs and inventions, rather than individual creative expressions and other forms of knowledge and information. Patents date back to Venice in the fourteenth Century with the first recorded case of the granting of property rights for “the purpose of encouraging technological progress” (Mandeville, 1996: 13). The majority of British colonies inherited the concept of patent rights from the Statute of Monopolies, which was set out in 1623. The Statute contained most of the basic elements of the United Kingdom’s patent laws, such as monopoly production and marketing rights over inventions. It wasn’t until the late nineteenth century, during a period of great international technological innovation, that the economic importance of patents overtook copyright as the predominant institutional force driving the development of intellectual property law.

Patent rights have a colourful history, perhaps because copyright deals with law governing the copying of creative works and the written word, whereas patents govern the use of both large and small scale ideas and inventions that were being implemented in everyday life. Patenting rights were raised in the US in 1786 during the period in which the delegates from each of the American colonial states were debating the formal documentation of the US Constitution in Philadelphia. The delegates were petitioned by a number of inventors attempting to secure patents for their improvements on the original steamboat design and invited aboard a prototype steamboat on the Delaware River (Warshofsky, 1994: 35). Although the timing of the events is debated by historians, the potential economic value of the patent rights must have been obvious, as James Madison of Virginia and Charles Pinckney of South Carolina were the two delegates present at the demonstration who proposed including the power to grant patents alongside copyrights in the *Exclusive Rights Clause* (Warshofsky, 1994: 34). The proposal was adopted unanimously, and just as the

innovation of the Gutenberg Press led to the first copyright laws, it was the invention of technologies like the steamboat and telegraph that heightened the economic importance of patents.

The term *patent* has a Latin origin, meaning to leave exposed or lying in the open, indicating that under the general terms of patent legislation inventions only receive protection through the explicit public disclosure. The trade-off for registering the patent is a limited monopoly, allowing individuals to sell, licence and distribute their inventions without risk of duplication or appropriation from 'free riders'. The term 'free rider' refers to the imitation or copying of an idea, benefiting from another's work or innovation, without having to invest in its development. The term *patent* also has a certain cultural resonance for the United States, as British entrepreneurs were granted royal "letters patent" over the colonial American settlements in the seventeenth century (Gitelman, 1999: 98). Warshofsky argues that the introduction of monopoly rights in the form of patents was resisted heavily in early colonial American history:

It was a major emotional hurdle for the colonials to leap, holding as they did a deep-rooted fear of monopolies inherited from the evils created by Industrial Revolution in England (Warshofsky, 1994: 32).

He suggests that the early colonial state governments preferred to only grant monopolies to those entrepreneurs that could establish industries providing 'essential items', such as salt and sugar. However, once the precedent was established the colonial states offered monopolies to virtually anyone willing to set up an industry.

Unlike copyright, where the property rights holder only has privilege over the physical expression of an idea – such as the words, images or musical sequence – a patent holder is awarded the ownership of the idea to the exclusion of all others. The patent must be thoroughly expressed in description, diagrams, and factual details and then registered with a Patent Office. Patents are registered by publicly disclosing the descriptions and illustrations of the inventions, granting monopolistic controls to the inventors over the use of the specified details. Patent law protects the owner of the patent from imitators, but it does not prevent others from developing further innovations on the invention. This situation enables inventors to only reveal what the law requires through their patent application and they typically withhold as much as they are able, which as Gitelman suggests makes patent registration a "practice more in keeping with symbolist fiction than technical discourse" (Gitelman, 1999: 103). While scientists like

Benjamin Franklin declined to use the patent system, others such as Thomas Edison went to extensive lengths to ensure their every innovation was recorded in detailed description and extensive diagrams in the patent submissions.

Just as the formation of French Civil code and the German rights of personality were significant historical developments that emphasised the cultural importance of the authors, the institutional arrangement of the Patent Office and the fervour to register patents during the early twentieth century in the United States aided the production of two culturally important figures – the inventor and the machine. The patent process encouraged a technical discourse, and language of invention and machines, reflecting a major period of technological innovation, cultural change and social upheaval. For example, Edison's patent for his "Improvement in Phonograph Speaking Machine", claimed the rights to his machine across the entire "Solar System" (Gitelman, 1999: 100). The scope of Edison's ambition was unrestrained, contributing to the ambitious and passionate cultural mystique of the inventor. The resulting technologies from their work, such as improved steam powered transport ships and coal-powered locomotives, were busy colonising economically viable trade routes across the United States, and it was inventions like Edison's phonograph, the electric light and Bell's telephone network, which began to modernise and introduce new technologies into the home.

Inventors registering patents contributed to a Western industrialisation and thousands of Americans turned to the technology gold rush, or the "golden age of entrepreneurship", which lasted between 1870 and 1920 (Cowan, 1997: 119-130). Some major eighteenth-century inventors and public spokesmen, including Benjamin Franklin and Thomas Jefferson, publicly objected to patents and campaigned for the public right to have free and unrestricted access to new inventions, even the right for individuals to build copies themselves. Their arguments centered on innovation as the product of inherited ideas from predecessor inventors and hence no individual had the right to claim property rights over an idea (Cowan, 1997: 123). Yet patents became extremely important to the American economy, both in rewarding inventive activity and in suppressing the diffusion of inventions to ensure greater returns on the investment of time, energy and money that were needed to develop successful ideas. Jefferson eventually became Patent Commissioner and enforced a strict limitation on patent duration to a maximum of fourteen years, and he consistently refused to grant

“frivolous” patents to inventions which had only obvious improvements or changed only minor details of existing inventions (Warshofky, 1994: 36).

The rhetorical links between patent legislation and the promotion of investment in technological innovation is undeniable. The monopoly right in conventional economic patent theory is that patents are the source, or the “seminal start” of the innovation process (Mandeville, 1996: 95). Not everyone agrees that the patent system is the best means to encourage innovation. For example, Mandeville (1996) suggests that strong property rights on technology may have an overall deterrence rather than incentive towards technological progress. The discrepancies between investment in technology, represented by the number of new patent applications, and the actual increase in technological innovation continue to escalate. Maskus (2000) cites patent laws as one of the largest causes of the transfer of wealth from poor countries to the developed world, as less affluent nations are required to purchase new technologies in order to compete in the international markets rather use the same outlay of capital to concentrate on producing new innovations themselves. However, commentators like Martin have a strong case in arguing that patents in technology are a key factor in economic growth and a driving force behind the increase in the standard of living:

The rate of return to society as a whole generated by investment in research and design is significantly larger than the benefits captured by the person or organisation financing the work...it has been estimated that the social rate of return of research and design spending is over twice the rate of return to the investor...Ideas can be imitated, the knowledge associated with innovation dispersed and adapted to other products and the process stimulates growth in the economy (J Martin, 2002: 3-4).

Martin advocates the flow-on effects that patents exhibit through their enforcement of the public disclosure policy. He suggests that while monopoly patent rights prevent free riders from benefiting from the work and investment of others, they do not prevent further innovation and knowledge and actually make innovation more generally available as a public good. Morally, patent law affords protection against the appropriation of a person’s ideas, making worthwhile their time and effort to create, while the economic rationale encourages increased competition through efficient patent protection and technical advancement through the incentive to invest in innovation (Anderson, 2001: 28).

At the beginning of the twentieth century other nations had developed patent systems, but beyond the US Patent Office, government regulation of entrepreneurship was virtually non-existent and the international poaching of inventions was rife (Cowan, 1997). The *Paris Convention for the Protection of Industrial Property* (Paris Convention) held in 1883 was an attempt by the majority of European nations to settle on a standardised agreement for the protection of patents, trademarks, industrial designs and trade names.⁸ The Paris Convention was the first step toward international harmonisation of national intellectual property laws, in which each member state agreed to grant the same property rights and market advantages to citizens of other member states as it gives to its own citizens. England had begun patent law reform in the early nineteenth century, but the debate over the merits and of the Patent registry system was still fierce nearly one hundred years later. The Paris Convention represents the first stage of the internationalisation of intellectual property in the twentieth century, registering for the first time the desire by independent nation states to come to some agreement about the treatment of intangible ideas and knowledge which could be harnessed in a scheme of improving their economies and orchestrating advanced international trade deals.

1.9 The Internationalisation of Copyright in the Twentieth Century

Following the Paris Convention a growing emphasis on the importance of intellectual property in the economies of nation states began to emerge as part of trade deals and a string of bilateral agreements between European countries. Debate intensified over the treatment of copyright between countries and the incentive argument was widely employed in order to promote copyright as the means to regulate the international trade in cultural goods, specifically focusing on the unauthorised copying of music and books. Unilateral copyright law was already in effect under the French Civil Code, which had institutionalised the refusal to distinguish between French and foreign authors and freely extended the grant of French copyright to the work of non-

⁸ There were three significant outcomes of the resulting intergovernmental arrangements of the Paris Convention (Mandeville, 1996). The first was the agreement that all patent applicants from member countries were to be given equal and reciprocal protection, and individual countries could not discriminate against citizens of other nations in their patent laws. Secondly, the Paris Convention established the concept of international priority rights in which a person registering a patent in one country has a right of priority over all other patents of the same nature, for twelve months, in all other member countries, which relieves the patent holder from the obligation to make simultaneous patent applications in each country. Thirdly, the Convention also established that each member country had the right to prevent the abuse of patent property rights by establishing measures for compulsory patent licensing and the revocation of patent grants (Mandeville, 1996: 16).

French national authors (Feldes, 1994: 271), but this style of intellectual property protection had not been adopted by all nations.

The protection of non-national authorial rights was included in the first attempt at a uniform multilateral agreement on copyright in the 1886 *Berne Convention for the Protection of Literary and Artistic Works* (Berne Convention). The goals of the Berne Convention provided the basis for mutual recognition of each member's copyrights, including the moral and economic rights of authors and it promoted the development of international standards for copyright protection (Masciola, 2002). The Convention focused on the issue of piracy in the international book trade. Through a series of arrangements and compromises the Convention recognised the vast private and commercial interests of lobbying groups, such as the International Literary and Artistic Association (Association Littéraire et Artistique Internationale, ALAI) committee which included iconic literary figures like Dostoevsky, Tolstoy, Tennyson and Emerson (Saunders, 1992: 169). The Berne Convention signifies the development of copyright from a purely introspective arrangement by individual states for the benefit of their authors and publishers, to an international economic agreement that streamlined the global trade in literary property. It also set the basis for a uniform copyright doctrine by removing the need to register copyright through the Copyright Offices of individual countries (Masciola, 2002). The convention institutionalised the principles of universal economic and legal interests in copyright, combating international literary piracy through a focus on authorial rights.

The maturation of copyright on the international stage can be located squarely within the rapid technological and industrial development at the end of the nineteenth century. Just as the concept of the author began to evolve as a complex cultural identity under the influence of Romantic principles in the eighteenth century, the Modernist author was imbued with a dynamic international character of significant economic importance. The Berne Convention reflected the importance of the author as an individual agent worthy of private investment, drawing attention to the duration of copyright as a measure against piracy and a promise of a return on the costs involved in printing and distributing creative work, rather than the importance of nationality or the original territory of publication (Feldes, 1994: 277). Prior to the Berne Convention, countries like Ireland, Scotland and the United States had a robust trade in pirated English works, while the Dutch, Belgian and Swiss literary trade survived

for nearly a century on the pirating of French publications (Saunders, 1992: 171). The Berne Convention represents the full force of the incentive rhetoric in action; by highlighting the investment in time and energy by the author and by emphasising authorial rights, including moral rights, the Convention enabled publishers to combat book piracy on a unified front (Feldes, 1994: 277). The Convention is often held up as evidence of a process of economic internationalisation, as the central agenda of the treaty was to address the problem of the international piracy of literary property (Saunders, 1992: 168). By establishing the precedence of the importance of duration, in the dialogue of the Convention's debate and formal wording, over traditional concepts like national borders and territory in publishing, the Convention emphasised the importance of the duration of copyright as an incentive towards encouraging and protecting the investment of authors and publishers in an emerging world market (Feldes, 1994: 277).

There was, however, one major significant nation absent from the signatories to the Berne Convention: the United States. There are a number of different theories as to why. Many commentators suggest that the US representatives at the Convention were unhappy with the multilateral arrangement, as it removed the possibility of discriminating against individual signatory nations in matters of copyright. Fisher (2003) suggests that the concept of the romantic author was slow to impact on American Copyright law and thus positioned the country at odds with the emphasis on author rights. He argues that both popular and elite culture in the US was slow to place a high value on individual authors, and that attention was more directed towards the 'original genius' of the nation's major inventors, such as Thomas Edison, Alexander Graham Bell and the Wright Brothers, who received the kind of attention that authors enjoyed in Europe. Masciola (2002) suggests that it was simply a general perception in the US that the nation would not benefit from an international copyright agreement and that international copyright was completely off the government's agenda. He argues that discussion of the unilateral recognition of copyright by the US only began to emerge after the Berne Convention threatened the previous 'gentlemanly' arrangement of price-fixing in the literary trade adhered to by the large established US publishers, resulting in a flood of inexpensive copies of European texts into the American Market. Ardito (2002: 18) sides with Fisher (2003), arguing the US resisted joining the Berne Convention for a century because of the moral rights issue conflicted with the US copyright system. Rather than ratifying the Berne

Convention, the US government heeded to the demands of a group of authors, publishers, printers and unionists who joined forces to lobby congress to enact an *International Copyright Bill* in 1890. The aim of the Copyright Bill was to establish bilateral and complementary protection against piracy with individual countries. It reinforced the position of the United States as a recalcitrant and marginalised nation, with a fast developing marketing in intellectual properties at the beginning of the twentieth century, who refused to change its laws to suit the European nations.

1.10 Conclusion

The importance of copyright as a method of regulating international trade became more evident in the nineteenth and early twentieth centuries. This chapter has raised only a few of the numerous political, cultural, institutional, economic and social factors which have contributed to the complex and convergent history of copyright and, in a more general sense, its intellectual property legacy. There are significant gaps, for example the role of technology and impact of mass transit on the global distribution of knowledge and information. Presented here is a chronological context for key characteristics that will continue to emerge in subsequent chapters as central patterns in the development of copyright and intellectual property regimes, which have included the following: the construction of various national copyright legislation, subsequently interpreted through jurisprudence, for the enforcement of the rights of private actors considered to be key elements of national and international trade; the precarious balance between economic and social benefits of copyright law; the rhetoric of the author and incentive to create employed to increase the protection and enforcement of rights; and, perhaps most significantly, the observation that copyright is not permanent and immutable. Copyright law, both the legal doctrine and legislative expression, has changed dramatically in the past and continues to change and be open to change in order to meet the requirements of the times. These changes illustrate where the boundaries between the social cost and greater economic good of copyright meet, and thus armed with a picture of the past, we can examine more recent events in order to discuss potential outcomes for the future of copyright and the potential for alternatives.

Chapter Two

Trade-Related Intellectual Property

2.0 Introduction

The aim of the following chapter is to form a bridge between the early history of copyright law and the most recent updates to the doctrine by examining those major international institutions responsible for the development of a modern global copyright regime. It begins with the oldest institution for the international harmonisation of intellectual property law, the World Intellectual Property Organisation (WIPO). This chapter first examines WIPO's organisational structure and its mandate for the implementation of globalised standards of intellectual property law. It then explores the relationship between trade-liberalisation in the Post-World War II era of the twentieth century and the expansion of global intellectual property laws through the emergence of the discourse of the 'trade-relatedness' of intellectual property.

The chapter then focuses on the role the United States (US) has played in the expansion of intellectual property rights. It examines the motivations for change in the US's approach to the regulation of intellectual property law, signified by its endorsement of the Berne Convention in 1988. The argument is made that the US eventually endorsed Berne, after nearly a century of hovering on the fringes of that convention, as a deliberate precursor to setting the agenda for global intellectual property reform. This process is examined through the US's attempt to overcome issues of poor national economic prospects and trade development through its political and economic dominance at the Uruguay Round (1986-1996) of the General Agreement on Tariffs and Trade (GATT), which signaled a new era in intellectual property protectionism.

Responding to unique challenges of the information age, specifically the popularity of new technologies for copying and distributing information and other digital materials, the chapter examines how the US led the charge for trade-related intellectual property reform. The influence of other major institutions of trade and intellectual property regulation, such as the European Union, are largely absent from the analysis; but the exclusion is deliberate, as maintaining the focus on the US is necessary to examine how its position on intellectual property has been enforced through bilateral trade deals, such as the 2004 Free Trade Agreement between Australia and the United States which is the focus of Chapter 4. Following this discussion, the chapter investigates the establishment of the World Trade Organisation (WTO) in 1995. Here the chapter also pays attention to the techniques employed by WIPO's 1996 Copyright Treaties in countering the challenges to copyright protection in new digital communications technologies, and argues that WIPO is not completely without influence in the new order of intellectual property.

Finally, in the last section of this chapter, the issue of balance in the new intellectual property global regime is addressed. This section discusses WIPO's considerations of economically and publicly balanced intellectual property laws, and their relationship to economic and social development. The chapter is critical of the general failure of these primary copyright institutions to facilitate developing nations' access to knowledge resources and innovative technologies. This chapter examines calls for the greater involvement of the civil society movement in reintroducing balance and impartiality to the global intellectual property regime. It suggests the recent introduction of a new Developmental Agenda to WIPO's General Assembly has provided WIPO with an opportunity to restructure its approach and develop more positive outcomes for the progress of knowledge, creativity, technical innovation and access to cultural materials in developing nations.

2.1 The World Intellectual Property Organisation

The establishment of the Paris Convention of 1883 and the Berne Convention of 1886 are foundational episodes in the history of multilateral intellectual property regimes. The two conventions were instrumental in publicising and strengthening international intellectual property protection at the end of the nineteenth century and the beginning of the twentieth century. The conventions facilitated communication between the

officials of signatory nations and private investors, both of which were pursuing an internationally standardised legal environment for the benefit of commercial trade of creative expression, invention and innovation. Each convention emphasised the importance of harmonising sovereign intellectual property laws among the signatory nations and concluded with the establishment of an International Bureau, tasked with administration and coordinative duties. In 1893 the two organisations merged to form a single administrative body, called the United International Bureau for the Protection of Intellectual Property (Bureaux Internationaux Réunis pour la Protection de la Propriété Intellectuell, BIRPI).

The economic significance of protecting and enforcing international intellectual property rights expanded dramatically following the technological advances which emerged from the Second World War. The offices of BIRPI in Berne, Switzerland, regulated the international trade in patents and the Bureau ensured that signatory nations provided appropriate and reciprocal copyright laws. International respect for the Bureau increased rapidly, as did the office's complex bureaucracy. The Bureau relocated to Geneva in 1960, a move that ensured stronger ties with the United Nations (previously the League of Nations), and the Bureau became one of sixteen specialised UN agencies. Repositioning BIRPI within the UN's multilateral charter helped to shake the organisation's image as a "developed country club" and increased its appeal to developing nations (Musungu & Dutfield, 2003: 4). The structure of the Bureau was reorganised and the World Intellectual Property Organisation (WIPO), under a UN convention, was officially established in 1967 making the organisation, in one form or another, the oldest international intellectual property institution.

WIPO's main decision making forum is the General Assembly, which includes representatives from all WIPO member nations. According to the 1967 establishing convention, WIPO membership is open to any signatory nation of the Paris or Berne Conventions, or any nation that is a member of the United Nations. The large number of participatory members means that WIPO has been the most influential agency in the development of a coordinated and fully international intellectual property regime in the last century. The organisation has a wide range of training programs that provide legal, technical and organisational advice designed to expedite the standardisation of the sovereign intellectual property laws of its members. The administration assistance and policy-generating committees run by WIPO for its members' authorities and institutions

has made an unparalleled contribution to the stabilisation of an international intellectual property regime.

Two of the 1967 WIPO Conventions' most significant features are Article Three, identifying its operational mandate to "promote the protection of intellectual property", and Article Four which directs WIPO to promote "the development of efficient protection of intellectual property throughout the world" and to "harmonise" national legislation (WIPO, 1967). The organisation fulfills this mandate through the administration of twenty three international treaties, including the Paris and Berne Conventions, as well as agreements like the Geneva Convention for the Protection of Phonograms, the International Trademark Law Treaty and even the Nairobi Treaty on the Protection of the Olympic Symbol. WIPO performs its administrative duties through the implementation and coordination of harmonisation activities; through legal and technical advice; and through promotion and educational programs operating within member states. Perceptions of the success and failure of WIPO have much to do with the organisation's ability to act as an effective agent in multilateral intellectual property law reform.

The main outcome of WIPO's role as an agent of legislative harmonisation is the reform of intellectual property laws in those member nations where only minimal legislation and enforcement programs exist. WIPO has decades of experience in the progression of intellectual property management and enforcement. The organisation appears almost missionary in its approach to influencing developing nations and promoting the benefits of intellectual property law reform through its bureaucratic, technical and administrative advice services. Its programs include services for international applications of industrial property rights; the exchange of intellectual property information; the facilitation of the resolution of private intellectual property disputes; as well as providing a vast store of information resources and technical knowledge for intellectual property management and implementation of policies. It is also worth noting that a substantial component of the WIPO budget comes from sources external to the UN system, and includes the WIPO patent registration fees and its commercial convention management services (WIPO, 2000).

The political edge of WIPO's global vision is the sponsorship of intellectual property policy reform at both the national and international level. The organisation emphasises

the employment of the full breadth of intellectual property doctrine, rather than limited or partial application of individual laws. This is supported through WIPO's educational services that implement specialty programs within developing nations designed to elevate respect for intellectual property. These training programs highlight the benefits of linking education and the improvement of knowledge with intellectual property ownership, protection and enforcement for the future health of the economy. Participation in such indoctrination is an undeniably attractive proposition for developing countries that cannot afford immediate changes to their national laws, but can accommodate gradual institutionalised change. This ongoing project could be viewed as an ongoing form of legislative colonisation, since the reforms are typically filtered through the policies of the more powerful Western nations.

The standards of developed Western intellectual property regimes are mobilised at the practical level by WIPO's activities in the everyday operation of developing nations. These standards, institutionalised by the WIPO conventions, require the consent of all signatory nations, and are maintained by WIPO as natural, inevitable and commonsense. WIPO's institutional power is not derived directly from its authority over intellectual property law, but from the social and cultural effects of its reformist agenda. WIPO's hegemonic accomplishments, as defined by Ben-Porat (2005: 328-329), are evident in its ability to persuade developing countries that its reforms are of universal benefit. The hegemonic operation of the organisation overcomes all opposing considerations of common sense, such as the human desire to share materials by making unauthorised copies, or self interest in the imitation of technological developments, which it does through the discourse of economic advantage.

WIPO is well aware that in order to promote intellectual property in developing nations it must highlight the economic benefits of the trade-offs. The educational programs are especially necessary because copyright and patent laws operate against the common-sense incentives in sharing materials. In order to promote intellectual property protection, WIPO has to demonstrate why it is beneficial to effectively reduce free public access to unauthorised copies of intellectual materials. The relationship between intellectual property enforcement and economic, social and cultural development has become a dominant discursive tool in the language of WIPO activities. By advancing cooperation between governments and the private sector, WIPO replicates the model of institutional intellectual property protection established by the Paris and Berne

Conventions. WIPO's promotion of national economic development as justification for greater intellectual property protection is the same argument made a century before during the Paris and Berne Conventions. This approach positions intellectual property regimes as necessities for competition in the international capitalist market. It also proposes intellectual property reform as a guarantee to the future of a nation's ability to produce innovation and information.

During the 1970s developing countries began to lobby WIPO for the reduction of copyright protection standards, in order to increase access to knowledge distribution and educational and scientific materials. At the same time powerful developed nations, including the US and much of Europe, began to pursue greater enforcement and less flexible intellectual property regimes (Yusuf, 1998). This polarized debate over the future direction of the global intellectual property regime continued with greater intensity during the 1980s. A number of factors contributed to the push by developed nations for more stringent intellectual property rights and enforcement. These included the growing dependence on easily copied information and technologies; the increasing competitiveness of developing nations in the production of goods; a rapidly expanding globalised marketplace for intellectual goods and services; and the growing awareness of the importance of intellectual property as strategic assets in developing countries (Yusuf, 1998: 1-7).

Towards the end of the 1980s technological developments in the communications, informatics and entertainment industries began to outstrip WIPO's ability to advance global intellectual property rights protection and enforcement. By this time WIPO had grown so large and multifaceted that it lumbered under its own bureaucratic weight. The organisation was being perceived, by the more powerful member states, as unable to provide effective and practical measures against intellectual property violations. This was further complicated by the United States, and other leading developed countries, pursuing a new direction for the global intellectual property regime, one entirely dependent on trade liberalisation that was largely outside of the WIPO mandate.

2.2 Intellectual Property and Trade Liberalisation

The previous chapter demonstrated that issues of trade protection and economic rights have always been important to intellectual property regimes. In the late twentieth

century, however, the international intellectual property system became irrevocably enmeshed within the processes of trade-liberalisation. In order to understand how the current configuration of the international intellectual property regime has been redesigned to facilitate a global system for the preservation and protection of international trade, we must step back to the post-World War One period and the Great Depression of the 1930s and examine the globalisation of trade and the establishment of the trade-relatedness of intellectual property. Taxes, duties, tariffs, and other 'barriers to trade', became increasingly restrictive following World War One (Bagwell & Staiger, 2002). The US's protectionist trade policies during the 1920s and 1930s, in particular the 1930 Smoot-Hawley Tariff Act, increased the average tariff rate on imported goods from 38% to the record high of 52%. According to Laurie, the Tariff Act was the "high watermark" of the US economic policy of isolationism and protectionism, which helped to make the Depression both truly "global and great" (Laurie, 1994: 33).

During the 1920s and 1930s there were numerous attempts to foster international cooperative trade relationships, but it was during the late 1930s that the American Congressman and Secretary of State, Cordell Hull, campaigned for the broad multilateral liberalisation of international trade (Bagwell & Staiger, 2002). Hull was responsible for advancing a vision of a multilateral international economy, incorporating a liberal trading system under the management of a genuinely international organisation:

Hull's basic objective was to reconstruct world trade with a multilateral system based upon a permanent international framework to ensure its preservation and development. Central to this multilateral system was the idea that it should be universal, rather than employing strategic alliances or linkages correspondingly and that the principles of nondiscrimination must be priorities in the trading system (Laurie, 1994: 33).

Hull, as chairman of the US Advisory Committee on Postwar Foreign Policy during the 1940s, was a highly vocal supporter of the United Nations. His vision encouraged international debate and negotiation, and a code designed to govern open multilateral world trade was drafted. The intention was to create a third institution to administer international trade alongside the World Bank and the International Monetary Fund, which had been established by the Bretton Woods Conference in New Hampshire in 1944 (Usrey, 1999). The result was the blueprint for the International Trade Organisation (ITO) an institution for all issues pertaining to trade barriers. It was

planned that, under the ITO, negotiations between member nations would result in reciprocal and mutually advantageous reductions in tariffs to be complementarily extended to all other member countries. By the close of the Second World War, there were 23 nations participating in the negotiations and, despite initial protests from Britain and other European nations, an agreement was reached on non-discrimination in trade and cooperation among those 23 nations responsible for around 75% of world trade (Bagwell & Staiger, 2002: 43-48).

The overall shape of the ITO was planned at a UN Conference in Havana in 1948, but both Gordon (1996) and Laurie (1994) report that it was the US Congressional rejection of the ITO agreement which shattered Hull's vision of a fully multilateral and non-discriminatory trade organisation. The regulation of the reduction in tariffs in international trade fell to the interim treaty, the 1967 General Agreement on Tariffs and Trade (GATT) set up by the Economic and Social Council of the United Nations, which was placed in operation while the ITO was drafted further. The GATT was tasked with governing ten billion dollars in tariff concessions which had already been decided in the ITO negotiation procedures. As Laurie reflected, the ITO was Hull's economic dream but the GATT reflected the political reality (1994: 33).

In the following half century, according to Lindsay (1994: 38), the GATT regime played a crucial role in "the maintenance of capital accumulation". GATT ensured that participating member nations committed to a progressive reduction of tariffs and trade barriers through the cessation of discriminatory treatment. The Agreement was a major force behind the sustained economic growth of the 1950s and 1960s (Laurie, 1994). Since the initial GATT implementation the number of participating countries has expanded to more than 120. There have also been eight rounds of subsequent negotiations during which delegates debate the mixture of tariff reductions and reexamine the treaty's articles. GATT's progress is therefore typically measured in successfully higher quantities of world trade, propagating, as Sutherland (1998) argues, the discourse of economic mercantilism under which the GATT operates. Most relevant here is that post-war capital accumulation, via trade negotiation and tariff regulation, had flourished for the better part of 50 years with little consideration for the international intellectual property regime.

The operation of GATT, like any multilateral organisation, has encountered its share of resistance and criticism. During the late 1970s and early 1980s the increase in non-tariff trade barriers and bi-lateral trade agreements between individual nations generated increased complexity within the international trade environment and reduced GATT's overall effectiveness. It was in the most recent round of GATT negotiations, which began in September 1986 in Punta del Este, Uruguay, and with the tabling of the Agreement on Trade Related Aspects of Intellectual Property (TRIPS), that issues of intellectual property were subsumed within the discourse of economic expansionism now dominating the modern globalised intellectual property regime. The 1986 Uruguay round of GATT represents an extremely significant jump in the perceived value of intellectual property by the various agents engaged in liberal trade reform, including national governments and industrial and corporate lobbyists. The TRIPS agreement is a watershed moment indicating a new phase in the processes of global intellectual property regimes. It was made possible by the willingness of GATT members to commit to the process of updating and enforcing intellectual property laws through a very different multilateral agency. The Uruguay round is described by Yusuf (1998: 8) as producing the "GATT paradox", in which the desire of developing countries to reduce tariffs and barriers to competition led them to capitulate to the demands of industrialised nations; the paradox lies in the resulting increase of barriers to competition through the introduction of more restrictive standards of protection and elevated levels of intellectual property enforcement under the banner of free market principles. Maskus and Reichman (2004: 282-283) also find it ironic that, as tariffs, quotas and other formal barriers are being dismantled through the processes of trade-liberalisation, there is a reinvigorated pressure to re-regulate the world markets through the elevation of intellectual property protection and enforcement.

2.3 The American Influence

Before a full discussion of TRIPS is possible, it is important to first consider how the United States became the central influence on the development of the modern globalised regime of the 'trade-relatedness' of intellectual property. In 1831 the American Congress extended the duration of national copyright protection to a maximum of 42 years from the date of publication. In 1909 the term was increased to a maximum of 56 years. In 1962, the Congress began a series of legislative updates, eventually increasing the maximum copyright term to 70 years. Then, with a major

revision of the national Copyright Act in 1976, the US dramatically raised the bar on copyright, expanding the duration of protection to an author's life plus 50 years. The changes made to the Copyright Act in 1976 were designed to echo the amendments made to the Berne Convention during the 1971 revision, even though the US was not a signatory member of Berne at that time. The 1976 Act and the change to the 'author's life plus' model of copyright duration is a legislative recognition of the escalating economic importance of the national and international trade in cultural goods and other intellectual properties. This is highlighted in the Act by the provision for courts to award greater monetary damages in cases of commercial infringement (Powers, 1996). The 1976 Copyright Act also reorganised the national copyright legislation to mesh more directly with the criminal justice system, refurbishing the copyright infringement criteria to include "willful" acts of unauthorised copying and copying for the "purposes of commercial advantage or private financial gain" (Gessesse & Sanzaro, 1996: 839-860). The amendments also reduced the 'burden of proof' required by copyright owners to prove profit gained by the infringer.

The 1976 Act was an acknowledgment, by the US Congress, of the arguments coming from industry and business lobbyists for the potential economic gains in repackaging older cultural materials for new markets, including news media, music, film, and books in new forms. This can be seen in the 1976 Act's revision of the law's approach to derivative works to include copyrights over all forms of translation, dramatisation, and adaptation. As Tushnet explains, derivative rights have gradually acquired greater economic potential:

The derivative works right gives Disney the exclusive right to authorise stuffed animals, home videos, t-shirts, pencils, figurines, games, teapots, and anything else bearing images of characters from Disney's copyrighted works. It has assumed increasing economic importance over the last few decades (Tushnet, 2004: 542).

By the late 1970s newly available technologies, including video cassette recorders, compact discs, cable and satellite television, all promised renewed life for old products. The benefits of these technologies included the opening up novel markets for derivative products and the reduction of copying and distribution costs, encouraged lobbyists, especially those with extensive intellectual property collections, to seek even longer periods of copyright protection.

The United States abandoned its intellectual property isolationist policy during the 1980s, a move signaled most obviously by the government's signing of the Berne Convention in 1988, more than a century after the Convention was established. Participation in the Berne Convention demonstrated a shift in the political appreciation of the importance of copyright within an increasingly globalised market economy. By signing the Berne Convention, the US realigned its position with regard to the international institutions of intellectual property. The decision marked a change in position for the US, moving from being the marginalised intellectual property administration, to becoming a shrewd government devoted to promoting a new regime of intellectual property relations directly capable of improving its global trade prospects. As shall be seen from the discussion of the TRIPS Agreement emerging from the 1986 Uruguay Round of GATT, the move to become a full member of the Berne Convention was a deliberate and strategic trade decision on the part of the United States.

By the time the US became a signatory member, the Berne Convention had been revised eight times, most recently in Paris in 1971. The Convention had been updated to include the protection of authors' international rights of reproduction, translation, adaptation, public performance, broadcasting and other communicative renderings, and it had also increased protection for authors' distribution and rental rights (WIPO, 2003). Alongside these economic rights, the Berne Convention had refined its position on authors' moral rights and it was the moral rights of authorial attribution and integrity which presented the US the greatest challenges in becoming a signatory nation of Berne. Settlement between the US and WIPO on the issue resulted in a "watered down" version of moral rights to be included within the US Visual Artists Rights Act of 1990 (Cotter, 1997). Despite the US being a full member of WIPO and party to its intellectual property treaties, US legislation still features only a few fully integrated WIPO treaties, including the barest minimum of protection for authorial moral rights.

Together with national reforms in copyright, patent and trademark law, US intellectual property doctrine became an influential element in the global overhaul of intellectual property enforcement and trade regulations. This produced a new kind of intellectual property regime, one that is reliant on the utilisation of intellectual goods within a framework for improved globalised economic prospects. The new global intellectual property regime emphasises the benefits of the trade-relatedness of intellectual property. This intellectual property regime focuses on the increased potential for overall

economic benefit rather than the traditional discourses of incentives for authors, the importance of national culture or the balance between private property rights and social equality of access. This regime effectively consigned the issues of freedom of knowledge and the benefits of access and use of cultural materials to those works which remained in the diminishing public domain.

The Exclusive Rights Clause of the US Constitution had set out an institutional balance between the right to property and the public good of unrestricted access to cultural products in the public domain by ensuring a healthily limited period of protection. The new US intellectual property strategy relied on a different kind of relationship; one that emphasises trade expansion and economic progress as a result of escalating levels of copyright protection and enforcement. This new direction was made clear by former US President, Ronald Reagan, during his speech at the 1988 signing of the Berne Convention, which focused on the potential for copyright to improve trade relations as part of a new global intellectual property regime:

joining the Berne Convention will boost US efforts to strengthen intellectual property protection in multilateral negotiations. In 1986 we succeeded in placing the issue on the agenda of the Uruguay Round of multilateral trade negotiations and committed the General Agreement on Tariffs and Trade to address the relationship between trade and intellectual property rights (Reagan, 1988).

Equipped with a full signatory status to the Berne Convention and, as the President boasted, with the trade-relatedness of intellectual property secured within the GATT agenda, the US had truly succeeded in establishing a new direction for the future of global intellectual property reform. Whether it could convince developing nations during the negotiations of the Uruguay round, a period of eight years, in a forum traditionally resistant to increased levels of intellectual property protection, was another matter.¹

¹ Cheek (2001: 280) suggests that in an era when the US had massive concerns about its balance of payments and serious national budget problems, intellectual property also became an essential part of the US bilateral trade strategy. It is important to note that this strategy, as Matthews (2002) outlines, went beyond the multilateral forums of Berne and GATT and was developed and successfully implemented by the US as a new breed of intellectual property legislation, in the form of bilateral agreements, which will be discussed in Chapter Four.

2.4 A Trade-Related Intellectual Property Regime

The enactment of the TRIPS agreement was one of the major outcomes of the 1986-94 Uruguay round of GATT. The prominence of TRIPS is attributed by Sutherland (1998) to the lobbying of a corporate coalition involved in the knowledge-based industries. This coalition included a wide range of representatives, from the information technology and entertainment industries to the major chemical and pharmaceutical companies. Drahos (1995) points to major corporations like IBM, Pfizer and Microsoft, with substantial intellectual property portfolios, who were actively lobbying for a TRIPS-like result. The Reagan Administration, as part of that coalition, lobbied for the provision of a global intellectual property regime, with greater property and enforcement measures than the WIPO administered conventions, as a means to counteract the loss of US international competitiveness due to free riders and other forms of intellectual property poaching:

The US faced a massive free rider problem. The way in which it chose to solve the problem was through forging a link between the international trade regime and the development and enforcement of intellectual property standards.

Combining trade with intellectual property gave the US what it had lacked to deal with the problem of copying: leverage...Banning the imports of Brazilian software would have done little to stir trade officials in Brazil. Slapping large tariffs on Brazilian coffee would make them jump (Drahos, 1995: 7).

The US promoted a trade policy that claimed to enhance the competitiveness of all nations and suggested that the failure of nations to participate in the agreement would lead to greater inefficiencies in international trade (Gadbaw & Gwynn, 1988: 38-65). The result of the US influence on the trade and intellectual property policies formed during the Uruguay round meant that TRIPS was an affirmation of US dominance within the hegemony of the globalised trade environment.

Drahos argues that the work of the US Advisory Committee for Trade Negotiations (ACTN), which created the US National Task Force on Intellectual Property, enabled direct communication between business and the “bureaucratic centre of trade policy”, and was essential to the development of the US trade-based strategy for intellectual property (Drahos, 1995: 8). It is not surprising then to find that many of the leading US based corporations in the knowledge industry had, and continue to occupy, senior representation on the Advisory Committee, and that Ed Pratt, CEO of Pfizer, was the

chairman (Sutherland, 1998: 294; Drahos, 1995). The Advisory Committee worked to develop an overwhelming consensus among the majority of more than 120 GATT member nations for the proposed agenda for the Uruguay Round. The majority coalition insured the provision under TRIPS for the mandatory enforcement of intellectual property legislation against counterfeiting and piracy and required the establishment of minimum substantive and procedural legal standards for the intellectual property of all member nations (Usrey, 1999). Coates (1998: 7) considers that the pervasive unfamiliarity with the issues of intellectual property rights amongst the TRIPS delegates contributed to their readiness to employ intellectual property rights as a means for increasing the globalisation of the world economy. This resulted in the distortion of the core principles of intellectual property to an unprecedented degree. The issues of balance, fairness, social good, and access to intellectual properties were neglected in favour of increased categories of protection and enforcement. The final form of the TRIPS agreement resulted from a complex but basically undemocratic process, heavily influenced by key US concerns (Drahos & Braithwaite, 2002).

Correa (2000) argues that the US had four central motivations in implementing a TRIPS agreement that would increase the enforcement of international intellectual property protection. These motivations can be described as: advancing the protection of emerging technologies, specifically through their associated patents; addressing the increasing difficulty of maintaining exclusive knowledge in intellectual properties in general; reducing complexity and increasing standardisation of international intellectual property laws; and emphasising the potential for intellectual property to counter the failing competitiveness of American companies. Adkisson (2003: 836) suggests these motivations can still be seen in the way that the influence of some American companies continued through the TRIPS implementation stages. The complete dominance of the US position on intellectual property reform is obvious in the exclusion of moral rights from the minimum standards of TRIPS protection to be provided by each member country.

One of the primary outcomes of the TRIPS agenda was the increased emphasis of the importance of the enforcement of intellectual property rights within the globalised and increasingly liberalised trade agenda. This is indicated by the establishment of intellectual property provisions within TRIPS for the criminalisation of illicit acts of

sharing and knowledge transfer by participating nations (Lindsay, 1994: 39). This globalised regime of intellectual property protection was shaped to protect intellectual property on the one hand, and simultaneously reduce the barriers to free trade on the other (Dennis, 2002: 188). The ascendancy of this trade-related intellectual property hegemony, however, is not complete and the operation of the global regime is contested, as Cheek (2001) observes, in the differing levels of regard for intellectual property protection between industrialised and developing countries. This contestation reflects the deep and ongoing ideological division over the role of intellectual property rights in a developing economy. Cheek (2001) cites India and Brazil as examples of developing countries that attended the TRIPS negotiations and refused to provide national intellectual property protection unless the result had a net benefit to their citizens rather than major corporations. At the time of the signing of the TRIPS agreement, countries like Argentina, Mexico, South Korea, Singapore and Taiwan had weak protections and poor enforcement and were indirectly fostering a large trade in pirated intellectual material as a major component of their economic and development strategy (Cheek, 2001: 283). These nations provided some of the most vocal resistance to the TRIPS agreement.

Private global actors had far more influence on the TRIPS negotiations than on any previous intellectual property arrangement. The vocal majority of the corporate lobbyists walked away happy from the Uruguay Round of GATT because the TRIPS agreement had achieved significant reductions in tariff and non-tariff trade barriers among over 100 trading partners and hence is recognised as one of the most important developments in recent international economic law. TRIPS had even succeeded in utilising much of WIPO's work in intellectual property reform, including reclassifying computer software as literary work in order to reap the benefits of the extended copyright term. There was, however, a significant range of obligations for signatories under the TRIPS agreement and in order to extract the full trade benefits enabled by TRIPS, the participating nations were given a list of reforms which had to be enacted by the individual governments.

These reforms included a minimum standard of protection in most areas of intellectual property law (Dennis, 2002: 188) and a commitment to enact legislation for the criminalisation of intellectual property violations. The agreement required member countries to provide stringent multilateral intellectual property enforcement standards.

This posed significant challenges for developing countries, as many were still only able to support minimum national enforcement. The agreement also describes in detail how enforcement should be handled, including rules for obtaining evidence, provisional measures, injunctions, damages and other penalties. The TRIPS agreement was therefore both a new form of international trade policy and a fresh round of trade protectionism, one that Lindsay (1994) labels as the climax of post-war trade liberalisation. With TRIPS established and the agreements in place, the restructuring of international economic trade policy around a particular logic of global intellectual property protection was nearly complete and there was only one remaining element from the US's agenda for intellectual property reform to be instituted; dispute settlement, which was to be addressed by the establishment of a World Trade Organisation (WTO).

2.5 Settling Disputes: The World Trade Organisation

The Uruguay Round of GATT produced the near accomplishment of Cordell Hull's vision of a multilateral liberal organisation to govern international world trade, this time named the World Trade Organisation (WTO). Unlike previous proposals the World Trade Organisation was supported by the US government (Doern, 1999: 93). The WTO was established to oversee dispute settlement and undertake a proactive surveillance role in international trade, and began operation in 1995. The WTO quickly became one of the most globally influential institutions in international trade since the creation of GATT following the Second World War. Doern (1999) argues that many of the strong elements of the WTO mandate, including greater expedition of trade-related conflicts and stricter time limits over dispute settlement, are a direct result of pressure from the US administration involvement in the formation of the agency.²

The formation of the WTO, and particularly its coercive dispute settlement procedures, represent a total success for the US intellectual property enforcement strategy. In order to silence opposition to TRIPS and the establishment of the WTO,

² According to Doern (1999: 94), the US influence in the Uruguay Round resulted in a number of key institutional mandates for the WTO's role, including; the WTO would act as a substantive global institution for intellectual property protection; it would facilitate the development of domestic legal systems, particularly the acquisition and maintenance of intellectual property rights in developing nations; the WTO would enforce obligations for the provision of criminalisation of intellectual property infringements within domestic intellectual property laws; it would provide institutional governance for the regulation of global intellectual property protection within the TRIPs framework; and that the WTO would be responsible for providing enforceable international dispute settlement procedures.

the US had to use its economic leverage against the majority of developing nations involved in the negotiations (Doern, 1999). By harnessing the dependency of many developing nations on the US market, through programs including the Generalised System of Preferences (GSP) for duty free trading privileges, and by increasing pressure through its prioritising trading partners, the US had succeeded in establishing most of its requirements for the global trade-related intellectual property regime (Drahoš, 1996). The US also organised an alliance with Europe and Japan, through which non-compliant nations could be forced to adhere to the intellectual property reforms or risk alienation from the world's largest markets. The centerpiece of the new intellectual property regime was the establishment of the WTO, designed to replace the slower and less pliable WIPO as the centre for resolution of international intellectual property conflicts.

As the former dominant intellectual property agency, WIPO was not enthusiastic about the TRIPS agreement or the establishment of the WTO as the administration body for the agreement (Doern, 1999: 98). Concern regarding the obligations and limitations imposed by TRIPS were not confined to WIPO and around the world a deep level of apprehension was expressed by representatives of the scientific, literary and educational communities. In a letter to WIPO the President of the US National Academy of Sciences expressed serious concern over the new regime's capacity to "undermine the ability of researchers and educators to access and use scientific data, which would have deleterious long term impact on research capabilities" (Liedes, 1997: 223). In many Asian countries, and other developing nations, where the level of pirate sales of audio, video, software, books and pharmaceuticals is extremely high, the implications of TRIPS was more dramatic. While the illegal copying of entertainments goods in these countries is largely an infringement of private property rights and it typically regarded as an economic issue, the general standards which surround any increase in intellectual property protection and enforcement create conditions that raise the cost of all cultural goods, and will generally lead to increasing costs of accessing public good provisions in terms of education, technology and medicines.

2.6 The 1996 WIPO Copyright Treaties

Given the emphasis on protection, enforcement and trade under the Reagan administration, the formation of the WTO can be viewed as an expression of the US's frustration with WIPO.³ The US initiative, to view intellectual property rights as a crucial global trade concern, driven by issues of competitiveness and innovation, increased the pressure on WIPO to institute much greater and aggressive reforms than its mandate suggests. Central to the issues of discontent with WIPO was the organisation's ponderous bureaucracy, which produced little consensus regarding issues of technology and globalised trade, while the world around it was moving at an intensifying and rapid pace. WIPO represented an old institution for an even older model of intellectual property. WIPO attempted to revitalise its role in the governance of international intellectual property throughout the 1980s and early 1990s, but failed to provide an overall strategy for globalised intellectual property harmonisation which met the American-led reforms timetable. The Uruguay Round of GATT and the formation of the TRIPS agreement had succeeded in creating a new direction for intellectual property law, one that was completely subsumed within a globalised regime of trade and under which disputes were generally settled by the WTO. WIPO would continue in its existing capacity to administer the Berne, Paris and other main conventions as well as continuing to direct educational, technical and legal reform programs and even provide policy advice to the WTO.

The success of GATT, TRIPS and the formation of the WTO challenged WIPO to prove itself as a leading global intellectual property organisation. Making further changes to the Berne and Paris Conventions was entirely impractical given the time needed to reach any consensus with all 120 signatory nations. Instead, the method WIPO chose was the introduction of two new copyright treaties in 1996: the WIPO Copyright Treaty and the WIPO Phonograms and Performances Treaty. The new global agreements were designed to provide exhaustive protection for authors and artists in the digital environment, and specifically to overcome the new challenges presented by internet-based technologies and practices. The series of diplomatic meetings and WIPO conferences contributing to the formation of the Copyright Treaties were lobbied by copyright industry representatives whose primary focus was

³ The US's history of strained relations with the UN could also been seen as a contributing factor.

the 'anticircumvention' policy to be introduced as a response to the lack of digital copyright enforcement.

History shows that technologies which have enabled individuals to increase the quality and speed of access to information, such as the printing press, photocopier and fax machine, as well as magnetic and digital storage devices, have also caused concern for copyright owners; as they put the ability to mass reproduce copyrighted texts in the hands of individuals. The digital production and distribution qualities which make the internet so useful are a fundamental challenge to the principles of copyright. By reducing the physical barriers to access to information, the internet challenged 300 years of thinking about copyright, highlighting the intangible qualities of cultural goods in the process. These digital challenges emerged at the same time governments were looking for new ways to increase globalised trade and the prospect of intellectual property reform presented the most lucrative opportunities. The two new WIPO Copyright Treaties were designed to mesh with the heightened conditions of protection under the global intellectual property regime as defined by the TRIPS agreement. The Copyright Treaties introduced anticircumvention regulations to criminalise acts of breaking software and hardware-based technologies which had been designed for the enforcement of digital copyrights. The WIPO Copyright Treaty is not limited to the legal protection against online copyright infringement. Had the WIPO Copyright Treaty simply maintained technological neutrality it would have been largely ineffectual; some recent digital innovations have completely new forms of copying and use practices embedded in their very function without analogous methods of regulation in the traditional approach.⁴

The new WIPO copyright treaty, following in the footsteps of TRIPS, did away with the old maxims of balance between the author's economic property rights and the greater social benefits of free and unrestricted access to cultural materials, creating a new kind of technological criminal law. The anticircumvention provisions of the treaty are a radically different direction for copyright policy, one that emphasises general enforcement, rather than individual rights. The treaty effectively criminalises activities

⁴ Internet 'browsing', for example, causes the user's computer, the Internet Service Provider (ISP), and any network in between to make copies of the content on the way to a user's computer; this process, called 'caching', is designed to increase the speed and efficiency of the system as whole. Caching is just one example of the many different types of digital copying acts that occur as a standard part of Internet use that has no explicit offline equivalent. Other digital technologies, such as cut-and-paste functions, greatly magnify their non-digital equivalents, exponentially increasing the potential for copyright infringement in the digital environment, even more so than previous technologies such as photocopiers and fax machines.

that result in the development of technology, software, skills and information that could be used to break technological copyright devices, such as digital watermarks, software encryption and pay-per use devices. Many developing and developed countries were deeply suspicious of the effects of the new Treaties, and refused to ratify them. Numerous WIPO member nations had already developed, or proposed, their own legislation to deal with the copyright challenges of the digital environment; for example, the European Union Copyright Directive (2002) and the Australian 1999 Copyright Amendment (Digital Agenda) Act. The only developed nation to have ratified both the WIPO Phonograms and Performance Treaty and the Copyright Treaty was the US, with Canada, the European Union, Australia and Japan all abstaining when the treaties came into effect in 2002 (Hering, 2002).

2.7 Balance and Development

As an agency of the United Nations, WIPO is responsible for promoting and advancing the protection of intellectual property throughout the world, not only through cooperation amongst its member-nations but in developing and non-member countries. This is accomplished through WIPO's emphasis on intellectual property law reform within developing nations. However, typically lax intellectual property laws are often the only way those nations can sustain a diffusion of knowledge, technology, and cultural materials comparable to that of leading intellectual property producers. The organisation is tasked with persuading developing countries that the long term benefits associated with the enforcement of a strict intellectual property regime outweigh the short term gains of minimal or no enforcement. As demonstrated below, the language employed in WIPO's promotional and regional development activities exhibits sensitivity to those discursive elements of intellectual property which appeal to both users and creators of cultural materials and which highlight their importance within the economies of nation states.

The Director General of WIPO is required to construct an agenda that sets out the organisation's focus every four years. This plan is presented in three sections: the budget, the draft program and the mission statement, or memorandum. The memorandum of the Director General, Dr Kamil Idris, for 2004, reflects WIPO's history of promoting a fully integrated international intellectual property system, but suggests a more progressive administration; one that is attuned to the demands of the global

market in intellectual properties. The Director General is keenly aware of the current concerns for intellectual property regulation and is determined to demonstrate that WIPO is able to provide ongoing legal and institutional administration that will meet the policy objectives of its member countries:

An effective intellectual property system allied to pro-active policy-making and focused strategic planning, will help such a nation promote and protect its intellectual property assets, driving economic growth and wealth creation...creating an environment and infrastructure conducive to enhanced understanding of the contribution of intellectual property to human life through economic, social and cultural development, and, in particular by assisting developing countries in their capacity building for greater access to and use of the intellectual property system... (Idris, 2004).

Dr Idris emphasises the importance of assisting developing countries in their capacity to access and use the intellectual property system rather than intellectual properties in general. He affirms the WIPO position that a fully enforced and dominant intellectual property regime is central to enhancing human life through the economic benefits it brings. The focus on intellectual property as a commodity, an asset to be used for participating in economic development is very important in this most recent memorandum. It suggests that WIPO's current policy direction recognises that economic growth and wealth creation cannot be supported by primary industry and the trade in physical goods alone, and highlights the organisation's view that its intellectual property management system is the key to further economic development.

In 2003 Rita Hayes, the Deputy Director General of WIPO, spoke at the Vanderbilt University Law School, emphasising the importance of WIPO's role in convincing the international community of the "value" and teaching developing nations of the "potential benefits" of the intellectual property system:

Our goal is to show how intellectual property – the fruits of human creativity and innovation – plays a crucial role in the development of nations. Our message is simple: in the twenty first century, intellectual property provides a powerful engine for economic growth...Our efforts directed toward the general public stress the benefits of respecting intellectual property rights: that by purchasing legitimate goods and services, for example, citizens are supporting local industries, increasing the domestic tax base, and strengthening the rule of law (Hayes, 2003).

Hayes emphasises the relationship between the respect for the intellectual property system, as expressed in national legislature and support through proactive enforcement, and successful economic growth. The academic support for this position, however, is divided. For example, Schneider (2005) examines the different dynamics of technological innovation and economic growth between developed and developing nations. The results of her empirical survey suggest that

[intellectual property rights] have a stronger impact on domestic innovation for developed countries and might even negatively impact innovation in developing countries. These results may be indicative of the fact that most innovation in developing countries may actually be imitation or adaptive in nature. Therefore, providing stronger [rights] protects foreign firms at the expense of local firms (Schneider, 2005: 543).

Schneider does argue that the policy implications of her findings should not discourage general intellectual property protection in developing countries, but should be used to generate incentives for its strengthening, such as supporting research and design activities in developing countries. Richards (2002) claims that a weak regime of protection reduces the prospects of developing countries of improving markets in legitimate imports of intellectual goods. He suggests that the risk of free-riding, the presence of imitation goods, and the potential for unauthorised copying can act as a barrier to improvements in the education, industry and welfare of developing nations (Richards, 2002: 522). Alternatively, Musungu and Durtfield (2003) argue that it is extremely difficult to predict the actual long-term economic impact of increased respect for intellectual property on developing countries and their populations; whereas the short term costs in administration and enforcement outlays are, however, obvious and potentially burdensome. In developing nations, where industrialisation occurs through processes of reverse engineering, duplication and imitation of imports, the harmonisation of intellectual property rights comes at a much higher price than in developed countries.

Chen and Puttitanun (2005) argue that nations with low levels of economic development and innovation are dependent on imitating the technologies of more developed nations. They suggest that only with greater enforcement of intellectual property rights will developing nations be able to protect and support an increase in levels of national innovation, leading to improved national economies. Chen and Puttitanun (2005: 483-489) show a mathematical correlation between increasing levels

of technological innovation and stronger intellectual property enforcement. Their argument holds that implementing greater levels of intellectual property rights enforcement results in a U-shape relationship between enforcement and levels of economic development, in which the national rate of innovation first decreases and then subsequently increases (Chen & Puttitanun, 2005: 476). They suggest the trade off for a developing country in increasing enforcement is the greater levels of authorised access to the technologies and markets of developed nations. Chen and Puttitanun (2005: 475) also argue that, even if increased enforcement does not benefit developing nations directly, it could still increase world welfare:

as more developing countries recognise the importance of encouraging entrepreneurial (innovative) activities by domestic firms, the range of common interests between developing and developed countries in promoting [intellectual property rights systems] will broaden (Chen & Puttitanun, 2005: 490).

They argue that by increasing intellectual property enforcement developing countries will have greater access to the types of technologies they require for improving general economic prospects and that domestic innovative activities will increase overall.

What should be of concern over WIPO's reinvigorated approach to intellectual property in the twenty first century is the absence, or at least radical alteration, of considerations for traditional balances. WIPO's approach replaces the historical division between an author's right to economic benefits of their work and the social bargain of restricted access to cultural goods for a limited time, with the discourse of economic development and the twin economic concerns of market supply and the protection of authentic goods. Hayes argues that the "engine" of economic growth is "fueled by the ingenuity, creativity and innovative ability of a nation's people" (Hayes, 2003: 794). The irony is that this intellectual petroleum, like most fuels, does not exist in infinite supply. Hayes claims that innovation, education and creative labour are "inexhaustible resources", but in reality they are not limitless and are all still highly dependent on access to works previously created. Hayes', and WIPO's, new economic policies do not account for the effects of increased terms and maximised enforcement of copyright and patent protection.⁵ They do not offer the possibility of alternatives to the expanding sphere of

⁵The economic case for setting limits to intellectual property law is dependant on two concepts: the notion that there is a limited number of freely available ideas not subject to intellectual property restrictions; the recognition that the development of new ideas is arises from the use of existing works. As demonstrated in the discussion of the 2002 *Eldred vs. Ashcroft* case in Chapter Four, leading US economists argued to the Supreme Court that the creation of new works, relies on the availability of access to and the use of existing works. Increasing the enforcement of intellectual property regimes in order to address the free rider problem (as discussed in Chapter Five) by such measures as

privatised knowledge and information which restricts access to the raw materials needed to form the “fuel” and power this new “economic reality” (Hayes, 2003: 794).

The economic discourse of development, as emphasised by Hayes, holds that markets for legitimate and copyright protected goods will overcome the socio-economic problems of a disadvantaged population’s limited ability to access them by simultaneously encouraging the market in legitimate copies of local goods. The reality, as Maskus and Reichman argue, is likely to be the opposite:

These efforts are largely detached from the traditional goal of domestic intellectual property systems to strike a balance between commercial profitability and public interest concerns. To the extent that [any] imbalance [in favour of commercial profitability] makes it harder for entrepreneurs in developing countries to obtain inputs they need to compete in the production of knowledge goods, these countries could discover that the re-regulated global economy had in effect removed the rungs on which they could advance...The architects of the new system evidently have paid little attention to these issues, believing that a clear specification of strong property rights could establish appropriate incentive for private development of modalities to advance these and other public activities (Maskus & Reichman, 2004: 283).

For Maskus and Reichman, the absence of an independent organisation or body of legal and economic scholars, charged with impartial analysis of the issues, ensures there is no criticism directed at the wealthy nations whose political force is directing the changes to the intellectual property regime. The lack of an impartial critique means that the economic gains only benefit a limited set of industries distributing knowledge goods (Maskus & Reichman, 2004: 286). Worse still for developing nations is that the one international institution charged with administering global intellectual property rights, WIPO, has “recently interpreted its legislative mandate as one of progressively elevating intellectual property rights through the world” (Maskus & Reichman, 2004: 284).

Boyle also levels similar criticism against WIPO, arguing that its new “maximalist” rights strategy, demonstrated in the new copyright treaties, dominates the organisation’s

extending the copyright term, has a direct net economic impairment and subsequently raises the cost of producing new works and reduces the number of newly created works (Akerlof, 2002: 2-3).

perspective on the relationship between intellectual property rights and the economic progress of developing nations:

the maximalist agenda is not good policy, even for the developed world. It represents the interest and attitudes of a remarkably narrow range of businesses, and does so with little democratic scrutiny; participation by civil society in the formation of intellectual property policy has been far narrower than in fields of comparable importance...The history of development in intellectual property is one of chance. The countries that now preach the virtues of expansive minimum levels of intellectual property protection did not themselves follow that path to industrial development (Boyle, 2004: 9).

Boyle refers to the participation by civil society groups, organisations that include non-governmental agencies, charities, nonprofit groups and foundations, who are devoted to collective action for the improvement of diverse interests, such as social and cultural welfare, and operate without primary considerations for the state or the market. Boyle offers the civil society as a potential countermeasure to the belief that “more intellectual property rights means more innovation” (Boyle, 2004: 3-4). He suggests that intellectual property protection must undergo a cultural shift and enter into a process of revision, in which common assumptions are called into question and an analysis of the health of the intellectual landscape is made.

Boyle argues for a revolution in the terms of how we envision intellectual property. He appeals for an investigation into the costs of the maximalist rights agenda and an interrogation of the corresponding alignments of individuals, governments and organisations within the global intellectual property regime. This investigation should compare the economic agenda against the failure to ensure developing nations have the same levels of access to knowledge and innovation that developed countries enjoy. The analogy Boyle makes is for the establishment of civil society agenda similar to that of the environmental movement:

The WIPO secretariat should be required to perform an Intellectual Environmental Impact Statement on each new proposal for the expansion of rights, detailing its effects on the public domain, and the commercial innovative, artistic and educational activities that depend on the public domain (Boyle, 2004: 9).

In order to accomplish such a transformation, Boyle looks to the civil society movement. The potential for non-government organisations, civil liberty groups, and

grass roots agencies to return balance to the global intellectual property regime is significant. The concern for the progress of developing nations has already been established by elements of the civil society movement. Amidst matters of globalisation, democracy, equity and human rights, a global debate over the impact of maximised intellectual property is emerging.

2.8 Conclusion

In 2004, during the 31st WIPO General Assembly, a proposal by Argentina and Brazil for a new Development Agenda for WIPO was formally introduced. Known as the Geneva Declaration on the Future of the World Intellectual Property Organisation, the proposal raised concerns over the challenges the maximalist intellectual property regime posed to developing countries:

Technological innovation, science and creative activity in general are rightly recognised as important sources of material progress and welfare. However, despite the important scientific and technological advances and promises of the twentieth and early twenty first centuries, in many areas a significant “knowledge gap” as well as a “digital divide” continue to separate the wealthy nations from the poor (WIPO, 2003: 1).

The Geneva Declaration calls for an end to the view that intellectual property rights are self justifying. It argues that harmonisation of intellectual property laws should not lead to higher protection standards without consideration of the levels of industrial, social and welfare development in individual countries. The proposal calls a reconsideration of all WIPO activities, and seeks to preserve public interest and flexibilities in the intellectual property policies of member states, demanding a more balanced approach to the use of technical protection measures in the implementation of intellectual property enforcement in the digital environment (WIPO, 2003: 3-8).

The Geneva Declaration was supported by a range of civil society members, activist groups and non-commercial organisations in presenting the proposal to the WIPO General Assembly. Groups like the American Library Association and the International Federation of Library Associations and Institutions, joined with the Third World Network, Consumers International and the Civil Society Coalition, and were supported by thousands of signatures from academics, librarians, politicians, and everyday users of intellectual properties from around the world (CPtech.org, 2004). The twelve

countries co-sponsoring the Geneva Declaration, including Bolivia, Cuba, Dominican Republic, Ecuador, Iran, Kenya, Sierra Leone, South Africa, Tanzania, Venezuela and Egypt, won further endorsement from many Asian and African nations, but Martin Khor, Director of the Third World Network, reported a predictable “cool reception” to the proposal by the United States and other industrialised countries (Khor, 2004: 7).

Central to the issues of the Development Agenda is the attention to the rate of technology transfer from rich countries to developing nations. The proposal calls for a reexamination of the degree of pressure being applied to developing countries in the application of post-TRIPS maximalist enforcements for copyright, patents, trademarks and other intellectual property laws and the refocusing of WIPO technical and education programs away from the “single minded advocacy for expanding intellectual property protections” (Khor, 2004: 7). The proposal for a Development Agenda was adopted by the General Assembly, and a series of inter-governmental meetings and committees were established to review the proposal and make recommendations to the next annual meeting of the General Assembly. A Provisional Committee on Proposals related to a WIPO Development Agenda was then established by the WIPO General Assembly in 2005 to “accelerate and complete discussions on the matter” (WIPO, 2006a). The Provisional Committee met for just four days in February 2006, and was attended by ninety-eight member states and large number of observers, including representatives of civil society organisations. The process is typical of WIPO’s lumbering bureaucratic procedures, but nearly two years after the introduction of the proposal, the recommendations of the Committee were encouraging. The WIPO member states submitted more than one hundred proposals to the guiding committee, from which six main themes have been identified, which include: technical assistance and capacity building; standardisation for public policy and the enhancement of the public domain; technology transfer, information and communication technology and access to knowledge; assessments, evaluation and impact studies; institutional matters including mandate and governance; and a broad “other” category (WIPO, 2006a). According to WIPO (2006b) these recommendations will constitute the basis for continued discussion in 2006, with informal consultations between all governments, civil society groups and interested parties before the member states are expected to make recommendations for submission to the WIPO General Assembly in late 2006. Given the re-emergence of WIPO as a prominent institution in ongoing global intellectual property issues, including internet domain name resolution, the protection of human and plant genetic resources in patent applications and the protection of folklore

and traditional knowledge through copyrights, by the end of the decade WIPO may indeed have a reinvigorated operational policy in place for a broad balanced system of intellectual property regulation designed to serve both private and public interests. WIPO has always has operated under a mandate for development, but this mandate has been primarily interpreted through the promotion and protection of intellectual property institutions in developing nations. WIPO has operated under the assumption that the implementation of intellectual property rights will naturally lead to economic benefits. In delivering the 1996 copyright treaties WIPO matched, and then raised, the enforcement standards set by TRIPS, but WIPO's members have called for an effort to re-enhance the practical development dimension in the organisation's work (WIPO 2006a, 2006b). The success of the US in commandeering the direction of global intellectual property reform through GATT and the TRIPS Agreement guarantees that global intellectual property protection is already set to a maximalist standard. What remains to be seen is the extent to which the US will pursue a role in the implementation of any possible outcomes of the Development Agenda committee's recommendations.

Chapter Three

The Digital Millennium Copyright Act

3.0 Introduction

The United States 1998 Digital Millennium Copyright Act (DMCA) was designed to meet the conditions of the World Intellectual Property Organisation's (WIPO) 1996 Copyright and Performances and Phonograms Treaties, but the legislation went well beyond the WIPO requirements. Not since the Act of Anne (1710), has a single copyright law caused so much controversy and prompted such strong public resistance. Following on from the previous chapters, this study explores the economic and cultural context of the DMCA's formulation. It discusses the degree of involvement from content industry lobbyists who demanded stronger enforcement of digital copyrights to counter increased user freedoms established by new digital communications technologies. The attention then turns to the details of Section 1201 of the DMCA, which prohibits the creation and distribution of software code designed to circumvent digital copyright controls. The purpose of this chapter is to explore the broader consequences of extending copyright law towards the regulation of technology. One prominent example of this, discussed here, is the incident in which the DMCA was used in an attempt to silence academic inquiry into digital encryption.

The second half of this chapter investigates the significance of the DMCA provisions in relation to Digital Rights Management (DRM) technologies, and, in the words of the Electronic Frontier Foundation (EFF), looks to some of the "unintended consequences" of the DMCA (EFF, 2003). The chapter discusses the DMCA's effects on previously lawful market practices which have nothing to do with copyright infringements. It examines the effects of the DMCA on legitimate exceptions to copyright infringements and the future of the US's fair use doctrine. The chapter also investigates the outcomes

of a number of legal cases based on the DMCA provisions, including the *Universal Studios v. Reimerdes* (2000) case, in which the editor of a hacker magazine published computer code used in the circumvention of the digital controls employed to protect DVD movies. The chapter concludes with a summary of the DMCA's approach to the regulation of access to cultural materials in the digital environment.

3.1 Booms, Crashes and the Lobbyists

In the early 1990s businesses, from the local to the global, struggled to plan strategically for the commercial exploitation of the digital environment. The rapid growth of opportunities in electronic commerce left companies generally unprepared for the implications for content, particularly online-only content. Even commercial and technological juggernauts like Microsoft were slow to adapt.¹ Computer users were also slow to react to the consumer potential of the digital environment. The sluggish reaction can be partly accounted for by the high cost of user access, as well as the consuming public's hesitation and skepticism toward the validity of the online environment and its retail possibilities. Even successful early adapters to the online retail model were slow to convince consumers that the World Wide Web was a place to do business and spend money as well as 'surf', chat and occupy leisure time; for example, Amazon.com, which opened for business in 1995 was not able to make a profit until 2001 (Flew, 2005: 145).

If the uptake was slow, then the compensation was exponentially greater and in 1999 the internet was identified by the stock market and venture capitalists as a virtual cornucopia of investment potential. The period of intensive investment, known as the 'dot-com bubble', saw the value of intellectual properties skyrocket as new online ventures, specifically content and service providers, were wildly speculated on:

The market transformed mere Webzines into "internet content companies" worth as much as a billion dollars. Individual reporters and editors...were said to be worth millions on paper. Old school content providers like newspapers and television networks reshuffled their corporate structures so they too could get a slice of fat Net valuations. But what the stock market gives it can just as easily take away... a year later, most Web content companies are in the

¹ For example Microsoft's web browser, *Internet Explorer*, was not included in the first release of the *Windows95* operating system launched in 1995, despite the commercial browser, *Netscape*, being released a year earlier in 1994 (Wikipedia, 2006a).

market's subbasement (along with many other Web companies, particularly retailers) (Leadbetter, 2000: 29).

The 'dot-com' crash and subsequent failure of many internet start-up companies, however, did not diminish the increased focus on the perceived value of intangible intellectual properties in the digital environment. Many large media and distribution companies continued to consolidate and converge, harnessing internet tools to offer online services and products with strictly regulated, controlled and fee-structured methods of access (Flew, 2005).

The overwhelming response by the major intellectual property owners and their representatives, particularly the Motion Picture Association of American (MPAA) and the Recording Industry Association of America (RIAA), to the new possibilities offered by digital communications technologies was to lobby and litigate for more extensive and restrictive copyright standards. As Drahos and Braithwaite (2002) contend, those corporate sectors with the greatest investment in copyrighted materials led the lobbying process for the greatest change. At this time the US Government began to examine ways of regulating the challenges and opportunities of the digital environment and the Clinton Administration proved to be receptive to the efforts of copyright owners demanding greater copyright enforcement. It was also in 1999 that internet file-sharing became highly popular as users discovered a world of unrestricted access and a global community of music enthusiasts through the peer-to-peer (P2P) software, Napster.

This was the first time digital technologies provided individuals with the means to engage in massive levels of copyright infringing activities on a global scale. The popular media has often simplified the battles between content owners seeking to control online content distribution and internet users seeking to share and gain access to unauthorised digital copies. News coverage of P2P cases, including Napster and the more recent 2005 *MGM v. Grokster* case, have typically reduced the relevant issues surrounding online access to content into a simplified notion of piracy. Important issues, such as the impact of disintermediation, the freedom to access legitimately purchased music across multiple formats and multiple locations, and concerns about artists' rights and the future of content industries, have largely been ignored. As Woodworth (2004: 173) reports, the "onslaught" of press coverage of the RIAA's copyright infringement suit against Napster was "fairly balanced" but also unanimous in its untroubled deployment of the words "pirate" and "piracy"; a series of labels which

has been used by content industries to justify the blanket prosecution of P2P technologies and individuals attempting to gain access to unauthorised copies of digital media.

The RIAA was victorious in its legal battles with Napster in 2001 and the organisation turned its attention to individual infringers, hiring internet bounty hunters to track music downloads on other P2P networks, suing thousands of P2P software users and claiming hundreds of millions in damages (Rogers & Beckerman, 2006). The RIAA even attempted to have US anti-terrorist laws amended to give the organisation permission to hack the computers of P2P users in order to search for incriminating evidence of copyright infringements (McCullagh, 2001). Zittrain (2003) suggests this kind of grab for legislated power is part of the classic 'pit-bull' attitude expressed by the RIAA and MPAA towards any perceived encroachment on the privileges of private ownership of copyrights. The most famous of these kinds of attacks came from Jack Valenti, MPAA President, who responded to the prospect of the new video cassette tape recording technology in the late 1970s by suggesting that "the VCR is to the American film producer...as the Boston Strangler was to the woman alone" (Zittrain, 2003). Valenti stands by the claim that technologies, like the VCR, which reduce the control over privately owned materials by allowing individuals to make unauthorised copies, are bad for the content producing industries regardless of the royalties generated by the secondary markets created, such as the global billion dollar video-rental (and subsequently the DVD-rental) market.

Valenti's comments are representative of the fears that the creation of new models and technologies of access automatically threaten the potential value of intellectual property assets. These fears have been addressed by the US Congress in the DMCA by implementing strict provisions and tough enforcement penalties. As Bowrey and Rimmer (2005) see it:

Copyright is supposed to provide "economic incentives" for cultural production. But in keeping with this broad justification the legislature is instructed to balance owner and user interests, in furtherance of the best interests of the development of the new cultural medium and access to the media. However the legislature is without the benefit of an established way of reading the cultural and economic dimensions associated with such new practices. In this context it is unsurprising that imaginative representations of the threat to capital in the

form of visions of digital pirates or of an unenterprising colossus, flesh out the picture. Lawyers and legislators love to rescue the "victim".

Perhaps the most concerning factor of this process is the complete failure of the DMCA to imagine the possibility of other options. No alternatives have been proposed or discussed by private commercial interests who are, however, quick to take aggressive enforcement initiatives against any perceived encroachment on the full scope of their copyrights.

The introduction of video cassette recording technology has strong parallels to the introduction of internet technologies. The infamous legal battle, *Sony Corp. of America, Inc v. Universal City Studios*, fought over VCR technology and known as the Betamax case, was a landmark copyright decision handed down by the US Supreme Court in 1984. The Betamax case shaped the US law's response to technologies that threatened a copyright owner's control over content broadcast on television. At the centre of the Betamax case was the issue that the new VCR technology enabled users to 'time-shift' and make copies of a television broadcast in order to watch the broadcast at a later time. The technology gave individuals the ability to access television content at a time of their own choosing, giving them the freedom to speed through advertising materials, and make collections of their favourite programs.

Fred von Lohmann (2002: 3), Senior Intellectual Property Attorney with the Electronic Frontier Foundation (EFF), reports that in 1976 Universal City Studios and the Walt Disney Company first sued Sony, seeking to have the Betamax VCR technology impounded as a tool that promoted intellectual property piracy:

In their (Universal and Disney's) view, there were virtually no non-infringing uses of the VCR, since home taping of television was thought to violate the copyright owner's reproduction right. The Supreme Court in 1984 disagreed, ruling that home taping of television programs for later viewing ("time-shifting") constituted a fair use.

The Supreme Court's ruling in the Betamax case established a delicate buffer between the rights of consumers and rights of copyright owners, with regards to new technology. The Supreme Court considered the VCR to have a proportionally appropriate level of non-infringing uses and the case created an important precedent for future technologies; permitting them to be made available as long as infringing use was not the primary purpose for which the technology was created. This legal defence, called

'fair use', will be discussed in detail in section 3.6 of this Chapter. The Betamax decision introduced a significant new element into the traditional copyright balance, later recognised by Congress in the US 1992 Audio Home Recording Act, which established a tax on media recording devices, legalised time-shifting and permitted consumers to produce copies of legitimately purchased items for non-commercial purposes within the home environment (Hall, 2002).

3.2 The DMCA: Old Dog or New Tricks?

Prior to the DMCA, the last full congressional review of US copyright law resulted in the 1976 Copyright Act. Litman provides an interesting summation of the process involved in the revision, suggesting that it shaped the law in "disturbing ways", due to the strong influence from industry representatives and commercial lobbyists (Litman, 2001: 36). Leading up to the enactment of the DMCA, entertainment industry lobby groups, including the RIAA and MPAA, advocated tougher penalties for digital copyright infringements. These industry representatives saw the DMCA as an opportunity to criminalise digital piracy, and as a way to ban, or at least diminish, the extensive access to unauthorised copies of movies and music that internet technologies had enabled. Of course commercial interests lobby governments all the time; it is a recognisable and heavily monitored feature of the modern democratic process. The intensification of lobbying practices during periods of congressional review is also not unusual, but the reshaping of copyright law in this way is still disturbing, as it results in the law redefined according to the influence of a dominant commercially involved contingent, whose primary concern is not the balance of rights, but control over the property and the associated rights to profit. Bowrey and Rimmer (2005) argue that the US Congress does take into account the need for balance between user rights and the commercial interests of lobby groups, but the resulting legislation would suggest otherwise.

The DMCA legislation is divided into five titles, but it is the first title, the *WIPO Copyright and Performances and Phonograms Treaties Implementation Act*, which is of most interest to this inquiry. Section 102 of this title implements the 1996 WIPO treaties, while Chapter 12 of Section 103 of the title, consisting of Sections 1201 to 1205, introduces a range of provisions aimed directly at regulating digital technologies. This section of the DMCA legislation amended Title 17 of the US Code to state that "no

person shall circumvent a technological measure that effectively controls access to a work protected under this title” (United States Code, 2006).² This provision goes well beyond the anticircumvention requirements of the WIPO treaties by prohibiting the development, manufacture, or sale of technologies that facilitate unauthorised access to copyright protected works. Section 1201 bans both the act of circumventing a technological measure and the creation of tools which enable circumvention. Also included in this section of the US Code are provisions that are supposed to ensure that the DMCA will not adversely affect user rights, or limit permitted defences to copyright infringement, or reduce technology encryption research or hinder reverse engineering practices to achieve interoperability of computer programs. In the discussion which follows it will be shown that these provisions to protect user rights have not been effectively imposed and often blatantly ignored.

The legislation resulting from the 1996 Congressional review and enacted in the DMCA in 1998, is described by Litman as the application of a “new body for an old model” (Litman, 2001: 37). In itself this metaphor does not automatically imply a negative critique. The old model of copyright doctrine has proven to be an effective set of standards, facilitating the trade in copies of texts, protecting the rights of authors and other creators, and has ensured public access to a wealth of cultural materials. Copyright has been successfully updated and reviewed on numerous occasions in the past, and at each revision the principles of balance in the law have been refitted to accommodate changes and competing economic, legal and cultural demands. Litman uses the metaphor in a way that suggests the enactment of the DMCA was merely a selective patching, or upgrade of the old model, which does not effectively represent where the main problems with the DMCA have occurred. It is the new parts of the law, the ‘new body’ itself that has caused the most contention, with the main consequence being the elevation of private rights over public interest. Rather than establishing entirely separate technology or criminal legislation to deal with the hacking of digital tools, the congressional copyright review has incorporated provisions which make it easier for copyright owners to protect their property, at the cost of the elements of the old copyright model responsible for maintaining the balance of rights between owners and users of copyright materials.

² The circumvention of a ‘technological measure’ means to unscramble, decrypt, bypass or remove any technology used by a copyright owner to limit access to legitimate copies of a work.

The 'new body for an old model' method for revising any kind of law is a common sense approach. Refitting, rather than revolution, is significantly more convenient, less disruptive, and usually better received, but it can result in unpredictable outcomes as the policies formed in a specific historical and cultural context are forced to provide for new situations: the US 1976 Copyright Act is a good example of this. The 1976 Act established a policy of dealing with issues of technological change in a manner that reserved as much as possible the rights of the copyright holder at the expense of the public's rights to access. The US Congress extended the copyright owner's monopoly rights over copies of a text to control all possible uses of the work that could be enabled by new technologies. As Netanel explains, the 1976 Act accorded copyright owners an exclusive right over the preparation of all forms of derivative material based in the original; which means that a copyright owner's exclusive rights claim would hinder the application of traditional methods of access across new technologies, for example the Act limited a library's ability to provide electronic access to digitised texts (Netanel, 1996: 299). It was an act in which "broad expansive rights were balanced by narrow, stingy exceptions" (Litman, 2001: 36).

The process of revision which led to the adoption of the DMCA in 1996 further extended this broad legislative approach by dealing with issues of technological change in a manner that catered to significant private interests at the cost of potential public benefits. It is important to register how significantly the DMCA has reduced the existing limited permissions for the public's right to legitimately access and use privately owned intellectual properties, without actually removing the exceptions from the law itself.³ For example, the DMCA does not stop users from selling second hand books copies, but it does provide publishers with the means to limit the sale of second hand digital texts. Instead of devising new laws or contingences within the copyright doctrine – which admittedly could have had equally disastrous outcomes – the DMCA was designed to expand the tradition of enforcing and protecting strong ownership rights. The DMCA does contain many new elements of law but these new elements are not concerned with copyrights at all. In general terms, the DMCA has repositioned the rights and benefits of legitimate access as a minor concern, given consideration only after the enforcement of the right to protect against unauthorised access has been increased; it does not treat these two issues as competing concerns which needed to balance against each other as historically has been the case. The DMCA intensified

³ This issue is also addressed later in section 3.6 of this chapter in connection with the legal doctrine of fair use.

restrictions to electronic access, introduced new limitations on the appropriation of copyrighted works, and, perhaps most importantly for commercial interests, the DMCA has provided improved protection for digital enforcement measures. Justifying their degree of influence, the lobbyists claimed that Congress had already given copyright owners the exclusive right to their property in the 1909 Copyright Act and now they were simply asking for “some support for their efforts to enforce it” (Litman, 2001: 27).

3.3 The Unintended Consequences of Digital Fences

The DMCA follows the logic of the 1976 Copyright Act, but broke away from the Betamax decision and the US 1992 Home Recording Act; by criminalising the use and development of technologies with the potential for facilitating copyright infringements. The DMCA has hybridised copyright, criminal and technology law into an enforcement tool in order to restrict the access and use of copyrighted materials in the digital environment. The anticircumvention provisions in the DMCA target actions which the RIAA and MPAA and other content owners see as unacceptable. These include the breaking of the encryption on DVDs or CDs to make back-up copies, or the cracking of electronic book software to print out the text, actions which are often a precursor to the act of copyright infringement but not always. While previous copyright laws allowed for the appropriation of ideas and concepts from within copyright materials, they still protected the artist’s individual expression. The DMCA overrides this division by protecting the digital containers of intellectual property as though they resembled physical property. Under the DMCA an idea cannot be removed from its expression without resulting in a copyright infringement; just as a physical object cannot be removed from its owner’s control without theft. By restricting access, with legislative and digital fences, the issue of intention becomes irrelevant, as all infringements are treated as unauthorised acts of piracy. In making it illegal to tamper with the digital containers, the DMCA can be used to prevent individuals from engaging with either idea or expression without authorisation. The broader implications of the provisions mean the DMCA has enabled content owners to restrict the general and unrelated capacities of technologies that facilitate usage of ideas.

The DMCA’s enforcement of digital walls conflates the social and cultural values of access and use of ideas contained within intellectual properties with their purely physical worth as commodities. Making it illegal to create, share, and distribute

technologies that defeat the security measures of copyrighted works, Lessig argues, “is akin to making it a crime to disable burglar alarms or to sell tools whose sole design is to defeat burglar alarms” (Lessig, 2001; 187). These kinds of provisions are entirely uncharacteristic of copyright laws, but the DMCA has subsequently been heralded by the US as a model for legislation that other countries should replicate in order to effectively combat copyright infringements (Drahos & Braithwaite, 2002: 184-185).

In 2003, the Electronic Frontier Foundation began an annual canvassing of opinion from academics and intellectuals, legal experts, copyright and intellectual property specialists, librarians and consumer groups, regarding the DMCA’s unintended consequences. The report suggests the rhetoric underpinning the introduction of the Act concentrated on stopping copyright pirates from defeating the anti-piracy technological protection measures. The anti-piracy message was intended to convince investors in and owners of intellectual goods of their property’s security, and that the market for that property was safe in any environment, online or off. Instead, the EFF reported, far from simply reducing levels of piracy, the DMCA’s provisions had reduced free expression on certain issues relating to copyright and technology and had interfered with the typical process of scientific research:

Section 1201 is being used by a number of copyright owners to stifle free speech and legitimate scientific research...Bowling to DMCA liability fears, online service providers and bulletin board operators have begun to censor discussions of copy-protection systems, programmers have removed computer security programs from their websites, and students, scientists and security experts have stopped publishing details of their research on existing security protocols. Foreign scientists are increasingly uneasy about traveling to the United States out of fear of possible DMCA liability, and certain technical conferences have begun to relocate overseas (EFF, 2003).

As discussed in the EFF report, the line between discussion and the publication of research, as well as the division between the discussion of tools and the tools themselves, has dissolved into uncertainty. Under the DMCA the idea that simple discussion of encryption techniques may be a breach of the anticircumvention provisions of the DMCA has become a widespread concern. Contributions to open discussion of the encryption technologies were forced into private conversation, or more resistance and activist orientated channels such as *The Issue*’s ‘Discuss the DMCA’ email mailing list (Anti-DMCA, 2006). Other websites that host details on how to

make unauthorised copies of DVDs have simply moved to internet servers outside of the US jurisdiction.

3.4 Encrypting Academic Freedoms

Computer Science Professor Edward Felten, at Princeton University, was the first academic to feel the legal muzzle of the DMCA. In September 2000 the Secure Digital Music Initiative (SDMI), a music industry affiliate, declared a public challenge to test their new digital copyright watermarking technology. Given the bravado of the *hackSDMI* challenge, the SDMI were obviously confident in their technology's potential to reduce unauthorised online music distribution. Professor Felten and a team of researchers and digital encryption specialists cracked the watermarking technologies, but rather than accept the US\$10,000 prize which would have required the team to keep silent about their research, they prepared to present on their findings at the 2001 International Information Hiding Workshop (Perelman, 2002: 196).

Professor Felten's group was deterred from delivering the paper at that academic conference by a letter from Matthew Oppenheim, the Senior Vice President of Business and Legal Affairs at the RIAA, who objected to the disclosure of information discovered by involvement in the challenge that "would violate both the spirit and terms of the *Click-Through Agreement*" (Oppenheim, 2001). However, according to the terms of the agreement, Felten's group was only required to maintain secrecy over their findings if they accepted the competition prize money (Clickthru, 2006). It was Oppenheim's threat of criminal and civil liability under the DMCA that caused Felten's team the most concern:

In addition, any disclosure of information gained from participating in the Public Challenge would be outside of the scope of the activities permitted by the Agreement and could subject you and your research team to actions under the Digital Millennium Copyright Act ("DMCA") (Oppenheim, 2001).

Felten's research group broke the SDMI's encryption techniques quickly, and felt the general weakness of the system needed reporting to both the general public and other academics (Felten, 2001). Oppenheim's and the RIAA's objection to the public presentation of these failures was based on a desire to protect their significant commercial investment in the SDMI's technology; some of the watermarking technologies included in the challenge were already in full commercial use. The

research group's findings also represented a threat to other technologies involved in the challenge that were due to enter commercial use in the future.

Unfortunately the case was dropped by the RIAA and the SDMI, when Felten's legal representatives asked the District Court of New Jersey to find that scientists had a First Amendment right to discuss and publish their work, even if it discussed weaknesses in the technological systems used to control digital music (EFF, 2003). The defence had argued that discussion in an open and free environment would produce better forms of encryption technologies (Bowrey & Rimmer, 2002). Felten and his research team wanted to demonstrate that the RIAA and the SDMI's technological innovation would be best served through open discussion and more effective encryption technologies that can be developed through the processes of peer-review. The prize money for the *hackSDMI* challenge was designed to attract members of the hacker community who represented the biggest threat to the security of the encryption technology. The challenge targeted those most likely to use their findings to break the encryption and subsequently make protected content available to others. Felten, and his research group, did not represent this kind of threat, instead they offered exposure to knowledge and more effective encryption. The RIAA and the SDMI wanted to keep their technology and its flaws a secret, controlling who had access to the knowledge about their technology through financial incentives and secrecy.

Felten eventually made the research paper available online with these comments:

Our paper was submitted via the normal academic peer-review process. The reviewers, who were chosen for their scientific reputations and credentials, enthusiastically recommended the paper for publication, due to their judgment of the paper's scientific merit. Nevertheless, the Recording Industry Association of America, the SDMI Foundation, and the Verance Corporation threatened to bring a lawsuit if we proceeded with our presentation or the publication of our paper.

Threats were made against the authors, against the conference organisers, and against their respective employers. Litigation is costly, time-consuming, and uncertain, regardless of the merits of the other side's case. Ultimately we, the authors, reached a collective decision not to expose ourselves, our employers, and the conference organisers to litigation at [the time of the conference].

We remain committed to free speech and to the value of scientific debate to our country and the world. We believe that people benefit from learning the truth about the products they are asked to buy. We will continue to fight for these values, and for the right to publish our paper (Felten, 2001).

Felten's case, whether it is an issue of free speech or academic freedom, was a prominent example of the DMCA's potential to smother innovation and scientific research in the name of capital investment. Perelman (2002) concludes that in this kind of prosecutorial climate all kinds of rights and freedoms, be they human, investigative or scientific, are being forced to give way to intellectual property rights. Both Samuelson (2003a) and Benkler (2002) warn of a future where the controls over information make unauthorised access and use perfectly excludable by law. Sharp (2002) suggests the greatest weight of the DMCA will be borne by educators and researchers, as the law will be a consistent and detrimental influence on educational processes, particularly those reliant on previously legitimate access to and use of copyrighted materials and information.

The DMCA legislation passed through Congress in 1998 with disturbing ease and the precedents set by this law are a dire warning about the future of the information society and digital environment. It signals a future in which the majority of copyrighted materials accessed online will be monitored and regulated by technological protection measures that enforce a pay-per-view/use regime. Moore suggests that currently the most tangible effects of the anticircumvention provisions in the DMCA have been to turn copyright law from a "system of protection designed and intended primarily to serve the public interest in the creation and dissemination of creative works" into nothing more than a "guild monopoly" serving only private interests (Moore, 2003: 1456). The anticircumvention policy combined with the extension of copyright duration, which will be examined in the Chapter Four, represents a fundamental shift from away from considering copyright as both a social and economic policy. What the Stationers Company failed to achieve in the eighteenth century, modern intellectual property industries have nearly achieved, reducing technological and innovative freedoms and established the basis for the monitored control of information and intellectual property materials in the digital environment of the twenty-first.

3.5 Digital Rights Management

The encryption technologies involved in the Felten case are one example of a range of contentious technologies known as Digital Rights Management (DRM) systems. DRM systems, alternatively known as Technical Protection Measures (TPM), are currently ineffective against digital piracy, which is evident in the ease and range of methods for making unauthorised copies of movies, music, books, and software. The DRM copy protection systems employed by the record and movie industries are mostly farcical. Some of the recent copyright protection systems on music CDs have been defeated by the application of a black pen making the use of household stationary items a potential criminal infringement of the DMCA's anticircumvention provisions (Del Colliano, 2002). In the future, this situation may change as DRM technologies mature, but it is still unlikely they will have an effect on the physical black market operations distributing large numbers of unauthorised copies of DVDs, CDs and computer games in countries where actual copyright enforcement is minimal. Yet clashes between content owners and consumers attempting to gain access to legitimately purchased goods are increasingly frequent. This is due to the common denominator of all DRM systems: the reduction of user rights. Users, when presented with DRM systems, have only one choice, to accept the limitation imposed by the content owner or go without.

In April 2003 EMI Music Australia removed access to its online customer forum thread discussing issues of copyright protection. The forum was inundated with customers protesting the inoperability of the company's copy protection system, which prevents the company's music CDs from playing on devices such as computer CD-ROM drives and Xbox games consoles. The forum's closure, after customers began to discuss methods for circumventing the copy controls, was followed by a complete ban on the discussion of copy control circumvention on any of the company's forums (Varghese, 2003). In February 2004 EMI broke its silence on the deficiencies in its copy control software but has largely ignored customer complaints (Varghese, 2004).

In November 2005, record company Sony BMG came under fire from consumer groups, bloggers and the Electronic Frontier Foundation for infecting millions of users' computers with a 'rootkit' program that is installed when a legitimately purchased music album is played on a personal computer. Sony's software, in attempting to provide a secure DRM environment, in which the user cannot copy the encrypted material,

introduced security violations directly into the user's computer's operating system making it susceptible to online attacks, electronic fraud, identity theft, and malicious computer viruses. The EFF settled its case against Sony BMG and the record company provided a "clean" iTunes download alternative for customers of its fifty products infected with the rootkit software (EFF, 2006a). Ironically Apple's iTunes products are protected further by DRM software which can be reconfigured remotely by parent company Apple and can alter a user's permissions and access rights to the products long after purchase.⁴

In January 2006 the producers of anti-copying DRM software StarForce threatened to sue blogger and novelist Cory Doctorow for blogging criticisms and details of the computer-crippling deficiencies in the StarForce product. The StarForce program is designed to stop individuals from copying legitimately purchased computer games, but operates like a virus by infecting the operating system of the consumer's computer, causing serious instabilities and malfunctions that are difficult to remove and repair (Doctorow, 2006). In a bizarre move an unnamed StarForce employee attempted to justify the company's DRM products by posting a link on the StarForce forum website that redirected readers to a peer-to-peer site for downloading a non-StarForce protected game (Lee, 2006).

Issues of technology, commercial interest, user rights and the politics of law clash daily under the DMCA's anticircumvention provisions. The above cases are just a sample of the ongoing conflicts between consumers of cultural materials and the owners of these intellectual properties, who are understandably attempting to protect their works from unauthorised acts of copying. The problem, illustrated in all three examples, is the application of DRM technologies that reduce the options for access and use of legitimately purchased products, legitimate copyright exceptions and interfere with the user's personal property. DRM technologies existed before the DMCA, but their implementation has been enhanced by the Act's enforcement of the anticircumvention provisions. The broad range of DRM technologies generally function by employing digital access and copy controls through software encryption. These controls are part of the digital object, they move with the copyright protected material. The controls are designed to determine what level of access the user is permitted, and can regulate how

⁴ Most recently Steven Jobs, chairman of Apple Computers, possibly in an attempt to evade future anti-trust actions over its iPod/iTunes monopoly has issued a challenge to the major music industry labels to allow the company to make non-DRM protected content available for sale. This would increase the interoperability of all MP3 players and MP3 playback software (Jobs, 2007).

the information is viewed, copied, printed or retransmitted and by whom (Miotke & Petravicius, 2004). DRM therefore enables copyright owners to make their properties available in the digital environment with increasingly compartmentalised restrictions: even the current basic level DRM applications, including CD and DVD anti-copying features, have restricted the types of everyday functions that consumers have traditionally experienced with commercial products. In the EMI example, consumers of CDs cannot be assured that a legitimately purchased CD music album will function on all CD players. This is not a manufacturing issue, but an imposed DRM limitation; those CD players which permit copying of the CD content can be excluded by the DRM on the CD itself. DVD region coding is a basic form of DRM that has already proven unsuccessful thanks to global DVD distribution through online stores such as Amazon.com. Consumers of other types of digital files, such as online books, can experience limitations on even the most basic uses of these intangible objects, including printing functions and a limitation on the number of machines that users can transfer their legitimately purchased copies to.

Many DRM technologies offer a level of intellectual property management that is almost impossible to achieve in the physical and offline environment. DRM can be used to limit the length of time that a digital file can be accessed, and DRM can be used to stop consumers re-selling the product on to others as second hand goods. If connected to the internet, DRM technologies can be used to alter an individual's level of access privileges to information that has already been distributed (Miotke & Petravicius, 2004). DRM is also effective for tracking the progress of information as it travels through electronic networks, registering how often it is accessed, stored, copied, transmitted, etc. Current DRM systems rely heavily on encryption technologies that are far from perfect, as the Felten case demonstrated, yet the DMCA provisions threaten the prosecution of infringing practices that would improve the technology, encouraging intellectual property owners to use imperfect tools.

Brett Glass argues the term DRM has come to mean any technological measure that in some way restricts what the end users can do with copyright materials (Glass, 2003). Pamela Samuelson offers an interesting perspective, arguing the main purpose of DRM is not to prevent copyright infringement but to change consumer expectations about what they are entitled to do with cultural goods (Samuelson, 2003a: 41). This is an extremely pertinent observation as the panoptic elements of the law are entrenched

in new DRM technologies. Samuelson's perspective is echoed by Gillespie (2004), when he argues that the

DMCA is only nominally about copyright. While it was put in place on the rhetorical shoulders of a panic about digital piracy, its reach over the production and distribution of culture goes well beyond the traditional bounds of copyright law, to make possible a massive technological and commercial system that not only will limit copying but will regulate every facet of the purchase and use of cultural goods. Premised more on computer security statutes, it is based on a very different sense of priorities than is copyright (Gillespie, 2004: 239).

Thinking about DRM requires some prognostication, because the effectiveness of DRM is limited in its current incarnation, but its true impact will be seen with the following generations of DRM technologies; a breed of DRM that is as close as the latest version of the Microsoft Windows operating system.⁵ User rights are further eroded by DRM which limit the available options for how individuals access materials and what we do with the products. With each reduction in user rights, Vincent Mosco's (1989) vision of the pay-per-society is a step closer.

The future of DRM is the application of technology to regulate the use of cultural goods on an individual level. In some cases this may prove to be a social benefit through equitable price discrimination; when content is unable to be copied, it is economically feasible to make the content available at a fixed and generally lower rate because all users have to pay for access. It is, however, more likely that the overall cost of the technology is a reduced level of user rights and freedoms. Content owners are in a powerful position to influence the development of digital standards that are restrictive and self-enforcing.⁶ Future DRM will be able to link user access privileges to individual identities (Jahnke & Seitz, 2005). What is invariably at stake in the secrecy and invisibility of DRM, is the lack of control and knowledge that the user has over the

⁵ Jahnke and Seitz (2005) report that extensive DRM technologies will be encoded within the core of the latest version of the Microsoft operating system, *Microsoft Windows Vista*.

⁶ Watermarking technologies, such as those cracked by Felten's team, are an example of a conventional DRM technique, known as steganography, which digitally integrates the DRM permissions within the data of the file, such as an image or song, without disrupting the original data and remains undetectable to the eye or ear. Jahnke and Seitz (2005) outline four common characteristics that DRM technologies attempt to exhibit in order to be effective: 1) robustness – users must not be able to remove the watermark or make it illegible, and it should be resistant to changes if modifications of the original file occur including resizing, file compression, rotation, etc; 2) non-perceptibility – a perfect non-perceptible DRM is present if one cannot distinguish between data marked with a watermark and the original; 3) detectability – a digital watermark, for example, should not be detectable if it is consistent with its original data, this is not a measure for obfuscation, but a simple indication as to whether an object or the watermark itself has been changed without authorisation and; 4) security – this is one of the hardest characteristic of DRM to achieve, as Felten demonstrated. For a DRM to be secure it should not be able to be cracked, but as that is unlikely, and it is often considered secure if the DRM is merely difficult to crack.

cultural materials and intellectual properties which they purchase, coupled with the constant guiding hand of the owner regulating their activities. When technological development is closed and secret, only the copyright owners themselves have the keys to the source of the information. Even then the owners may only have access to the key and not detailed knowledge of their own systems.

What DRM enables is a system of ownership where users do not own their rights of access. Ownership of cultural materials is already limited in the physical environment for example, a consumer's ownership of a movie on DVD extends only so far as they are able to decide how often, when and where they view the product. The consumer is not permitted to copy or do anything with the intellectual property of the film itself, such as edit or remix it. DVD consumers have the right to transfer the ownership of the physical copy through second hand sales and they have the right to view the product on their home computer, on their laptop or in their standard DVD-player. Ownership in the purely digital environment, however, where there is no individual physical container and the content is downloaded and stored on a consumer's hard drive, or 'streamed' via internet technology that does not permanently store the content on the consumer's hardware, is regulated by DRM systems. Ownership in this environment extends only so far as the owner of the intellectual property owner decides. When an individual purchases online access to a game, movie, books, or website, they are not guaranteed the same level of rights that an offline consumer has. For some this may not be considered a problem and many copyright owners would consider the total restriction of user activities as a perfect copyright system ideal for the marketplace. When DRM is installed in the operating system of the user's computer by default it represents an unregulated restriction on the rights of the consumer. The associated limitations on access, user choice, and the resulting impossibility of appropriation should be considered a form of technological and cultural poverty.

3.6 The Toner Wars

In 2002 one of the largest printer manufacturers, Lexmark International (Lexmark), began legal proceedings against Static Control Components (SCC) based on claims made under the anticircumvention provisions of the DMCA. The case, which has been dubbed the 'Toner Wars' by online media reports, was a surprising development in the highly competitive printer industry. The international printer and toner cartridge market

is a global billion dollar industry. Harnur puts the worldwide revenue of laser cartridges alone at US\$17 billion per annum, with the revenue for the remanufacturing and reconditioning of used cartridges at US\$5 billion (Harnur, 2004). The sale of printer cartridge materials is a primary source of profit in the commercial printer market. Jahnke (2003) comments on the feelings of many printer consumers, claiming that Lexmark “of course, sold its printers cheap and its printer cartridges not so cheap... Customers bought the printers because they were a bargain and they bought the cartridges because they had bought the printer”. The cost of replacement printer cartridges is so expensive that Leyden (2003), reporting in the United Kingdom, found that a colour Hewlett Packard printer cartridge costs around £1.70 per millilitre of toner fluid, which was seven times more expensive than a 1985 *Dom Perignon* Champagne at 23p per millilitre.

In attempting to guarantee consumer compliance to its valuable monopolistic market strategy, Lexmark designed its printers with technological protection measures to prevent the use of reconditioned and alternative printer cartridges. Lexmark placed a software code into the printer cartridges’ onboard chip, and this code was required to make the printer function. If other manufacturers copied or circumvented that code, Lexmark asserted it would claim intellectual property protection under the DMCA. SCC however engineered a new microchip which fooled the Lexmark printers into believing that the alternative cartridges were legitimate Lexmark products. Lexmark responded by obtaining a legal order under the DMCA anticircumvention provisions to stop SCC from distributing its product.

Copyright laws have been used in the past to facilitate censorship and promote monopolistic commercial activity, but the Lexmark case was described as “legal fireworks” by Anthony Calypso (2003) because it is the first case in which the DMCA has been used to counter otherwise standard industry practices of competition. There is a historical similarity between the Toner Wars, sparked by the DMCA, and the landmark cases of *Donaldson v. Becket* and *Millar v. Taylor* in the eighteenth century Battle of the Booksellers. In the Lexmark case the anticircumvention provisions were being used to ensure an uninterrupted monopoly. By taking action under the DMCA, Lexmark effectively engaged copyright law to defy anti-monopolistic precedents. In other manufacturing industries this practice would be considered a violation of the anti-trust laws designed to prevent such unhealthy market monopolies. Lexmark’s tactic is

akin to a car manufacturer ensuring that its design of cars, that accept only one brand of petrol or one manufacture's parts, be protected under copyright law.

During the initial Federal court hearing in 2002, Lexmark argued that its printer cartridges contain technology which SCC had reverse-engineered in order to market a significantly cheaper alternative. Reverse-engineering is a standard industry technique in which companies deconstruct a product to create an alternative with the same or similar effects to the original. Reverse-engineering is permitted under the DMCA in order to allow different manufacturers to create interoperable components as it does not involve any copying of the original technology. Lexmark, however, argued that its printer cartridges contain copyrighted 'firmware', which is a permanent form of software, hard wired into the microchip. Lexmark took advantage of the DMCA anticircumvention provisions to argue that SCC must have circumvented its technological protection firmware in order to make their alternative cartridges function in the Lexmark brand printer (Wildstrom, 2003).

In February 2003, the District Judge Karl Forester granted Lexmark an injunction against SCC, forcing it to remove the offending products from national distribution (Calypso, 2003). The court found that Lexmark was "likely to prevail on its DMCA claims" that SCC's product was designed to circumvent Lexmark's technological protection measures.⁷ Static Control Components, however, was successful in the 6th US Circuit Court of Appeals in October 2003, when that court lifted the injunction prohibiting SCC from selling its *Smartek* alternative. Judge Geoffrey Sutton of the Appeals court found that Lexmark had failed to establish a likelihood of success on any of its claims, either under general copyright or under the DMCA (Fisher, 2005).

SCC was eventually vindicated in its legal battle with Lexmark (Fisher, 2005), but it is doubtful that this will be the end of instances of commercial organisations attempting to assert monopolistic controls over the hardware market. As Wildstrom (2003) warns, the DMCA could be used as a weapon against any third-party supplier. He gives the example of the auto industry, which "has long wanted to shut down the independent

⁷ In response SCC approached the US Library of Congress Copyright Office, the official national copyright agency in the US, to rule on whether Lexmark's chip rated as copyright protection. The Copyright Office found, in October 2003, that section 1201(f) of the DMCA allows aftermarket companies to develop products that allow "functional interoperability" (Taylor, 2003), meaning that Lexmark should not have been able to attempt to prosecute SCC in this way. The success of Lexmark's initial Federal court injunction, and the recall of SCC products, demonstrates that copyright owners don't need to ultimately triumph in a legal setting in order to disrupt the activities of its competitors; even a DMCA-based threat is an effective measure against unwanted competition and consumer practices.

crash-parts business”. Wildstrom cites the recent Chicago lawsuit brought by the Chamberlain Group, who makes garage-door openers, invoking the DMCA to stop a Canadian company, Skylink Technologies, from supplying alternative remote controls for its products (Wildstrom, 2003).

3.7 Fair Use – Unlocking the Defence

Cohen (1999) reports that during the process leading up to the enactment of the DMCA, a remarkable coalition of educationalists, consumers, legal experts and scientific groups came together to lobby for the public interest. It was a reaction that reflected a widespread respect for the legal doctrine known as fair use. The principles of copyright, established under the Act of Anne and replicated in the American Constitution, were designed to both encourage the production of intellectual properties and to further the public good by enabling access to such products after the period of monopoly ownership expired. As copyright duration was increased over time, specifically in the US, the courts and legislature granted limited uses of intellectual properties that were still bound to a number of activities that do not require the owner's permission, including education, journalism, criticism, parody, and research. The principles of non-commercial public use of copyrighted materials thus became the doctrine of fair use.

The US 1976 Copyright Act gave statutory confirmation to this common law ‘rule of reason’, codifying the practice of fair use as Section 107 under the Act (Schragis, 2001). The doctrine of fair use is what Litman (2001: 36) referred to as a “stingy exception” because it is not a general principle, but instead a set of criteria that provides courts with a series of guiding factors for considering what should be ruled as fair use and what should be considered as copyright infringement. The four criteria are:

- 1) the purpose and character of the use of the copyrighted material;
- 2) the commercial nature of the use;
- 3) the amount and substantiality of the portion used;
- 4) the effect of the use upon the potential market value of the material.

The fair use doctrine has been a contentious issue since its inclusion within the 1976 Act. Copyright industries and legal scholars have questioned and challenged the merit of a legal loophole that allows unauthorised use of copyrighted materials. David Nimmer (2003) argues that adherence to the fair use criteria by judges is more like a

fairy tale than a judicial procedure. He suggests that courts make a judgment based on what the judge considers to be the disposition of use, whether they perceive the use to be fair or unfair and then align their findings in the decision to fit the legal criteria.

There is a common intuitive reaction amongst users of commercially available cultural materials that there should be some non-commercial uses of copyrighted works permitted without restriction. These uses would include sharing or selling the second-hand goods or being able to make copies of a newspaper article to distribute to friends, colleagues or a group of students. Other everyday practices rely heavily on non-commercial activities; for example destroying the original, such as a magazine, to use its images for other purposes; or copy-and-pasting quotes from digital sources rather than re-writing the words individually. The attempt to make these fair uses of copyrighted works function in the online digital environment, however, can attract new penalties under Section 1201 of the DMCA. A prominent example of this is the case against Dmitry Sklyarov, a Russian computer engineer, who was arrested when visiting the United States in 2001 on charges under the DMCA of trafficking in circumvention devices.

Sklyarov wrote the software capable of decrypting the proprietary Adobe eBook copy control features. He enabled users to unlock some of the copy-based restrictions on their legitimately purchased products, including the ability to transfer copies and print hard copies as well as making the eBook compatible with devices designed for the hearing impaired. In doing so Sklyarov's software circumvented Adobe's digital controls, changing the eBook text into a more accessible format. While legitimate in Russia, Sklyarov's program, the Advanced eBook Processor, was also available to download in the US, making him a trafficker in anticircumvention devices under Section 1201 of the DMCA. The case became a focal point for arguments about the conflict between the broad nature of the DMCA provisions and the rights expressed by the doctrine of fair use.

Sklyarov and his Russian employer, ElcomSoft, were charged with four circumvention offences under Section 1201 of the DMCA (EFF, 2002), and one charge of conspiracy, but no charges of copyright infringement. Each of the circumvention charges attracted a potential US\$500,000 fine, and a five year prison sentence. The legal defence argued that the DMCA's ban on circumvention devices was too broad and prevented

basic fair use rights. They argued that the ElcomSoft's Advanced eBook software should not be subject to the DMCA based charges because it was designed to permit users, who had bought legitimate eBooks, to exercise specific fair use rights.⁸ The problem, as Lessig (2001) sees it, is that technologies protecting copyrights are not as subtle as the law of copyright. The DMCA in protecting technology that in turn protects copyrighted material, with a much broader capacity than the copyright provisions themselves, makes criminal what copyright law would forgive. He argues that in making it a crime to crack the technology, whether or not the purpose of the cracking would be a copyright violation, is to delegate lawmaking to code writers, making copyright law irrelevant and subject to the behest of the technology. As Bowrey and Rimmer (2005) also argue, fair use, under the technological entrenchment of the DMCA, is being treated as just another infringing use:

It was argued [in the Sklyarov case] that the [anti-circumvention] provision was bad because it was unconstitutionally vague, constituted a content-based restriction on speech not sufficiently tailored to serve a compelling government interest, and that Congress exceeded constitutional power in enacting the DMCA (Bowrey & Rimmer, 2005).

Justice Whyte ruled against these arguments in 2001, but Sklyarov was given immunity from the charges in exchange for his testimony against ElcomSoft. The jury, however, in the 2002 federal case against Sklyarov's employer, felt unanimously that users of the eBook should have the same rights as users of print books and found in favour of a clear and straightforward instance of fair use (Moore, 2003: 1437).

While the Sklyarov case has not overturned the DMCA, it has highlighted the tension between the law's approach to technology-based copyright enforcement and the doctrine of fair use as it fulfils two important functions. Firstly, fair use acts as a pressure valve, enabling limited access and use of new copyrighted materials, and secondly it eases the tensions between copyright laws and new technologies. Fair use adds to the contribution copyright makes to the public's benefit, taking the pressure off

⁸ These fair use rights include the right of transportation, where the software allows users to 'space shift' the eBook to a laptop or PDA, other than the original downloading device; the right of back-up, where the software enables users to store reserve copies of the legitimate purchase as protection against technical failures; the right of quotation, where the software provides cut-and-paste functions to use eBooks in academic research, educational and teaching purposes, critiques, commentary and parody; the right of physical reproduction, where the software allows users to print the eBook, or sections of it, in order to read a physical copy; and the right of interoperability, where the software ensures that users can view the eBooks on alternative (not Microsoft or Apple) operating systems, such as Linux, and non-PC viewing devices, such as PDAs.

consumers and users of copyright protected materials by investing them with non-commercial rights. By protecting the market value of goods and simultaneously allowing certain limited practices, such as copying for education purposes, the law provides access to materials that would otherwise be out of reach due to distribution, access or even financial restrictions.⁹ As Sharp argues, the ability of individuals to access and use copyrighted materials has been a vital factor in the advancement of America's economic dynamism and education achievements (Sharp, 2002: 40). Unfortunately, as Zittrain (2003) suggests, knowledge of the specifics of what copyright and the doctrine of fair use allows is so limited that most users of copyrighted material act as if fair use doesn't exist; either engaging in unauthorised copyright infringing activities or behaving as if copyright material is untouchable. The instinct, Zittrain argues, when dealing with copyright materials in a professional or commercial environment is to either ask permission to use the material or do without. This instinctive reaction, some might call paranoia, is created by the threat of copyright infringement prosecution, coupled with an ignorance of the law.

The second important function of fair use is the doctrine's mechanism for easing the tensions between copyright laws and new technologies. For example, following the development of home video recording, the ability to record television shows for a later view is considered as fair use thanks to the *Betamax* case (Moore, 2003: 1457). The fair use defence successfully applied through the jurisprudence of the legal system can insure that new technologies do not efface previously upheld rights or diminish copyright owner's financial entitlements. For example, the introduction of the photocopier was an issue of major contention for book publishers, yet despite the panic and propaganda of the time, photocopiers did not spell the demise of the printing industry. Fair use ensured that photocopiers can be used for educational purposes without requiring permissions. However, according to the incentive argument, fair use is not costless, as the provision that some users may gain access and use of a work without paying for it may reduce the incentive to create or invest in the production of new works. Cohen (1999) suggests that fair use in the digital environment, which is made easier by cut-and-paste technologies and relatively costless copying and distribution facilities, may further deter potential authors who view non-authorised use of their work as stealing. The presence of potential legitimate fair use exceptions to the

⁹ See also the analysis of the economic arguments underpinning this claim in Chapter Four, with particular reference to the argument made by a group of US economists in the case 2002 *Eldred vs. Ashcroft* by Akerlof, *et al.*, (2002).

monopoly ownerships rights of certain cultural materials may also increase their market price of cultural goods as copyright owners charge higher prices to offset the uncompensated uses.

The recognition of non-commercial practices and everyday uses for copyrighted material that should not be limited by the law, or even require permission from the owners, is a powerful idea. The American band Negativland literally wrote a book on the fair use doctrine, in which they outlined their “appropriationist” music style and their legal battles with the record company representing the band U2 (Negativland, 1999). Negativland has been at the forefront of fair use application in the practice of their art, which appropriates recorded sounds from everyday experiences. Mixing conversations recorded in the street, overheard phone exchanges, archived radio transmissions and television ads, with music samples taken directly from existing works, the band uses the technologies of digital reproduction to create new types of audio collage. Negativland views their activities as a way of communicating to others the chance to regain a sense of communication, creative expression and humour, by promoting a more active engagement with the quotidian nature of textual, video and audio objects:

The act of appropriating from this media assault represents a kind of liberation from our status as helpless sponges, which is so desired by the advertisers who pay for it all. It is a much needed form of self-defence against the one-way, corporate-consolidated media barrage. Appropriation sees media, itself, as a telling source and subject, to be captured, rearranged, even manipulated, and injected back into the barrage by those who are subjected to it. Appropriators claim the right to create with mirrors (Negativland, 1999).

Frequently parodying corporate and media culture, Negativland’s work, and their website, *Negativland.com*, promote both the principles of fair use and the raw potential of materials in the public domain:

To Negativland, the advent of copyright is also the advent of closed, frozen, culturally stabilised art – art that it was illegal to rework, to add to, to subvert, to modify. It is almost as though intellectual property is a layer of shellac over expressive content, sealing it off and separating the world into active artists (or content companies) on one side and passive consumers on the other. In their view the internet allows and dramatically encourages resistance to this dichotomy, promoting instead a cultural “public domain”, a domain where the recipients of cultural material can also rework that material (Boyle, 2003a: 17).

Negativland exemplifies the innovative practices of artists, who have always retold, repackaged, reworked and rediscovered creative materials. The band challenges the view that a healthy copyright regime is one that identifies cultural products only as removed, protected and private commodities. The band advocates a kind of existence in which individuals can participate in the reformation of culture, both alone and collectively, through the appropriation and use of the materials that surround us. Instead of being forced to seek permission from every owner to use even the smallest one second sample of sound from a television advertisement or popular song, Negativland promotes the concept of a remix culture, in which the limitations for non-commercial copying and use are much less restrictive than those of the marketplace.

Samuelson (1999a) reminds us that the DMCA does not necessarily mean the end of the fair use doctrine, however, Samuelson (1999b: 9-10) also notes that the copyright industry representatives argued against fair use exceptions for breaking technical protection measures, likening the act as burglary. The results is, as Sharp (2002) argues, a situation where the DMCA enables copyright owners to place substantial curbs on the creation and distribution of technology that is designed to facilitate copying, sharing, and the distribution of digital content, making the non-commercial and educational exceptions of the DMCA legislation virtually worthless. The DMCA did not have to legislate against the fair use provisions in order to make them useless. By placing a ban on all acts of circumvention, as well as all the tools and technologies for circumventing digital copyright mechanisms, the DMCA grants copyright owners unilateral power to reduce the potential for the public's fair use rights as well as ensuring that no new opportunities for fair use practices are developed.¹⁰

Boyle (2003a) argues that the legislative functions of fair use are crucial to the social and cultural development of the new digitally empowered individuals of the intellectual property age, such as those who utilise information and communications technology to produce, innovate, develop and contribute cultural products, including digital artists, website developers, graphic designers, software programmers and bloggers. Fair use principles properly interlaced with digital controls would ensure that so-called amateur productions can appropriate copyrighted materials for educational, parody or reviewing

¹⁰ The anticircumvention restrictions therefore make it harder for individuals to legitimately gain access and make copies through acts that would previously be considered as fair use, based on the assumption that all unauthorised access is the equivalent to the act of burglary. For example, a student attempting to quote sections of a DRM encrypted text, by cutting-and-pasting a selection of the work into an essay, will be considered in breach of the DMCA if they use digital tools that enable such access. However, the doctrine of fair use applies if the student copies the text by hand or re-types the quote manually.

purposes without being forced to seek permission or pay the kinds of licensing fees that commercial producers are necessarily required to.

3.8 Copy v. Access: Testing Fair Use and the DMCA

The DMCA had just passed through the US Congress in 1998 when a fledgling Norwegian hacker, Jon Johanssen, first figured out how to crack the Content Scrambling System (CSS) used by the MPAA and the associated DVD hardware manufacturers to encrypt commercial DVD products. The CSS technology ensures that only authorised DVD players will operate legitimate DVD disks. This helps to regulate the DVD hardware manufacturing market and enforce price discrimination through region coding (CSS prevents users in Australia, for example, playing DVDs from other regions). CSS is a form of DRM that merges copy and access controls, as Reese (2003) argues,

CSS thus appears to be quintessentially a technological measure designed to protect rights of the copyright owner to reproduce the film on a DVD. This control over the exercise of rights was implemented, however, by limiting access to the film only to certain devices. CSS allows a DVD to be played only on a licenced DVD player, and licenced players do not provide output that can be copied. Thus, the goal of limiting a user's ability to copy was achieved in part by restricting the user's ability to access the work... (Reese, 2003: 645).

The original code which Johanssen released via the internet, called DeCSS, was barely thirty lines long but it still permitted unauthorised access to copyrighted material contained on a DVD from non-authorised hardware. DeCSS circumvented the MPAA's access control and enabled the users of the Linux operating system to play DVDs on their computers, a non-CSS compliant platform.

Eric Corley, editor of *2600: The Hacker Quarterly*, published Johanssen's version of DeCSS online and was subsequently the focus of a lawsuit from eight of the major US motion picture studios for infringing the anti-trafficking provisions of the DMCA. The prosecution of a high profile hacker magazine, one of the more public faces of hacker culture, was a strategy of the copyright owners relying on the common discourse of hackers as serial copyright offenders (Bowrey & Rimmer, 2005). The hacker subculture is often portrayed as being criminal, comprised of computer virus creators and commercially damaging pirates. Following the RIAA's courtroom success in closing

down the music file sharing software Napster, the MPAA and the major studios were keen to vilify hackers and show the public that to allow DeCSS to remain available was to “Napsterise” the DVD industry (Hu & Bowman, 2001):

This was a wonderful case for the movie industry. The defendants were assumed to be long haired, ill-mannered, anti-social, mysterious hackers. After decades of fighting for its own free speech rights, the film industry seemed blasé about quashing the rights of hacker journalists (Vaidhyanathan, 2004: 70).

According to Vaidhyanathan, the movie industry mobilised its power to conjure up myths about DeCSS. The industry combined these myths with rhetoric regarding peer-to-peer systems, to suggest that DeCSS made the acquisition of quality digital copies of DVDs easy, with the ultimate intention of removing any consideration of fair use protection.

The case against Corley, *Universal City Studios Inc. v. Reimerdes*, was heard in the Southern District of New York Court in 2000. The prosecution in the case against Corley and *2600* attempted to show that circumvention of CSS was to blame for widespread availability of DVD copies. Justice Kaplan found that the hacker magazine was responsible for breaking the anti-trafficking provisions of the DMCA, first by publishing the DeCSS code on its web site, and secondly because *2600* had posted a list of websites that hosted DeCSS after the initial injunction was brought against the magazine. Justice Kaplan found that *2600* had facilitated the trafficking in circumvention devices and Corley was found guilty of breaking copyright laws, without any evidence of DeCSS actually being used to infringe copyright being demonstrated in the courtroom (Samuelson, 2001). The DMCA merges the concept of access with that of copying in order to provide legal provisions that make it acceptable for copyright owners to employ technological restrictions that regulate user access. The case against *2600* was a move against the idea that there should be fair use exemptions for breaking these technological restrictions for unauthorised access to copyright protected materials.

The *2600* defence highlighted the fact that the interoperability of legitimately purchased DVDs on the Linux operating system required a fair use circumvention of the CSS encryption because the purpose was a non-commercial activity and a private viewing of an authorised copy. The DVD industry representatives refuted this defence, arguing

that DeCSS was primarily designed to facilitate users to make unauthorised copies of DVDs and would therefore impact on the potential market value of the copyright works. The prosecution argued that fair use should not be an acceptable reason to break any technical protection system used by copyright owners to protect their works, and claimed that circumvention was equivalent to the user breaking into the owner's house to steal an original copy for themselves (Samuelson, 1999b: 9-10). The metaphor framing the prosecution's argument reveals the extent to which the proponents of DRM attempt to protect copyrights as physical property. Bowrey and Rimmer (2005) frame this argument in slightly different terms:

Copyright locates legal rights to cultural production within a system of interdependencies...There is no private "domain" in a closed sense. The boundaries that exist are permeable. This is because ownership is determined by overlapping cultural limitations that express the realities of that copyrightable work's genesis...There are no "walls" around the copyrightable work in that property sense.

The concept that there are no concrete delineating walls around copyright materials, only a system of interdependencies, is linked to the non-excludable nature of cultural materials in digital form; that making a copy of a DVD for example does not deprive the owner of the authorised copy. This argument reflects the dual nature of copyright as both a commercial product and a tangible expression of intangible ideas, in which only the expression is protected and the ideas are left free to be appropriated by all. DRM changes this dynamic by introducing a technological barrier that controls access and prevents users from appropriating material through digital technologies. DRM produces a "protective cocoon" which changes the nature of the interdependencies of copyright law, reducing the overlap of the cultural and legal limitations and reshapes the nature of copyright enforcement in the digital environment (Bowrey & Rimmer, 2005).

Justice Kaplan rejected Corley's defence under the First Amendment, which protects 'Free Speech', by highlighting the functionality of the DeCSS (Samuelson, 2003a). Firstly, he ruled that DeCSS did not classify as fair speech expression because it was software with functional purpose rather than case of individual expression. After the initial injunction against 2600, Corley was required to remove the material regarding DeCSS from his website, but in its place he posted links to the sites hosting the code. Just hours after the decision in which the judge found Corley guilty of continuing to flout the anticircumvention provisions because of those links, websites around the world

began hosting different versions of the DeCSS code. DeCSS was printed on ties, mugs, stickers, t-shirts and rewritten as a Haiku, making a distinct case for the software as free speech issue.¹¹ Justice Kaplan also dismissed Johansen's defence that DeCSS was designed to allow for fair uses by enabling Linux programmers to produce software for Linux-based DVD players:

The judge rejected this defence for several reasons: First, DeCSS did not have as its sole purpose the achieving of interoperability because it could also be used to bypass CSS on a Windows-based system. Second, DeCSS might help achieve data-to-program interoperability, but the statutory exception only permits program-to-program interoperability. Third, even if Johanssen had been eligible for the interoperability privilege, Corley – a mere journalist – was not because he was not trying to develop an interoperable program (Bowrey & Rimmer, 2005).

According to this logic, Johanssen would not have been liable under the Section 1201 of the DMCA only if his software did not crack the copyright protection in order to make DVD player software available for the Linux operating system. Johanssen was later tried in a Norwegian court for his creation of the DeCSS code, and was found not to have broken any laws. The Head Judge, Irene Sogn of the Oslo court, found "no evidence that Johanssen or others used the program unlawfully to access movies, adding that consumers have the right to view legally-obtained DVDs on any device they prefer" (PBS, 2003).

The ruling, in *Universal City Studios In. v. Reimerdes*, sent a clear message to intellectual property owners and the media industries that any code, like DeCSS, would be considered as a prohibited device for circumventing access controls, not copy controls. The decision highlights how the merger of access and copy controls in DRM is privileged under the DMCA provisions. While Samuelson (1999a) suggests that the US Congress intended to preserve copyright exceptions, such as fair use, in the enactment of the DMCA, the reality of the anticircumvention provisions is a ban on the manufacturing and distributing of circumvention devices now backed by legal precedence and a willingness of copyright owners to prosecute, making those exceptions worthless.

¹¹ David Touretzky of the Computer Science Department of the Carnegie Mellon University is the curator of an online *DeCSS Gallery* which has recorded the DeCSS in all of its functional and expressional incarnations that now include music, movies and greeting cards.

3.9 Conclusion

The DeCSS decision clashes with the Supreme US Court ruling on the issue of technology and fair use in the 1984 case of *Sony v. Universal Studios*. The Supreme Court made two significant rulings: it ruled the use of VCR technology, in making copies of a television broadcast for personal use, was a fair use, and it found that time-shifting was a technology-reliant, “purely consumptive” and “nontransformative” fair use of copyright material (von Lohmann, 2002). Senior EFF Attorney, Fred von Lohmann, suggests that had VCR technology been DRM enabled, neither of these freedoms would exist today:

Had DRM technologies blocked these unauthorised experiments from arising in the first place, the opportunities to further develop the fair use doctrine would never have presented themselves. The public would never have had the benefits of the new technological capabilities, or would only have received them if copyright owners could be persuaded to authorise them (von Lohmann, 2002).

He argues that wherever courts have ruled the uses of copyright materials to be fair uses, innovation has prospered as a result. This is especially relevant to cases, like the VCR, where the central issue is the technology enabling users to access, copy and use copyrighted materials and not specifically the results of that use. Some technologies have been found to permit unfair use, such as Napster, while the majority, including the photocopier, the audio cassette, fax machine, the digital camera, and internet browsers have all established their own distinct fair uses.

Had DRM and the DMCA existed prior to these innovations, copyright owners may well have been in a position to stifle their mainstream release and limit their application. One of the more contentious examples of this is the US Federal Communications Commission’s (FCC) determination to stop people from using the internet to distribute digital copies of television programs. The FCC is hoping to employ DRM technologies and force manufacturers of technologies, such as High Density Television (HDTV) receivers, to stop users from copying, making and distributing unauthorised copies of popular shows via peer-to-peer software. So far the FCC has not succeeded, but some media commentators have found the FCC approach to be advantageous. Rowland (2006) suggests that the DRM policies will be effective in tightening the controls over

mainstream broadcasting, giving more incentive to consumers to pursue the alternative internet-based radio and television.

The future of DRM will most likely include the concept of trusted systems, as Erikson (2003: 34) suggests:

Trusted computing platforms and the integration of DRM components into the operating system will likely make controlled, conditional access to content and services attractive for providers of copyrighted resources, and an increasingly common—if not always popular or desirable—part of the end-user experience.

Trusted systems are a vision of perfectly executable DRM, in which the technologies that restrict access and copying are hardwired into authorised computer parts and become fundamental to the operation of the software, preventing any attempt at circumventing the imposed controls.¹² The conflict between fair use and the DMCA will be further exaggerated by trusted systems and it is likely that a majority of fair uses will lose out to DRM. Erikson's (2003) analysis of the potential combinations of DRM technologies and user activities concludes that it is virtually impossible to implement an explicit set of rules for fair use practices into DRM code that can automatically be evaluated by computing systems, resulting in a predictable absence of those uses in most cases. The concept of trusted systems raises disturbing visions for the future; while copyright owners maybe able to trust these systems, will users? What level of privacy and security can users expect when every digital device they own has the capacity to monitor and report on their activities?

¹² A trusted system is a security engineering term referring to a system that the users have no choice but to trust "(Wikipedia, 2006b).

Chapter Four

AUSFTA: The Bilateral Trade of Enclosure

4.0 Introduction

Free Trade Agreements (FTA) are bilateral trade deals established through negotiations between two nations to the exclusion of all others. Each agreement is different and the economic and political implications of such bilateral arrangements are enormous.¹ Having engaged the multilateral trade environment with an agenda of global intellectual property reform through the implementation of the TRIPS Agreement and the establishment of the World Trade Organisation (WTO), the US included sweeping intellectual property reforms within the 2004 Australia and United States Free Trade Agreement (AUSFTA). It is the inclusion of intellectual property reforms within the AUSFTA, specifically the changes to Australian copyright law, which are the focus of this chapter.

This chapter begins with a brief examination of the political and economic debate surrounding the AUSFTA, and it highlights a range of support and criticism from academics, economists, journalists and politicians. The real point of interest, however, is the dramatic changes that the AUSFTA introduces to Australian copyright law, changes that met with appropriate but limited examination in the Australian Senate, and were largely ignored by the Australian news media. The chapter considers the two main changes to Australian copyright law to be the extension of copyright duration and the inclusion of the DMCA anti-circumvention provisions. The issue of copyright duration is examined first and the chapter also looks to the recent developments in EU and US legislation that have increased copyright duration to life of the author plus

¹In 2002 Australia was the ninth largest export market for US goods and the total volume of trade in goods and services between the two countries was valued at US\$28 billion (Murphy, 2004).

seventy years for individuals and ninety five years from publication for corporate authors. The chapter then concentrates on the failed attempt in 2002 by amateur web publisher Eric Eldred to overturn the US's 1998 Copyright Extension Act. The *Eldred et al. v. Ashcroft* (2002) case provides a background to the problems caused by increases to copyright duration. The chapter reviews Eldred's legal case and re-examines the incentive argument as the central economic justification for extending copyright duration.

This chapter questions the effect the AUSFTA will have on the future of the Australian public domain, a collective term that refers to the body of all materials whose copyright has expired. It raises a comparison between the global expansion of copyrights and the enclosure of the physical commons of rural England between the twelfth and nineteenth centuries. The metaphor of enclosure is examined here, as a precursor to material presented in later chapters, to provide a context for the use of commons theory in ongoing copyright debates and to illustrate why the public domain should be protected against the continued expansion of copyright duration. The chapter then turns to the issue of the inclusion of the DMCA anti-circumvention provisions as part of the requirements of the AUSFTA. It is worth noting that at the time of writing not all the relevant Australian legislation implementing the agreement has been drafted, or enacted, but it is still possible to examine what steps the Attorney General's department has taken in order to enforce and harmonise the AUSFTA provisions, particularly the DMCA, with Australian copyright laws and traditions. The chapter concludes with a summary of where these changes leave every day users of copyright materials in the digital environment.

4.1 Concessions and Rewards in the AUSFTA

Free Trade Agreements have been heralded as opportunities for greater trade liberalisation and improving national economies. The Australian Department of Foreign Affairs and Trade (DFAT), describes the AUSFTA as a range of undertakings that governs economic relations between two nations (DFAT, 2004b: 5). These undertakings focus on the bilateral trade of goods and services and other economic considerations, including the removal of foreign investment restrictions, the national protection of foreign assets and the balancing of competition policies. According to DFAT (2004b: 4), the AUSFTA represents an extensive attempt at legal harmonisation

and economic integration between the two nations. The decision to enter into a free trade agreement is made with the expectation that each participating country gains favourable conditions that do not exist outside of the agreement. In this case, the Australian government argued that, by reducing around 97% of non-agricultural tariffs, the Australian industrial sector, including the auto, metal, minerals, seafood, paper and chemical industries, will benefit from immediate tax free concessions by the US (DFAT, 2004b). Under the Agreement all trade in goods, with some notable exceptions, such as sugar, are scheduled to be tariff free by the year 2015. DFAT also claims that this will restore Australia's competitiveness in the US market against similar industries in Canada and Mexico (DFAT, 2004b: 3). According to DFAT, this level of bilateral trade liberalisation could boost Australia's economy by AU\$4 billion annually within 10 years, and the investment regulations adjusted under the AUSFTA will most likely result in increased US investment in Australia (DFAT, 2004b).

Alternatively, FTAs have been derided as part of a general globalising neoliberalist project that sacrifices economic independence for the sake of private interests. Hart-Landsberg (2006: 2) sees the institutional promotion of the free trade benefits as an obfuscation of a broader political economic agenda, which he argues is primarily designed to maximise corporate profit-making opportunities. He suggests that agreements like the North American Free Trade Agreement (NAFTA), similar to the AUSFTA, have enhanced transnational capitalist power and wealth at the cost of growing economic instability and deteriorating working conditions for all nations:

neoliberalist claims that liberalisation, deregulation, and privatisation produce unrivaled benefits have been repeated so often that many working people accepted them as unchallengeable truths (Hart-Landsberg, 2006: 1).

Hart-Landsberg examines the economic analysis of the claims from proponents of the free trade agreement. He argues that the economic justification for free trade agreements, such as the study conducted by Brown, Deardorff and Stern (2001), that supported WTO-sponsored elimination of all trade-barriers in order to contribute US\$1.9 trillion to the world's gross economic product, relies on crucially flawed economic analysis that overlooks the social costs of free trade and the effects of deindustrialisation and related unemployment:

the free-trade supporting policy recommendations that flow from the theory of comparative advantages rest on a series of dubious assumptions (Hart-Landsberg, 2006: 5).

Hart-Landsberg concludes that the free trade agenda has forced states to open up their national service markets at the cost of health care, education, public utilities and retail trade.

Capling has argued that the term free trade is a misnomer, suggesting FTAs could also be called discriminatory agreements because their benefits are denied to others (Burton, 2003). Hawthorne (2003a) is more scathing of the use of the term 'free trade':

Freedom is a much-misused word, no more so than its use in global economic talk with the language of "free trade" and "free choice". Such usage misrepresents the idea of "freedom" as one that is closely intertwined with responsibility. Within the realm of neo-classical economics, globalisation and the free trade mantras of transnational companies freedom has no association with responsibility at all.

Indeed, the free trade label is an erroneous title for what is essentially a set of agreed tax concessions and regulation of tariffs on goods and services. Free, in this sense, represents only the staggered introduction of concessions over time, designed to bring two trading partners into a mutually beneficial political and economic relationship.

Proposals for a preferential Free Trade Agreement between Australia and the United States have been examined by the Australian government and shelved numerous times over the last twenty years (Garnaut, 2002). The conclusion in most cases was that Australia's interests would not be substantially furthered by pursuing the negotiations. Previous Australian governments have sponsored developing international trade policies and broadly supported the global multilateral trade agenda. The decisions over FTA proposals in the past have concluded that Australia's economic interests would be better progressed by a wider trade agenda of multilateral agreements with other nations in the Asia and Pacific region. The decision not to engage in negotiations for a FTA with the US was revised in a Cabinet decision late in 2000 (Garnaut, 2002). The Liberal and National Party's coalition government took a new stance on an FTA with the US, one that emphasised the lucrative economic and strategic benefits of an arrangement with the world's largest economy and one of Australia's most important trading partners. Garnaut cites the lack of success in expanding access to markets in the Asian region and the failure of the multilateral trade negotiations at the Seattle Ministerial Meeting of the WTO in 1999 as two of the key

motivations behind the commencement of negotiations on the AUSFTA (Garnaut, 2002: 124).

The economic impact of the Agreement has not impressed all parties. Elizabeth Becker writes in the *New York Times* that the American manufacturing industries supported the accord, anticipating “an increase of as much as AU\$2 billion in exports to Australia”, but according to Becker (2004), American farmers were nearly unanimous in their opposition. Agricultural industries in Australia were also less than impressed, especially sugar growers who were forced out of the tariff concessions by American negotiators. Commenting on the US government’s fight to retain tariff quotas over Australian sugar, even at the expense of much higher sugar prices for American consumers, Sherman Katz, representing the Center for Strategic and International Studies in New York, argued that the AUSFTA is so riddled with major exceptions to protect US agriculture that it sends a gloomy signal about US capacity to open its markets to foreign trade (Lukas, 2004).

The results of economic analysis of the FTA benefits are inconclusive. Oxley argues that the AUSFTA is important to Australia’s future, not as a nation building on agricultural exports, but as a nation at the front of the information revolution and telecommunications industry (Oxley, 2004). Capling remains unconvinced about the potential benefits of the AUSFTA, arguing that the sacrifices made to finalise the deal in relaxing the local content rules for television broadcasters, reducing the federal pharmaceutical benefit scheme and loosening foreign investment controls, were not worth the optimistic assessment that Australia could make an overall gain under the agreement (Burton, 2003). Oxley (2003: 169) counters this position by suggesting that the benefits of such an arrangement can not be measured by the impact of the removal of barriers to trade in goods alone. Oxley highlights the political significance of bilateral trade deals, which represents a desire to demonstrate a closer economic relationship between two nations.

The persuasive rhetoric employed during the negotiation period of the deal, especially in the pamphlets, media releases and online informational materials produced by the DFAT, leading up to the signing of the Agreement in May 2004, claims that Australia will be positioned to gain significant economic benefits from the comprehensive series of tariff concessions (DFAT, 2004b). This view fails to emphasise the political

significance of the agreement, which can be noted in the timing of the Agreement's introduction. The Australian Government demonstrated a keen ambition to settle any outstanding issues over the 2004 AUSFTA Implementation Act, which outlined the Agreement as it was to be formalised within federal legislation, before the Federal Election of 2004.

The expedient nature of the negotiation, review and settlement procedures should also be considered from the US's perspective. Bill Thomas, Chair of the US Congress's House, Ways and Means Committee, is quoted as saying that the economic pact between Australia and the United States was a strengthening of a premier international alliance (Becker, 2004). Becker notes that the Bush administration used Australia's involvement in the invasion of Afghanistan and Iraq in its approach to the Congress for support of the agreement (Becker, 2004). The FTA can be perceived as a reward for Australia's continuing military and political alliance. The FTA therefore functions as an unofficial payback for Australia's political support in the US-led 'Coalition of the Willing' in the 'War On Terrorism'. The agreement works well as a symbolic gesture, suitable for the US's dependable political and military allies. Holding Australia up as an ideal military partner, willing to acquiesce to the US's demands for agricultural concessions, relaxed investment and media regulation and intellectual property reform, is no doubt of significant political value to a country seeking to secure further like-minded political and military support around the world.

4.2 AUSFTA: Trade and Intellectual Property

In May 2004, during the lead up to the signing of the Agreement by Australian Trade Minister Mark Vaile and United States Trade Representative Robert Zoellick, Legge (2003) notes that the US was dissatisfied with Australia's attitude towards intellectual property reform. For example, he argues that Australia's resistance to extend copyright to the American and European standard of 70 years after the death of the author was of serious concern to major American copyright owners (Legge, 2003). The intellectual property reform agenda emerged as one of the core elements of the agreement requiring Australia to adopt intellectual property laws that more closely resemble those of the US. The US made no concessions in the negotiation stage of the FTA over intellectual property, indicating the US's intention to force its trading partners to conform to US standards in the implementation of the TRIPS Agreement and the WIPO

Copyright Treaties. The intellectual property reforms required by the AUSFTA were unlike the trade concessions and tariff reductions contained within the deal. Significant reforms to Australian copyright law were demanded by the US as part of the trade deal and were subsequently promoted under the banner of legal harmonisation. These reforms forced Australia to adopt provisions from both the US 1998 Copyright Extensions Act (CTEA) and the 1998 Digital Millennium Copyright Act (DMCA).

Susan Hawthorne observes that in the economic rhetoric surrounding the agreement, intellectual property had been absorbed into the “mantra of the new economy” (Hawthorne, 2003a). She argues that the US negotiating parties had an understanding of the importance of intellectual property and considered the reform agenda to be a comprehensive and mandatory element of the AUSFTA. Hawthorne suggests that the agreement represents a contemporary understanding of the economic value of intellectual property and recognition that control and regulation of intellectual property are essential to insure the value of intellectual commodities in the future. Hawthorne also justifies this claim through the observation that the general impact of the AUSFTA on the US economy is relatively minor and, therefore, the model of intellectual property reform, which occupies a large part of the final agreement, must then be of considerable value to the US overall. Conversely, as the potential impact on the Australian economy by the AUSFTA is significant, its changes will have profound and long-lasting effects. Australia has effectively signed over its right to determine the direction of national copyright reform, submitting to the US’s demands for a specific model of copyright law, as a chance to get a “bigger piece of the export pie” (Hawthorne, 2003b).

The details of the Agreement reveal the extent to which Australia has conceded the agenda for national copyright and intellectual property law reform. The trade accord is a remarkable moment in our copyright history, yet discussions of the changes to intellectual property law in this country are relegated to the sidelines of the political forum and mainstream media coverage as political dead weight. The future of Australian copyright policy has been rendered *fait accompli* even though these changes will have significant effect for at least the next two decades. The AUSFTA represents significant concessions on Australia’s part, especially within agricultural industries and foreign investment laws, yet none of those concessions will have as

great an impact on the future of the Australian people as Article 17 of the Agreement which deals with changes to copyright and intellectual property law.

4.3 Copyright Duration: Mark Twain and Jack Valenti Get their Way

As a signatory to the Berne Convention for the Protection of Literary and Artistic Works, Australia is obliged to provide a term of copyright protection from the date of publication for no less than 50 years after the death of the author. Under the terms of the AUSFTA, however, Australia must adopt the extension to the copyright duration to match the US 1998 Copyright Term Extension Act. Article 17.4.4 of the AUSTFA requires the term of protection for creative works to be extended by 20 years. The significance of this increase, as Mathew Rimmer (2004) argues, is the delay, until the year 2025, of works due to enter the public domain in 2005. Although this extension does not destroy the public domain outright, the change will be dramatic and immediate as the steady stream of material moving into the public domain each year will cease, sorely taxing those institutions and cultural practices which depend on the use of such material.

Both public and private institutions which make use of works in the public domain will be disadvantaged by this major change. Rimmer refers to an example of the effects of the extension outlined in a submission to the AUSFTA Committee by the Australian Vice-Chancellor's Committee, which expects a significant increase in the copyright fees that universities currently pay (Rimmer, 2004: 6). Perhaps the most disturbing element of the copyright extension is, as Rimmer argues, the possibility that the 20 year extension is just the beginning of future extensions:

... the copyright term extension is not a final upper limit set by the Australian Government. Rather, it is a provisional standard that will be open to further negotiation in the future. Copyright law will be a moveable feast for the United States industry in the years to come- the free trade agreement represents a down payment on perpetual copyright on the installment plan (Rimmer, 2004: 61).

There is no guarantee that the US will not seek greater copyright duration in the near future.

Jack Valenti, President and Chief Executive Officer of the Motion Picture Association of America (MPAA) testified before the US Subcommittee on Courts and Intellectual

Property in 1995 arguing that the US had to extend the copyright term to the life of the author plus 70 years (Rimmer, 2003). Valenti insisted that extending the duration of protection offered by copyright was a chance to ensure that the US played the primary role as a global exporter of cultural materials, specifically movies, music and television content. Valenti, as Rimmer (2003) notes, believed that copyright term extension provides unparalleled economic opportunity to ensure the highest level of ongoing presence and enhanced profits for copyright owners, if not outright dominance in the international market for cultural materials.

Valenti argued the European Union's (EU) decision in 1996 to extended copyright duration, from the death of the author plus fifty years to the death of the author plus seventy years, would give the EU a distinct trade advantage over the US. Martin (S Martin, 2002) argues that the EU's Copyright Directive would have permitted EU Member States to deny copyright protection to works of US origin that had passed out of copyright protection in the US, while EU works of the same age would still be protected by the EU copyright extension. Valenti sought to "amplify America's export dexterity in the global arena" by ensuring a longer privatisation of one of America's greatest exports, its mass media, and joined a growing number of copyright owners lobbying for an upgrade to US copyright law (Rimmer, 2003).

Despite his previously mentioned resistance to VCR technology (see Chapter Three), Valenti, in his role as chairman of the Motion Picture Association of American (MPAA), was not simply attempting to protect the industry's control over the reproduction and distribution of film, although this is an obvious bonus in the extension of copyright duration. Valenti's approach has a broader design in promoting the international commercial viability of products like movies, music, books and images over a longer period of time. By securing longer periods of copyright, copyright owners have longer to exploit the markets in these cultural materials. This factor is enhanced as new technologies and markets for distribution and exhibition arise; for example, as films move to video, DVD, online distribution and next-generation technologies the opportunities to repackage old materials increases. There is no concern for the rights of the public, or the cultural values of an unrestricted public domain and the freedoms to use cultural materials in this scenario. Valenti is representative of American corporate culture and the belief that the copyright balances of the American constitution are an

anachronistic ideology that undermines the ongoing contribution of copyrights to the health of the US economy.

Valenti certainly wasn't the first with a vested interest in the copyright-dependent industries to argue for an increase in the duration of copyright protection, one that stretches well past the lifespan of the original creator. Siva Vaidhyanathan (2001) notes in his book, *Copyrights and Copywrongs*, that American author and celebrity Mark Twain, like Valenti, also testified before a US congressional committee for the expansion of the copyright duration. In 1906, Twain supported increasing the duration of copyright protection to the life of the author plus 50 years. However, Vaidhyanathan (2001) suggests that the devotion to the extension of the copyright duration runs counter to the logic of economic expansion through the trade in cultural goods. He argues as the increased copyright duration, past the author's death, only increases the likelihood of a more monopolised marketplace of fewer products.

In 1998 both Twain and Valenti got their way, when the Walt Disney short animated film classic *Steamboat Mickey* was prevented from falling into the hands of the public. Mickey's first onscreen appearance was due to emerge from copyright restrictions and enter the public domain when the US Congress enacted the 1998 'Sonny Bono' Copyright Term Extension Act (CTEA). This increased the duration of copyright protection to the life of the author plus seventy years, and in the case of corporately owned works, created by staff or by commission, the copyright duration was increased to a flat ninety five years. The CTEA was dedicated to the memory of musician and congressman Sonny Bono who had pursued an agenda for greater copyright duration and argued for longer copyright protection beyond the death of the artist.

The reason Disney seeks to prevent Mickey from moving to the public domain, where he could be appropriated by anyone, is because despite Mickey's age he remains a vibrant intellectual asset. Mickey's economic value, for Disney, outweighs his cultural value to the nation as a whole, not only in the form of the individual product, but for all possible future market applications of the early incarnation of the Mouse's aspect. As Richardson (2004: 13) argues, if Mickey were permitted to enter the public domain and be used, reinterpreted and redistributed by anyone, there would be genuine competition to Disney's monopolistic supply and control of the copyrighted item. The preservation of Mickey from the public domain is not entirely unprecedented. Sarma

(2002) reports that the Indian Copyright Act was increased in 1991 to the author's life plus 60 years. Sarma argues it was widely believed that the increase was triggered because the literary work of Nobel Laureate, Rabindranath Tagore, was due to enter the public domain in 1992; the extended copyright provided Tagore's estate with a further decade to earn revenue based on the royalties produced from the sale of the work (Sarma, 2002).

4.4 Keeping it Brief: Copyright Duration, Eldred and Incentive

The CTEA, known alternatively as the Sonny Bono Act or the Mickey Mouse Act, was challenged in the US Supreme Court in the 2002 *Eldred et al. v. Ashcroft* case. Eric Eldred, a retired computer programmer and amateur internet publisher, specialised in making texts, whose copyright duration had expired, available on his website, *Eldritch Press* (2004). The works featured on his website include novels by Henry James, Joseph Conrad and Anton Chekov. It was a project designed simply to make such works accessible to everyone and anyone to download and read. In 1998, Eldred wanted to publish a collection of Robert Frost's poems on his website. The poems, from Frost's *New Hampshire* collection originally published between the 1920s and 1930s, had been included in the public domain prior to the CTEA (Lessig, 2004: 214). Eldred wanted to make what he considered to be significant cultural resources available online, providing people with a source of free access to materials that were otherwise difficult to find and encounter in the off line world. Eldred argues, that his passion is discovering neglected works and exposing them to new audiences, giving individuals the opportunity to access these works outside a formal environment, such as a prescribed syllabus at a university or other educational institution (Foster, 2002).

Eldred did not initially set out to challenge the copyright system directly, but the CTEA interfered with what he considered to be an important freedom; the right of access to the public domain. Together with nine other plaintiffs, Eldred sought to have the extended copyright term ruled unconstitutional (Rimmer, 2004). He also argued that the present system of automatic copyrights deterred people from uncovering and engaging with older cultural materials, specifically texts that were otherwise out of circulation. The Eldred case featured a number of prominent arguments against the extension of copyright, which were presented both in the testimony before the court and in testimonies and submissions provided to the court as background information to the

issues in documents collectively known as an amicus brief (or *amici curiae*). The amicus brief is not evidence or testimony in the usual sense, but a resource offered to the court in support of a particular argument. One of the documents presented by the plaintiffs in the Eldred case offered a poignant statistical approach to the effect of copyright extension:

Between 1923 and 1942, there were approximately 3,350,000 copyright registrations. Approximately 425,000 (13%) of these were renewed. The Congressional Research Service ("CRS") estimated that of these, only 18%, or approximately 77,000 copyrights, would constitute "surviving works"—works that continue to earn a royalty. The annual royalties for one segment of those surviving works, books, music, and film (which total 49,001 in the CRS study) will be, CRS estimates, approximately \$317,000,000 (in 1997 dollars)... This means that in order to give the holders of less than 50,000 copyrights \$317,000,000 in annual royalties, CTEA has blocked for two decades the entry into the public domain of more than 375,000 other works. Or put differently, because of CTEA, the public will *both* have to pay an additional \$317 million annually in royalties for the approximately 50,000 surviving works, and be denied the benefits of those and 375,000 other creative works passing into the public domain in the first 20 years alone (Stewart *et al.*, 2002: 7).

In the years between 1923 and 1942, copyright was required to be registered with the US Library of Congress. Under current copyright law the proportions are even more significant because copyright is automatically applied at publication and there is no renewal process. This means, in today's terms, all 3.35 million works published would be barred from the public domain in order to secure the profits of the 77,000 surviving profitable works (Stewart *et al.*, 2002). The amicus brief also cites Rappaport's (1998) US Congressional Research survey which found that only 11% of books published between 1920 and 1960 had any potential market value in 1998, while 12% of the music and 26% of the films published during that period were still viable market commodities. The brief demonstrates that a diminishing market value is therefore a justification for limited copyright duration, which enhances the existence of a public domain and the subsequent cultural value of the unrestricted works when put to uses like Eldred's freely accessed online library.

The US Supreme Court did not find in favour of Eldred, but the decision was neither unanimous nor straightforward. The Eldred case produced a number of crucial

arguments which have proven to be substantial in the public eye and prompted renewed legal, economic and academic debate over the copyright duration, its role as an incentive to creators and the importance of the public domain. Eldred, and his legal counsel, led by Stanford Legal Professor Lawrence Lessig, argued that the CTEA was unconstitutional because the law contravened the Constitution's grant of rights to Congress to create intellectual property law for "a limited time". According to Levy (2002), Lessig attempted to persuade the court that a copyright duration of life plus 70 years is far from limited and equates to a perpetual term so as to have an unconstitutional effect on copyrighted works:

In Article 1, Section 8 [of the US Constitution], the founding fathers not only instructed Congress *what* to do regarding copyright — secure "for limited times to authors and inventors the exclusive right to their respective writings and discoveries" — but also stated why they *should* do it ("to promote the progress of science and useful arts"). Of course, Lessig's complaint includes the idea that Congress' continual extensions make a mockery of the word "limited" ... the main thrust of Lessig's argument rests on the fact that, as with previous extensions, the Copyright Term Extension Act not only grants new copyright holders a longer term of exclusivity, it grandfathers in previous works. A *retroactive* extension of copyright clearly violates the Constitution (Levy, 2002).

Lessig argued that life plus seventy years was, to all intents and purposes, a perpetual term. The Supreme Court did not agree, but there was significant discussion of what did equate to a limited copyright duration.

A second amicus brief, provided by Eldred's legal counsel was cited by a number of the Judges in the final decision, among them the dissenting Justice Breyers, who agreed with the argument that any increase to the copyright term was detrimental to the public domain. Lessig (2004: 244) had concentrated on making a constitutional argument, and attempted to prove that the CTEA has gone against the exclusive rights clause of the Constitution by producing an effectively 'unlimited' copyright duration. He framed the argument in economic terms, suggesting the CTEA provided copyright owners with 99.8% of the total value of a perpetual copyright term. Dissenting Justice Breyers concluded that the actual figure was more like was 99.9997% of a perpetual term, but either way, Lessig's basic premise that the CTEA was unconstitutional was not upheld by the Supreme Court as a whole.

The amicus brief cited by Justice Breyers, in his dissenting opinion, featured signatures from 17 leading economists and five Nobel Laureates in economics, who all supported the general argument that copyright protection provided financial incentive for authors to create. There is certainly no general disagreement amongst economists that a limited copyright duration provides a financial incentive for creators to benefit from the sale of their work. The amicus cited by Justice Breyers, however, also argued against the extension of copyright on the basis that the actual degree of increased incentive to create produced from longer copyright duration actually depends on the present day value of the compensation and not the extended duration of compensation after the author's demise. Longer periods of copyright, especially after the creator has died, only provide an increase in the anticipated compensation, and therefore increase in incentive, of less than 1% of the total value of the work over the duration of the copyright (Akerlof, *et al.*, 2002). These findings were also cited by David Richardson in his research into the AUSFTA presented via the Parliamentary Services in May, 2004;

On that basis, for every \$1 per annum, the present value of the stream of income would increase from \$14.22 to \$14.27. For the individual creator the extra 'incentive' is trivial. Against that, for the monopolist with a work still in demand and with copyright about to expire, the extension of copyright does not provide any incentive to create, it merely prevents others from distributing the work and so permits the copyright owner to enjoy maximum monopoly profit. (Richardson, 2004: 8)

This analysis suggests that extension to the copyright duration has minimal involvement in providing authors, songwriters and artists further incentive to create. Other economists have criticised the economic analysis provided in the amicus brief, including Liebowitz and Margolis (2004: 19), writing for the Centre for the Analysis of Property Rights and Innovation, who argued for a more "nuanced" economic analysis than was provided in the Eldred brief. Liebowitz and Margolis (2004: 2), however, conceded to the fundamental economic argument in the Eldred case that there can be no further incentive provided by the copyright duration extension on works that have already been created. Why then does the incentive argument play such an important role in the justification employed by politicians and copyright advocates for increasing copyright protection?

The discourse of the increased incentive through copyright extension is occupied within the argument that copyright is essential to provide a healthy economic incentive to

artists to produce new works. It is based on the assurance that creators will be compensated for their work, through the protection of the sale of legitimate copies. This point is inscribed in the Act of Anne and the US Constitution, as well as the copyright laws of those nations who are full members of the Berne Convention. The incentive argument assumes that creativity will diminish without the promise of remuneration for the investment of time and energy. This discourse also reinforces the hierarchical differentiations of authorial ownership, and the cultural distinction between best-selling authors who profit from the sale of large numbers of books and amateur creators who publish through less profitable media, such as the internet self-publishing and vanity-style press. But does the promise of a greater term of posthumous copyright protection encourage all types of creators to produce more works? Copyright certainly enables creators to maintain control over their work, profit from its sale during their lifetime and now ensures that the creator's estate will continue to profit after their lifetime, but it is hard to imagine that longer periods of protection after the death of the author somehow provides some kind of creative inspiration through increased economic potential. If there is incentive involved in longer copyright duration it is the incentive for publishers to purchase more works based on the provision that they now have a longer time period to extract profits from their investment. This is generally beneficial, possibly leading to creators demanding higher payments for their work, knowing that publishers will have longer to gain from the sale of the work, and therefore a greater incentive to produce. The problem with that argument, as many copyright critics and commentators point out, is that most cultural materials only have a short shelf life in terms of commercial sales, and only a minute percentage of copyrights maintain their commercial value for the life of the author, let alone the full copyright duration.

Rimmer advocates for a critical understanding of copyright law, one that highlights the gap between the symbolic significance of the copyright duration and its actual effects in terms of economic impact and cultural costs (Rimmer, 2003). The added copyright duration of the CTEA, as included in the AUSFTA, can therefore be considered as symbolic of the reconfigured copyright model; one that is primarily concerned with extracting the greatest profit from the sale of cultural works over the longest possible duration. It is a model that is especially pertinent to the digital environment, which is demonstrated by the Eldred case and the discouraging of attempts to make physically rare and relatively uneconomically valuable copies available to the public for free via the internet. The actual economic effects of the term extension for existing works

makes no significant contribution to an author's incentive to produce new works, since the additional compensation was granted after the relevant investment had already been made. Yet the CTEA has extended the period during which a copyright holder maintains control over a cultural work, allowing them to determine the availability of a work and limit the appropriation and use of the work by others. This increases the social disadvantages of over pricing cultural materials, keeping them out of the hands of those who cannot afford to pay full retail price for a longer period of time. It does nothing to discourage users from seeking illegitimate copies, through either black-market physical copies or peer-to-peer digital copies. It could be argued that, by denying access to materials that should currently be in the public domain and prolonging the move of cultural works to the public domain for a 'virtually unlimited time', the CTEA, and the AUSFTA have encouraged users to seek access through unauthorised channels and make unauthorised uses.

Investors in cultural works may have an increased incentive to commit themselves to higher levels of production, as the greater copyrights ensure a longer opportunity to extract profit from the sale of the work; but this would benefit only a small section of the population of creators. The extra twenty years, at best, provides greater opportunities for copyright owners to capitalise on the repackaging of past works in new forms, and therefore provides incentives to copyright owners to seek out even further copyright extensions and greater legislation protections and criminal enforcement. As David Bollier argues the push for stronger copyright reforms effectively represents a legislative handout to copyright owners:

The Sonny Bono Act is a clear case of corporate welfare for major corporations and a sheer windfall for author's estates...A retroactive benefit to dead authors (most of whose rights were acquired years ago by media corporations) (Bollier, 2003: 123).

Bloom (2002) makes a similar point:

The reason it's important is this: Publishers are in the business of expanding capital. The writers who supply them are in the business of expanding civilization itself. Tools for expanding capital are available in many forms. Tools for expanding civilization, on the other hand, are a limited commodity. They're resident in the books of Hemingway and Faulkner, the movies of Disney and Capra, and the songs of Kern and Berlin.

These repercussions were only vaguely considered in the margins of public debate discussed concerned with opposition to the AUSFTA. Outside of the Australian senate hearing committees, where such issues were raised, there was virtually no clear examples of the acknowledgment of the disadvantages brought on by the CTEA provisions included in Article 17 of the AUSFTA, nor was there any public assurances to offset the potentially harmful effects of the copyright changes to be included in the AUSFTA. Debate about the social consequences of changes to copyright law seems to have been abandoned alongside the legislative balances of the doctrine.

4.5 The Future of the Public Domain

Public discussion over compliance with US demands for a longer period of copyright protection was notably absent from the initial media coverage of the AUSFTA negotiations and few legal critics and media sources asked the simple question: what does the AUSFTA mean to the future of the public domain in Australia? As stated earlier, the CTEA provisions included in Article 17 of the AUSFTA freeze the progression of copyrighted materials into the public domain. While there are certain immediate problems associated with this, the real predicament is the exponential gap this delay will cause. The public domain isn't a wasteland of unwanted works, it is a vibrant resource. The Disney Corporation's frequent use of public domain material is just one example of the way cultural resources, whose copyrights have expired, are perfect sources for re-examination and innovation. Walt Disney himself created many new visions of works then available in the public domain, including *Snow White* (1937), *Pinocchio* (1940), and *Alice in Wonderland* (1951). The Hollywood movie industry continues the tradition of using works in the public domain, for example, *The League of Extraordinary Gentlemen* (2003) is the film adaptation of a comic series by writer Alan Moore, which features the characters of Allan Quatermain, Captain Nemo, Mina Harker, the Invisible Man, Dorian Gray, Tom Sawyer and Dr. Jekyll and Mr. Hyde. The literary heroes and villains are all taken directly from the public domain and put into new stories and a new visualisation, given new life for a different generation of audience. But in fifty or a hundred year's time, will the characters from *The Simpsons* episodes, *Star Wars* films or *Batman* comics feature in such retellings? If copyright lobbyists manage to procure further periods of protection in the subsequent twenty years, which is not unimaginable, this would devastate the public domain. Future

generations will not experience the level of free and unrestricted access to cultural materials that we currently enjoy.

The public domain is not officially legislated as part of either the Australian or US copyright laws; instead, as Samuelson (2003b, 2003c) argues, the public domain was a product of limited copyright duration. The public domain is the manifestation of the copyright balance between private rights and public good. By protecting the rights of creators and copyright owners the state guarantees the public that by bearing the costs of the development of cultural materials, through the support of cultural and educational institutions that foster creative and innovative production and the granting of monopoly rights, the greater social benefit will be served in the long term through the creation of a body of work that can be enjoyed by all without restrictions. The term 'public domain' has no shortage of interpretations and it is often employed to refer to works that appear free or authorless. For the purpose of this study, the term public domain refers to material that has moved out of copyright protection once the duration of the protection has expired. However, it is important for this definition to acknowledge the fragmented nature of the public domain, which often overlaps with the concept of the commons in a way that is not part of copyright legislation or legal doctrine.

4.6 The Common Enclosure

The term intellectual commons, or information commons, refers to the total collection of human creative expression, knowledge and information that exists outside of copyright protection. The intellectual commons, therefore, includes materials in the public domain but also includes material that is outside of the scope of copyright protection all together, such as facts, which are not traditionally protected by copyright law. James Boyle (2002) has explored the concept of the commons and its relationship both to intellectual property and the public domain in detail. He compares the enclosure of public lands in fifteenth century England with the expansionist logic of the global trade-related regime of intellectual property reform. The public lands of the English commons were not fenced, or owned exclusively by any one individual, and they supported a variety of communities of farmers, hunters, and peasants living off the land, hence the term 'commoner'. According to Boyle, the enclosure was a two-edged sword. Enclosure enabled the systematic management of the agricultural resources necessary to aid in colonisation, war and the industrial revolution. However, the Enclosure only

benefited those privileged enough to be land owners by dispossessing the existing tenants and restricting the access and use of the physical resources previously managed by the occupying communities.

The English land enclosure has many parallels with the intellectual enclosure and is useful in discussing the potential outcomes of changes to copyright law that diminish the public domain. Boyle cites the privatisation of scientific research into the mapping of the human genome as an example of the enclosure of intellectual property which should be public domain information and therefore part of “the common heritage of all humankind” (Boyle, 2002: 13-25). The privatisation of scientific research, even work conducted by public institutions, has been possible through patent applications, but Boyle sees the private ownership of such a general public property as being equivalent to the enclosure of the human condition, although the analogy is not exact as the mapping of the genome would take significantly longer without private investment in the research. As was the case with the first enclosure movement, the push to enclose as much property as possible has its powerful and vocal advocates. While the human genome may be a common feature of all human life, for biomedical and pharmaceutical companies it represents the kind of bonanza that the privatisation of the English lands meant to the gentry and land owners. It is somewhat comforting to know that patents only last 20 years, while the privatisation of human DNA under copyright would have lasted much longer.

The extension of the copyright duration and the inverse reduction of the public domain increase the potential for investors in cultural materials to employ emerging technologies and extract further capital from new products based on old copyrights. This is a new ideology; historically, intellectual property rights over scientific discovery were rare. It is only since the Second World War that intellectual property concerns have become a vitally important investment for business and industry (Boyle, 2002). Boyle (2002) argues that as recently as the 1920s it was assumed that general discoveries and facts must always remain in the public domain, rather than expect their automatic privatisation. It has taken less than a century for the reverse to become the dominant position. The most significant change has occurred in the past two decades, through new digital and global communications technologies making copying and distribution of information extremely easy. Even basic tenets of copyright law are now under revision, and, as Green (2003) argues, there is an emerging debate for

copyrights over the contents of factual compilations. The assumption now is that unrestricted access to copyrighted materials can only lead to the loss of revenue and the diminishment of private capital.

While there are significant similarities between the English land enclosure and the intellectual enclosure, there are also key differences. The most obvious is the difference between the physical nature of the land at the heart of the English commons and the intangible and other non-physical characteristics of intellectual properties at the centre of the intellectual enclosure. This difference is further complicated by the very nature of access and storage of intellectual properties in the digital environment, which is undergoing fundamental change as digital and communication technologies reduce the perception and treatment of cultural works as purely physical objects. Copyright protected works are increasingly stored in digital formats. Books, music, movies and information in general are available in self-contained physical objects, such as DVDs and CDs, but the move to fully digital distribution networks is inevitable. This does not suggest a complete replacement of traditional forms of storage – the paper page isn't disappearing in any noticeable way – but users are increasingly able to download cultural materials just as easily as they can access physical stores.

The technologies behind these innovations increase the non-rivalrous nature of the properties. The term 'non-rivalrous' indicates a special feature of intellectual properties. Traditionally copyright protected materials, like textual works in the form of books, have been relatively easy to treat like physical properties because their containers were difficult to copy and expensive to distribute. The physical copy of a book is considered to be rivalrous because possession of the item by one individual precludes its access and use by other individuals, and therefore copyrighted goods can be treated in the same fashion as other physical resources. The concept of the 'book' itself is not restricted to any one copy, which means that multiple people can access copies of the 'book' simultaneously without restricting each other's ability to read it. However, this non-rivalrous feature is not highly relevant in the physical environment because it requires significant investment to produce, distribute and purchase physical copies. Digital copies of intellectual properties are not bound by the same degree of physical restrictions. The technologies of their storage make them easier and cheaper to copy and distribute, and doing so does not deprive the owner of the original source or reduce the quality of the original. The non-rivalrous qualities of intellectual properties in

digital form benefit copyright owners, by reducing copying and distribution costs, but this benefit also threatens their monopoly rights by making it easy for others to produce unauthorised copies. Where only one farmer may occupy a plot of land for his crops at a time, multiple individuals can access a single digital text simultaneously without reducing the ability of others to access it.

The enclosure of the physical commons put the limited natural resources available under the rule of a single land owner, who was empowered by the Crown as the owner, which helped to maximise usage and commercial exploitation of the property. Similarly the enclosure of the intellectual commons, through updates to copyright law directed at reducing the public benefits of digital technologies, has enabled copyright owners to maintain exclusive property rights, increase profitability, reduce non-authorised access and use, and minimise traditional consumer rights over physical goods. Chapter Six will examine commons theory in more detail, but it is important to see how the AUSFTA works as part of an ongoing enclosure movement.

The AUSFTA introduces changes to Australia's intellectual property laws that are specifically designed to increase the intellectual enclosure and maintain the treatment of cultural goods as if they were objects of pure physical property. Because technologies change rapidly, and the internet provides a dynamic digital environment for programmers and users to find new ways to access, copy and transform cultural materials, copyright owners and legislators have found it is necessary to periodically adjust copyright and other intellectual property laws in order to enforce the scarcity of non-rivalrous goods. Developments like TRIPS and the AUSFTA demonstrate the degree to which governments and intellectual property owners consider stronger intellectual property laws as being crucial to increasing potential markets and returning investment: an attitude undoubtedly similar to that of the land owners benefiting from physical enclosure.

4.7 Futures Market: Investing in the Public Domain

Despite the age of most materials in the public domain, they are still highly valued for a range of modern uses, from stock images used by graphic designers to the raw data interpreted by researchers and the records scrutinised by historians. Literature enthusiasts like Eric Eldred can appropriate public domain works for their collections,

posting the materials on the internet and making them available to others for free. Creative artists can make use of old tunes, or emulate grand master painters and sculptors, finding new ways to reinvigorate old works. Public domain materials can be remixed, sampled, twisted and recombined without the need to seek permissions from the original owner or pay for expensive royalty rights. The public domain has a vitally important function in the progress of creativity and innovation and it is essential to draw attention to the role of public domain material as a common and open public resource.

Samuelson (2003b, 2006), in reviewing the literature on public domain theory, argues that the public domain serves numerous positive and constructive functions, but foremost is the role of the public domain as the container for the essential building blocks of knowledge generation, which enables unrestricted follow-on creation and innovation. These public domain building blocks overlap with materials in the intellectual commons, including mathematical formulae, conversion tables or the rules of grammar. Together they represent the constitutive elements of knowledge and culture. Without access to these features of the public domain, the continuation of cultural heritage, education, self-expression, and many cultural, research, democratic and governmental functions become increasingly difficult and expensive. As Samuelson (2003c, 2006) argues, the public domain is at its greatest potential when considered, not as the retirement home or dumping ground for old material, but as a raw and inextinguishable resource for future productions.

Unlike physical commons, the public domain is a resource that cannot be polluted or reduced by its usage, and its consumption does not suffer from the physical restraints of other forms of physical properties. The public domain represents one of the few resources where the amount of material available to use is increased rather than depleted by use. The public domain is increased by the passage of time, as copyright expires, but it is also increased as creators re-use and innovate on materials from the public domain. A growing public domain, one that is continually expanded by materials that move out of copyright protection, increases the amount of uncontrolled and unregulated information that educators, scientists, creative artists and even policy-makers can draw from and innovate on; it also reduces development costs and increases productivity. David Lange suggests that as the public domain fails to be increased, due to longer copyright durations, people lose access to their cultural

heritage, both to works from the past and to those works to come in the future (Lange, 2003).

These strengths of the public domain are exponentially increased by digital and communication technologies, yet diminished by the extension of copyright. Without fixed and stable limits on copyright, the cost to use copyright protected materials will reduce innovative activities. The argument, which needs to be emphasised, is that limited copyright duration is a form of social insurance; a usefully limited duration protects the cyclic nature of creativity and recognises that cultural materials are created by drawing on a matrix of significant cultural resources much of which exists in the public domain by continuing to add to it. Copyright, and intellectual property laws in general, bind the cultural materials produced within our time for a much greater period than in the past. Materials created in our lifetime will not enter into the public domain, if there remains such a concept, for generations after our deaths. This removes, or in the very least it distances, that which we create from its re-use, making our products stagnant and useless to the future, outside of the possible profits from repackaging. Cultures depend on the remixing of works to remain productive, yet the expansion of the copyright duration by twenty years indicates a pattern, which has been exaggerated in the last fifty years. It is a pattern that suggests future cultures will be dominated by a pay-per-use model of intellectual property that denies any kind of unrestricted use and free access.

One of the key strengths of the public domain is the minimisation of knowledge and information transfer costs. New innovations are likely to occur from old works out of copyright which are still culturally, scientifically and economically valued; being in the public domain makes these works relatively inexpensive to access. While new knowledge is perhaps more likely to contribute to innovation, it is expensive compared to the material available in the public domain. This argument is important because it demonstrates that public domain materials still have value in a pure economic sense; collections of public domain works are still published and distributed, and the absence of monopoly rights does not reduce the incentive for publishers to reprint works. Because the market for these works is competitive, the consumer can expect to pay less for public domain works than a new text. Therefore, one of the unintended consequences of the AUSFTA reforms is the increased cost associated with a longer copyright duration that contributes to economic, social and cultural disadvantages.

This argument, as was demonstrated in the *Eldred* case, is used by copyright owners to suggest that copyright should not expire. Those few cultural materials which have a potential future value encourage copyright owners to pursue an infinite copyright duration. This, however, does not take into account the role of the public domain in providing the opportunity for individuals to take previously copyright protected materials and act upon them, giving them new life. It is the unrestricted qualities of public domain materials that allow for the creation of new works with new economic value. If copyright does not expire then the majority of these materials would sit unused, forgotten and gathering dust. A further twenty years of copyright will only encourage lobbyists, to seek out even greater extensions, and represents another two decades in which our common cultural heritage is restricted to private access. Within this time the public domain may only be remembered as a quaint consequence of the original copyright laws.

Of course this pessimistic future may not come to pass. The failure of the *Eldred et al. v. Ashcroft* case was the catalyst for a new campaign determined to secure the future of the public domain. The Public Domain Enhancement Act, also known as the Eldred Act, is a proposal to introduce new legislation in the US that will require owners to register their copyrights fifty years after publication. The registration would include a small symbolic annual fee, of one dollar, that would ensure that only those works of current commercial value after 50 years would continue to receive copyright protection. The annual copyright subscription fee means only those non-commercially viable works, works over which copyright owners no longer wish to retain their copyrights, would pass into the public domain. The US Copyright Office would keep a register of the copyright protected works, making it easier for people to determine what works were still under copyright and what works were available for unrestricted access and appropriation. This is just one of many possible alternative approaches to copyright regulation that seeks to uphold the public balance of copyright protection and defend the future effectiveness of the public domain. The following three chapters of this study provide detailed analysis of other potential alternatives for the treatment of copyrights, and discuss their viability with particular concern as to their relevance in the digital environment.

4.8 Harmonisation: Singing in Tune to the IP Song

The need to safeguard the global trade in copyright protected materials for longer periods of time is not the only motivation for adopting American and European copyright standards. The inclusion of intellectual property rights reform within the AUSFTA stems from the potential increase in commercial benefits associated with the harmonisation of laws between the trading partners' legal systems. A one-size-fits-all intellectual property system reduces the possibility of copyrighted materials slipping through the net of protection. The Joint Standing Committee on Treaties (JSCT, 2004) in reviewing the AUSFTA, received numerous submissions from organisations supporting the intellectual property reforms, including the Business Software Association of Australia (BSAA):

The global trend to harmonisation around longer copyright terms suggests there will be harmonisation benefits (i.e. costs foregone) in similarly adopting a longer copyright term comparable with Australia's major copyright trading partners (JSCT, 2004: 228).

Both the Australian Intellectual Property and Competition Review (IPCR) in 2000 and JSCT in 2004 cited harmonisation with trading partners as the main argument for the extension of copyright duration. Harmonisation of copyright laws guarantees copyright owners that non-domestic markets enforce the same copyright terms and guarantees that materials will not enter the public domain in one region while still under protection in another. Harmonisation is a considerable argument for the economic benefits of copyright extension, but it is not an adequate justification for the full consequences of the changes. Arizona State University law professor, Dennis Karjala, has called the harmonisation argument a smokescreen because trade surplus is dependent on the sale of current works (Fonda, 1999). Karjala argues that the limited number of profitable texts from the 1920s and 1930s, which are still viable commodities but whose copyrights are due to expire, sell on such a small scale that they have virtually no impact on trade surplus:

Our trade surpluses are dependent on current works... not on the relatively few works from the 1920s and 1930s whose copyright owners benefit from term extension. The biggest market for these older works is right here at home. So it's mainly American consumers who wind up paying more. It's hard to argue that the law would have much impact on our balance of trade (Fonda, 1999).

The argument for harmonisation is applicable at a distinctly national level, but when it comes to individual appeal, governments and copyright lobbyists usually prefer the incentive argument.² The Australian Intellectual Property and Competition Review (IPCR) considered the issue of extending copyright in 2000 and concluded that it presented no significant economic benefits. The IPCR recommended that no extension should be introduced in the future without a prior, thorough and independent review of the resulting costs and benefits (IPCR, 2000). The Committee was apparently aware that the extension of copyright on cultural materials did not provide an overall benefit for Australian citizens. This was further argued by Dr Philippa Dee in her report commissioned by the Senate Select Committee on the Free Trade Agreement (JSCT, 2004):

The net effect is that Australia could eventually pay 25% more per year in net royalty payments, not just to US copyright holders, but to all copyright holders, since this provision is not preferential. This could amount to up to \$88 million per year or up to \$700 million in net present value terms. And this is a pure transfer overseas and hence pure cost to Australia (Dee, 2004: 31).

While those works with copyright terms about to expire currently only constitute a small proportion of annual copyright fees, Dee's argument is based on increased cost to access these works over time due to the freezing of material moving into the public domain as a result of the AUSFTA. The pure expense of the copyright extension, its cost to libraries, educational institutions, and content creators, is exponentially increased over time; especially for those creators requiring multiple copyright permissions such as documentary makers or musicians who make extensive use of sampling techniques. The extra cost of this legal harmonisation will impact on the development of new products, as desirable materials, that previous to the AUSFTA would have entered the public domain in the next two decades, will be left untouched by artists who are economically limited and unable to afford the legal costs and increased royalties to access and use them.

² The Independent Report by the Centre for International Economics (CIE), investigating the economic validity of the AUSFTA, claims the key objective of copyright is to provide sufficient incentive for creative activity to occur (CIE, 2004). The incentive argument reinforces the discourse of copyright protection as the most important tool for ensuring a sufficiently lucrative creative environment. The CIE Report argues that without continuing to upgrade and enhance copyright protection a market failure exists and creative works, which it acknowledges as a central ingredient for economic and social development, would be under-supplied (CIE, 2004).

4.9 Inheriting the DMCA

Article 17.4.7 of the AUSFTA incorporates the anti-circumvention provisions set out in the US 1998 Digital Millennium Copyright Act (DMCA). The article also introduces the DMCA's criminalisation of intellectual property infringements into Australian copyright law. As discussed in the previous chapter, these are the hammer and anvil tactics of copyright owners in the US who were triumphant in 1998, transforming copyright into an all-encompassing means of control over cultural material, ripe for the prosecution of infringing activities such as internet file sharing. Australia has its own version of the DMCA, the 2000 Copyright Amendment (Digital Agenda) Act, which was designed to retrofit the 1976 Australian Copyright Act to account for new technologies; but the scope of the DMCA is much broader than the Digital Agenda Act and the AUSFTA provisions supersede the Digital Agenda Act's reforms. Under the DMCA provisions included in the AUSFTA, Australians are exposed to a greater range of criminal offences for activities that were previously considered as copyright infringements (Richardson, 2004). Article 17.4.7 goes beyond the Digital Agenda Act, as Bowrey and Rimmer (2005) argue; like the DMCA, it transforms the nature of copyright and institutes an entirely new legal entity in opposition to the established rights and limitations.

Article 17 of the AUSFTA stipulates that criminal procedures and penalties are to be available against anyone circumventing technological copyright controls for the purpose of commercial advantage or financial gain. However, as Dr Andrew Tridgell (2004) of Linux Australia notes, the definition of commercial under the AUSFTA includes any significant non-commercial practices that have a direct or indirect motivation of financial gain.³ He argues this "spreads the net of criminal sanctions much wider than it first appears" (Tridgell, 2004). Rather than target black market piracy, these provisions are designed to bring criminal charges against any individual who obtains a copyright protected work with intent to transport or transfer the work without permission (DFAT, 2004a). For example, an individual who purchases an electronic book, or purchases a movie online, could understandably expect to access this work on any number of electronic devices they own, but according to the AUSFTA, any attempt to make copies of this work for personal use would be seen as a copyright infringement for financial gain. These copyright laws are less concerned with the user

³ See also Article 17.11.26 of the AUSFTA (DFAT, 2004a).

act of copying, and more concerned with enforcing the copyright owner's desire to charge users for the separate modes of access.

These changes target the thousands of Australians who directly and indirectly circumvent copyright technology on a daily basis, through infringing practices like downloading content via peer-to-peer software, using MP3 music players to copy their CD collections or making backup copies of DVD movies. Charles Britton, policy officer for IT and Communications at the Australian Consumer Association, argues that consumers will need to be highly familiar with the issues relating to the various technologies for accessing legitimately obtained materials (Britton, 2004). Copyright law in the United States makes allowances for the unauthorised use of copyrighted material under the doctrine of fair use. Australian copyright law, however, does not have a broad fair use clause, and instead features a form of 'fair dealing' for educational uses of copyrighted material.⁴

In February 2005, the Attorney-General, Philip Ruddock, announced the Government was commencing a review of the issues of copyright changes under the AUSFTA and of the possibility of introducing an American style fair use system in Australia. The Attorney-General suggested that the review would examine the fair use principles and determine what particular uses should not be an infringement of owner rights, such as transferring music files to an iPod player or recording a TV program, but warned that the fair use proposal is of significant concern to copyright owners. He suggested that a provision of fair use could encourage infringement and undermine the rights of copyright owners (Attorney-General, 2005). The Attorney-General's *Issues Paper*, on the potential introduction of fair use provisions, made it clear that the changes to Australian copyright law under the AUSFTA had produced some results which were clearly out of step with the every day of use of copyright protected materials:

Many observers believe copyright law should be reformed to reflect public attitudes and practices. Some interest groups feel a copyright balance might be better maintained in a rapidly changing digital environment if the Copyright Act were to include an open-ended 'fair use' exception that would allow the courts to determine whether a particular use of copyright material is 'fair' and should be lawful. Others argue the present specific exceptions in the Act should be

⁴ The AUSFTA does include very limited copyright exceptions for non-profit library, archive, public non-commercial broadcasters and educational institutions.

amended to make certain uses of copyright material lawful (Attorney-General, 2005: 2).

The result of the review was announced in May 2006, after more than 160 public responses had been considered. The submissions to the review included reactions from academics and legal counsel, as well as a range of Australian cultural institutions from the Australian Film Council and major television stations, to interests as broad as the Australian Football League and Cricket Australia.

Some organisations, including the Association of Independent Record Labels (AIR), supported the introduction of fair use provisions, and the legalisation of time-shifting technologies. Others, like the Screen Producers Association of Australia and the Music Council of Australia, opposed the introduction of a fair use system because they believed that it would commercially disadvantage its constituency (MCA, 2005). The key points of argument in many of the submissions focused on the difference between the two systems, in that an American style fair use system provides a broad basis for the use of copyright materials, and any potentially infringing act is judged on a case-by-case basis, whereas the fair dealing provisions only provide a small window of permitted copying acts and therefore permits fewer exceptions overall. The results of the review process were mixed, and the Attorney General announced the findings in May 2006, in a press release that signaled upcoming legislation.

The Attorney-General's (2006) review found against the adoption of fair use, claiming that:

Australia has a unique [copyright] regime that should be maintained. In particular, stakeholders support the fair dealing regime and do not want to replace it with a US style fair use regime.

This response, with its concern that Australia's "unique" copyright regime would be replaced by an American system was strangely ironic, as Australian copyright doctrine has already been vastly changed under the AUSFTA to more closely resemble American law, except for the US's broader fair use exceptions. The Attorney-General's review has, however, indicated that it is considering a series of concessions to increase the legitimate exceptions for daily copying activities, including 'format-shifting' for personal use, allowing users to make copies of music, newspapers and books for use on personal electronic devices; and 'time-shifting' exceptions to allow legitimate copies

of free-to-air television and radio content, although there is no indication of when these exceptions will be introduced.

The format-shifting provision principally allows users to transfer legitimately purchased music to MP3 devices, yet it does not allow users to transfer DVDs and other video to handheld video devices which are also commonly available. The Government has promised a further review on this issue as it effectively puts users back to square one, by making everyday copying practices illegal; including the backing up of legitimately downloaded content and the transferring of DVD movies to mobile players such as the video iPod.⁵ The time-shifting exceptions have also been granted with extremely limited functions, restricting the time-shifted copy to only one view before the material must be destroyed. This means that multiple people in a household cannot view the material at different times, and it doesn't account for multiple copies of a television broadcast being made in the same house, or allow for copies of free-to-air shows being downloaded via peer-to-peer technologies. The review process has also provided some assurances that the copyright laws will clarify the established fair dealing provisions to allow for the use of copyright materials in works of parody or satire. The Attorney-General's (2005: 2-8) department has also removed the statutory cap on the licence fees paid by broadcasters for using sound recordings. This means copyright owners and broadcasters will be able to negotiate over the level of royalty payments. It will be interesting to see how record companies and individual artists will benefit from this change as the mandatory fee was introduced in 1968 to help the local industry, which was economically failing at the time (Attorney-General, 2005: 6).

The Government has used the review as an opportunity to 'crack down' on acts of copyright infringement and piracy. The Attorney-General's Department commissioned the Australian Institute of Criminology (AIC) to undertake research on the nature and extent of piracy and counterfeiting in Australia, which is designed to identify options for the Government's response to piracy and counterfeiting in the future. The Attorney-General's department also promises to

address large-scale internet piracy ... by giving a court additional power to award larger damages payouts or other remedies. This will apply where there have been multiple acts of infringement, but where it may not be practical for

⁵ The Attorney-General's department has promised a series of copyright reforms including new 'flexible dealing' exceptions for educational and other cultural institutions to use copyrighted material for non-commercial purposes. It has also promised to include exceptions for people with disabilities to allow for greater access to copyright materials, but provided no time table for these reforms (Attorney-General, 2006).

the copyright owner to prove every single act of infringement...The Government will make it clear civil infringement proceedings will apply to copyright pirates who make electronic reproductions or copies of copyright material. This will address concerns arising from recent cases that have considered the issue of electronic copies of copyright material (Attorney-General, 2006).

The Attorney-General's department seems to have learnt from the 2005 case of *Universal v. Sharman*, which shut down Sharman Networks, the Australian company responsible for the file-sharing software, *Kazaa* (Australian Copyright Council, 2006). The Attorney-General's press release does not refer to a specific case in discussing the review's findings, but Dinham (2004) notes the diverse corporate structure of Sharman Networks made it very difficult to prove in court that the company was responsible for facilitating massive copyright infringements. It seems the copyright review will make it a less onerous task for the prosecution to prove that operators of P2P and other technologies are responsible for large scale copyright infringements.

4.10 Conclusion: Where do these changes leave us?

The intellectual property reforms of the AUSFTA are a useful economic and political tool for the US. Unlike the tariff concessions, the reforms can be replicated within other bilateral agreements, making the AUSFTA a perfectly exportable FTA model for the treatment of intellectual property. The implications of the changes to copyright law in Australia represent a global shift in the intellectual property landscape. The DMCA provisions included in the AUSFTA will assist the development of pay-per-use culture, criminalising unauthorised uses of information and access to cultural materials. The abandonment of the traditional balance in copyright doctrine that ensures the highest standard of protection for copyright owners, at the cost of user rights, is a marker of precisely how important this reconceptualised model of intellectual property rights is to globalised trade. The combination of a reduced public domain with a heavily restricted and criminalised digital environment places the use of cultural materials under extreme strain. Not only does the law have to deal with the increased capacity for copying and sharing restricted material, it now has to deal with an individual's capacity and desire to innovate and create from works that may never reach the public domain in their lifetime.

The AUSFTA is symptomatic of the reconceptualised model for global intellectual property controls, in which copyright no longer simply polices reproduction. Previously copyright legislatively differentiated between the ideas contained within a text and the exact expression of the text. This enabled copyright owners to control the reproduction of the work, but left the ideas within the text free to be appropriated. In attempting to address the challenges of digital technologies, specifically the increased capacity for copying and the zero-cost of distribution, the law has collapsed the differentiation between ideas and expression, locking the result behind digital fences. This approach has stretched copyright doctrine to a point where it cannot effectively acknowledge legitimate uses of the technology for creative and innovative activities. By increasing copyright protection in this way, the law diminishes the potential ability of these technologies to increase the transfer of knowledge and information. The following case studies address the implications of these changes and examine the possibilities for proactive development of co-existing models for alternative controls of cultural materials that are both commercially constructive and politically reasonable.

Chapter Five

Free/Open Alternatives

5.0 Introduction

Following on from the review of its historical and legislative origins, this chapter provides a contemporary analogy to copyright. Instead of the creation of *copyright* by an act of parliament, this case study examines the creation of *copyleft* by a hacker. Up to this point national and international copyright reforms, as well as the influence of technological and cultural trends, have occupied much of the attention, but we have not yet asked the simple question; what is the alternative? Whereas political pressures and economic considerations of trade have been highlighted as fundamental forces at work in the evolution of copyright doctrine, in this chapter the twin concepts of motivation and incentive in the production of alternative intellectual property regime will be the focus. This chapter is the first of three case studies, each designed to investigate the development and potential of alternative intellectual property regimes. This initial case study explores the philosophies involved in the formation of the Free Software Foundation (FSF) and the open source movement as they have contributed to a system of practical and alternative choices in the production, ownership and management of intellectual property beyond the traditional paradigms of the current regime.

The chapter is divided in two parts. The first part explores the formation of both the free and open source software movements. It reviews their shared history and divergent ideas, and investigates the role of key members of each, including Richard Stallman, founder of the FSF, and Linus Torvalds, the lead programmer of the Linux operating system, which is at the heart of the open source movement. It introduces the creation of legitimate alternative copyright licences, known as copyleft, and discusses the

significance of copyleft as a formal response to the limitations of the copyright doctrine in protecting both user freedoms and creator rights in the production of cultural goods. This section examines the concept of freedom, and its relation to software. It illustrates how the desire to secure user freedoms and access to software code has contributed to a legally viable intellectual property alternative for the software industry, but also considers copyleft as a general principle involved in the production of intellectual materials for the digital environment.

The second half this chapter employs a review of sociological research to examine the motivations of computer programmers involved with the free software and open source movements. It proposes an identifiable set of incentives motivating the contributing to the production of intellectual properties, which do not correspond with the justifications employed to lobby for greater copyright enforcement and which do not retain the usual private property restrictions. Within this account of contributor motivation the chapter also considers the idea that software can be a public good. This approach includes an examination of the potential benefits and weaknesses of open production as opposed to the closed proprietary model of the standard intellectual property system. It also discusses traditional intellectual property theory concerns of free riding and free labour, which have previously been seen as issues that can lead to exploitation as well as reduced innovation and efficiency. This purpose of this case study is to demonstrate why large numbers of globally dispersed programmers have volunteered time and energy to the creation of intellectual properties which are made free to the public to modify and use without permission, often without direct financial compensation. It asks, and begins to answer, why create something if you are only going to give it away?

5.1 Richard Stallman: Hacker and Philosopher

The free software movement began in 1983 when computer programmer and prominent hacker, Richard Stallman, was faced by what he considered to be a moral challenge (Stallman, 2002a). During the 1970s Stallman was employed at the Massachusetts Institute of Technology's (MIT) Artificial Intelligence (AI) laboratory, a major science and technology research institute in the US. He became part of the community of computer programmers at the AI Lab and thrived in the atmosphere of cutting-edge technological exploration and prankish behavior (Williams, 2002). Most significantly, for Stallman, the researchers at the AI lab engaged in and encouraged the

practice of sharing software code, a practice he suggests is “as old as computers, just as the sharing of recipes is as old as cooking” (Stallman, 2002a).

The sharing of software code was an informal activity that usually occurred when one programmer came to the attention of another through the implementation of a clever piece of code (Levy, 1984). Source code was not considered unique or tangible; even though code could be written down and programmed into a machine, it was still considered mutable, unfixed and always changing from version to version. Source code was freely distributed between friends and colleagues and this practice stimulated conversations about coding and prompted friendly rivalries as programmers, who called themselves hackers, tried to improve on each other’s work (Levy, 1984). The practice of software sharing wasn’t confined to MIT. Code was shared between members of other research institutions via the fledgling electronic communications networks. Popular code spread globally amongst hackers and was circulated widely between researchers, commercially employed programmers and amateur hackers.

Early programmers valued simplicity and efficiency over repetition and redundancy (Levy, 1984). Programmers made a point of ‘never reinventing the wheel’, meaning that, if someone has already written code for a specific task, then it saves time to use that code rather than start from the beginning. These prized practical values were strengthened when the practice of sharing code resulted in improvements that were freely accessible and which further encouraged innovation and growth in the programming community. The openness of the programming community in the 1960s and 1970s, however, was challenged by the economic potential of the commercial software industry in the 1980s. The seeds for the free software movement were sown in 1980 when Stallman, attempting to fix a Xerox brand printer in the AI lab, was told that he could not have access to the source code for the printer’s software because it was the private property of the company and subject to a non-disclosure agreement (Williams, 2002). The experience of one programmer refusing to help another, when a history of collaboration and exchange was already established between the AI lab and Xerox, was the beginning of the challenge which Stallman would take distinctive lengths to overcome.

The community of programmers at MIT pioneered the Hacker Ethic, which holds that access to computers – and anything with the capacity to teach you something about

the way the world works – should be unlimited (Levy, 1984: 27). Stallman's Hacker Ethic was critically jeopardised in 1981 when the MIT's computer hardware was upgraded, as cheaper and more powerful alternatives became available (Levy, 1984: 28). The new machines ran proprietary operating systems, software whose distribution licences did not permit the sharing of code. MIT also introduced a proprietary licence scheme for software created by its own programmers, which removed access to the source code and hindered the software from being used to further learning and development at the institution (von Hippel & von Krogh, 2003a). Further disruptions were caused by the movement of hackers away from MIT to more lucrative commercial jobs with private companies (Levy, 1984).

The choice, for Stallman, was either to join the proprietary software industry and submit to nondisclosure contracts restricting his involvement in the hacker community, or to write his own software and share it with others. He announced his intention on the hacker newsgroup, net.UNIX-wizards.net.usoft:

Starting this Thanksgiving I am going to write a complete UNIX-compatible software system called GNU and give it away free to everyone who can use it. Contributions of time, money, programs and equipment are greatly needed (Stallman, 1983).¹

Stallman was not naive about the decision or the requirements of the ambitious project. Writing a completely new operating system, to be compatible with the popular industry standard UNIX system, was a mammoth task and one that would require the creation of dozens of programs and components to make the system work. He petitioned his friends and colleagues in the software sharing community for support and made it clear that he intended to protect access to the work for the general benefit of all hackers and make sure that no-one would be able to take the products of their efforts and contributions away from them. At the time of his newsgroup posting Stallman's was relatively well known as a clever and outspoken hacker, but his decision to counter the proprietary encroachment of the software industry into his community is regarded as his most impressive hack.

¹ The title GNU is a recursive acronym, which refers to itself in the abbreviation. GNU stands for GNU's Not Unix.

5.2 What is a Hack/Hacker?

The terms 'hack' and 'hacker' are interesting sources of contention and confusion that have recently gained a distinct political significance. As a result of representations in popular culture and mass media reporting on computer and electronic network-related crimes, hackers are associated with breaking the security of computer systems, usually with malicious or criminal intent. The term has a variety of uses and within the hacker community it commonly referred to an effective, clever or well written piece of software code or use of coding skills. Thomas argues that the terms hacker and hacking refer to a general intellectual exercise that bears no relation to those computer programmers engaging in electronic vandalism or fraud who began to identify themselves as hackers during the 1980s (Thomas, 2002). In Levy's (1984) narration of the development of the Hacker Ethic during the 1960s and 1970s, he suggests that the Ethic was not a result of discussion or debate, but a silently agreed activity. Levy (1984: 2) argues that there were no politically charged manifestos, only the shared belief that essential lessons can be learned about the world from taking things apart, seeing how they work, and using this knowledge to create new and even more interesting things.

The hacker discourse emerged in the early hacker community around the same time Stallman joined MIT. Levy (1984) acknowledges the emergence of a tangible resentment towards any person, organisation or legal barrier that attempted to interfere with the code sharing process. The importance of open and unrestricted access to source code is evident in Williams' (2002) description of Stallman's initiation into the Hacker culture at MIT:

To be a hacker meant more than just writing programs, Stallman learned. It meant writing the best possible programs. It meant sitting at a terminal for 36 hours straight if that's what it took to write the best possible programs. Most importantly, it meant having access to the best possible machines and the most useful information at all times. Hackers spoke openly about changing the world through software, and Stallman learned the instinctual hacker disdain for any obstacle that prevented a hacker from fulfilling this noble cause. Chief among these obstacles were poor software, academic bureaucracy, and selfish behavior (Williams, 2002).

Mackenzie Wark's *Hacker Manifesto* (2004) has extended the term hacker, broadening its meaning and political potential dramatically. Wark employs the term to account for a

new kind of class conflict. This is a conflict, described by Wark in a Marxist style critique, between the hackers of culture and the owners of intellectual property. Stallman (1983), in his newsgroup post, exhibited a clear example of what Wark refers to as a cultural hack; he took a political position and engaged in behavior designed to create a solution. Stallman, in calling on others to join him in building something new and in the open, directly challenged the model of private information and knowledge ownership. Stallman simply called this hack his “golden rule”; if he liked and used a program then he should be able to share it with others who wanted to use the program (Stallman, 2002b).

5.3 Software philosophy: Cathedrals and Bazaars

There is little room here to explore the full history of modern computing and its relationship with the proprietary software industry, but some key background knowledge is crucial. By 1965 computers were commercially available, but writing programs to operate these machines was a slow and difficult task and to input commands into the giant computer mainframes required a great deal of time (Weber, 2004: 25). Access to the mainframes was so highly regimented that many programmers clashed with the administration governing the allocation of resources. Weber (2004: 25) suggests during the 1950s and 1960s programmers considered themselves as “craftspeople”, who struggled against what Ceruzzi (2003) describes as the Fordist model of the division of labour and production of the early information technology industry. Computer programmers – those who developed the programs, most often on paper – were separated from the technicians – those who operated the systems and entered the code into the giant mainframes.

Levy illustrates the situation with a religious metaphor in a secular context:

All those people in charge of punching cards, feeding them into readers, and pressing buttons and switches on the machine were what was commonly called a Priesthood, and those privileged enough to submit data to those most holy priests were the official Acolytes. It was an almost ritualistic exchange.

Acolyte: Oh machine, would you accept my offer of information so you may run my program and perhaps give me a computation?

Priest (on behalf of the machine): We will try. We promise nothing.

As a general rule, even these most privileged of Acolytes were not allowed direct access to the machine itself, and they would not be able to see for hours, sometimes for days, the results of the machine's ingestion of their 'batch' cards (Levy, 1984: 5).

Stretching the metaphor to account for the development of the software industry in the 1980s and 1990s, Raymond (1999) categorises the two different philosophies of software creation which emerged as Cathedrals and Bazaars. Cathedrals are those commercial businesses, such as Microsoft, whose model of software development depends on the large scale and strategically planned 'in-house' construction of heavily restricted and tightly controlled software products; while Bazaars are decentralised community managed projects consisting of comparatively manic, loud and independent programmers producing software that is made available to everyone for free.

In the early 1970s, programmer Ken Thompson, an employee with American Telephone and Telegraph (AT&T), then one of the world's largest telecommunications Cathedrals, wrote a collection of computer programming tools in his spare time. Together with colleagues, Dennis Ritchie and Doug McInroy, Thompson combined the software tools with a kernel (the central set of instructions needed for a computer operating system) and the project was given the title, UNIX (Ceruzzi, 2003: 106). Eventually UNIX was released publicly and copies were available to anyone for a small fee. Due to anti-trust laws, AT&T was not initially able to sell copies of UNIX and therefore decided to make the source code for UNIX publicly available; this made the operating system extremely attractive to educational institutions. However, there was very little reliable documentation available at the time and implementing the system was as much an educational experience as it was social. Users often had to go by word of mouth and relied on instruction from those programmers with a successfully installed copy. The popularity of UNIX grew as computer research institutions around the world adopted it, the most famous being the University of California at Berkeley which championed the development of UNIX during the 1970s. In 1983 the Berkeley-based UNIX developers released the set of programs and tools known as the 4.2BSD which operated on UNIX. This package included "fully integrated TCP/IP networking that enabled UNIX users to connect to the ARPANET, the earliest form of the internet" (Weber, 2004: 35).

5.4 Free as in Freedom

By the early 1980s Stallman's community of programmers and the hacker culture at MIT had largely dissolved, "Everything was dying" (Stallman, in Moody, 2002: 18). But rather than accept the idea that the future of software was entirely in the hands of the Cathedrals, Stallman rejected the argument that humans were only motivated to create by the lure of profit. The incentive argument, that people will only create and produce work if there is a promise of reward and control over the product of their labour, was entirely apocryphal in Stallman's experiences. He felt that traditional intellectual property rights only made "pirates" out of those "neighbours" who sought to help one another by sharing software code:

To describe a forbidden copy as pirate is a perversion of morality. It's designed to convince everyone that sharing with your neighbour is the moral equivalent of attacking a ship (Stallman, 2002b).

Stallman had seen first hand what the privatisation of knowledge and the restriction on access to source code had done to his community. He left MIT and founded the Free Software Foundation (FSF) in 1984 as a nonprofit organisation through which he committed to working on the GNU operating system fulltime. Stallman supported himself by selling the physical copies of the text editing program he had written called *Emacs*.² Moody (2002: 16) describes *Emacs* as "one of the most famous and powerful pieces of software ever written, even if today it is little known outside of programming circles". The program was so useful in writing the code for other software that it became central to the way people worked in the software programming field, in the same way that the web browser has become central to the way people work with the internet (Moody, 2002). Stallman had no moral problems with the distribution of software for a fee. His *Emacs* program was in constant demand and he sold copies on magnetic tape for US\$150. Stallman's objection to the activities of proprietary software companies was not an issue with the capitalist system in general; it was the restriction of access to the source code of proprietary software that he found utterly intolerable.

Donations of money and hardware to the foundation enabled Stallman to support a small staff and a number of volunteers, who together developed a catalogue of source code resources for the GNU project. The FSF had a formative function in transforming

². The Emacs program is a text editor written in the programming language known as LISP (Harvey, 2006). The Emacs program should not be confused with Apple computers, which are commonly referred to as 'Macs'.

the practice sharing of software and source code into a self-sustaining community. The organisation legitimised the practices of a diverse group of hackers, coordinating them between multiple projects. During the late 1980s a diverse array of software developers pooled together under the FSF and the project produced a number of popular UNIX-compatible software releases. Stallman never looked at the Unix source code and was careful never to risk copying the UNIX code directly, as that would have undermined the GNU project by subjecting the FSF to potential copyright and patent infringement claims. The project was not designed to replace UNIX, but was intended to provide a means for all generations of computer programmers to see how things worked and to make it easier for them to pull the software apart and change it.

Of prime importance to Stallman, above the technical aptitude of the FSF hackers and the success of the software releases, was the concept of software freedom; an issue that remains central to the FSF project. Stallman outlined his ambition for free software, GNU and the FSF in his *GNU Manifesto* (Stallman, 1984), but the term 'free', like the term 'hacker', generates endless complications. Free is a particularly ambiguous word in the English language and Stallman suggests the word 'unfettered' comes closest to his original intention (2002b: 41). Any discussion of the free software movement inevitably refers to Stallman's now well clichéd clarification of "free as in free speech, not free as in free beer", (Stallman, 2002b: 41).³

Stallman defines software freedom as the ability to run, copy, distribute, change and adapt software without restrictions. He developed criteria that must be met in order for software to be considered free:

- The freedom to run the program, for any purpose.
- The freedom to study how the program works, and adapt it to your needs (access to the source code is a precondition for this).

³ The description of free software, as 'free as in free speech, not free as in free beer' is similar to Barlow's (1994) "information wants to be free" claim, which does not refer to cost, but to liberty. Stallman argues that free software is not free in the sense that it cannot be sold or has no price, but rather the software is free to copy and to adapt it to one's own uses (Stallman, 1992). The free beer phrase is commonly used in descriptions of the central concepts of the FSF, but its origins are unclear; it may be related to the cliché "there is no such thing as a free lunch". It may also have a colloquial American college origin, as America's universities often have large communities of college base fraternities with many participation rituals, especially ones that attract participation by offering free beer. Wikipedia employs the term 'free beer' in its *Gratis versus Libre* discussion :

Free as in beer refers to things which are available at no monetary cost (like free beer at a party). While one is permitted to *utilize* the object, one is not permitted to *possess* ... In the "free beer" scenario, this equates to being permitted to drink the beer, but neither to leave the party with the beer, nor to tamper with someone else's beer, nor to brew one's own beer; in the computer software scenario, *gratis* allows the user to install and operate the software, but neither to rebrand the software...nor to create copies of the software for distribution (Wikipedia, 2006h).

Or it may simply be that hackers would pass on an opportunity for a free lunch, but would never hesitate on an offer of a free beer.

- The freedom to redistribute copies, so you can help your neighbour.
- The freedom to improve the program, and release your improvements to the public, so that the whole community benefits (access to the source code is a precondition for this) (Stallman, 2002a).

Stallman's software freedoms mark the free software movement as more than a collection of hackers. The criteria offer an ethical approach to the creation, use and distribution software that is not preoccupied with property rights. The FSF has a clear regard for property; it does not encourage the illegal copying or unauthorised distribution of proprietary software. The difference is that software freedom is considered to be more important than the protection of private property and the remuneration of investment. Always rated above the concerns for the protection of property is the primary philosophy that hackers and users of the software should be able to get the most out of their abilities and contributions without the risk of privatisation and the inevitable loss of access that accompanies it.

5.5 Copyleft and the General Public Licence

Stallman knew that good intentions alone would not guarantee the rights outlined in his principles of freedom and plans for free software. GNU required some form of legal protection to enforce these freedoms rather than accepting the restrictions inscribed by the intellectual property regime. Stallman focused his attention on the licensing schemes of the proprietary software he felt should be free, such as UNIX, which had been privatised in the 1980s following the deregulation of the US telecommunications industry. Stallman examined the software licensing schemes closely and took inspiration from the terms of the original Berkeley Software Distribution (BSD) licence. The BSD was the first licence designed to allow the access, modification and distribution of source code of the University of California's software without any return obligation on the part of the licensee (Rosen, 2002: 75). Stallman also sought professional legal help to generate a new type of software licence which would protect the software from being appropriated by commercial organisations who were not prepared to share their code in return. At the same time the new licence would make it possible to sell physical copies of software and the software code but still keep it 'free' under the terms of Stallman's freedom criteria.

A standard proprietary software licence retains rights for the intellectual property owner, restricting the rights of its users and eliminates the rights of programmers to access the source code. For example, Microsoft products all feature End User Licence Agreements (EULA) which makes any modification of the software a copyright infringement. A software programmer could not legally change the functions of Microsoft's *Word*, *Excel* or *Outlook* programs to suit their own purposes, or share those modifications with others, even if they could get access to the source code and their proposed changes improved the program's performance or usability. Rosen (2002: 51) defines a licence as a legal permission to do something that does not require the signing of a contract. He argues that intellectual property laws entitle owners of private property to create licences. The licences created can give permission to non-owners to exercise specific and limited rights that would be normally be the exclusive province of the property owner.

Standard proprietary software licences are used by copyright owners to permit users to install the software and restrict their use of the software without requiring them to sign individual contracts. A licensee must either operate within the boundaries of the licence or not receive the benefits of the rights granted by the licence. If the licensee acts outside of the provisions established by the licence, making an unauthorised copy of the software for example, they are at risk of prosecution for infringing the copyright owner's rights. In the case of Microsoft's EULA the user becomes a licensee by agreeing to install the software on their computer. Most proprietary software comes with this kind of arrangement and unless the user submits to the predetermined terms of the EULA they are not permitted to install and access the software. In the digital environment installation of software becomes an act or a signal of compliance and a contractual arrangement in which the user agrees not to attempt to change, copy, or use the software in ways other than is strictly intended by its intellectual property owners.

Stallman chose to create a new type of software licence, one that disrupted the traditional hierarchy and restrictions of private ownership. It was a small, but clever, legal hack that reorganised the relationships between programmers of software, intellectual property owners and software users by stipulating in the new licence that the source code of the software had to remain accessible at all times; in doing so, Stallman created the 'copyleft' doctrine. If copyright restricts an individual's right to

make and distribute copies of an object, such as software code, then copyleft designates that everyone has the right to copy and distribute the object, and no-one can restrict that right. The FSF published the new copyleft licence in 1984, called the General Public Licence (GPL), to accompany the release of all GNU software.

The GPL travels with the software, both by linking to a webpage and in a text file bundled with the software, and it describes what the users and programmers can and cannot do with the software. The GPL allows users to copy, modify and freely distribute their modifications, but only if the subsequent product is also released under the GPL and only as long as the new source code is provided along with the new version. The GPL is called copyleft because the licence enforces the full breadth of legal protections afforded by copyright, especially in the case of activities that directly contradict Stallman's definitions of freedom; for example, where someone attempts to use and modify GPL protected code but then does not publicly release the source code for their modification. The GPL means that no individual person or company can reduce the freedom of the work and it restricts others from privately appropriating GNU materials and claiming them as original work (Stutz, 1997). The GPL does not automatically release the software into the public domain, but it does introduce some public domain qualities. A full release of the software into the public domain would mean the software was not protected by copyright laws and the software could be subsumed by corporate interests by being modified and re-released as private property without the source code. Instead, the GPL makes the software part of a specific public intellectual commons, free to be appropriated as long as the user follows the GPL rules of reciprocity.

The GPL is not an anti-commercial device. Developers of the GNU are free to charge for their work; they can sell collections, services, and organise business strategies around their work, but the GPL always travels with the software. This clause, outlined in Section 2B of the GPL (FSF, 1989), has been described as 'viral', because any inclusion of GPL code in proprietary software requires the new work to be released under the GPL. Section 2B is also said to 'infect' software development with the freedoms as defined by Stallman. Eben Moglen, Professor of Law and History at Columbia University, general counsel for the FSF and co-author of the GPL, considers section 2B to be both restrictive and liberating, "It creates a commons, to which anyone may add, but from which no one may subtract" (Moglen, 1999). The Section 2B clause

guarantees that anyone modifying GPL software must also release their innovations under the GPL. This forces developers to maintain the same levels of freedoms and rights they enjoyed and expands the amount of free software available with each innovation.

Moglen (1999) contends that this reciprocity makes commercial distributors of free software better competitors against proprietary software businesses. Rosen (2002: 104), however, describes this reciprocity as a legal island of software which only GPL licenced software can inhabit. Opponents of the rigid FSF philosophy have pointed out that the rest of the world cannot share the benefits of inhabiting the GPL island, unless they are willing to commit themselves to the lifestyle there. The GPL, in this regard, is no different to the rules governing proprietary software, which is just a bigger island but one where the real-estate has a market driven price tag, greater restrictions on access, use and innovation, and permits fewer freedoms.

The GPL's viral nature has a number of significant effects. Firstly, the GPL automated the use of copyleft licensing in free software; if GNU materials are used in a software project, the GPL is immediately valid and does not require consultation with a lawyer, "you drop it verbatim into any program and it would apply" (Moody, 2002: 27). Secondly, the GPL ensured that the source code was always available for a program; this reduced the time and resources needed to develop new programs, because the resources were always publicly available, and never secret. Programmers did not have to 'reinvent the wheel' each time they wanted to add new options or functionality to existing code; this legally recognised and legitimised the practice of software sharing that programmers had been relying on for decades. Thirdly, the GPL's coercive force created a cascade effect in the use of free software because of the way it converts software projects; the nature of the GPL's associated freedoms means the more people that use and create new GNU software, the more software becomes available. The new code and new improvements are absorbed in further projects and the potential for innovation is gradually increased with each generation. Moglen (1999) argues this is an "anarchistic triumph" as the rules of intellectual property are used to enable a process of software evolution in the Lamarckian mode, where each generation of software carries with it the chaotic acquisition of improvements from the last.

5.6 Locke's Fruit and the Nature of Labour

The amount of GNU code being used in software development became problematic for commercial developers in the late 1990s. The GNU and the GPL began to challenge the powerful monopolies at the centre of proprietary software. Both the small but growing popularity of GNU-based software and the legal strictures of the GPL caused a rift in the notion that software could only be developed if it were protected as an exclusive property of a company that could then sell the product to pay for its further development. Stutz (1997) suggest that copyleft will continue with increasing success, both in terms of its popularity and in the marketplace, because its principles are aligned to the “basic to the natural propagation of digital information among humans in a society”.⁴

The natural right to privately benefit from individual labour is a concept that was justified in the philosophies of John Locke, most famously presented in his *Two Treatises of Government* (1689), in which he demands that every man has a natural property right in the works produced by his own body. Locke's basic argument claims that individuals should be able to take from the resources available – which he called the commons – and own the “fruits of his labour” so long as they did not waste materials or remove more than their fair share (Locke, 1689: 139). Copyleft complicates this natural rights argument because it retains respect for individual labour and the enforcement of copyright laws, but it frames ideas as non-labour products by ensuring that they accompanied by Stallman's freedom criteria. Copyleft considers ideas as something that are communicated freely and produced from a different type of commons, the intellectual commons, where any restriction should be considered as a waste and unfair use. Copyleft is a remarkably clever hack and a viable legal alternative, but it is no more natural than copyright.

Copyleft protects the Lockean ‘fruits’ of the creator's labour by retaining the creator as the only one to have the right to profit from the sale of the work, and to be recognised and duly noted as the work's author and contributor to any subsequent modifications,

⁴ While this sentiment is promising, any account of one form of intellectual property as being somehow ‘natural’ is inevitably flawed. Intellectual property is an artificial construct; it is a convenient legal doctrine. There is nothing inherently natural about being able to privately own the products of human creativity or restrict access to the result of human ideas and knowledge, except possibly for limitations of physical scarcity and human greed. Conversely, Stallman would argue that the GPL is an example of the philosophy that there is something inherently natural about wanting to freely share the products of human creativity with others.

but it does not recognise that this ownership includes the ability to restrict access to the constitutive elements of the work itself. Unlike with copyright, creators and authors have a choice to use copyleft; it is not a compulsory regime. This doctrine functions well in an intellectual environment, rather than a physical one, because the concepts involved in the production of software are not limited by the scarcity of physical resources. If any, the naturally limiting elements involved in the creation of software are related entirely to the creator's personal limitations, including access to computer hardware and education and the need to eat, sleep, and to have shelter and financial support in order to conduct the work. Copyleft, however, does not consider these private needs to be valid reasons to exclude others from publicly accessing, changing, and using the products of the creator's work for their own designs.

Intellectual property laws, particularly through the implementation of technologies like Digital Rights Management (DRM), enable the direct control of the ways in which ideas may be accessed, appropriated and redistributed. In relation to software this becomes problematic, because the law does not take into account the needs of stakeholders other than the owner, such as users and developers; it does not accept the argument that more than the simple act of 'use' is a necessary right (Klang, 2005). This is not true for GPL protected software, because the GPL attempts to account for other stakeholders by establishing distinct user freedoms and contributes to an intellectual software commons that caters to both users and programmers. Klang (2005), however, takes issue with the idea that the expansion of the commons is compatible with the terminology of freedom used by the FSF and its founder.

Similar to Hawthorne's (2003a) criticisms of the use of term 'free' in Free Trade Agreements, Klang finds the 'free' in free software to be misrepresentative. Klang argues that the concept of freedom should not be limited to the possibility of taking only certain courses of action, or the doing of certain things. Klang suggests that the concept of freedom should guarantee the possibility of carrying out any act "once rational well-informed decisions have been reached" (Klang, 2005).⁵ This reasoning is an example of positive freedom, which Klang defines as "the existence of enabling factors which create the ability for the actor to carry out desires". Free software and the GPL is an example of the authoritarian tendencies of positive freedom "since it requires the paternalism of other actors to provide for the encouragement of the concept of

⁵ Klang's argument could be interpreted to mean that there couldn't be such a thing as 'free speech' if it was subject to any kind of legal restraint.

freedom in others” (Klang, 2005). Klang’s argument holds that the FSF’s quest for free software and the creation of intellectual commons is not about the loss or presence of freedom in a general sense, but is instead a reaction to the awareness that software is becoming an essential element of the infrastructure of the modern world. Rather than a prescribed notion of natural freedom, Klang argues that the FSF represents a reaction to the dominance of the proprietary software industry in our lives, homes, workplaces and the digital environment and that positive freedoms are perceived to be needed in order to maintain a degree of user freedoms and rights.⁶

Stallman’s vision of freedom does replace one set of owners and owner-based controls with another set, although, in the case of the FSF and the GPL, it is a series of well-intentioned owners. Nevertheless, these are ultimately just another group of people deciding what particular freedoms people should have. Klang (2005) argues that Stallman believes, as biologist Garret Hardin did in the 1960s, that uncontrolled freedom inevitably leads to ruin. Hardin’s “tragedy of the commons” (1968) contends that individuals are naturally greedy and will seek to extract as much from the commons as possible, a condition that leads to overuse, over crowding and eventual collapse of the environment. Stallman appears to be afraid that without the GPL, users will not recontribute to the commons, that they will appropriate and leave, taking with them their innovations and the work of others. Therefore, the commons Stallman creates is not entirely free or entirely anarchistic; it offers an impressive degree of rights to individuals that are heavily maintained and enforced and not entirely unlike the English pastoral commons before their enclosure.

5.7 The Linux Story

The second phase of the free software revolution began in 1991 when Finnish computer science graduate at the University of Helsinki, Linus Torvalds, created the kernel for a new operating system, called Linux. Like all programmers Torvalds started

⁶ The majority of software being used today is owned by private companies. The work created using these tools is dependent on another’s private property and it is that state of dependency which can only encourage corporate monopolies. The artist dependent on *Adobe Photoshop*, or the journalist at work on *Microsoft Office*, or the accounts manager at work in *MYOB*, needing to change or adapt their tools, is entitled to update the software, configure the available options to their use or change brands, but nothing more. The concern might seem exaggerated but for the situation of dependency. It is a situation that is unimaginable for those who work in the purely physical environment: a builder, for example, does not need to purchase another copy of a ladder to perform the same work at home as he can ‘on the job’, nor is he restricted from selling the hammer on to another or making structural modifications to the ladder to better suit a particular role.

with the work of his predecessors, in this case it was a UNIX clone called Minix, a teaching tool written by Andrew Tanenbaum, who also wrote the text that Torvalds refers to as the book that “launched him to new heights” (Torvalds & Diamond, 2002: 52). Torvalds also had access to an expanding collection of FSF software and programming tools available to aid the development of his project:

...to make Linux usable, I had relied on a lot of tools that had been distributed freely over the internet – I had hoisted myself up on the shoulders of giants (Torvalds & Diamond, 2002: 96).

Experimenting with programming on his new computer in 1991, Torvalds was frustrated by the limits of Minix and impatient for the release of the mythical GNU operating system, known as Hurd, which had inadvertently stalled in development at the FSF.⁷

Torvalds devoted himself entirely to writing his new operating system and when the program reached a level of stability and functionality he turned to the computer programmers actively posting in the internet newsgroups:

From: Torvalds@klaava.Helsinki.Fi (Linus Benedict Torvalds)
To: Newsgroups: comp.os.inix
Subject: What would you like to see most in minix?
Summary: small poll for my new operating system...
Message-ID: <1991Aug25.205708.9541@klaava.Helsinki.Fi>

Hello everybody out there using minix - I'm doing a (free) operating system (just a hobby, won't be big and professional like gnu) for 386 (486) AT clones. This has been brewing since april and its starting to get ready. I'd like any feedback on things people like/dislike in minix, as my OS resembles it somewhat (same physical layout of the file-system (due to practical reasons) among other things (Torvalds & Diamond, 2002: 85).

The decision to seek comments from other programmers and hackers using Minix is considered to be Torvalds' second most famous hack, after the creation of Linux. Torvalds began with the decision to make Linux available to download from the internet at no cost and then accept submissions for improvements from other programmers. He actively encouraged others to look into the code of his program, to improve it

⁷ The delay of Hurd was not deliberate, but was the result of competing interests within the FSF over what technologies would be the best for the project. Developmental dead-ends and difficulties in programming eventually led to a project standstill, which demonstrates a serious potential weaknesses involved in Bazaar-style software development.

themselves or modify it completely for their own needs and send him the results for inclusion in the next public release (Moon & Sproull, 2000). Torvalds not only made his kernel available to download but he chose the FSF's GPL to licence it.

Torvald's approach was warmly received by Minix users and other UNIX hackers all around the world who began to contribute to the project. Moody describes Linux as a system that was born and grew up across the internet (Moody, 2002: 71). Torvald's approach epitomises the Bazaar style of production in which he developed an ongoing dialogue with the developers and an enthusiastic user-base and could then pick and choose which modifications he felt were the most accomplished. Where software Cathedrals are built with intense periods of scrutiny by a few dedicated programmers on a salary attempting to produce totally error-free code, the Bazaar style turns the code over to the hackers with a personal interest in the program who were not motivated by traditional financial incentives. The users of the program become co-developers of the Bazaar program by exposing software bugs and reporting errors on a daily basis. Raymond (1999: 30) calls this philosophy Linus's Law, which holds that "given enough eyeballs, all bugs are shallow".

It is interesting to note that both free and the open source movements, officially start with a communicative act in posting to a newsgroup, and both these movements were formed and have developed almost completely within the digital environment. Both posts are clearly devoted to the idea that their software code should be freely available to access by all. Stallman (1983), in his newsgroup post, projects his intentions and calls for moral support, as well as donations of money and equipment. Torvalds, however, has already produced a stable, if basic, operating system and his post concentrates on the practical implementation of the technology, asking for the feedback and comments of other hackers. These early posts seem to reflect the difference between free and open source movements. The FSF is highly original and alternative in its thinking but its concentration on ideology slowed its innovation and production. The open source movement, which was later formalised by the formation of the Open Source Initiative in 1997, took the concept of open and collaborative production as standard operating procedure and focused on the practical elements both in the technology and the management of the hackers and users involved in the development. Where the FSF is highly chaotic and idealistic, the Linux approach is more filtered and managed.

Andrew Tanenbaum immediately replied to Torvalds' newsgroup post with his thoughts on Linux. He suggested that the new kernel was inferior technology, that it lacked portability (the ability to run on multiple hardware systems) and represented an outdated design (Torvalds & Diamond, 2002: 101). Tanenbaum warned Torvalds that managing such a project was unfeasible, criticised Torvalds' decision to release the project for free on the internet, and suggested that "coordinating 1,000 [software] prima donnas living all over the world will be as easy as herding cats" (Tanenbaum, in Moody, 2002: 78). Torvalds initially lashed out in response to Tanenbaum in the newsgroups, but a more tempered response is found in his co-authored book on the story of Linux development:

The operating system is the basis for everything else that will happen in the machine. And creating one is the ultimate challenge. When you create an operating system, you're creating the world in which all the programs running the computer live – basically, you're making up the rules of what's acceptable and can be done and what can't be done. Every program does that, but the operating system is the most basic. It's like creating the constitution of the land that you're creating, and all the other programs on the computer are just common laws (Torvalds & Diamond, 2002: 75).

It seems that metaphors of space, land and property are inescapable in the discussion of intellectual property, but there is a neat symmetry here with the island commons of the FSF and Torvalds' idea of the constitution of Linux land. By choosing to release Linux under the GPL, Torvalds wrote the constitution for his land and later, when he secured the Linux trademark, he decided on its style of economy.⁸ Torvalds rejected Proudhon's (1970) proclamation that all property is theft by choosing a constitution under copyleft which protected the identity of the various authors and contributors, and did not remove common access to the property, even to non-contributors. He legitimised and celebrated authorship, not as a right to private ownership, but by regularly drawing attention in the newsgroups and software documentation to those who were contributing and by praising their individual efforts.

Torvalds is famous among computer programmers for his anarchistic release strategy for Linux versions: "release early and release often" was the favoured motto for those

⁸ Torvalds did not register Linux as a trademark until a trademark 'squatter' in the US attempted to capitalise on it and demanded royalties from publications including the *Linux Journal*. Having to legally 'fight' for the trademark irked Torvalds; "We were hackers. Nobody thought about checking the trademark register". The trademark dispute was settled out of court for an undisclosed sum (Torvalds & Diamond, 2002: 133-136).

working on the project (Raymond, 1999: 29). It was a radical departure, in the early 1990s, from the solid Cathedral building process which resulted in the Gates and Microsoft Windows empire. Torvalds cultivated the improvements that programmers submitted, often releasing more than one new version of the Linux kernel per day. The community of Linux developers accelerated the project at an amazing rate, driven by Torvalds' enthusiasm for the project and their contributions:

Linus was keeping his hacker/users constantly stimulated and rewarded—stimulated by the prospect of having an ego-satisfying piece of the action, rewarded by the sight of constant and even daily improvement in their work.
(Raymond, 1999: 30)

Even if Torvalds himself didn't invent anything entirely new, either in the technology or in the software licence governing the project, he did develop a proactive method for including the non-programmer user in the development of Linux. Rather than ignoring the user, or relegating them to the category of consumers, the individual Linux user became a fully fledged participatory member of the Linux community. The early non-programmer users of Linux became the 'beta-testers', users who tested the software for bugs and other software problems, who, in the Cathedral model, were usually employees of the software company.⁹ Linux users continue to contribute to the many different Linux versions, and the core Linux software, by submitting reports about the program's technical problems and other issues. The process of including users in debugging became part of the Linux community's strengths. Rather than being allocated specific tasks as is done in the Cathedral model, the Bazaar programmers could select those problems identified by the users which interested them the most and write code to fix the bugs, submitting them in their own time. As the Linux project expanded, community leaders were chosen to manage bug fixes and Torvalds focused his attention on the kernel. The first full Linux operating system was assembled through the combination of the Linux kernel and other GNU software; hence Stallman's demand that Linux be referred to as GNU/Linux (Williams, 2002).

The Linux community, like the FSF, has one identifying leader, Linus Torvalds. Although Torvalds is now more of a figurehead, he maintains only a limited involvement with the movement in a general sense, but still manages the updates to the Linux kernel. Both the free and open source software movements have not been divested of the significance of the relationship between intellectual property rights, specifically

⁹ More recently software Cathedrals, like Microsoft, have recognised the value of giving extensive free access to 'beta' versions of software for users to test before the final versions are available for commercial sale.

copyright, and the romanticised ideas of original genius and the reverence for the originality of the author. But in this case, the openness of production does not allow the authors to restrict what others can do with the material and serves to enforce the social rules of involvement.

5.8 The Open Source Definition

As the popularity and functionality of Linux expanded, free software entered into a new phase of commercial appeal. While Linux could be downloaded for free from the internet, a number of Linux builds proved to be popular among users who were willing to purchase the collections in physical distributions that came complete with manuals and support from the distributors. One of the most popular Linux packages in the 1990s was called *Red Hat Linux*, which was offered by a small software company that had previously focused on low budget UNIX applications and technical manuals. The branding of GNU/Linux distribution packages, known as 'distros', increased the commercial appeal of such products, but there was a lingering perception that free software meant businesses could not make a profit from the sale of the work.

In 1997 author and programmer, Eric Raymond, contacted a prominent member of the free software community and digital animator, Bruce Perens:

Raymond was concerned that conservative business people were put off by Stallman's freedom pitch, which was, in contrast, very popular among the more liberal programmers. He felt this was stifling the development of Linux in the business world while it flourished in research... (Perens, 1998).

The ongoing confusion over the term free, and the splintering of groups torn between the free software ideology and the belief that free software could actively compete with proprietary software in the marketplace, led to Raymond to coin the label 'Open Source Software'. The term was tactically designed to gain more commercial interest and support for Linux developers and has since been vehemently criticised by Stallman and other supporters of the FSF. Perens became the primary author for the Open Source Definition (OSD), and Co-Founder of the Open Source Initiative (OSI); a non-profit corporation dedicated to managing and promoting the OSD in the business community. Stallman disavowed the partisan tactics of the OSI, and engaged in a brief but public feud in 1998, arguing that the division would only cause further confusion and opportunities for opponents to weaken the FSF's market position (Stallman, 2002b).

The Open Source Definition (OSI, 2006) refined Stallman's freedom criteria with more commercially friendly language. In order for open source projects with their own software licences to earn OSI approval those licences must fit the OSD criteria. The OSI web site provides a record of all the approved software licences that open source communities can use with a legitimate open source title. The sheer range of OSI-approved licences has challenged the monochromatic vision of the traditional proprietary intellectual property regime. The GPL managed to turn the intellectual property system governing software into a dualistic regime, but the OSI and its process of certifying open source licence schemes has helped to produce a new multiplicity and a spectrum of software licences, rights and commercial possibilities. This supports a system where creators and entire software developing communities can protect their products in the marketplace and simultaneously provide software freedoms for other programmers and everyday users. The decisions involved in selecting or assembling a licence have become part of the creative process of open software innovation. Coleman (2004) suggests the ability to choose one method of intellectual property management over another creates a link to the rights expressed in the Free Speech amendment of the US Constitution, meaning that programmers have putative right to express themselves in code, and can choose how those rights are applied when it comes to making the work public. It is a right shaped by the pragmatics of programming and not just the laws of copyright and it would have a significant social and technical role within the digital environment.

The results for open source commercial strategies are mixed. Recent International Data Corporation (IDC) figures report the use of Linux operating system on more than 20 million desktop computers world wide, but this accounts for less than two per cent of the entire OS market (Gillen & Kantcheva, 2006). However, the success of open source products cannot be accurately measured in traditional market terms, as many of the Linux software distributions are available to buy as packaged products, but also available to download for free. In fact the openness of the open source industry begins to break down the relationship between 'sales figures' and the perception of success. The real giant in the open source market has been in the internet server industry where the open source project *Apache* has been the most popular public server software since 1996, with a current market share of 63 % of the world internet servers (*Netcraft*, 2006). The *Apache* development community is a meritocracy; it has no individual

creator at the helm, and started out as a diverse group of programmers exchanging information and fixes for a range of internet and telecommunications software. The difference between the desktop and the server statistics reinforces the anecdotal evidence from those working in the Information Technology industry that open source products are great for large commercial mainframes and businesses, internet service providers and universities, but remain less practical for the home computer user. However this changes considerably with each generation of the Linux distributions and popularity of Linux has recently risen dramatically in developing nations.

The open source movement is a proponent of the 'open' style of production and management of intellectual property, which means the intellectual property, the software code, is always available for examination, rather than the 'closed' proprietary method which maintains secrecy and unavailability of the code. Open style intellectual property management results in a number of important strengths and weakness. The strengths, some of which are discussed by Mulgan *et al.* (2005: 32), include transparency of source code in giving users knowledge of exactly what is running on their computers; low cost of involvement in the development of the software; open legal structure that enforces the licence protection mechanisms; prominent project leadership and growing public recognition of the movement that is useful in advertising and marketing; ease of communication between members of the development community; common development standards and open peer review; the shared collection of goals, with room for individual personalities, talents and pursuits; incremental involvement is welcomed and small improvements and non-technical works are encouraged (especially in the documentation of the projects and technical manuals); and the open source projects feature strong non-monetary rewards which will be discussed in detail in the next part of this chapter.

Two of the most significant weaknesses of open source production are competition with privately owned software and the risk of project 'forking'. There is very little market competition in the desktop computer operating system market. Microsoft dominates the industry and as a software Cathedral its products show a consistency of design and, like any monopoly, they demonstrate a self-perpetuation loop of familiarity and recognition. The more users encounter the products in the work place, or the class room and the home, the more likely they are going to consider them 'user-friendly'; essentially a perception of what is familiar and recognisable. Another related difficulty is

the maintenance of a profitable and adaptive market strategy (Young, 1999). Cathedrals tended to have more brand recognition, and considerable advertising expenditure. Many everyday computer users would be unaware that open source and free software alternatives even exist. Project forking is also a problem, which occurs when two similar innovations are developed that splinter the project in different directions. The source codes for each project become separate and not easily recombined, and each part of the fork draws support from different members of the one community. This can lead to entirely new projects with rival cross-purposes, reducing the effectiveness of the community-development of the software projects as a whole. Open source communities are also at risk of all the other usual problems of social groups, from infighting to low rates of participation to conflicts between individuals and leadership struggles.

5.9 Perspectives of Motivation

Lerner and Tirole (2000) asked why thousands of programmers should contribute freely to the provision of a public good. The following section of this chapter investigates the current literature on the motivations for contributing to open source software. The argument presented here is intended to counter the dominant rhetoric of intellectual property reform agendas and the incentive argument, which holds that greater and more restrictive forms of intellectual property enforcement provide increased security and incentive for individuals (whether they are creative artists or global corporations) to create new works. If, as Lerner and Tirole's question suggests, open source and free software is to be considered a 'public good', it is important to examine what makes a 'good' public. Kollock (1999: 223) defines public goods as having two central characteristics. The first is the requirement that the good is nonrivalrous, meaning the individual consumption of a good does not prevent its consumption by others or reduce the amount of the good available to be consumed. Secondly, Kollock defines public goods as being nonexcludable, meaning the use of the good by one person does not interfere with its use by others. He suggests that fireworks and national defence systems are good examples of public goods, because it is almost impossible to prevent people who haven't contributed to their costs from benefiting from the results.

Kollock (1999: 223) argues that public goods will exhibit the two qualities to some degree, with "pure public goods" as the exception, however he doesn't provide an

example of what those pure public goods may be. Freiden *et al.* (1998) suggest that information may be considered a pure public good in the economic sense, quoting Hawes' (1987: 84) definition of pure public goods as goods whose "cost, once the process/system is in place, is completely unaffected by the number of people who have access to it". Public roads and air are examples of nonrivalrous public goods with constraining physical limitations; roads can be overly crowded and air can be polluted. Nonexcludable public goods can also have restricting characteristics; for example, to access broadcast radio signals requires a radio receiver, but this prerequisite for participating does not exclude others from receiving the same radio signals. Many public goods feature such restrictive characteristics, including the requirement for financial upkeep or the regulation of access times and codes of conduct; schools, museums and other public facilities are an example of this.

Mutuswami and Winter (2004) de-emphasise the non-excludability element of public goods and argue that this is not the most important characteristic of public goods. They suggest public goods need not be considered as being 'pure' either, since excludability factors generally have positive effects, either maintaining the good or regulating the equality of access to it. Instead they argue that public goods need to be 'efficient' in their production and management and that the mechanisms for public good regulation need to achieve an equilibrium resulting in a socially optimal level of access (Mutuswami & Winter, 2004: 630-631). This characteristic better suits the OSD and the rules of the GPL, making open source and free software public goods that feature strong legal excludability as a mechanism for regulating efficient access and reducing the possibility of the goods becoming exclusively private.

Intellectual property in the digital environment demonstrates both non-rivalrous and non-excludable properties. Cultural material like movies, software, music and texts have a nonrivalrous component as digital objects, which enable copying to occur at very near zero cost without degrading the original. The consumption of digital products does not prevent their simultaneous consumption by any number of others. Because these goods tend towards non-excludability they require imposed restrictions, such as copyright laws and DRM technologies, to reduce their accessibility and enforce their excludability. Intellectual properties rely on a range of legal doctrines, including copyrights, trademarks, patents and proprietary licensing schemes, to enforce their status as private goods. Alternatively copyleft provides individuals with the choice to

make intellectual properties available as public goods. Under these terms both OSS and FSF software products function as public goods, but are also still considered private goods, because they rely both on traditional copyright laws and the private legal contracts of the software licences to ensure their use does not result in the restriction of the source code by others.

The classical intellectual property justification argues that when anyone has the ability to view, copy and use the work of others, individual creators will not have sufficient incentive to produce further works. To echo Lerner and Tirole's (2000) question; why then, do thousands of programmers and other types of contributors invest their time and energy into these open source projects? Where is the incentive to provide the work? Many studies of the free software and open source movements account for the high levels of participation in terms of a 'gift economy' where individuals volunteer their work without the expectation of reward but in the knowledge that the gift is crucial to the operation of the community from which they benefit as a whole (Raymond, 1999; Benkler, 2002). Kollock (1999: 227) suggests that a contributor will be motivated to provide a gift, because they perceive they will eventually receive some reciprocal gift, even if they also perceive that most users will not provide such gifts. Moglen (1999), however, argues such reliance on references to "the hacker gift-exchange culture" reminds us only that the "economereitricians" have "corrupted" interpretation of non-market economic behaviours. He argues that gift-exchanges are another institution of property where "reciprocity is central to the symbolic enactment of mutual dependence". According to Moglen (1999), gift-exchange cultures still rely on reciprocity to function; "if either the yams or the fish are short-weighted, trouble results". Moglen claims that free and open source communities function as a commons without the demand for reciprocity. Moglen does not argue that compensation is not expected by participants of these communities, but claims the structure for this compensation is not based on the economics of trade or remuneration as it is in classic gift-exchange cultures.

Instead of the econometric perspective, Hertel *et al.* (2003: 1174) offers an ethnographic approach in observing a range of motivational factors revealed in surveys of individuals engaged in the development of the Linux kernel. The identified motivations for participating include: the desire to be generally identified as a Linux user; the desire to be specifically identified as Linux developer or Linux subsystem

developer or an open source community manager; the pragmatic desire to improve personal software skills; the desire to increase individual reputation by impressing relevant others, for example, impressing peers or employers; the social and political desire to support independent software as opposed to proprietary software; hedonistic motives such as the fun and enjoyment of social interaction in a programming community; and the motives related to programming itself, such as the overcoming of obstacles and puzzle solving, as well as the desire to design specific software solutions and the enjoyment of 'bug-fixing'.

Osterloh and Rota (2004: 283) settle on two prime categories of motivation for involvement in open source software projects; extrinsic motivation and intrinsic motivation. Extrinsic motivation is based on the satisfaction of individual desires by external factors; for example, through enjoyment in participation in the community, from the recognition of and praise for the fulfillment of obligations and ancillary monetary compensation that can occur through participation in the development of OSS and FSF software. Intrinsic motivation is derived through internal and individual satisfaction in which the activity is valued for its own innate properties; such as job satisfaction and the sense of achievement. Bitzer *et al.* (2004) summarise three reoccurring themes from their analysis of the motivation of open source software contributors, which are reinterpreted and discussed in this following, as identifiable 'needs' of programmers contributing to open source software projects. The first is the need for a particular software solution which is best suited to open style development. The second is the need for fun, where programming is considered to be an artistic, creative or personal expression or entertainment. The third is the need for community participation and identity. A fourth commonly observed motivation or need can also be added; the need for personal advancement. The following discussion of these needs and motivations of OSS and FSF contributors draws attention to behaviours that demonstrate varying degrees of both intrinsic and extrinsic motivations.

5.10 Free Riding and the Need for Software Solutions

Both the open source and free software movements are composed of many individual and overlapping projects and programming communities. These groups provide multiple opportunities for programmers to engage in interactive community environments usually devoted to meeting the needs of a particular software solution.

These communities can be as simple and small as a couple of programmers working on small software solutions, such as device driver compatibility for Linux, or they can be as complex and involved as thousands of programmers working on entirely new software packages. The *OpenOffice* community is a good example of a large community of programmers working together to develop a multiplatform and multilingual open source software suite that includes word processing and spread sheet editing tools compatible with popular propriety software.

Individual programmers are able to submit code to an already existing community, where it can be tested and improved by others. Alternatively, new communities can be formed around projects designed to develop a particular software solution from the ground up. The need for individual software solutions has also given rise to the concept of the user-programmer (Bitzer *et al.*, 2004). The user-programmer is usually involved in the Information Technology industry, operating open source software in their professional or personal digital lives. Motivation for involvement in this case is highly extrinsic, as direct involvement in an open source or free software community can reduce the time and cost of professional software, but also intrinsic as the user-programmer typically derives satisfaction through personal and professional development as a project participant.

The need for a particular software solution, in the home or a corporate environment, raises a traditional free rider intellectual property concern. According to von Hippel and von Krogh (2003a), the majority of users of open source software are free riders, individuals who operate open source software but do not participate in its development by identifying software bugs, developing new code or otherwise contributing to the project. The problem of the free riders in a classical economic sense is very serious and has been previously used as a political argument for stronger intellectual property protection and enforcement:

the conventional reasoning goes, innovating users under budget constraints spend money and time to create their innovations and revealing their developments without compensation to non-innovating users, either directly or via a manufacturer, should represent a loss of potential private returns that users should strive to avoid (von Hippel & von Krogh, 2003a).

As von Hippel and von Krogh suggest, free riders have historically represented an economic loss to the producers of intellectual property, especially when market

competitors develop rival products by merely copying without conducting their own research or development. Free riding in the development of open source or free software is not such a tenacious problem. Free riding, where users benefit from the use of open source software without paying for it is considered to be an appropriate and valuable activity. Many open source projects give their software away for free, and support themselves by charging users for access to regular updates, technical advice and other services. Free riding in this case gets the software noticed by more software users and establishes the basis for the alternative service-fee system. Free riding of open source projects by private commercial interests which fail to re-contribute source code is considered to be detrimental. As Osterloh and Rota (2004) argue, the worst effect of free riding in open source projects is the failure of individuals to honour the terms of the associated software licence, by either using open source components in a commercial setting without providing the source code to any improvements or by failing to credit other contributors.

Lerner and Tirole's (2000) survey found that of those open source software users who do contribute code to the open source software projects (13,000 contributors at the time) more than three-quarters make a single contribution. They found that the top ten percent of contributors also account for more than seventy percent of the total code contributed, so that a significant number of the software users can be considered as free riders. Lerner and Tirole, however, reported that this kind of free riding may effectively lower the overall costs involved in participating in open source software projects, through what they called the "alumni effect", also known as a network effect (Lerner & Tirole, 2000: 23). Because open source projects make their code publicly available without charge it becomes immediately cheaper to use for teaching in schools and universities. The access to source code is also appealing to institutions with large computer networks who wish to reduce overall operating costs and be able to access and modify elements of the software in-house. The alumni/network effect works exponentially over time as open source becomes more common in the home and commercial environments, giving non-programmers increasing familiarity with it. The associated benefits lead gradually to greater use, cheaper customisation, and increased bug fixing. This highlights that free riding is not frowned upon by contributing members of open source groups; instead, free riders are considered to be a valuable asset, a complete reversal of traditional intellectual property reasoning.

5.11 The Need for Fun and the Need for Community Participation

Software programmers often enjoy “tinkering” with software code, and, like Professor Ed Felten, many feel that there should be freedom “to understand, discuss, repair, and modify the technological devices you own” (Felten, 2006). Developing new, innovative and interesting code is considered to be a favourite hacker pastime. Within the literature on motivation for contribution to open source projects there are numerous references to programmers and hackers as *humo ludens*; Huizinga’s term for the playful human (Huizinga, 1955; Bitzer *et al.*, 2004; Osterloh & Rota, 2004; Kollock, 1999; Raymond, 1999). The idea that programmers would invest vast sums of time and resources because they receive enjoyment and a significant level of intrinsic satisfaction in dealing with complex coding problems (both the actual computation and the social dynamics of involvement in open source communities) would seem to be an affront to typical economic reasoning, if it were not for Linus Torvalds’ decision to write the kernel software for GNU/Linux “simply for fun”:

The hackers – programmers – working on Linux and other open source projects forego sleep, Stairmaster workouts, their kids’ Little League games, and yes occasionally, sex, because they love programming. And they love being part of a global collaborative effort – Linux is the world’s largest collaborative project – dedicated to building the best and most beautiful technology that is available to anyone who wants it. It’s that simple. And it’s fun. (Torvalds & Diamond, 2002: 122)

The average contributor to open source software might not express the same degree of passion or exuberance as Torvalds, nor receive the same visceral thrill of writing code, but the need for fun was a found to be a common motivation of a high order for participation in open source software development (Lerner & Tirole, 2000, 2001; Raymond, 1999; Moody, 2002). Pickhardt (2005) argues that there is a return to established notions from historical schools of economic theory that the production of public goods may not be motivated by self-interest alone, which has been the focus of economic thought since the 1930s. He suggests that the consideration of non-selfish motives was abandoned within mainstream economic theory, with more recent investigation into public goods casting significant doubt on the assumption that the economic motives of individuals is a case of pure self-interest (Pickhardt, 2005: 275-276).

The fun and enjoyment of programming is not solely derived from the work done on open source projects, as programmers can code for enjoyment on proprietary and private works. However, factors such as the availability of source code and the relaxed non-corporate structure of open source communities stimulate the debate as to whether such factors lead to superior quality of programming (Raymond, 1999; Kollock, 1999). The social structure, the camaraderie and collaboration with others in the open source movement can greatly increase the sense of fun for programmers. The open nature of the projects means that others can see who wrote which parts of the code and send direct comment and feedback. The lack of pressures and immediate demands for results, the flexible time frames and the unregulated work environment can also increase the sense of fun derived from working and thus feed into more intrinsically and extrinsically rewarding work.

Richard Stallman's creation of the Free Software Foundation was motivated by his belief that software should be free; a motivation driven by the need to resist the dominant regimes of intellectual property production and ownership. Alternatively, the creation of the open source movement was motivated by the desire to accommodate commercial investment but still retain the model of open collaboration and production with full community control rather than an entirely proprietary ownership. Both movements demonstrate different levels of what Castells (1997: 66) labels "resistance identity" in which new sources of meaning and identity in the digital environment contribute to the reworking of historical modes of production.

Resistance identities are observed in Osterloh and Rota's (2004) study of members of open source communities identifying themselves as belonging to a 'tribe'. Returning to the concept of public goods, Osterloh and Rota argue these tribes develop their own cultural codes and produce two different orders of public goods:

Firstly, they contribute to the functionality and quality of the programs (first order public good). Secondly, they are engaged in monitoring and sanctioning activities to ensure that the source code stays open (second order public good). This includes a heated discussion between various fragments of the open source community on what kind of licence best supports these moral concerns (Osterloh & Rota, 2004: 286).

The resistance identities of the open source and free software tribes are productive but often volatile. These tribes produce software as nonrivalrous digital objects; the first

order of public good as Osterloh and Rota describe it. The groups develop their own cultural codes and social practices, through monitoring activities and participation in discussion about the policing of the software licences and encouraging their enforcement. It is the second order of public goods that ensures their nonexcludability. The strength or degree of the resistance identity of these tribes will differ between the OSS and FSF and individual programming communities. The resistance identity will impact on the community's ability to provide available content when the importance of the licences eclipses that of software production, but this is hardly unique to the open source movement. There have been many such groups and organisations, especially in the development of the sciences, humanities and other social movements where debates about the social codes of the group eclipse their productive ability (Hertel *et al.*, 2003; Moglen, 2002).

Hertel *et al.* (2003: 1163 -1174) observe that engagement with open source projects or the free software movement is frequently driven by similar motives as volunteer based social movements, such as the civil rights movement, the labour movement, the environmental movement or the peace movement. Hertel *et al.* (2003) suggest three dominant classes of motives for contributing to social movements: first is the collective motive, in which individuals are driven to participate and contribute to a social movement when they value its common goals. In this case they argue the higher the individual intrinsically values the movement's goals the more likely the person perceives the attainment of these goals is possible. The second class is extrinsically based, depending on the reaction of significant others such as peers, family and friends. In this class Hertel *et al.* (2003) predict that the level of contribution will correspond to the expected level of recognition. The third class is a more traditional reward motive where the expected gains of the individual are balanced against the perceived loss, in which case the contribution is more likely to rise in proportion to the expected gains.

5.12 The Need for Personal Advancement: Signaling for Fun and Profit

Lerner and Tirole (2001: 822) suggest that economists are generally suspicious of associating altruistic motivations, such as generosity or sense of duty, with the success of the open source movement and instead settle on the argument that contribution is

motivated by the prospect of personal advancement that is achievable through the relatively low cost of participation. This cost of participation provides a number of unique opportunities for career advancement and ego gratification (Lerner & Tirole, 2001: 823). Von Hippel and von Krogh (2003b) contend that individuals motivated in this way will only continue to contribute as long as they perceive it is in their best interests. This is apparent in the way individual participants in open source communities are able to strategise their participation, by maximising their investment of time and energy through methods that are unavailable to workers in corporate environments, including dynamic work hours, little or no supervision, different kinds of social relationships amongst colleagues and peers, and individual timetabling and goal setting.

The most effective, strategic and personally advantageous motivation for participation in open source software development is known as signaling. Signaling is achieved by regularly contributing code to significant open source projects, thus enhancing the reputation of the programmer. This can be achieved through contributing innovations, submitting large amounts of well written code, providing major bug fixes, or the commencement of new and useful projects. Because the code is open to others, hiring agents from commercial firms are able to scrutinise the code and see how the work is done, not just the results. In a commercial environment, programmers signaling their skills in open source software development can gain professional advancement through their increased reputation and industry standing.

The effects of signaling are transitory and only last a short period of time after the contribution is made, which is why Bitzer and Schroder (2005) conclude that innovations in open source software projects are most likely to be provided by young individuals seeking to make an impact on the industry. Linus Torvalds, who began the Linux kernel at age 21, would be a prime example of the potential of signaling. The process of signaling is entirely dependent on the terms and enforcement of the software licence of the chosen project. The type of licence involved with the specific open source community is the key to this form of motivation, because licences like the GPL make it an obligation of contribution that all names of the programmers involved are credited. Without the requirement to give appropriate credit enforced by the software licence, many of the identified motivations for participation would evaporate (Bitzer & Schröder, 2005; Raymond, 1999).

5.13 Motivations for Private Investment

The final stage in this examination of the motivational factors involved in the participation of open source communities is to discuss why private commercial operations would be motivated to choose an open style of development or to contribute to open style communities. What makes open source practices appealing to private business and commercial ventures? Is copyleft a viable commercial alternative to the dominant order of intellectual property production and ownership in the digital environment?¹⁰ Major technology companies, such as IBM, have invested millions of dollars into open source development and hire programmers specifically to work on open source projects. IBM's involvement with the Linux project has been crucial to the increasing mainstream adoption of the software (LaMonica, 2005). IBM continues to expand its stake in open source development, especially in the internet and Intranet server market, making funds available for projects and devoting programmers to work on bug fixes and innovation. This strategy enables IBM to gain a market advantage; by making open source software more compatible with the hardware that the company sells, it reduces the cost of software development under the Cathedral model and makes the software more flexible for its users. Lerner and Tirole (2000) also noted that Hewlett-Packard (HP) have released some open source material in order to help the Linux community transport Linux to the HP hardware. They suggest this was a proven market strategy similar to that of "giving away the razor to sell more razor blades", where the razor is the software and the selling of more razor blades would be the related consulting services that HP will provide for a fee (Lerner & Tirole, 2000: 27). Businesses that make their intellectual property open, through copyleft style licensing agreements, retain control over the code through the accompanying licence and can also ensure that their employees are part of the development community's upper hierarchy, positioning themselves in governance and support roles.

Fink (2003) weighs up the key benefits and costs for businesses who consider using open source software and which also base their market strategies on open source development. He argues that using open source software can significantly reduce the

¹⁰ Microsoft's chairman, Bill Gates, in discussing the free and open source movements, does not think so: I'd say that of the world's economies, there's more that believe in intellectual property today than ever. There are fewer communists in the world today than there were. There are some new modern-day sort of communists who want to get rid of the incentive for musicians and moviemakers and software makers under various guises. They don't think that those incentives should exist (Gates, in Kanellos, 2005). Gates' argument encourages the belief that Open Source strategies destroy intellectual property rights and remove opportunities for commercial exploitation.

costs of installation, maintenance, and technical support as well as reduce the cost of training in the workplace (Fink, 2003: 7-11). He also suggests the open source movement is at a stage of maturity where there are sufficient numbers of employees in the information technology industry with up to ten years of experience of working with open source software. This makes it possible to hire knowledgeable and talented personnel responsible for running open source software for commercial infrastructure, application servers and data repositories. Other strengths of using open source include the range of support for critical software updates which are available without fees from the open source communities, as well as an unprecedented degree of choice when it comes to seeking out that support.

Fink (2003) suggests that among the disadvantages for using the open source model in a commercial environment, as opposed to an educational institution or in the home, is the limited range of specific software applications currently available to run on open source systems. Also proprietary software has a reputation for providing products with a 'finished' quality – known as the 'look and feel' - as a result of the Cathedral model of production, which can have a significant effect in the digital workplace. Open source distributions, including *Red Hat*, *Suse*, and *Ubuntu* continue to upgrade their look and feel with each release in order to compete with the proprietary operating systems. The learning curve and training costs for installing and maintaining open source software is also a disadvantage for businesses. Ultimately the biggest cost to businesses committing to a model of open source production is the radically different style of intellectual property ownership which requires a significant shift in the expectations of intellectual property management.

Extending von Hippel and von Krogh's (2003b) analysis, and looking at the level of investment in open source projects from large businesses like IBM and HP, it is reasonable to argue that commercial operations can expect to profit by designing market strategies around open style production that capitalise on functions that are neither entirely public nor private:

More specifically, the private-collective model of innovation occupies the middle ground between private investment and collective action models...it proposes that under common conditions free revealing of proprietary innovations may not involve a loss of profit to innovators who developed those innovation with private funds. Indeed, under some conditions free revealing may actually result

in a net gain in private profit for the innovator... (von Hippel & von Krogh, 2003a).

Companies can profit from close alliances with software communities by allowing in-house programmers to work on open source software community projects and keep them involved to maintain knowledge about developments, updates on competition and immediately incorporate new innovations and improvements. Private companies will also benefit from involvement with open source projects by attracting good programmers with close ties to strong open source software communities. Successful commercial open source operations, such as Novell Networks, which acquired the Linux *Suse* distribution, manage these benefits extremely effectively. The service fee model offered by Novell through *Suse* makes its customers into user-programmers; Novell feeds daily updates, bug fixes, customer usage statistics, virus scanning updates and pays close attention to customer feedback. The company makes technicians available by email for technical help and for submitting user feedback, requests and complaints. Novell even offers entire remote management systems for users in the home or office, completely breaking down the Cathedral model of stable and fixed products into a dynamic and flexible service, not based on any one individual product, that users can access anywhere and do anything with. This model enhances strategies designed to earn profit through a range of “complimentary services” (Lerner & Tirole 2001: 1157). For example, individual commercial open source companies can sell complimentary services such as data storage, program implementation, accounts management, marketing services, all based on open content production. The significant outcome of this is a general de-emphasis on intellectual property as an individual unit of trade and a reinvestment in the value of those providing the services.

5.14 The Concern of Free Labour

This chapter has examined a range of possible motivations involved in releasing traditionally private properties as a public goods or engaging with projects and communities whose goal is open source release. As has been discussed, there are a number of methods through which individuals can be compensated for their time, energy and effort when participating in open source projects, but, in terms of direct financial remuneration, the work contributed or donated to open source development is literally unpaid. Unpaid or underpaid labour usually represents a critical social injustice and it is important to recognise this concern, but as, Terranova (2000) argues, the

types of labour involved in the provision of content for open source projects cannot be immediately recognised by the terms of capitalism, because the outcomes of the open source projects have not been specifically developed to serve as capital:

The expansion of the internet has given ideological and material support to contemporary trends toward increased flexibility of the workforce, continuous re-skilling, freelance work, and the diffusions of practices such as “supplementing” (bringing supplementary work home for the conventional office)...but also the means through which a flexible, collective intelligence has come into being (Terranova, 2000: 35).

The capacity for capitalistic modes of production to extract unpaid labour from workers in the digital environment is profound. Terranova cites the “expansion of the cultural industries” as one of the major examples of this (Terranova, 2000: 35). The expansion of the role of the information worker, especially within the cultural industries, has led to an increased degree of pressure in the workplace. Employees are expected to work for longer hours, and are under demands for greater levels of productivity. This is because the work has less obvious physical requirements, and because new technologies are available that increase the speed at which work can be processed and that make certain tasks and the management of those tasks appear easier.

Another result of the expansion of the cultural industries, as opposed to the agricultural, primary production and manufacturing industries is the emphasis on the ‘value-addition’ or ‘value-added’ services. These include business management, marketing, internet-based services, telecommunications industries and new technologies markets, such as mobile phones and other digital and personal devices. This is a model of production and consumption which does not necessarily have any tangible or physical product, but it is still rooted in the traditions of private property ownership and nearly overwhelming obsessed with the economic value of intellectual property, most commonly abbreviated in this context to ‘IP’. The result is the exploitation of consumers who are expected to pay for content in multiple forms; for example, the movie industry is able exploit the behaviour of its audiences by requiring multiple payments for the one product; by charging audiences at the cinema, through DVD rentals and sales, through the purchase of ‘special-feature’ compilations, sound tracks, posters and memorabilia, and through the support of indirect advertising and merchandising such as product placement.

Content producers and creators of this value-added intellectual property, such as artists, journalists, designers, programmers are only in position to be paid for the work once, as they are usually contracted by major firms and do not retain individual copyrights for their work. This is not historically unprecedented, but it is the sheer scale and future economic potential of the digital environment and the exploitation of vast sums of unpaid labour in the generation of value-added intellectual properties that is a serious concern. Free labour also occurs when the consumption of culture is translated into productive activities that are “pleasurably embraced and at the same time often shamelessly exploited” (Terranova, 2000: 37). These activities can include anything from fan-based practices to online browsing and the results of data farming by advertising agencies through web cookies, and the use of email spamming. The digital communications technologies at the core of the internet’s functionality make it easier for a commercial venture to derive profit and value through continuous, updateable and digital services that capitalise on the user’s activities.

Conversely the open source movement offers a counterbalance to this kind of exploitation through its associated non-financial benefits. To enter into the debate over the terms ‘free’ and ‘freedom’ once again; in the case of open source communities, contribution should be considered as ‘free’ labour, in that it is free to be appropriated by others, but not as unpaid or exploited labour. Terranova (2000) argues that the creative industries, as a feature of late capitalism, are reliant on unpaid labour as part of the larger operations of capitalist exploitation. The open source movement and the open model of production is dependent on directly unpaid labour, but unlike the dominant order of late capitalism, the open source movement must nourish and support its contributors, providing the ancillary benefits and rewards for participation that are not financial. The benefits vary depending on the individual user or programmer; for some it is access to free software, for many it is access to a global community of programmers, their knowledge and expertise. Unlike the commercial market, the value of the programmer’s contribution exists beyond the concept of a final, polished and user-purchased product.

Where the digital economy can exhaust its labour force, and needs to be constantly renewed by new generations of workers, the open source movement must attract new hackers but not fail to encourage its long term members, who will be involved in the maintenance of the community as user-programmers. Therefore, the unpaid element of

open source labour is not a significant social issue as long as participants perceive their contributions are valued and their social, professional and individual needs are being met by their involvement. Again the role of copyleft and the appropriate choice of the copyright licence are crucial to the success of open source communities and in meeting the needs of the participants. Open source projects must choose or establish their own licences that meet the needs of the entire community to guarantee that the motivations of the contributors are suitably met.

5.15 Conclusion

The intellectual commons of software created by Stallman and the FSF challenges the idea that the infrastructure of the new digital economy must be owned and regulated as private goods, but it is dangerous to accept the proffered freedoms at face value. For Stallman, the advantage of the GPL and free software is not a commercial advantage, nor primarily a technological one; it is a social and moral advantage and one that at least attempts to advance human knowledge and creativity rather than concentrating on benefiting individual wealth. Copyleft represents a redirection of the proprietary model of production and ownership of cultural goods, a shift in the methods of the accumulation of capital. Copyleft is a challenge to the dominance of the incentive-based justification of copyright, one that invites individual and social involvement into the corporate modes of production. Copyleft establishes dynamic new opportunities and choices for individual creators and owners, where none existed previously, with new possibilities for individual and collaborative production not based on the entirely exclusive private ownership of property.

Like all great hacks, neither the FSF, Stallman, Torvalds or the OSS have reinvented the wheel; they have quite simply appropriated existing strengths and promoted the idea that good software is a public good. They have not produced a perfect system, but one that is a functional and practical alternative. Rosen (2002: 102) describes open source licensing as part of a dynamic, fast-moving world with new licences and new licensing strategies being constantly introduced, but it is the long term conceptual effects that are likely to have the most important impact on the technology superstructure of globalised business and the overall availability of alternative intellectual property regimes. It may be that the open source and free software movements die out over time, or are fully appropriated within the dominant commercial

order of intellectual property production and management. Alternatively they may expand beyond the current niche as more educational, governmental and commercial operations turn to open source style licensing and begin to adopt styles of open product development.¹¹

If the focus on intellectual property as a unit of trade is decreased as a result of open access and open production, it is plausible to anticipate a related decrease in the focus of labour as a form of capital. The open style mode of production is not an opportunity to capitalise on the freely provided labour of others. Instead, individuals involved with open forms of production are valued and employed for their abilities, including their communicative, creative and innovative skills in the provision of services. If the software, or any other form of intellectual property, is no longer the centralised object of trade, then economic value must be located with individuals who can provide knowledge, services and technical ability and their relationships with open style development communities. Through open styles of production the individual user and their unpaid use of intellectual properties is not seen as a threat to property or as free riders, but instead valued as vital nodes in the production of network effects. The open source model of production and management of intellectual property is not limited to the development of software, since it has great potential as a model for the collaborative development of simple and complex works, large or small projects in business, in the arts, sciences and humanities, as well as other practical real world community-led projects. It suggests new perspectives and opportunities beyond the confines of the incentive-driven protection and access restriction regime of intellectual property enforcement.

¹¹ The expanding popularity of Linux in developing countries supports this theory.

Chapter Six

The Commons: Past, Present and Possibly the Future

6.0 The Introduction

There are many forms of ‘commons’, from common property and common sense to common ground, common opinion and even the common cold, but they all have one feature ‘in common’; they represent the sharing of something. James Boyle (2003b: 37) proposed an “intangible commons of the mind”, Yochai Benkler (2003b) uses the term in his theory of a political economy of information, and David Bollier (2004: 274) employs the commons as a metaphor to highlight the importance of new kinds of “open social spaces made possibly by the internet”.¹ The purpose of this chapter is to draw on discussions about the potential of commons formations, both contemporary and historical, to bring critical attention to the potential of digital commons and commons-building practices. It examines the role of the commons, and commons-like formations of social activity orientated around the production of cultural goods, as an alternative to the limitations of the current intellectual property system.

This chapter expands on Boyle’s and Bollier’s approach, beginning with an investigation into the very specific cultural and historical origins of the concept of the commons and its subsequent physical and legal enclosure within the private property system. It examines Garret Hardin’s (1968) pivotal criticisms of the commons, and suggests how Hardin’s ‘tragedies’ of overpopulation and overuse are overcome in the digital environment. The chapter uses the online encyclopedia *Wikipedia* as an example of both the strengths and weaknesses of digital commons formations and asks whether the digital commons can coexist with the enclosure of cultural materials in the ever expanding enforcement of intellectual property regimes.

¹ The term ‘commons’ is typically used in this chapter to refer to instances of singular commons, but it is also occasionally employed as a plural noun referring to an aggregation of different commons.

The chapter then focuses on the formation and logic of the Creative Commons movement and the alternative copyright licensing system that it offers as a compromise between the full rights reserved under standard copyright law and the unrestricted free-for-all of the public domain. It explores examples of support for and resistance to the transposition of the Creative Commons licences to the Australian legal jurisdiction and discusses Kathy Bowrey's (2005) prominent criticisms of the 'civility' of Creative Commons and commons theory. The approach here is not merely one of observation and review, but one that seeks to provide a critique commons theory and highlight its relevance within critical cultural studies.

6.1 The Commons

Underground, over ground Wombling free,
Wombles of Wimbledon Common are we.
Making good use of the things that we find,
things that the everyday folk leave behind.
- *Wombles Theme song* (FilmFair, 1973)

The Wombles of Wimbledon Common are the stars of a BBC television show and a series of children's books by author Elisabeth Beresford (1968). The fictional race of industrious mole or hobbit-like creatures living in burrows beneath the ground, using the 'bits and pieces' they find on the common to improve their lives, inspired a passion for recycling long before the environmental movement became a major subject in children's entertainment. The central theme of the Wombles narrative concerns a small community making the most of freely available, often overlooked resources. Ingenious inventions and practical innovations are made from objects and rubbish that the big-footed 'everyday folk' ignore or discard. The Wombles may be characters of an idyllic modern mythology whose adventures are typical of young children's stories but their inventive philosophy resonates with the kinds of contemporary global creative practices currently generating problems for intellectual property laws.

The common that the Wombles inhabit is representative of the two distinct types of commons examined in this chapter. The first is their physical home in the small remnant of the once extensive English common lands, the Wimbledon Common, now

more an urban parkland rather than the traditional sense of the commons as an open area devoted to community managed agricultural cultivation. The Wombles' common is always under threat; threat of discovery, threat of pollution and degradation, but mostly the threat of enclosure through the privatisation of their community managed space. The second commons is represented by the Wombles' lifestyle. This is the commons of community organised practices, including the recycling, reuse and reutilisation of the materials that surround them, reflected in the 'Womblisation' of creative activities and the appropriation of cultural materials in the digital environment.

The availability of cheap distribution technologies, such as peer-to-peer (P2P) software and online content hosting, as well as inexpensive digital tools for image and sound editing, animation, movie making and webpage design have given rise to highly significant online activities. Sampling, borrowing and appropriating materials from popular culture, these activities produce new works by remixing and reinterpreting old ones. These remix practices are creative acts heavily associated with traditional artistic practices of reimagining and retelling. Remix culture, to be explored later in this chapter, is made practical by the intangibility of digitally stored cultural materials and often results in the loose association of individuals participating in commons-like formations. Like the Wombles' practice of 'making use of the things that they find', remix culture is a lifestyle motivated by creative interests, social sharing and cultural recycling that operates beyond the market driven assumptions about economic incentives for production.

The concern that the physical commons should be protected and maintained has long been a social issue in Britain, and, even after hundreds of years of the private appropriation of shared public lands, the commons remains a rich and culturally significant concept. The term 'commons', as it is historically configured, is given to land available to be accessed and used by all members of a community for cultivation, grazing animal herds and other agricultural practices. The commons existed as an aggregation of unbordered and unfenced physical lands mutually managed by village communities in England and some parts of Europe (Tate, 1967). The types of commons land varied; most were open fields but the term also referred to lakes, rivers, forests, and other physical resources. Some of the commons were unused and unoccupied areas of potential use. Most often the commons were heavily cultivated by labourers working together as 'commoners', with each participant responsible for part

of the overall production; each participant may own a strip of the crops that were sown or a certain number of the herd that was grazed on the same land following a harvest.

The commons enabled an open-field system of agrarian subsistence. Commoners grazed herds, raised crops, hunted and fished for many generations, but the haphazard socially managed system did not suit the expansionist imperial designs of the English state. The easily romanticised notion of the commons suggests that they were once crucial for the generally peaceful lifestyle of English villagers. The commons certainly were central resources for meeting the daily social and physical needs of village life, but they were far from providing an idyllic, entirely fair, communistic or utopian lifestyle. They did provide a practical means for the community to directly organise the available physical resources of their immediate environment. The commons were self-contained both socially and economically and were organised purely for subsistence and not designed to facilitate market economies beyond the village itself (Tate, 1967: 32). The amount of land designated as commons gradually expanded over time as more areas were cultivated, cleared and improved to meet the needs of the commoners, but also contracted depending on the relevant size of the accessing population. While some commoners were better placed to make use of the commons than others, the most important feature was the commons were never fully alienable property that could be permanently owned by any one individual (Bollier, 2004: 274).

Users of the traditional village-managed commons were not quick to support agricultural experiments, such as new types of ploughs, and could not fill the demands for increased production in the pre-industrial age. The annexing of the commons by the Crown was not a rare occurrence in the fifteenth or sixteenth centuries, but it was the dispossession of the commons on a large scale in the seventeenth century and eighteenth century which is generally referred to as the enclosure movement. The commons-managed fields, heaths, moors, and fens were subdivided and enclosed physically, socially and politically through land seizures and acts of parliament:

In the midlands it was essentially a land reform which transformed a traditional method of agriculture by some notion of co-operation in communally administered holdings, usually in large fields devoid of physical territorial boundaries, to a system of agricultural holding in severalty, that is the separation by physical boundary of one person's land from that of his

neighbours. At the same time certain communal obligations and privileges and rights were declared void for all time (Turner, 1980: 16).

The English Parliament introduced the first Act of enclosure in 1604 and concluded the last Act in 1914, with more than five thousand Acts passed during that time. The greatest number of enclosure Acts was passed during the period known as the Georgian Enclosure, between 1750 and 1819. Overall the process of enclosure transferred more than 6.8 million acres of common lands into private ownership, more than 20% of the surface area of England (Turner, 1980).

This enclosure movement featured more than just the private appropriation of occupied public lands. Considerable effort was concentrated on converting non-cultivated areas, designated as 'wastes', by the new owners who employed teams of workers to transform the lands. Rocky fields were made suitable for the plough and there was a massive transportation of fertile soils around the countryside to increase the potential yields of crops (Turner, 1980). Farming and grazing traditions were also revolutionised as the English lords and other gentrified land owners, wanting to profit in the international wool markets, forced labourers to shift from arable production to animal husbandry. The enclosure significantly improved the rate and quality of production of deer, beef and poultry meats. The enclosure had numerous other economic benefits, as privatised lands were easier to manage, created new property markets, and the nature of the improvements to the cultivated lands meant that land owners could increase rents and fees. The enclosure reduced the amount of unused land and increased crop yields on a national scale; in Britain it was "the largest single aggregate landscape change induced by man in an equivalent period of time" (Turner, 1980: 33).

Tate describes the process by which a body of Enclosure Commissioners proceeded to reorder the physical landscape of the English country side. The Commissioners were accompanied by clerks and surveyors who redesigned the shape of rural England into a land demarcated by "the hedge, the fence, and the wall" (Tate, 1967: 30). Thomas More protested against the new shape of England in *Utopia* in 1516, railing against the destruction of community management of common lands. He portrayed the replacement of open field crops with sheep as a blight, depicting the sheep as "great devourers" so unrestrained by the greed of their owners that they were allowed to "consume, destroy, and devour whole fields, houses and cities":

They enclose all into pasture, they throw down houses, they pluck down towns
and leave nothing standing but only the church to be made a sheephouse
(More, 1516: 101)

More's protests were addressed by the Crown, which commissioned an inquiry, but the results had little impact on the civil revolts of 1536 and 1549 in which enclosure was significant part of the rebels' objections (Tate, 1967: 65).

Mingay (1968) writes that enclosure greatly increased national production by transforming vast amounts of unused land, including previously inhospitable areas, such as limestone pits and marshes. Mingay argues that results of enclosure included an increase to the nation's agricultural productivity, a reduction in the national levels of starvation and the expansion of English military power. Mingay believes More overstated his criticisms against enclosure and the social and economic fallout from private appropriation which displaced millions of labourers and peasants, depopulated the countryside, critically reduced employment and instituted grievous class divisions:

inequalities in land ownership ... had already appeared within the common-field villages: indeed it is probable that in many cases enclosure merely reinforced, rather than initiated an old tendency towards larger farm units and sharper social divisions (Mingay, 1968: 21).

Mingay minimises the social impact of enclosure, arguing that any direct relationship between the decline of farmers, herdsman and others dependent on the commons and the enclosure of the commons was unlikely (Mingay, 1968: 18).

Regardless of the actual level of impoverishment, it is clear that the commons way of life came under sustained attack from land owners, parliamentarians and the religious establishment. The advantages of single ownership, larger farms and private holdings were celebrated in the English parliament, especially as they lowered labour costs and increased production yields, while the clergy demonised the commons as an unproductive lazy lifestyle of "grief and scandal" (Tate, 1967: 163). Yet despite these efforts to denigrate and reduce the importance of the commons, enclosure did not proceed without considerable public protest. A proposal by Earl Spencer to enclose part of Wimbledon Common in 1864 produced a massive public outcry and became a centre for anti-enclosure activities (Tate, 1967: 136-7). Disparagement of the commons, however, was reinvigorated in the twentieth century, with one of the most

important and polarising criticisms of the commons being produced by biologist Garrett Hardin.

6.2 A Common Tragedy

Hardin was interested in the hazards of overpopulation and overuse of physical resources, and his analysis of the dangers of the commons was published in 1968 under the seminal title, "The Tragedy of the Commons". Hardin's paper is famous for capturing the imagination of social scientists, biologists as well as economists and sociologists, for decades. His work has been used to justify environmental regulation, to critique marketplace regulation and just as readily applied to arguments against public ownership of natural assets and public services. Hardin's work has enjoyed a multiplicity of academic readings and a range of social, political, economic and environmental applications, but his main argument holds that natural resources, when managed in a commons arrangement, would inevitably be destroyed by overuse:

The tragedy of the commons develops in this way. Picture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons. Such an arrangement may work reasonably satisfactorily for centuries because tribal wars, poaching, and disease keep the numbers of both man and beast well below the carrying capacity of the land. Finally, however, comes the day of reckoning, that is, the day when the long-desired goal of social stability becomes a reality. At this point, the inherent logic of the commons remorselessly generates tragedy (Hardin, 1968).

The tragedy model assumes that given unlimited access to a naturally available resource, such as an open pasture, individuals will attempt to maximise their consumption regardless of the detriment to others (Davies, 2003). The tragedy occurs due to the limitations and finite nature of physical resources, which are exponentially rivalrous as they become increasingly scarce. It assumes that individuals will only act rationally in their own self-interest because they are generally unwilling or unable to restrict their own access and increasing populations. Any group of individuals who have joint use of a common resource, according to Hardin's analysis, would inevitably completely ruin that resource (Hess & Ostrom, 2003: 116).

Hardin's proposed solutions to the tragedy were severe. He suggested that the only way to overcome the spread of pollution and over population was for legislative

“temperance” of biological reproduction (Hardin, 1968). Hardin argued that the freedom to breed was intolerable for the amount of natural resources available. He saw that people caused misery to themselves and their communities by allowing each other to reproduce with impunity and thereby delivering untold damage to the environment. He claimed the tragedy would only be overcome through coercive regulatory instruments, imposed by governments, to prevent people from producing more offspring than is necessary (Gardiner, 2002: 389). Hardin’s theory has been subsequently used to justify the transfer of resources in the commons, from fisheries to national parks, to private or governmental regulation. Coupled with arguments about the economic success of the English enclosure, and the inevitable political, economic, ideological, and even semantic, coupling of the commons with communism, Hardin’s tragedy has seriously reduced any perceived value of the commons.²

The problem with Hardin’s analysis is the failure to distinguish the difference between an open access regime, in which everyone has unlimited access to limited resources, and the community style management of resources by groups of individuals working together to form a commons (Hess & Ostrom, 2003). The differences between the two are very important. An open access regime is a situation where everyone has a right to exclude others from access to a resource by physically exploiting the resource themselves; a first-in-first-served situation which is particularly susceptible to Hardin’s tragedy. Whereas a commons, on the other hand, is a situation in which the available physical resources are managed in negotiation with all individuals concerned; the commons is not a free-for-all but an organisation of common rights of access and appropriation, in which participation involves acknowledgement of the rules of the system.

6.3 The Digital Commons: Myths and Metaphors

Contemporary debate over the commons and commons-like management of physical resources and public goods, including air, land, and even the radio broadcast spectrum, are inevitably concerned with issues relating to Hardin’s tragedy, including degradation, over use, availability and competing private and public interests. When

² The link between the commons and communism is ironic given the People’s Republic of China adopted arguments like Hardin’s during the 1970s implementation of the Planned Birth Policy, also known as the One-Child policy, designed to encourage families to only have one child in attempt to avoid over population effects and the diminishment of the state run resources (Soross, 1977).

transposed to the digital environment, however, Hardin's theory is immediately challenged by the intangible character of digital objects, which do not suffer from overpopulation, over use, or the degradation effects of Hardin's tragedy. Unlike the physical environment, scarcity in the digital environment is created through technologically-imposed restrictions on access, or through social and economic inequalities of access. It is the non-rivalrous components of information, knowledge and digital objects that have stimulated new discussions about the potential of peer-based production and commons style management in the digital environment.³

Commons theory is an emerging discourse, which uses the metaphor of the historical common and its enclosure, as Bollier (2004) argues, to focus on the disparate issues that stem from the privatisation of knowledge and the commercialisation of culture. Bollier (2004) describes the commons as an observable, practical and relevant reservoir of resources with a social system of governance that is a "crucible for democratic aspiration" (Bollier, 2003: 19). The democratic potential of a commons is perhaps the most problematic element of Bollier's description. A commons is not an open access regime of Hardin's tragedy; it is a type of management of resources which does not equate to private property but offers boundaries for use and transparent governance (Bollier, 2004). The democratic potential of any commons would depend on the nature of the organisation of the commons community and the motivations of individual participants rather than on the general principle of the commons itself. The digital commons, like the historical physical commons, are managed by committees, groups of ruling officials, or 'elders' who are frequently the founding participants of the commons or their representatives. While there is no reason these cannot be democratically elected, it is not a fundamental concern of the commons where the emphasis is on the productivity, stability and equality of the community rather than the shape of its governing authority.

Bollier accuses economists of using Hardin's tragedy as an all-purpose metaphor to denigrate collectively managed property and champion the efficiencies of private

³ This is not an argument about the political economy of information or the relative qualitative characteristics of information. Information is a traditional commodity, but it is difficult to control and its value is dependent on the ability to restrict who has access to it. Information is a largely conceptual entity, but there is an observable relationship between the digital environment, information as a commodity and intellectual property laws. For example, the debate over intellectual property enforcement has intensified alongside the uptake in information and technology services, such as the online distribution of information. Industries that have traditionally dealt with physical forms of information both benefit and are challenged by the non-rivalrous features of information in digital form: information that can be infinitely copied, distributed, manipulated and simultaneously accessed at multiple sites with minimum cost. It is the non-rivalrous features of information and their potential effect on the levels of access and the rates of productivity, innovation and the diffusion of knowledge that are important to commons theory.

property regimes; “the real locus of value, according to the mandarins of the market, lies in that art and knowledge that has been recognised as intellectual property” (Bollier, 2003: 119). Conversely he argues that the most important elements of a functioning commons are the absence of exclusivity and the phenomena of network effects in which participation and use generate greater levels of value and further use. Bollier refers to software developer Dan Bricklin’s phrase “the cornucopia of the commons” and the “almost magical multiplication of value of the commons as it is used more intensively”, because, like the open source and free software movements, the more people use and contribute to a commons the more valuable it becomes (Bricklin, in Bollier, 2003: 37). Unlike the historical physical commons, the resources of the digital commons benefit from alumni/network effects, described in the previous chapter, where use of the resource enhances value rather than diminishes it. However, it is also important to note that unused or infrequently used materials in either the physical or digital commons do not necessarily represent a lack of value, or a lack of economic or cultural potential. Similar to the unused pasture, or unfelled forest of the physical commons, the public domain is a good example of a commons with a high level of unused resources with significant potential value. Bollier (2003: 119) refers to the public domain as an “invaluable bounty of art, knowledge and culture”, and he locates the value of the public domain as a commons in “the shared heritage that it constitutes” and not the actual material being used.

Benkler (2003b) employs the commons in his approach to the political economy of information. According to Benkler (2003b) the networked information economy can support a pattern of productivity that radically differs from the industrial economy of the twentieth century. He frames this model of peer production within the traditions of the physical commons in which “groups of individuals successfully collaborate on large scale projects following a diverse cluster of motivational drives and social signals rather than either market prices or managerial commands” (Benkler, 2002: 2). Benkler emphasises the potential of commons-based collaboration to communicate and organise the nonprofit production of culture, knowledge and information in the digital environment (Benkler, 2001). He argues that decentralised community formations communicating via electronic networks involve the sharing of cultural materials which produces users, not just consumers or producers. These digital commons are dependent on the dynamic nature of the electronic networks for the production, distribution and subsequent reproduction of content; for example, fan communities

frequently realise the potential of peer-based production, operating via internet fan sites, web-based forums, email, and peer-to-peer networks, by both consuming content and volunteering their own contributions based on the appropriated materials.

The digital commons is the intellectual descendant of the physical commons; it is a concept being used to warn against the perils of digital enclosure because, as Levine (2002: 4) argues, a successful commons is appealing as “a valuable good that is not controlled by bureaucrats, experts or profit seeking companies”. Levine (2002:4) suggests that a successful commons (unlike a state) occurs where participation and support are voluntary but the benefits are broadly dispersed across the entire population. However, while the non-rivalrous features of the commons overcome much of Hardin’s tragedy, it still shares many of the same limitations as the physical commons; for example, labour costs and social pressures still limit the effectiveness and success of the digital commons. Unlike the physical historical commons where commoners derived direct reward from their labour, digital commons formations – like the open source and free software movements – make available broader kinds of rewards and indirect benefits. Individuals contribute works of creativity, knowledge and information to produce digital commons but do not receive direct financial rewards for their investment of time and labour and therefore must support themselves economically through other means. This is offset, to some degree, by the increased ability of individuals to engage in social sharing via digital networks. Benkler (2002) argues that the highly decentralised nature of digital mechanisms for sharing (such as P2P technologies) have increased the sharing practices as well as the general desire to share.

Levine (2002: 6-7) argues that Benkler’s approach, and Lawrence Lessig’s (2001) account of the enclosure of the internet in *The Future of Ideas*, promote the idea of a commons as anarchist and unowned property. Levine (2002: 6) suggests that the libertarian and anarchist arguments are explicit in Lessig’s work and argues that a totally anarchist commons is not beneficial. Levine criticises anarchistic forms of digital commons as being incompatible with democratic values and, in an argument eerily reminiscent of Hardin’s condemnation of the physical commons, he quite ludicrously suggests the anarchistic “cyber-commons also gave us viruses, cyber-predators, privacy violations and hard-core pornography for twelve-year olds” (Levine, 2002: 6-7). Levine argues that only formally or institutionally ‘organised’ commons should be

supported and he claims that state ownership, or the management of non-profit organisations, or the enclosure of the digital commons would result in a preferable online experience to that of anarchy; “Corporate control might be preferable to no control at all” (Levine, 2002: 7).

No commons can be completely democratic or anarchistic; neither is the commons the same as the system of communal production that Richard Barbrook (1998) labels the “hi-tech gift economy of anarcho-communism” which he claims is “haunted by the disappointed hopes of the sixties and the libertarianism of early new media theory”. Commons theory allows for anarchistic, libertarian, as well as state controlled, and even corporately controlled formations, because the commons model is based on volunteer peer-production. The commons model requires above all, that everyone has equality in their rights of access and appropriation of the commons resources. The commons are essentially volunteer-based, but Benkler (2002: 377-378) avoids a completely libertarian position by suggesting that no one will participate in a commons if they cannot appropriate its benefits for themselves in some way. Benkler considers that no individual will organise or collaborate in the utilisation or production of commons resources unless there are possibilities for personal advancement. He argues that individuals must be motivated by the social-psychological rewards of common-based peer production that cannot be achieved via usual monetary rewards, some of which were discussed in the previous chapter.

6.4 Digital Commons Example: *Wikipedia*

What are the benefits and disadvantages of commons style management and peer-based production in the digital environment? One way to answer that is to examine a prominent example of a fully functional and productive digital commons: the online reference source, *Wikipedia*. The name *Wikipedia* is derived from the Hawaiian phrase ‘wiki wiki’ meaning quick or informal (O’Leary, 2005), while the ‘pedia’ abbreviation of ‘encyclopedia’ refers to the alphabetically indexed collection of information on multiple subjects (Oxford, 2006a) and the Latinized version of the Greek term referring to the cyclic nature of learning and teaching (Oxford, 2006b). The first wiki was created in 1995 by Ward Cunningham, as an HTML tool for enabling multiple authors to contribute simultaneously to publishing projects (Richardson, 2005). *Wikipedia*, formerly *Nupedia*, was created in 2000 by Jimmy Wales and edited by Larry Sanger as

a free online encyclopedia, supported by Wales' dot.com advertising company Bomis.com (*Wikipedia*, 2006c). Nupedia was not a digital commons, but it became one in 2001 when the project was licenced under the GNU Free Documentation Licence and the project switched to the Wiki format in 2003. The *Wikipedia* trademark is owned by the non-profit Wikimedia Foundation, which also manages *Wiktionary*, *Wikibooks* and other Wiki projects. This ownership gives the Wikimedia Foundation the power to prevent the encyclopedia from being privately appropriated and used by others for commercial purposes.

Wikipedia is a multi-lingual online encyclopedia, divided into three main language groups. The first group features those languages with more than 100,000 articles, including English, German, French, Japanese, and Spanish, which are considered to be "on par with most traditional encyclopedias, such as *Britannica*, or other online encyclopedias, such as *Encarta*..." (LeLoup & Ponterio, 2006: 6). The second group includes those languages with a minimum of 10,000 articles including Chinese, Esperanto, and Indonesian, which are considered "respectable". The third group features minority languages with least 1000 articles, which LeLoup and Ponterio (2006: 7) considered as "just getting started". There are few limitations to *Wikipedia* subject matter and the project currently supports more than 1.2 million English encyclopedic articles all written, reviewed and edited by volunteers. *Wikipedia* does not acknowledge individual authorial ownership over contributions or allow copyrighted contributions to be included. *Wikipedia* enforces a strict non-plagiarism policy and removes articles that are copied from copyright protected works. Each article is moderated by a community of contributors operating transparently, whose activity can be accessed through the HTML 'discussion' link on each page. The discussion component of each article tracks the changes made to the articles and documents the adherence to specific editorial practices, including *Wikipedia*'s policy of 'neutral point of view' and it also highlights points of contention over facts and specific editorial choices.

Wikipedia is described here as both a digital commons and a knowledge commons. The two terms place a different emphasis on the subject matter. A knowledge commons is established through voluntary contribution and provides unrestricted access to information usually as a result of community managed production of educational resources. The digital commons is a more general term that refers to its decentralised composition and operation. The term digital commons emphasises the

role of the network, it refers to the volunteer nature of the production and the provision of resources as freely available, nonexcludable and intangible goods. It also refers to the collaborative community-style management and social governance devoted to maintaining open and equal access to the community's participants.

Wikipedia's openness is its greatest strength but also its greatest source of criticism. *Wikipedia* borders on becoming an open-access regime rather than a commons because anyone with an email address can create an account, log in and begin to publish and edit articles; users can be creative and constructive but can also engage in vandalism and opportunistic acts of misinformation and deceit. *Wikipedia* maintains its digital commons status and avoids becoming a fully open-access regime by instituting socially constructive policies, developed through discussion between the Wikimedia Foundation and its users; for example, the banning of the internet protocol (IP) address of nuisance contributors. Early in 2006 a one-week ban on the IP address of the US Congress was extended indefinitely due to the editorial abuses of Congressional staff. Utter (2006) cites the *Wikipedia* Foundation's comments posted in the discussion of the abuses:

...the editors from these [Congress] IP ranges are rude and abrasive, immature, and show no understanding of *Wikipedia* policy. The editors also frequently try to whitewash the actions of certain politicians. They treat *Wikipedia* articles about politicians as though they own the articles, replacing community articles with their own sanctioned biographies and engaging in revert wars when other users dispute this sudden change. They also violate *Wikipedia: Verifiability*, by deleting verified reports, while adding flattering things about members of Congress that are unverified (Utter, 2006).

The comments note the objection to the idea that individuals can privately own *Wikipedia* articles, even when the individuals contribute to them or the information is personally about them. Utter also objects to the 'revert wars' which occur when editors clash over different versions of an article and persist in reverting each other's text to a preferred version. The comments highlight the problem of inclusion of material which is unfounded or unverifiable.

The degree to which community involvement shapes the information contained within *Wikipedia*, as well as its operational policies, cannot be understated. This is the fundamental characteristic of the digital commons and enables *Wikipedia* to withstand

attempts at exploitation by commercial interests; such as Microsoft's contracting of third-party contributions to "provide more balance on *Wikipedia*" concerning certain Microsoft products (Jelliffe, 2007). This also has significant correspondence to Habermas' principles of the public sphere; which is a virtual space, where 'citizens' can communicate thoughts and arguments about relevant political and cultural issues through quotidian discourse (Habermas in Outhwaite, 1996). However, *Wikipedia*'s openness has prompted reports of inaccuracy that raise genuine questions about its reliability as a general reference source, and undermine its status as a research and educational tool (Eiffert, 2006).⁴

The journal *Nature* engaged in a public "bun fight" with *Encyclopedia Britannica* over a survey designed to examine the average accuracy of both *Britannica Online* and *Wikipedia* in December 2005 (Giles, 2005). The survey, conducted by 42 "expert reviewers", compared matching pairs of science-specific entries, with the results showing Britannica making an average of three errors per entry and *Wikipedia* making an average four errors per entry (*Nature*, 2006). Giles (2005: 900) concluded that "the difference in accuracy was not particularly great". *Britannica* criticised the *Nature* survey, arguing the methodology was flawed and that "almost everything about the journal's investigation was wrong and misleading" (*Encyclopedia Britannica*, 2006). The controversy reflects some of the important differences between the two online reference sources that relate directly to the open commons style of *Wikipedia* development as opposed to the proprietary nature of the *Britannica* publication.

The debates about the relevant worth, value, and accuracy of *Wikipedia*, and other wiki's, are a highly welcome component of open content production and call into question basic assumptions about ideas of truth, trust and accountability. Compared with *Britannica Online*'s 65,000 articles, the *Wikipedia* English article count is rapidly entering the millions. *Britannica Online* operates within a more traditional publication style, with editorial staff employed to perform corrections and updates 'in-house', reflecting the Cathedral Style of software building discussed in the previous chapter.

⁴ *Wikipedia* recently received public criticism after it was revealed that one of the editors, known as Essjay, had described himself as a professor of religion at a private university in his online profile, but was in fact Ryan Jordan, 24, a college student from Kentucky (BBC News, 2007). These types of highly publicised incidents of misrepresented identity that undermine institutional credibility are not confined to *Wikipedia* contributors and should be viewed in a wider context. The week previous to the *Wikipedia* revelation, an internal UN auditors report found that the Director-General of the World Intellectual Property Organisation (WIPO) had misrepresented his date of birth. Over the past 25 years involvement with WIPO, Idris had claimed ten years of seniority by signing his birth date as 1945, whereas he was born in 1954. The report calls into question whether the official had the degree of experience normally required for such a senior position within the UN (Reuters, 2007).

The difference this has on the content can be highlighted by comparing the opposing entries on 'Intelligent Design'. The *Britannica Online* article is concerned with the historical development of the theology, and offers a comprehensive review of the origins of the Intelligent Design theory in William Paley's (1882) book *Natural Theology*. *Wikipedia*'s entry on Intelligent Design resembles more of a contemporary academic discussion and is concerned with contemporary debates surrounding the subject and the nature of pseudoscience not mentioned in the *Britannica* entry (*Wikipedia*, 2006d; *Britannica Online*, 2006). The *Wikipedia* article, unlike the *Britannica*, is heavily referenced with direct external links to prominent articles on the subject. While not all entries have such extensive bibliographic references, the majority of *Wikipedia* articles are effectively, in a less institutionalised and academic or expert sense, 'peer-reviewed' through the ongoing discussion.

In terms of the digital commons this brings into sharp relief the way *Wikipedia* has reconceptualised the production and fixity of information in the digital environment. Errors are still errors, but outside of *Wikipedia* it is rare that individuals have the opportunity to correct for themselves any factual mistakes they encounter. Just as the open source model of production breaks down the fixed nature of software products, information in the digital commons should be considered likewise as 'unfixed'. *Wikipedia* articles are not finished artifacts, but are part on an ongoing process of information generation and discussion, perhaps making *Britannica* and other traditional encyclopedias more reliable reference sources, but increases *Wikipedia* value and relevance as a reference tool of the digital environment. This is demonstrated in the *Wikipedia* article on the 2004 Indian Ocean tsunami. Richardson (2005) reports that the first post on the tsunami appeared nine hours after the initial news coverage began, consisting of 76 words. The entry was edited 400 times over twenty four hours and expanded to 3,000 words in length with photos, other graphics and links to news reports on fatalities, areas affected and heavily hyperlinked to the science entries on tsunami phenomena. Six months later the article registered 7,000 changes and activity in the entry settled at just over 7,200 words. Proprietary sources, like *Britannica*, cannot utilise this kind of network effect or as easily attempt this degree of news aggregation.⁵ The ever expanding nature of the *Wikipedia* articles also point to another major criticism of *Wikipedia*; its editorial quality. *Britannica* and other proprietary online references have the much slower Cathedral-style development but that ensures an in-

⁵ *Britannica* could subscribe to a third party news service, but this would increase the cost of access.

house style and consistently enforced editorial policy. While *Wikipedia* editors enforce its editorial policies, many of the entries are overly verbose, occasionally confusing and subject to information 'creep' as multiple authors unintentionally overwhelm the reader with information.

LeLoup and Ponterio (2006) suggest that *Wikipedia* also suffers from a significant Free Riding problem. *Wikipedia* retains copyright of its material through the GNU Free Documentation licence permitting individuals to freely appropriate the material for non-commercial purposes. LeLoup and Ponterio argue this enables web authors to make free and unreferenced use of *Wikipedia* text, bordering on large scale plagiarism that leads to the circulation of misinformation and factual errors; this is a problem for students using the web for research as they encounter multiple instances of incorrect information. This reduces *Wikipedia*'s credibility as a knowledge commons rather than its function as a digital commons. Where a free riding problem is traditionally associated with reduced economic incentives to contribute, *Wikipedia* demonstrates that a digital commons which does not reimburse its contributors for their investment of time and energy or permit definitive authorial control, does not necessarily suffer from the lack of financial incentive for contributors.

Wikipedia has its share of detractors, most recently the History department at Middlebury College in the United States, which announced a policy to discourage students from citing the encyclopedia as a reference source on the basis that *Wikipedia* was 'untrustworthy' (Jaschik, 2007). However as Sandra Ordonez, a spokesperson for the Wikimedia foundation suggests, "*Wikipedia* is the ideal place to start your research and get a global picture of a topic, however it is not an authoritative source", and she outlines the inadvisability of using any one encyclopedia, particularly at university level, as a primary source of theoretical and analytical material (Jaschik, 2007). Ordonez is entirely correct; any encyclopedia is only suitable as a general reference. *Wikipedia*, however, contains a vast amount of information of a nature not found in other encyclopedias; such as the US air date and time for the first *Buffy the Vampire Slayer* episode, or a 'syntax tour' of the Extensible Markup Language (XML) used for standardising the dynamic formats of web pages. Rather than ban the use of *Wikipedia*, based on a notion of its 'trustworthiness', its use is an excellent learning opportunity for students to gain insight into the research values and hierarchies of academic sources. *Wikipedia* could even become a useful teaching and assessment

tool, where students are assessed on their ability to research and think critically about information sources; such as comparing *Wikipedia* to other sources, or even developing a classroom response to an inaccurate *Wikipedia* article.

Wikipedia is an excellent example of a robust and relevant digital commons. The wiki format is now a standard online template for the management of information sources in the digital environment; there are academic wikis, such as the Science and Technology Studies *STSWiki*, popular culture wikis including *Tardis Index File*, *Lostpedia* and *Heroes Wiki* and web-based companies, such as PeanutButter.com, that offer services to create corporate wikis. There are social democracy wikis including *ProtestWiki* and the Social Justice Wiki under development at Colombia University. Increasingly governments are turning to wiki-style sites for both internal information management and public information services. As users become more familiar with what *Wikipedia*, and other wikis, are and are not, its relevance will continue to emerge. Conclusions about the success and relative worth of the format are premature at this stage of its development.

6.5 A Second Enclosure

A critique of the metaphor of the commons is useful in contributing to the understanding of new kinds of social spaces and practices made possible by digital communications technologies (Bollier, 2004). Cahir (2004) sees the commons as part of a positive vocabulary that expresses the significance of volunteer contribution and information communities characterised by peer production. Bollier (2003) also advocates the term 'commons' as part of a vocabulary for identifying a wide range of intellectual property abuses that harm public assets and social ecology, contextualising these developments as a part of a systematic expansion, rather than separate and isolated episodes, which he labels the new enclosure movement. Reclaiming the 'narrative of the commons' as part of this vocabulary enables critics of such trends in global intellectual property reform to redirect the focus on the economic importance of individual property ownership and promote new thinking about the value and significance of collectively managed and socially produced properties (Bollier 2003: 19).

Like Bollier, Boyle (2003b: 39) warns of the dangers of the 'enclosure of the intangible commons of the mind' occurring through the expansion of intellectual property rights. The extension of the copyright term and the subsequent reduction of the public domain, the dissolution of fair use rights and the development of digital rights management are thus all part of the enclosure process reducing the potential of the digital commons. David (2000) has also argued that Hardin's tragedy is being reversed and that expanding intellectual property rights are privatising the intangible commons of the mind and creating a tragedy of enclosure. This intellectual enclosure is prominently witnessed through the increase in private ownership of scientific discovery and academic knowledge as well as through the increased restrictions on access and appropriation of cultural goods.

The metaphor of the commons and its enclosure is a powerful one, resonating with the processes of colonisation, settlement and industrialisation, but the new enclosure is not just about the privatisation of existing resources; instead the enclosure of the digital commons represents the restriction of social activity, peer-production and other intangible potential. Hunter (2003) relates this approach to the libertarian agenda of early internet and new media theory:

Cyberspace was once thought to be the modern equivalent of the Western Frontier. It was a place, albeit an abstract place, where land was free for the taking, explorers could roam, and communities could form with their own rules. It was an endless expanse of space; open, free, replete with possibility. No longer. As with the Western Frontier, settlers have entered this new land, charted the territory, fenced off their own little claims, and erected "No Trespassing" signs. Cyberspace is being subdivided. Suburbs and SUVs cannot be far off (Hunter, 2003: 439).

Chander and Sunder (2004) take issue with the use of this kind of deployment of the commons enclosure metaphor, because it suggests a preexisting utopian world of equality and equal access which was far from the reality of the situation. They argue this cyberutopian approach presumes a previously existing open digital landscape where each person has the same opportunity to benefit from the free resources found in the commons. The romanticising of the commons needs to recognise that differing circumstances, including individual knowledge, wealth, power, and ability enable some individuals to enjoy the benefits of a commons better than others (Chander & Sunder, 2004). The focus on libertarianism in the digital environment, according to Chander and

Sunder (2004: 1334) is an indulgence in the “increasingly binary tenor of current intellectual property debates” in which copyright is opposed by the public domain and private property is opposed by communal or public goods. As Chander and Sunder (2004) argue the trope of the romantic author enabled a socially respected private property power in the production of cultural works, just as the mythical and romanticised commons is being invoked to romanticise commons institutions under threat by the enclosure.

Enclosure of the physical commons saw an end to one form of pastoral life, but does the enclosure of the ‘intangible commons of the mind’ restrict the potential for all digital commons? As Boyle suggests, the most important fact about the enclosure movement was that it worked; the “innovation in property systems it introduced allowed unparalleled expansion of productive possibilities” (Boyle, 2003b: 35). The logic of enclosure suggests that resources are put to their most efficient profit making use when strong private property rights are enforced, but does this automatically impose reduced public rights? Taking into account Chander and Sunder’s (2004) warning of using the metaphors of enclosure and commons in an unproblematic duality there needs to be discussion of a middle ground. Can the new enclosure actually contribute to the formation of digital commons or is the only effect likely to be the reduction of access and appropriation necessary for functional digital commons? Should the commons and the enclosure be considered as two opposing operations or can they exist to a mutually beneficial result, one that increases the success of both?

6.6 The Grey Areas

If the digital landscape is broad enough to support enclosure Cathedrals, like Microsoft, and open-style Bazaars, like Linux, when both use differently configured intellectual property regimes, are there other industries which could mutually coexist in the same way? Does the equilibrium change when one side is based on culturally productive activities that depend on the unauthorised copying and use of privately owned copyrighted works? As previously mentioned, remix is the practice of creating new texts, music, movies, art, comics and other creative works out of already existing texts. Lessig (2004) suggests that remixing is an ancient practice that is also at the centre of cultural production. He argues that the remixing of existing works represents a productive response to the experience of consumption in which creative works are

interpreted via users in the generation of new content. The term 'remix' has been associated with audio recordings and alternative versions of popular songs remixed with different acoustic features, but Lessig (2004) suggests that remix has been given a much broader cultural context in the digital environment through the availability of technologies that give individuals the power to cut, copy, merged, mix and create new forms of media and derivative works.

The advantage of the attention given, some might called it 'heat', to file-sharing and the downloading of music and movie files via P2P networks has meant that remix, as a more complicated form of copyright infringement, has received less scathing and prosecutorial attention. One form of remix is the practice of 'mashing' to produce 'mashes', alternatively known as 'mash-ups'. Mashes are created by using the vocals of one or more songs and digitally remixing them together with the instrumental tracks of one or more other songs.⁶ The term 'remix' covers a range of practices in which the appropriation of pre-existing materials results in the creation of new compositions. Remix includes the practice of 'sampling' in which selections of a song are cut-and-pasted into a separate work. Mashing is a kind of remix that can be considered a digital hack. The relative accessibility of mashing software, freely available online, has supported a new generation of aspiring music producers who do not just rearrange the work of others, but combine digitally isolated elements of music, including the percussion, instruments, and vocals, like individual notes, to create derivative works. Some mashes combine two or three songs, others mash together hundreds of titles, producing hour long 'sets' of new compilations.

While the technologies are new, remixing is a practice as old as music, art and literature and no more blatant than the interpretation of folk songs in classical works or the retelling of fairy tales in Disney movies. The practice of mashing has become so popular and accessible, that anyone with a personal computer and an internet connection can become a music producer. Mashes can be found in newsgroups and websites to download, usually hosted in countries where copyright enforcement is minimal. Mashes are frequently broadcast on pirate radio stations and are increasingly popular on digital radio channels. Occasionally mashes, cleared with the copyright owners, find their way to MTV and other mainstream outlets, but the sub-culture started

⁶ Mashes, have their own music genre, called 'bastard pop', and are also referred to as 'bootlegs' or 'booties', having been associated with both the unauthorised distribution of copies of live performances and the underground live events at which the mashes are played.

in the various night clubs around the world that host 'Bastard' or 'Bootleg Nights' devoted to playing the latest release mashups. The mashing practice now also includes video editing as remixers produce video clips filled with documentary, news footage, and television and cinema samples to accompany their audio releases.

The mash-up producers, DJs and other artists who trade digital samples, percussion loops, techniques and give feedback on each others' work are all participating in a distinctive digital commons formation. It is a commons that is challenged and limited by copyright restrictions and endangered by a future where digital music has DRM access restrictions. Mash-ups are defined by copyright laws as unauthorised derivative works and therefore copyright infringements. The majority of mash-ups are in a legal limbo between unprosecuted offense and the untested realm of fair use exception in the US legal jurisdiction.⁷

This bastard pop subculture might have stayed underground, and on the periphery of the copyright enforcement radar, if it were not for a wave of interest in the work of DJ DangerMouse. Like many mash-up producers before him, DJ DangerMouse found a source of rich inspiration in the work of the Beatles. The familiarity of the songs, the presence of strong musical harmonies and their unique expression makes the Beatles' work the perfect source of mash-up material. In December 2003, DJ DangerMouse, alias Brian Burton, appropriated the vocal tracks of iconic rapper Jay-Z's *The Black Album* and mashed them to the instrumental version of the Beatles' *The White Album*. The term 'mash' actually implies a far less creative and technical process than the reality, since it involves much more than simply cramming the materials together. A degree of musical knowledge and technical ability is required in the production of a mash-up of high quality listening: "It would have been easy just to slap the vocals over music of the same tempo," Burton said in an interview for the *New Yorker* (Greenman, 2004). The result of DangerMouse's experimentation was a twelve track collection, which he initially called *The Black/White Album*, but later dubbed *The Grey Album*.

⁷ One of the interesting remix cultural traditions is the naming of the new works. Mash-up producers will often include the name of the sources in the title of the new work, for example DJ Dopplebanger's *Hypnotize the Army* is subtitled *The White Stripes vs Notorious B.I.G.* which indicates a dedication to the practice of giving credit to primary sources. Often, in naming a mash-up the producer will remix the titles from the primary sources, for example DJ Earworm's *No One Takes Your Freedom* remixes the titles from the Scissor Sisters, Beatles, Aretha Franklin and George Michael songs included in the new work. It is an indication of the playful but lingering association with the traditions of authorship, moral rights and the desire to acknowledge the unknowing contributors. The naming procedure, if not a social commentary against the vagaries of plagiarism and the dubious nature of uncredited sources, is a practical statement making it easier for other mash producers to locate the sources of the mix for their own work.

Perhaps if Burton had only created a single song the threat of copyright infringement prosecution would have been minimal, but not only did Burton create an entire album, he made a copies of it to share with family, friends and music industry colleagues. By the start of 2004 *The Grey Album* was available to download via P2P networks, *Entertainment Weekly* called it the album of the year, and it quickly achieved a pop culture following:

To unsuspecting consumers, *The Grey Album* seemed like the union of two cultures that were not only different but ideologically opposed; it made people realize musical connections they never knew existed (Klosterman, 2006).

Jenison (2002) reports that the problems for bootlegs start when they are “good and people can’t help but playing and sharing them, then the record companies start sniffing and want to stamp it out”. EMI Music, the copyright owners of the Beatles sound recordings on the *White Album*, issued cease-and-desist orders to Burton and the websites distributing copies:

On Feb 10, the Beatles’ record company, EMI Music, stopped Burton from distributing *The Grey Album*. That action triggered an online revolt that led tens of thousand of people to download digital copies of the CD generating enough buzz to draw reviews from such mainstream outlets as CNN (roulduke1, 2004).

In response to EMI’s legal siege, a group of bloggers began a protest called *Grey Tuesday* in which 150 websites were recruited to offer downloadable versions of the work on Tuesday, February 24, 2004.

Rimmer (2006: 44) examines the legal status of *The Grey Album* as it represents an infringement on the economic rights of the various copyright owners.⁸ He suggests the degree to which the Lennon-McCartney compositions and sound recording have been infringed would mean that the work would not be excused by the *de minimis* clause in US copyright legislation for minor copyright infringements that other mashes and remixed songs might rely on to escape prosecution. Rimmer (2006: 46) also examines the defence of fair use in the case of the Grey Tuesday protestors who were issued with cease-and-desist letters and DMCA ‘take-down’ orders by EMI. He reports that those websites involved in *The Grey Tuesday* protest stressed the availability of the album was for non-commercial purposes:

⁸ There are five different copyrights involved in the production of *The Grey Album*, including the EMI group as owners of the rights to the ‘master’ Beatles *White Album* sound recordings, and Sony Music/ATV Publishing, a joint venture between Michael Jackson and Sony, who currently own the rights to the Lennon and McCartney musical compositions that appear on the Beatles *White Album*, as well as the owners of the rights to the sound recording and musical works for Jay-Z’s *Black Album*, and, possibly, DJ Danger Mouse as the potential owner of the rights to *The Grey Album*, (EFF, 2006b).

It emphasised *The Grey Album* was a transformative use of *The White Album*, not a wholesale copy; and the posting of *The Grey Album* was intended as part of a commentary on the use of copyright law to stymie new kinds of musical creativity (Rimmer, 2006: 46).

No law suits were filed over the *Grey Tuesday* protest, and it appears that both Sony and EMI have dropped their case against Burton. Even if Burton's use of Jay-Z's and the Beatles' works had been found to be 'unfair', the discussion should not be solely configured by the current iteration of copyright law which identifies remix practices as either infringing, and therefore pirate works, or legal and therefore legitimate copies. Instead remix culture can be seen as representative of a broad range of creative practices that should have well defined and protected rights when used for non-commercial purposes.

There is a clear need to protect copyright owners for the commercial use of their work by others, but the majority of remixing is done for personal, expressive, artistic and sharing purposes, and not as the commercial exploitation of the work of others, as Burton says of his motivation to produce *The Grey Album*:

I thought it would be a weird, cultic record for techies to appreciate, because they would be the only people who would understand how much work was involved...But then it was taken into this whole different world, where a million people were downloading it at the same time. At best, that record is just quirky and odd and really illegal. I never imagined people would play those songs in clubs. I also think the people who love it tend to love it for the wrong reasons, and the people who hate it tend to hate it for the wrong reasons. I think some people love it for what it supposedly did to the music industry, which was not my intent. (Klosterman, 2006).

Similar to the practice of signaling in the open source movement, Burton's work on *The Grey Album* had exactly the effect he was after. The technical ability demonstrated in *The Grey Album* impressed Damon Albarn from the English band Blur. Albarn, the co-creator of the Gorillaz, a 'virtual' band, employed Burton to produce the Gorillaz's 2005 Album, *Demon Days*, which also happened to be released by EMI records. *Demon Days*, the cover of which pays tribute to the record cover of the Beatles' *Let It Be*, earned Burton a Grammy nomination for Producer of the Year in 2005. While the production of the mash-up album was done without the lure of financial incentive, and

never designed to be sold, it has resulted in significant commercial success for DJ DangerMouse.

To return to the earlier question of the co-existence of the commons and the enclosure, DJ DangerMouse's success might be considered an answer in the positive, but it still an isolated case. There remains the need to identify and expand the dialogue of such creative remix practices beyond the highly limited scope of the enclosure's permitted uses and the unreliable province of the US fair use exception criteria. Currently the only real way to avoid legal entanglement for mash-ups and other remix activities is to remain underground. The doctrine of fair use may provide some protection for mash-up producers, but, as the sheer size and degree of use in *The Grey Album* demonstrates, such a defence is extremely limited. There is a clear need for a legally recognised commons, filled with materials to be used by artists and producers for remixing without the threat of infringement or legal indictment. The public domain might have fulfilled this to some degree if it were not for the extension of the copyright duration. One such space online is a project called *CC Mixter*, which is a digital music repository of audio materials for artists to appropriate for their own projects, to learn with and publish mash-ups and other works. It is a legitimate and authorised space for this kind of cultural expression made possible by a series of alternative copyright licences, published by a group called the Creative Commons. It does not alleviate the desire to use current and popular cultural materials for remixing, but it is a viable start.

6.7 A Commons of Creativity

The Creative Commons is a non-profit organisation responsible for a series of standardised copyright licences designed to provide individual creators with increased discrimination over the individual elements of copyright law traditionally applied in blanket form. Copyrights in the US, Australia and most other participatory nations of the Berne Convention are applied automatically to any creative work. This dispensation is generally considered as an advantage over having to register copyright with a central agency, but it leaves no room for creators to make decisions about the accessibility and use of their own works. The Creative Commons provides alternative copyright licences online, to download without cost, that attach to creative works giving copyright owners new options for deciding what rights should be associated with their work. The licences offer an unprecedented level of specification for creators in controlling how

their works are distributed, accessed and used. It is crucial to note that copyright laws are still required for this system to work and full copyright still exists in each work distributed with a Creative Commons (CC) licence.⁹

The Creative Commons movement is a diverse digital commons whose group of 'elders' is comprised of a number of cyberlaw and intellectual property experts including James Boyle and Lawrence Lessig. Stanford legal professor Lawrence Lessig promotes the concepts behind the Creative Commons concepts in his books, *The Future of Ideas: The Fate of the Commons in a Connected World* (2001) and *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity* (2004). Lessig has stimulated debate over practical alternatives and reforms to current copyright regimes and his approach has generated intense interest over the future of creative activity and the spread of knowledge in the digital environment. Lessig's very public role in the defence of Eric Eldred and the argument before the US Supreme Court that the Sonny Bono Copyright Extension Act was unconstitutional, increased his reputation as advocate of common sense copyright reform, despite losing the case.¹⁰

The Creative Commons received financial support from the Centre for the Public Domain, the MacArthur Foundation and Hewlett Foundation in 2001 and launched its first versions of the licences in 2002. The four central types of CC licences, Attribution, Non-Commercial, No Derivative, and Share Alike, have become the hub of the Creative Commons movement. The licences are acquired by completing a short web-based questionnaire about the types of copyright-related features the creator wishes to retain or reject for individual works. For example, musicians making material available for distribution on peer-to-peer networks, but not available for commercial use without permission, would choose an Attribution/Non-Commercial licence. The same musicians can allow users to sample and reuse their work but retain their moral rights under the Attribution licence, or they may disavow commercial and remixing activities entirely through the Non-Commercial/No Derivative option. Artists wanting others to use similar CC licences on any derivative works using their material can choose a Share Alike

⁹ The title Creative Commons will be used to refer to the Creative Commons movement while the Creative Commons licences will be abbreviated to CC licences.

¹⁰ The failure in the Eldred case also led Lessig to propose another copyright alternative, the Founders Copyright Act, designed to recreate the original 28 year copyright term set out in the US Constitution, but with the added clause of being able to register for further periods of copyright protection; only those copyrights with contemporary market value would continue to be registered and protected, while orphaned and unregistered works would move into the public domain.

licence, which like the GPL, requires that any personal or commercial use of the work must also be further released under a Share Alike licence.

The Creative Commons uses the CC licence system as a means of establishing a middle ground between the two extremes of full copyright and the absence of copyright in the public domain. The stated purpose behind the licences is the “rebalancing” of the rights of copyright owners and the rights of the users of cultural materials (CreativeCommons.org, 2005). Fitzgerald (2006: 83) suggests the licences promote easier identification and negotiation over the potential uses of digital content, making it simpler to reuse materials for the purposes of creativity and innovation, by making copyright content more ‘active’. Fitzgerald also notes the legal design of the licence ensures content can be reused with a minimum effort (Fitzgerald, 2006: 83). In drafting the licences the Creative Commons built on the philosophies behind the free software movement and the GPL to ease restrictions on cultural activities, such as the sharing of information, art and literature and remix practices.

There are three distinct formats available for all CC licences; the ‘human-readable’ version which explains the kinds of rights associated with each type of licence; the ‘lawyer-readable’ version defining the legal terms of the licence; and the ‘machine-readable’ code included as part of HTML documents or digital media files. Copyright owners who wish to articulate these kinds of options under traditional copyright law would have to produce an individual contract licence in conjunction with a lawyer, a typically exclusionary and expensive procedure. The digital code versions of the licences embed the legal permissions as part of the digital container of the work itself. This function enhances the operation of the digital commons created by the CC licences, by tailoring digital objects for online search engines and providing a direct route between internet users and relevant cultural materials suited for their purposes: for example, a documentary filmmaker can search the web for CC licenced material that would suit a soundtrack of a particular project. Traditionally the filmmaker would have to negotiate a copyright deal with the musician, their record company, through a series of lawyers. Instead, the filmmaker can avoid the typically ponderous and expensive process and simply download content available under an Attribution licence and make use of that material for commercial purposes, providing the musician is given full credit for their work. A classical economic account would suggest that this is a case of free riding as the filmmaker is potentially profiteering from the unpaid work of the

musician. In contrast it is reasonable to argue that the Creative Commons is actually producing new value for the musician as their work will be credited in the film. Similar to the process of signaling in the open source movement, the use of the work adds to the possibility of further work for the musician and professional recognition in the industry that would otherwise not occur.

The CC licences are designed to legitimise a range of remix practices in the digital environment previously unaccounted for in the dominant intellectual property model. As a result of the standardised design, the CC licences can be used in a granular 'mix-n-match' fashion that does not clash with regular market activities; for example, one of the first Australian CD releases to feature CC protected content was the 2004 album *O-Complex* by the band Ponyloaf (Ponyloaf, 2006), which features one track with a Attribution/Non-Commercial/No Derivative licence, while the rest retain normal copyright rules. This practice has been followed by more famous musical identities, such as the Beastie Boys. This demonstrates the possibility that the digital commons can coexist with private enclosure, and can have a positive effect in expanding the amount of freely and legitimately available material online. It opens new possibilities for distributing content for creative and educational use in the publishing, music, film and other creative industries. The CC licences are designed to facilitate controls for the market as well as the commons; the two are not antithetical and can coexist by overlapping in a functional and sustainable fashion.

The Creative Commons movement aims to increase the amount of creative material available online and to decrease the restrictions and legal costs to access that material (CreativeCommons.org, 2005). The licence system produces a digital commons of information and creative material that is governed by participants in the community who are attuned to the needs of those directly employing the licences: these include the Creative Commons board and administrative staff, as well as the growing number of websites that host CC licenced materials and those blogs and online forums devoted to discussing the development of the licences. As a digital commons the Creative Commons expands and increases its value as a whole through use; the more people use the licences the more material will be available.¹¹ The types of CC licences have expanded since the first four were published. The CreativeCommons.org (2006b)

¹¹ In 2005 the Creative Commons counted 20 million online sources using its 'link-back' feature to the various licences (CreativeCommons.Org, 2005). The Creative Commons also supports a number of open content publishing projects as well as commercially oriented businesses including CC Publisher, CC Mixer, CommonContent, Opsound, Open Content Archives, MIT OpenCourseWare and Flickr's Creative Commons image pool.

website now hosts a range of prefabricated licences for specific purposes, including the Founders Copyright Licence, the Sampling Licences to allow remix practices, the Public Domain Dedication to abstain from copyright entirely and the Music Sharing licence to help independent artists to distribute their work. The Creative Commons website also supports a search function using the machine-readable version of the licence to serve as a portal to CC licenced material, including music, images, text, video and educational materials that can be downloaded for free, used, shared and changed within the licence guidelines.

Like a digital Russian Doll, there are many layers of the digital commons, interconnected by the communications technologies of the internet. The software program *Morpheus* was the first P2P service to use the digital version of the Creative Commons licence in its search function, enabling users to legally download CC licenced works. This is an example of the way Creative Commons helps to legitimise usually copyright infringing activities. In this case file-sharing has been identified and adopted as a reasonable and positive cultural practice. The Creative Commons movement has recognised the potential of P2P networks in meeting the individual's desire to share and access cultural materials in a way that benefits copyright owners through increased exposure without losing potential sales or copyright control over their work. Just how likely the major record companies are to be interested in such a move is still unclear. Instances of mainstream use of Creative Commons licences continue to appear. For example, Pearl Jam's video clip *Life Wasted* is released under the Creative Commons Attribution/Non-Commercial/No Derivative licence, giving everyone the legal right to copy and share the clip, but not sell or remix the work (CreativeCommons.org, 2006c).

While the public domain is not going to increase, at least for the next twenty years, due to the expansion of the copyright duration, the Creative Commons offers one way of maintaining and insuring a productive and valuable space for knowledge, innovation and creativity in the digital environment. It is certainly not the only way to provide an alternative to mainstream copyrights, but the Creative Commons works equally well as a precedent, establishing a progressive dialogue for the consideration of practical alternatives to the full-rights reserved copyright model. For example, in 2004 the BBC announced that it was taking its own approach to releasing audio visual content for the viewing, copying, sharing and remixing of material from the British Film Institute, the

British Library, the National Archives and History Museum and the BBC's archives, by establishing a Creative Archive for non-commercial use that was based on the Creative Commons model (BBC, 2004).¹²

The Creative Commons is certainly not without its flaws, critics and concerns. It does not solve the problem of the attractiveness of making unauthorised use of prominent copyrighted materials and privately owned goods not available in the public domain for remix activities. The commons does not address the underlying issues demonstrated by the popularity of Napster, and the still operational P2P networks, that these services largely depend on unauthorised copying and access to copyright protected works. As with the case of mashing, while the CC licences attempt to create a commons of authorised materials for remixing practices, they cannot help to alleviate the criminal status of the majority of remixing activities; they can only encourage the use of licences with mainstream materials. The Creative Commons does not prevent the massive copyright violations occurring on new channels of distribution, such as *YouTube* and *MySpace*, and, like all commons, it does not address the issues of access and inequality, that not everyone is equally placed to take advantage of what the commons does offer.

6.8 The Australian Commons and Creative Criticism

The Creative Commons became a world-wide movement in 2003 with the launch of iCommons, which is dedicated to the drafting and improving of CC licences for jurisdictions outside the US. There are now more than 40 different countries with working CC licences. The process of porting the licences to Australia was led by Tom Cochrane, Deputy Vice Chancellor, Queensland University of Technology (QUT), Brian Fitzgerald, Head of the Law School at QUT, and Ian Oi of Blake Dawson Waldron Lawyers. During the drafting process a public newsgroup was maintained to record comment and feedback on the shape of the licences. Oi (2004) reports, in the newsgroup, that the drafting was not simple or direct translation and that all efforts were being made to maintain the integrity of the original CC licences in a way that meshed with the traditional rights of copyright owners, as set out in Australian legislation. Fitzgerald (2004) also comments in the newsgroup suggesting that the

¹² This announcement also noted that the BBC Creative Archive would limit access to UK citizens due to the specific copyright and broadcasting restrictions of the BBC's charter.

drafting process of the Australian licences was attempting to overcome serious issues between differences of copyright terminology, the exclusion of warranties, disclaimers for potential liability, the issue of moral rights conflicts and even concerned over conflicts with the national Goods and Services Tax (GST). The 'porting' of the licences to Australia also coincided with the introduction of changes to Australian copyright law as a result of the AUSFTA.

Concern over the perceived need for a CC licensing system in Australia was raised at various conferences and seminars throughout the drafting process. Kim Weatherall (K Weatherall 2004, pers. comm, 18 November), then Associate Director of the Australian Intellectual Property Research Institute, asked why there was an emphasis on the use of licences at all. During the 2004 Unlocking Intellectual Property Conference at the University of New South Wales, Weatherall objected to the uncomplicated acceptance of importing CC licences to the Australian legal jurisdiction on the basis that they were "assumed" to be the best way to promote intellectual property reform and suggested that more critical questions needed to be asked of when and how licences were a good idea in an Australian context (K Weatherall 2004, pers. comm, 18 November). Also during that conference filmmaker Richard Jones (R Jones 2005, pers. comm, 18 January) claimed – in the words of Dorothy Parker - that the CC licences presented a "fresh hell" for the film industry. He argued that filmmakers shared intellectual property on a daily basis through the closed network of friends, colleagues and co-workers and that an Australian CC licensing system was not necessary to spread knowledge and innovation within the industry.

Kathy Bowrey, Senior Lecturer at the School of Law, University of New South Wales, is also a critic of the presumption that CC licences are an appropriate development within Australian legal culture. Bowrey (2004) challenges the Creative Commons approach as a viable alternative to the standard but limited freedoms of Australian copyright law. She argues that the Creative Commons represents a "loss of faith in government and legislation, as protectors of the public interest in a 'balanced' copyright regime" (Bowrey, 2005: 164). Bowrey (2005: 166-167) draws attention to the Creative Commons as a form of "juridification of civil society", in which freedom is an extension of legal power, and sees the licence model as securing an identity and consciousness for producers and users of creative cultural materials that is expressed exclusively within the sensibility and subjectivity of private contract law. Bowrey is critical of the

dependency on private law in shaping activity and identity relations in a digital environment. She argues the subjectivity of the licence system goes well beyond the traditional copyright system to imply a highly categorised and limiting set of legal relations that, once introduced, cannot be separated again; for example, Bowrey (2005: 93). This criticism seems to under emphasise the degree to which alternative licensing arrangements help to offset the orientation of individual users as purely legal subjects in the digital environment; particularly through the predefined private power relations of the End User Licence Agreements of software, the Terms of Service contracts on freely provided email services such as Hotmail and Yahoo mail, or the endless password/login procedures required to perform simple tasks such as reading sections of the *New York Times* online.

Bowrey (2004) asks “Has the ‘piracy’ message influenced our culture so much that the legal presumption is now that any ‘copyright-unbranded’ works available online are all to be feared as potentially infringing copies?” The answer can be seen in the emphasis on technological enforcement of new copyright laws that will eventually regulate the majority of online access; from the installation of software to the subscription to online services, both social and commercial interactions via the internet will be dominated by the legal relations configuring users as either pirates or authorised consumers. The opportunities for individuals to engage in creative communication acts without regard to their identity as consumers or authorised legal subjects will be minimal and marginalised. This is not an environment conducive to the unrestricted spread of knowledge, creativity and innovation, but it is increasingly the reality, where the only complete absence of legal subjectivity is achieved through non-participation. The Creative Commons is acting in response to this trend, like the free and open source software movements, by reversing the polarity of legal subjectivity in order to express rights and freedoms rather than restrict them.

Bowrey (2004, 2005:166) suggests that attaching a CC licence is not necessary to ensure individual freedoms. Conversely it can be argued that without a means to delineate individual freedoms, especially in the digital environment, none will exist. The CC licences do not denote freedom in the sense of liberty without restrictions, they are legal contracts designed to parallel standard copyright law in order to clearly define the materials that are available for certain creative uses and sharing practices. Users and consumers in the digital environment need to be legally and technologically savvy; they

need to understand the potential consequences of their actions. Adults need to be aware of the processes and responsibilities involved in online participation, just as children need to be educated in them. The future of online participation will most likely feature DRM to authenticate a user's access to cultural materials, computer software and online activities. Understanding individual online subjectivity should be considered at the same level as understanding the need for virus scanners, firewalls and email spam filters.

6.9 Civility of the Commons

In Bowrey's (2004, 2005) critique of the Creative Commons she advocates a very healthy strategy of not trusting the lawyers, even the ones with noble ambitions. She views the arrangement of the commons as synonymous with the arrangements of the pre-industrial age where land owners provided social and economic arrangements for the use of their property, but who never attempted to improve the lives of those users:

The 'civility' of the commons is that of the respectable property holder, graciously consenting to specified free or less restrictive uses, so long as the prescribed notice stays attached (Bowrey, 2004).

Bowrey is equating the Creative Commons to those property owners who benefited from the enclosure rather than to the commoners. There is a certain kind of civility to the digital commons created by the CC licences but it is a far more raucous and active 'place' than the term implies. The Creative Commons is more like a regulated form of Raymond's (1999) Bazaar model of production occurring in the frantic bustle of community-organised and openly-regulated projects. The commons is a civil movement, but it is also part of the public sphere, filled with highly educated, creative and expressive participants, not simply a replication of either the early English commons, or the enclosure landholder relationship. The CC licence arrangement offers a type of commons whose boundaries and borders, although clearly expressed in the licences, are still being tested. The online forums, blogs and newsgroups discussing the Creative Commons are lively sources for a variety of participants, concerns, discussion and debates. It is a continually evolving commons, where people not only contribute creative cultural materials but construct the overall shape of the commons on a daily basis.

The Creative Commons is also shaped by its opponents and by voices of opposition, as was the case with the first Australian movie to attempt to use a Creative Commons licence. Shortly after the launch of the Australian Creative Commons licences in 2004, the Media Entertainment Arts Alliance (MEAA), interrupted plans for the first fully remixable film project to be made in Australia and released under a Creative Commons licence. Film maker Michela Ledwidge received an award from the British National Endowment for Science, Technology and the Arts in 2004 and secured backing from the Australian Film Commission (AFC) for the project (Byrne, 2005). Described as a “remixable live action graphic novel” *Sanctuary* tells the story of a sixteen-year-old girl living in a rural Australian country town, who becomes both a superhero and an enemy of the state. The digital assets of the film, including video, sound, scripts, images and special effects, etc, are scheduled be made available via the MODfilms website, under a CC Non-Commercial licence, which will allow users to remix the film, introduce their own content and create new works solely for non-commercial purposes.

The producers of *Sanctuary*, MOD Films, sought special dispensation from the MEAA in January 2005 to publish the film under a Non-Commercial CC licence. The MEAA board however decided the use of the Creative Commons system of alternative copyright licences in Australia was “inappropriate” (Ledwidge, 2005). In a press release, Ledwidge disparaged the MEAA’s findings, which she claimed seriously jeopardised the project and delayed filming the project in Australia:

I’m both dismayed and rather embarrassed by the MEAA position. It is no small irony that the actors and talent agents, who supported our little pilot and our submission to the MEAA, have the most to lose from this decision. (Ledwidge, 2005)

In a responding press release, Simon Whipp, national director of the MEAA, objected to the support the AFC was providing the *Sanctuary* project and the decision to back the use of the CC licence. Whipp contested the right of Australian actors, specifically those in the Actors union, to agree to work for projects that would use a Creative Commons licence. He argued that the use of the licence would lead to exploitation of performers and undermine the “precious” local film industry (Whipp, 2005). He claimed *Sanctuary* film content, and any film material licenced under a non-commercial copyright licence, created the possibility that the performer’s images might be used in highly undesirable ways:

A performer with the head of a goat, spruiking for the Trotskyist party on a pro-abortion platform, it's all just part of the future of film encouraged by the Australia Film Commission (AFC) (Whipp, 2005).

Whipp's response to the use of CC licences is similar to the anti-piracy message of the RIAA and the MPAA. Where the RIAA and the MPAA are concerned with injury to revenue as a result of the inability to stop people from copying works, Whipp is concerned with what people will creatively do with the work once control is released. Blogger Brian Flemming (2005) notes, Whipp's "pro-abortionist Trotskyist" reasoning is the same kind short-sighted logic that Jack Valenti employed, as chairman of the MPAA, to claim that the advent of VHS technology was equivalent to the Boston Strangler of the film industry (Flemming, 2005).

Participating in a project to be released under a Creative Commons non-commercial licence does mean, that unlike traditional copyright arrangements - where even non-commercial use would have to be compensated for - the actors in the remix project would need to legally relinquish the typical royalty arrangement. In order to justify the use of the Creative Commons licence it is crucial that all participants should be made aware of the consequences of involvement; as Ledwidge claims the *Sanctuary* project was supported by the cast and crew. This echoes Bowrey's (2004) observation that the use of a CC licence subjects any creator, participant and user of the material to the legal subjectivity of private law. Unlike traditional copyright law, in which the user is governed by the public law of national copyright legislation, the CC licence is an individual contact. The benefits of this 'juridification', to use Bowrey's term, are significant; in return for agreeing to the terms of the licence any user gains free access to professionally filmed and acted material and the opportunity to remix, create and learn that would otherwise be strictly off limits.

The effectiveness of CC licences in the Australian legal jurisdiction depends on how closely the licences reflect the customary rights of copyright law. The issue of moral rights, in particular, proved to be an ideological and legal puzzle for the porting process. Australian moral rights were altered in the Copyright Amendment (Moral Rights) Act of 2000. The Act identifies two specific moral rights, the right of attribution of authorship and the right of integrity of authorship. The moral right of attribution, like the CC licence of the same name, produces its own legal subjectivity by ensuring that an author's name is always connected with their work. The moral right of integrity of

authorship gives the author the right to object to a use of their work that may lead to a misrepresentation or a distortion of the work that may be prejudicial to the author's reputation. The Act guarantees the author's moral rights will remain for the entire copyright duration regardless of the transfer of the copyright to another person.

In an interview with law reporter Damien Carrack, on ABC National Radio, Simon Whipp professes a traditional prejudice regarding the use of the CC licence system:

Well, we know what the consequence will be. That performers will be agreeing to things which they have never agreed to in the past, and opening the door to uses of their performances in ways which may have tremendously detrimental consequences in the future. We don't think it's a desirable thing for this door to be opened, and we maybe considered to be technological troglodytes but frankly I don't think this is the way of the future. In our view, there's no commercial business model which sustains this type of approach, and our view is it doesn't offer anything to performers. (Carrack, 2005).

Whipp's claims are reminiscent of Bill Gates' argument that the Free software movement promotes communist ideology (Kanellos, 2005).

Both *Sanctuary* and the Creative Commons represent a Pandora's Box, not only for the MEAA, but for other content industries as well. The prospect of not having complete control over the intellectual content in cultural objects, such as film, TV, music and radio, is obviously a threatening concept. There should be no criticism that the MEAA or its director is not standing up for the rights of Australian actors. The MEAA is suitably protective of artists' rights, especially the moral rights which actors have over the way in which their work is used. The MEAA can only do this through a constant vigil and media-based political lobbying. In this case, however, the MEAA's position as a 'technological troglodyte' merely replicates the dominant ideology of the enclosure of intellectual property, it represents an entrenched fear that by giving valuable intellectual property away it somehow becomes valueless to the original creator, useless for any kind of profitable commercial business model, and primarily open to misuse.

6.10 Conclusion

In responding to the cultural studies critique of the current intellectual property system Hemmungs Wirtén (2006: 284) focuses on two rhetorical devices that she argues have

led to an underdeveloped approach: “creativity and free/dom (or the ideas of free and freedom)”. Of creativity she suggests that:

Instead of helping us to reconceptualise creativity as a collective, perhaps even ‘non-original’, and culturally diverse activity, the symbolic usage of the idea of creativity as it has taken a foothold in the discourse of intellectual property critique more generally appears not to do away with the old individual, original author. In fact, this usage infuses him with new life (Hemmungs Wirtén, 2006: 285).

Instead of “dismantling” the “fallacy of authorship”, the author has been reinvented as “hacker, programmer, DJ, whatever” through an articulation of creativity as innovation that has failed to question idea of uniqueness and originality (Hemmungs Wirtén, 2006: 286-287). Similar to Chander and Sunder’s (2004) argument, but in connection with freedom, Hemmungs Wirtén questions the apparently unquestioned identification with the “presumably productive, non-rivalrous nature of information and culture” that has uncritically incorporated a concept of freedom polarising debate into unredeemable dualities; freedom v. control; copyright v. public domain; owned v. unowned (Hemmungs Wirtén, 2006: 287-290).

In response to these criticisms it is useful to offer a self-reflexive review of the material presented in this chapter. The concept of the commons, and the ideas it embodies of collective management and peer-based production, complete with its enclosure companion bearing digital locks barring the access to knowledge, information and cultural materials, has not been presented as a simplified or unproblematic cure for the woes of rampant intellectual property expansionism. The commons and its tangible history give us a vocabulary, not just for allegorical warnings about the dangers and profitable lures of the enclosure, but for a language to communicate ideas about the importance of the reconceptualisation of creativity and freedom. It is easy to fall back on the purely symbolic role of the metaphor of the commons and its enclosure, but these metaphors also serve to develop radical new ways of thinking about old symbols. The commons, whether it is the physical commons of Hardin’s tragedy, the digital commons of *Wikipedia*, the underground commons of remix culture or the commons formed through alternative copyright licences, does offer us alternative and practical methods for critical thinking about creator’s rights, user’s rights and different forms of productive freedoms.

The approach of this case study has been one of exploration and discovery. It cites the historical positioning of the commons because its opposing concept of enclosure is a dominant and contemporary experience, but also because the commons comes without borders and fences and with practices and conventions; the rules of the commons are the rules of a community of users. These rules are not immutable: like *Wikipedia* they evolve and involve slippage and change; like CC licences they have many versions, updated over time to meet the needs of the commoners and to increase authorised and legitimate opportunities for activities enabled by new technologies. The social relations of the commons are not universal, but they are communicated by concepts that involve participation and volunteer contribution which are valuable in themselves, even if they are turn out to be inevitably polarised and pitted against the motives of incentive and the private controls of the enclosure.

This case study does attempt to escape this commons/enclosure duality by seeking middle ground; seeking a spectrum of possibility in a coexistence of the commons of appropriation, of remix and the reuse of cultural materials, not solely from the public domain, but from the circulation of current goods that intellectual property reform seems so desperate to cocoon tightly within digital walls. That question is yet to be answered fully; it is unlikely that an unauthorised remix culture could co-exist with commercial culture, without a major overhaul to the intellectual property system. Even the use of Creative Commons licences that allow for remix and appropriation are in the minority when compared to those licences that do not permit such activities (Bosworth, 2006). This suggests that even those artists willing to consider new copyright options for their work are not yet ready to give up the ghost of the author and allow others to enjoy the unrestricted possibilities and potential of remix culture. Perhaps the author still lurks, but not unquestioned; remix culture in the least turns the notion of the author into wild disarray, complicating the notion of originality while not quite escaping it. Even if freedom is bound to the limits of an alternative copyright licence, it is a system that offers a new order of choice, presenting opportunities for individuals to question the validity of such a system.

The CC licences are simply one method available to the producers and users of cultural materials to meet the challenges of increasing intellectual property protection. By selecting a CC licence individual creators enter into a very specific legal arrangement, designed to support a digital commons; by accessing CC licenced

materials and abiding by the licence rules, the user also becomes part of this commons. The Creative Commons is not the only possible copyright alternative, nor is it the best. Much needs to be done in lobbying government for positive changes that readdress the unbalanced state of intellectual property rights. Other alternative means of enhancing progress and innovation also need to be explored along with further means to encourage the spread of knowledge and information.

The use of alternative licence systems requires ongoing critical examination. The licences give creators practical choices about copyright; these may be legally subjective and ultimately limited, but they are highly differentiated rights that create a spectrum of options, disrupting the traditional binary discourse of copyright and the public domain. This is a less than perfect solution that will continue to work cracks into the buttress of the dominant intellectual property regime. This chapter has represented the commons within what Hemmungs Wirtén (2006) sees as a constructive critical cultural approach, which identifies the limits of what is owned and what is un-owned as unfixed, like a *Wikipedia* article, always in a state of flux.

Chapter 7

Meta-Gaming and Middle Ground

7.0 Introduction

This final chapter proposes that fans of online computer games have established commons-like formations devoted to the appropriation of copyright-protected materials for peer-based production conducted through meta-gaming activities. The term 'meta-gaming' is used in this case study to refer to computer games fans, called 'gamers', who act within, and exterior to, computer game environments to produce new game-related texts and game-based content. The purpose of this case study is to examine the copyright tensions produced by these activities and to suggest how meta-gaming activities and the computer games industry have complicated or resolved these tensions. This account has significant implications for the acceptance, even encouragement, by intellectual property owners of the appropriational behaviours of consumers in digital environment.

The chapter begins by engaging with fan theory to establish how fans challenge copyright laws and explores the degree to which the digital environment has enlivened productive fan-based practices. Jenkins' (1991, 1992, 2003, 2006a, 2006b) fan theory, particularly his work in extending de Certeau's (1984) observations on the heterogeneous marginalisation of consumers, is used to describe how gamers have tactically engaged with the privately owned intellectual property of computer games companies through the alteration of the gaming experience. The productive relationship between fans, computer games companies and their games, described by Herman *et al.* (2006) as a degree of 'goodwill', is then explored through a discussion of computer game modifications by gamers, which are called 'mods'. This section of the chapter asks why major games companies have systematically relaxed their intellectual

property enforcement and reduced the exclusivity of proprietary content production to encourage modders to innovate and create new gaming experiences. This leads to the discussion of machinima. The term 'machinima' (pronounced as 'mash-in-ema' or alternatively as 'mach-in-ema') refers to the remediation of computer games by groups of gamers producing digital animation by harnessing the tools available within the games themselves. The practice of creating machinima is considered, in this section of the chapter, in terms of 'official' and 'unofficial' modes of production and particular attention is given to the case of *Red vs. Blue*, a machinima series which has adapted the intellectual property of Bungie, a Microsoft subsidiary games company, to create a popular web-based animated series set in the game world *Halo*.

The final component of the study examines a range of meta-gaming activities, including the production of game screenshots, participation in online game guilds and the commercial trade of in-game created digital objects. This section explores the types of tensions that arise between the appropriational practices of gamers and games companies over the commercial application of these productive activities. In conclusion this chapter discusses the potential for gamers to have legally recognised physical property rights in the digital products of their play. In considering the community formations and productive fan-based activities associated with this kind of gaming, the chapter gives particular attention to the relationships between gamers and games companies as they are formally and legally expressed through the games End User Licence Agreements (EULA). This study does not offer a legal analysis of EULA contracts but it does examine the degree to which EULAs are designed to limit the capacity of gamers to appropriate and use game content for purposes beyond play and suggests that EULAs will play a highly significant role in the rights of gamers and software users in the future.¹

¹ With the exception of *Red vs. Blue*, which was produced on the Microsoft X-Box game console, the following study is primarily concerned with PC games; these are digital computer games that operate on personal computers, running the *Microsoft Windows* or *Apple Mac OS* operating systems. The two chief genres of PC games that feature in the chapter are the First Person Shooter (FPS) and Massively Multiplayer Online (MMO) games. The standard moniker for the latter type of games, which requires an internet connection for the game to function, was previously MMORPG, which stands for Massively Multiplayer Online Role-Playing Games and is one the more common acronyms used to denote this PC games genre. There are, however, many different types of these games which are not strictly 'role-playing games' but features large numbers of gamers playing together simultaneously via the internet, and subsequently the genre is occasionally referred to as MMO or MMOG where appropriate.

7.1 Fandom Theory and its Application

Fans are the subject of broad academic inquiry. Fiske (1992) associates fandom with the cultural tastes of commercially subordinate individuals, disempowered by their association with popular cultural materials, who nonetheless engage in some level of semiotic productivity. Michael Jindra (1994) has likened *Star Trek* fandom during the late 1960s and 1970s to a religious phenomenon. Clerc (2002: 57) suggests that mass media fandom has much of its roots in science fiction film and television and in fantasy literature. Fans, according to Wexelblat (2002: 209-226), have consistently demonstrated the ability to organise and petition media owners for consideration of their interests. The word 'fan' is an abbreviation of the term 'fanatic', a label which characterises one view of fans as people with unhealthily obsessive personalities. Jensen (1992: 9) examines the perception of fandom as a psychological symptom in which fandom is an expression of a presumed social dysfunction, and explores the differences between the obsessive individual and the frenzy of crowds and mass fan pathology. The link between the pleasure that a fan derives from the subjects of their attention and the fan's subsequent activities and social behaviour is also considered in Brown's (1997: 13) study of comic book fandom, which concludes that observations of fan behaviour only lead to evidence of the general and complex relationship that individuals and entire communities of fans have with mass-mediated texts.

In Brooker's (2002) book, *Using the Force: Creativity, Community and Star Wars*, the writer's early childhood experiences with *Star Wars* are included within the narrative of his investigation into the different ways in which people, as fans, engage with specific important cultural texts. Matt Hills (2002) also reflects on his perspective as a fan in his inquiry into a general theory of what he calls media fandom. Each of us, academic or otherwise, has interests in subjects that can be considered as one form of fandom or another, which is evidence of the ubiquitous and quotidian nature of fandom itself. Hills argues that academic practice frequently attributes systems of value and power over cultural representations reducing fandom to an absolute or concrete form of identity (Hills, 2002: 3-5). However, it is more useful to argue that there is ultimately no effective single definition of a fan or measure of fandom. Some fans are amazingly intense in expressing their passion; others are more closeted, occasional and casual in their celebration of their favourite texts.

Notions of fandom, fans and fan activities cover an expansive field and represent varying degrees of personal identification and levels of participation and activity. Hills offers an account of fandom that suggests that, just as “academia cannot be thought of as a singular entity, fandom also cannot be depicted as a univocal site or as one any ‘thing’” (Hills, 2002: 7). Ultimately, this chapter is not essentially concerned with determining exactly what fans *are*, but rather seeks to formulate an understanding of how computer games fans, and their appropriative practices and socially constructive activities, challenge the exclusivity of production and the restrictions of private property ownership under the dominant copyright regime.

7.2 Fandom and the Tactics of Appropriation

The digital environment has contributed to the popularity and sustainability of productive fan activities. Creative fan practices, such as fan fiction and other fan related publications, obviously predate the internet, but through new digital and communications technologies fans have harnessed the means to create and distribute their own innovations on privately owned intellectual property on a mass scale. The relationship between fans and digital media has also resulted in fans becoming a highly significant audience for digital media products and internet-based channels of consumerism. However, the transition from a sub-cultural identity to a participant in a mainstream economic niche has not occurred without conflict between media fans and intellectual property owners (Clerc, 2002: 52). Fans have frequently demonstrated a range of creative practices that transgress intellectual property laws, specifically copyright, through the pursuit of individual and social expression. This situation has been intensified by internet and digital technologies providing fans with resources to inexpensively publish and distribute fan-based stories and other creative content, such as review and commentary of fan subjects on personal and fan community websites. These technologies have provided the digital infrastructure for ongoing community formations to coalesce, discuss and produce, and they have also provided fans with the increased ability to directly copy and appropriate copyright protected materials; producing websites filled with illicit episode transcripts, sound and movie files and images captured from the screen.²

²New streaming internet technologies on websites such as *YouTube* and *Google Video* have increased the viability of the mass distribution of fan produced content, but also increased the amount of unauthorised copying and copyright infringing fan practices.

The decentralised production and publication of fan works has gradually disrupted the conventions of media industries in which the fan is traditionally positioned simply as the consumer, the recipient at the end of the production line. Jenkins (1992) fashioned a resistant consumer model of fan culture and explored the contradictions of the fan as a productive consumer. Jenkins extends the approach of Michel de Certeau (1984: xvii), in *The Practice of Everyday Life*, who considers consumers as subjects of a massive and pervasive marginality in terms of power rather than size. This marginality is an expanding and silent majority, not constrained to homogenous populations or restricted to minority groups, but part of a cultural activity in which the reception of products is a practice limited to consumption. De Certeau considers this massive but marginalised group to be the 'non-producers' of culture; avaricious consumers restricted to narrow channels of reception. He argues that consumption is embedded in the "cultural activity of the non-producers of culture", where reception is the only activity permitted "through which a productivist economy articulates itself" (de Certeau, 1984: xvii). In de Certeau's argument, acting outside this marginality is an act of appropriation through tactical operation, which "insinuates itself in the other's place fragmentarily, without taking it over in its entirety" (1984: xix). In this view, consumers who appropriate materials for creative and social activities, for example, fans who write stories about a character from a TV series, operate from a weak tactical position. These fans are not recognised as an authorised or an official source of production; they are 'non-producers'. Fans, in this view, despite their productive activities, are identified by their role as receivers and subordinate consumers.

Jenkins (1992) extends de Certeau's work through the concept of fan 'poaching', in which fans are consumers who have the capacity to produce new content through the tactical appropriation of the subject of their fan interest; fans are not limited to spectatorship but can compose new contributions from their experiences and creativity. The fan-based appropriation of cultural materials is highly confrontational to intellectual property owners in three distinct ways. Firstly, creative fan-based expression represents a loss of control over the way the commodity is accessed, used and appropriated by its audience. Secondly, this fan-based appropriation challenges the legal monopoly of copyright ownership, reducing the exclusivity of the official product and the private status of that property. Thirdly, because fan practices challenge the linear production/reception model of consumption they represent a force with unpredictable and unstable economic consequences. Fans represent, *en masse*, the

most profitable audience for mass media products, but they are also passionate consumers who are just as likely to resist authorial limitations as they are to celebrate them. For example, Brooker (2002) describes *Star Wars* fans and their relationship with the series creator, George Lucas, as a good example of the volatile dynamics of fandom, because *Star Wars* fans are typical of passionate and vocal fans; they are equally disposed to praise certain elements of the text and its creator and denigrate others.

Owners of intellectual property may have sought greater levels of copyright protection and enforcement, as detailed earlier in this thesis, but fans continue to adapt, producing fresh tactics for the strategic navigation of the boundaries of the new laws. The weak tactical position and limitations of these appropriative productions mean that, while fans may appropriate copyright protected materials for fanzines, websites and the vanity-style internet publishing of fan works, the attempt to commercially publish these works or otherwise distribute them as official sources of production is met with serious legal restrictions. While Hills (2002: 30) reminds us that not all fans are producers, it is those fans that do produce who represent the point at which the relationship between fans and intellectual property owners undergoes significant change.

7.3 Cease-and-Desist

Writing and producing fan media, including fan movies and animation, scripts, stories and other forms of expression, is a common fan activity through which fans are able to contribute their own creative innovations to the subject of their interest. The audience for these productions is predominantly, but not exclusively, other fans. Slash fiction, in which the characters of media texts are portrayed in homosexual encounters, has consistently challenged media owners' control over their property. Fan fiction of this type predates the internet, but the increase of access through digital distribution has expanded the readership. Jenkins (1991) and Camille Bacon-Smith (1992) have both examined slash fiction as a creative and productive fan activity, while Brooker (2002) has detailed the production of *Star War* adult and slash fiction. These academics have all argued for the recognition of the rights of fans as authors in themselves, not simply as creators of derivative works. Clerc (2002: 47) describes the reaction, of copyright owners to the emergence of slash fan fiction on the internet in the 1990s as a dual concern over the use of copyright protected materials in the production of pornography

and the presumed material, intellectual and moral trespass to the copyright holder's property.

The standard response from US-based copyright owners to such collisions of interest is the Cease-and-Desist order, a legal injunction issued on the allegation of copyright infringement by the recipient, meant to act as a legal deterrent to their actions, often frightening the accused infringers into submission before the case reaches the courtroom. More recently DMCA-based 'takedown' orders are aimed at the American ISPs hosting the infringing content, who must comply immediately and remove access to the offending material in order to qualify for the 'Safe Harbor' provisions of the DMCA and avoid being included in any subsequent legal action. The scare tactics of the Cease-and-Desist order has proven to be a successful method available to media owners to prevent fans from becoming part of the official sources of production.

Lucas Arts, Twentieth Century Fox (Fox), Mattel, Coca Cola (Coke) and other intellectual property owners have been belligerent in relying on Cease-and-Desist orders to harass fans for making alleged copyright infringing materials available online. Lucas Arts have banned slash fiction and the posting of *Star Wars* images on webpages (Brooker, 2002). Mattel has sued the artist responsible for the digital art exhibition *Barbie in a Blender* (Forsythe, 1999). Coke has stopped bottle collectors posting images of their collections online and attempted to prevent photographers from displaying unflattering works with Coke billboard advertising in the background (Chada, 2005). Fox has sued fans for making images, sounds, and scripts from its many television series available online (Barker, 1997). Copyright, when used in this way by media owners, does not simply represent the enforcing of boundaries on fan appropriation, it demonstrates the way in which copyright owners have attempted to extend their control over cultural materials beyond simply enforcing their monopoly copying privileges. As de Certeau (1984) indicates, media owners have attempted and largely succeeded in marginalising the productive interests of fans within a model of consumerism that limits transformation, use and response.

Part of the process of overcoming this restrictive approach to the management of copyrights is, as Alvermann and Hagood (2000: 437) suggest, the defeat of the notion that fandom is merely a label for passive and docile audiences who are manipulated and cajoled into consumer practices as orchestrated by mass media. Once fans find

themselves in more powerful positions, such as a large readership or audience, media producers are forced away from the smothering Cease-and-Desist style of copyright enforcement towards more negotiated channels of communication. One prominent case of this is Harry Knowles and his *Ain't It Cool News*, a fan review and popular culture rumor website. Despite Knowles being almost universally loathed by film studios and frequently reviled by movie producers for his often unfavorable coverage of Hollywood releases, Knowles was one of the early sources of news regarding the *Lord of the Rings* film trilogy. Murray (2004) describes the co-operation between New Line Cinema, producers of the trilogy, the director Peter Jackson and Harry Knowles to produce the interview hosted on Knowles's site, as an unsavory but ultimately attractive proposition for the studio:

...[W]hile this newfound engagement may be reluctant on Hollywood's part, it constitutes a necessary publicity evil to target the high-spending, web-proficient youth demographic crucial to the success of any major studio release.

Jackson's and Knowles' internet encounter marks a pivotal point in mainstream media's relationship with film fandom, illustrating shifts in power and tactical advantage... (Murray, 2004: 8).

The shifts in tactical advantage described by Murray (2004) are part of a process that has prompted media owners to engage in greater communicative acts, enforce less prescriptive limits on fan-based innovations, and actually encourage fans to harness digital and internet technologies to create new content and gain greater audiences for their own works. This shift, however, is not a highly problematic move for content owners, who have strategically employed fan tactics of appropriation to their own advantage, by incorporating fan behaviours within their own logic of productivity and marketing, but without allowing them to become official producers of the material.

Fandom does represent, for some, becoming an expert in a niche interest, which can lead to semi-official channels of production, such as fan books and documentaries. But, as Hills argues, this creative activity is in turn reabsorbed into the processes of the market in which fandom itself becomes a commodity (Hills, 2002: 40). The same internet and digital technologies that aid appropriational fan practices have also provided official producers with ways to marginalise fans within a specific model of online activity and consumption. Jenkins (2003) observes patterns of media ownership which have assimilated fan practices into the official modes of production through the integration of content production and advertising; such as 'authorised' fan websites and

privately managed fan forums, chat sites, mailing lists, 'special offers' and other marketing devices.³ However, Jenkins (2003) also observes that, while media industries have capitalised on the multiple entry points for fans engaging in creative and innovative behaviours, they have also contributed to the perception of media fans as highly active and valuable contributors in the production of digital media.

Clerc (2002: 53) frames the legal battles between fans and owners of media texts as legal skirmishes, symptomatic of a larger conflict over who controls culture. This metaphor of conflict, however, does not fully represent the nature of the underlying interdependency between fans and copyright owners. Fans rely on copyright owners for the provision of material relating to their shared interest. Copyright owners, as the official sources of production, rely on the fan audience to consume the material. The relationship between fans and official sources of production is a network of shared investment of time, money and energy. Conflict arises in this relationship when one partner attempts to exert significant control over the content produced by the other.

Copyright laws are not effective at drawing distinctions between the types of ownership that copyright owners enjoy, as opposed to the rights of appropriative fan creators. For example, the law does not easily differentiate between the rights George Lucas has over *Star Wars* and the types of ownership fans have over derivative parody works like *Troops* (1997). The concept of originality and the original author are typically attributed precedence over the concept of originality in derivative works. Copyrights in derivative works, including translations, dramatisations, and other remediated reproductions are only considered for the newly contributed material, not the preexisting elements, and unauthorised derivative works are not considered to have copyright protection (Smith, 2006). As a result of this, copyright law, which was originally intended only to protect the 'expression' of a work, is being used to interfere with the unauthorised attempts by fans to use the 'ideas' contained within the copyright work for their own personal expression. Warner Brothers, for example, attempted to sue Harry Potter fan, Claire Field, the 15-year-old owner of harrypotterguide.co.uk on the basis that the ideas contained in her fan-based writings were "infringing on the company's intellectual

³ For example, the official *Star Trek* (CBS Studios, 2006) website has capitalised on the copyright protected materials from within the multiple *Star Trek* television series and films to market new products to an online fan audience, using graphic interfaces, icons and typography seen in the technology of the series, which as copyrighted content are unavailable to fan producers. The official version of the fan website also makes use of 'exclusive' content, such as streaming video, live broadcasts, recorded interviews and 'special offers' to create an online market in highly specific fan products, from commemorative starship models to limited edition DVD collections.

property rights” without actually directly copying any of Warner’s materials (Bowman, 2001).

It is possible that fans are less concerned with maintaining authorial identity and more interested in expression of their affinity with the subject matter, but this does not always make fans any more ‘charitable’ with their own works. In 1992, a fan fiction writer attempted to sue science fiction and fantasy author, Marion Zimmer Bradley, and accused Bradley of stealing ideas from her fan stories for the Bradley’s *Darkover* novel series. The author responded by abandoning the series, and her publishers began issuing Cease-and-Desist orders to all Bradley fan fiction writers (Ecks, 2001). This outcome reinforces the argument that fans act from a tactically, and legally, weak position. Even when fans own the copyrights to their work, the material’s derivative nature is subordinated in a hierarchy based on the concept of authorial genius and the notion of originality. This incidence demonstrates the problems that arise when fans transgress the respected lines of fan appropriation and attempt to exert commercial, authorial or legal influence over the original subject matter. This type of fan behaviour also feeds into the fears of copyright owners regarding the threats that fan based appropriation represents to the exclusive proprietary control of the works.

It is important to note that both the Warner and Bradley cases never made it to court and the legal merits of the claims were never decided, but these instances demonstrate how commonly copyright laws and their enforcement by copyright owners can impact on fans’ rights without official court proceedings. It is also worth emphasising that the majority of fans experience copyright laws as a tradition of authorial privilege that prevents them from seeking to claim property rights over the subject of their interests, and yet they still continue to search for ways to express themselves and invest time and energy into these creative freedoms regardless:

Fan fiction writers and readers are often confronted with the question of why they turn to fan fiction instead of creating “original” characters and stories “of their own”. Having grown up in a culture that supports the myths of solitary authorship and literary works as expressions of individual genius created out of nothing, even in the face of what is known about Shakespeare and his contemporaries, fans have internalised those myths as much as anyone else (Clerc, 2002: 67).

Fans, through their productive and creative activities have challenged the prescribed roles of the author and copyright owner, but, as Clerc suggests and the Bradley case demonstrates, they don't always arrive at new ones.

Authors assemble stories from the cultural mélange of their experience in creating new materials, just as fans use the fictional worlds and resources that have been constructed by others in order to generate their works. Fans bring their own unique perspectives and innovations, which have largely been marginalised as 'fandom' and reincorporated within official modes of production only when it suits the copyright owners to do so. Fan production, despite reappropriation by the market sphere, is not constrained by the demands of production or the incentives and limitations of official sources. Fans can enjoy a more relaxed concept of schedules, deadlines and budgets; they do not rely on economic incentives for their production, but they are equally uncompensated economically for their work. Like contributors to the digital commons, fans need to financially support themselves in other ways in order to continue their contribution, and as is the case with all forms of socially constructive and volunteer production, not all fans are as equally placed and able to do this.

7.4 Modding: It's a Mod, Mod world

The technologies of the digital environment have magnified the productive potential of fan-based practices, but, unlike the film, television and music industries, which seem determined only to harness the consumer power of fan audiences, there are some entertainment industries, including the computer games industry, that are pursuing a different logic. Groups of gamers and games fans, called modders, have established a mode of production that has disrupted the traditional boundaries between official and unofficial production and effectively moved beyond the limitations of activities normally prescribed by current intellectual property regimes. The practice of games modification has its origins in a number of subcultures and fan-based activities. The term 'modding' has previously been used to refer to the rebuilding and performance modifying of automobiles. In the context of computer games, modding refers to the modification of software code and other digital objects from within a game with the purpose of building new content and creating new gaming experiences. Communities of modders have flourished online, coordinating global efforts in the hacking of copyrighted game code.

Modders are not average computer games fans; they are not typically 'celebratory' in expressing their fandom of game content, but they are highly vocal games fans, organising and communicating online with other modders about how best to learn and improve their mods. Through modding, these gamers acquire technical, design, and managerial experiences and other key skills in the software industry. As Kushner (2004) notes, modders demonstrate the principles of the hacker ethic which Levy (1984) described as a decentralised culture of sharing and openness (see also Chapter Five). Modding is not a new gaming practice. The first mod was a variant of a text-based role-playing game called *Adventure* in 1976 and *Ms. Pac-Man* was the first mod to receive a retail release in 1981 (Kushner, 2004). Modding became more accessible to computer games users in 1993 with the release of *Doom*. Published by Id Software, *Doom* was designed by lead programmer John Carmack to be modding friendly; the code and file system enabling modders to add new sounds, graphics and game levels with greater ease than previous titles.⁴ Although the game was released as a complete work, it was not hermetically sealed and its production deliberately encouraged user-contributed content.

The practice of modding has emerged as an extension of game play for many games fans. Mods can be small and simple user innovations accomplished with rudimentary programming, artistic and design skills.⁵ For many gamers, modding is an extension of other fan-based practices: for example, *The Sims* has a substantial fan following in which the players have experimented with minor mods, creating new in-game objects for their simulated human pets. *The Sims* fan community has thrived on the unrestricted and costless sharing of these user made materials. For many gamers, creating their first mod is a way to engage in the bustling online modding communities.

Modding subculture has undergone a transition from being considered a kind of fan-based cult practice to becoming a proving ground for potential games programmers. One of the key mods responsible for this transition, *Team Fortress*, was also one of the first 'total conversion mods' in which the original content is completely stripped away and redesigned, leaving only the commercial software engine beneath an entirely new

⁴ Carmack made the source code for the official *Doom* editing tools available to mod makers and later in 1997 made the source code of the full game available to download (*Wikipedia*, 2006e).

⁵ Mods, however, are not easily transposable forms of software; for a mod of one game to work with other games the source code is usually rewritten entirely.

user-contributed game.⁶ Some mods are relatively simple and they can change the way the game works in a few lines of code, but a total-conversion mod produces a separate gaming experience to the original source code.⁷ The mod was published on the *Team Fortress* community website and made available to download without cost. The success of the mod led to the modding team's incorporation within the mainstream industry by Valve Software, reinforcing Hill's observation that fan-practices are easily absorbed within the official process of the market (Hills, 2002: 40).

Fans of the First Person Shooter (FPS) game genre embraced mods whole heartedly, and the industry's recognition of modders' abilities was followed by a rapid increase in the number of modding communities. The popularity of the FPS genre inspired a series of mods based around different dynamics of team play, including the most famous of all FPS mods, *Counter-Strike*. Like *Team Fortress*, *Counter-Strike* is a total conversion mod, created by Minh Le (also known by his game nickname 'Gooseman') and Jess Cliffe ('Cliffe') in 1999. The pair organised a modding community and used the *Half Life* software code to produce a new game in which two teams, the Terrorists and the Counter Terrorists, attempt to eliminate each other, and are rewarded for defeating opponents, rescuing hostages and destroying designated targets. The fast-paced action, the playfully contentious subject matter, the short-term game play (most games last between three and five minutes) and the low hardware requirements, combined to make *Counter-Strike* one of the most popular of online multiplayer games; "*Counter-Strike* has more people playing it online at any given time than all other FPS games combined" (Cleveland, 2001).⁸

The *Counter-Strike* mod was made available to download at no cost via the mod community website, but the copyrights to the game were split between the new content created by the mod team, and the game's publisher Valve software, who owned the original source code. Valve commercially acquired the copyrights to the mod content, and the game was incorporated within the official sphere of production as part of Valve's publication of a *Half-Life* 'best-of' collection in 2000 (*Wikipedia*, 2006f). Starting in 2001 the mod was redeveloped by a series of games companies licenced by Valve.

⁶ *Team Fortress*, was originally released in 1996 by Australian Computer Science students at the Royal Melbourne Institute of Technology, Robin Walker, John Cook and Ian Caughley.

⁷ Instead of the individual 'Deathmatch' mode, the standard for online multiplayer FPS games in the early to mid-1990s, *Team Fortress* used the source code from Id Software's *Quake* to change the experience of play in *Quake* into a team-based game (Kushner, 2004)

⁸ The *Counter-Strike* mod now features as one of the staples of professional gaming tournaments. The 2005 Electronic Sports World Cup, at the Louvre in Paris, France, featured *Counter-Strike* championships for both men and women with prizes of up to US\$300,000 (Bohbot, 2005)

Like many computer games titles, it stalled in development and was finally released by Valve as a stand alone commercial game, called *Counter-Strike Condition Zero*. In 2004 *Counter-Strike* was updated again, by Gooseman, Cliffe and other Valve employees (Wikipedia, 2006f). This time with entirely new code to match the current generation of PC technology and repackaged with the commercial release of *Half-Life 2* in 2005.

Half-Life 2 achieved considerable commercial success selling more than 1.7 million copies in two months (Fahey, 2005) and Valve.com (Steam Review, 2005) reports sales of more than 3 million between November 2004 and October 2005 making it a 'best seller'. The popularity of *Counter-Strike* and other mods kept the original *Half-Life* game in the best-selling games charts for three years, topped only by Electronic Arts' *The Sims* series (Wikipedia, 2006g). The prolonged chart-topping sales were previously unheard of in the lightning-fast games industry, where titles that are still being sold a year after their release are considered to be massive commercial successes. It is significant that both these games enjoyed attention from highly populated mod communities.

To give an overall perspective on the economics of the computer games industry, US marketing research firm NPD Funworld reported that the sale of games, game consoles and portable games devices reached US\$9.6 billion in the US in 2004 (Richtel, 2005). In comparison, Hollywood's annual global ticket sales, for 2006, are reported to be US\$25.8 billion dollars (White, 2006). The consulting agency PricewaterhouseCoopers has predicted that the overall global entertainment industry will grow by 7.3 % over the next four years to US\$1.9 trillion, but the computer games industry, not including hardware sales, will experience double that growth, up to 16.5 % by 2009 (Steel, 2005). Modding will play an important part in the growth of the industry according to Gabe Newel, managing director of Valve software, who stated that "a mod extends the shelf life of the product over time" and that the benefits brought to the industry as a whole by modders were "enormous", even for major game companies like Valve (Kushner, 2004).

The popularity of *Counter-Strike* proved to be a major factor for the commercial success of *Half-Life* and its sequels. The ongoing popularity of the *Counter-Strike* mod, and many other mods, represents a significant trend within the PC computer games

industry which has two competing concerns over issues of intellectual property and online games. Previously the games industry was primarily concerned with the unauthorised copying and sale of illegitimate copies of games. Mods, however, represent a significantly different kind of consideration of intellectual property rights. The success of a mod requires the copyright owners to demonstrate a discriminating relaxation of control over a commercial product, to allow the production of a broad range of derivative works. Mods are developed as users take apart the game and transform the software code, and they require access and appropriation of the copyright protected material of the game in ways that would be actively discouraged in other media entertainment industries. Mods are a form of remix culture that is accepted by a significant number of PC computer games companies, who allow this access and use on the basis that mods still require the original product to be purchased and installed on the individual gamer's computer in order for the mod to operate.⁹

Unlike other fan-based appropriations, mods require the presence of the original to function and therefore operate as an incentive to games companies to encourage their production, as opposed to other content industries where appropriation represents a threat to proprietary exclusivity. The popularity of mods, and their support by large games producers, including Valve, Electronic Arts, and Microsoft, has prompted others in the games industry to consider the economic implications of providing games that users themselves can develop and further innovate. Mods have proven to be important examples of how major PC games companies have relaxed their approach to the enforcement of intellectual property rights to a small but proportionally significant degree. By permitting users to access and modify the core elements of their property and distribute the new works to other games fans, rather than banning the practice or prosecuting the users through Cease-and-Desist orders and copyright infringement claims, the games companies have fostered a new order of user activity that has firmly challenged traditional Fordist principles of production and the economic imperatives of incentives.

⁹Simple technologies, like serial numbers, as opposed to more complex forms of digital rights management technologies, have alleviated some concerns over the piracy of online multiplayer games. Online multiplayer specific games most often feature a serial-number identification system, where a number (usually obtained inside the computer game's packaging) is registered by an individual user. The serial number system does not stop individuals from obtaining unauthorised copies of the game, but it does help to prevent them from playing online with other gamers.

7.5 Modding: a Return to the Question of Incentive

Why do games publishers permit gamers to access and appropriate the source code of their products? Why do games modders enjoy the ability to innovate, adapt and use privately-owned property without permission or prosecution? What are the legal rights involved in this productive but informal relationship? The answer to these questions rests with the technical/commercial connection between mods and their official game counterparts; mods depend on the original software code to function. For gamers to play online with other gamers they are required to purchase, and often subscribe to, a game through official channels. This commercial vassalage establishes a highly interdependent, but not necessarily equal, relationship between the gamers, the modders and the games companies. The legal rights of the parties vary significantly. Games companies, while permitting the use of their intellectual property by modders, retain full copyrights to the commercial distribution of the original game. Games companies directly benefit from the increased sales related to the use of mods, and continue to regulate the use of their game through the implementation of End User Licence Agreements (EULAs) that bind both modders and gamers to highly refined channels of appropriation and limit their opportunities for independent commercial exploitation.

At the opposite end of the spectrum, gamers represent both an audience to modding culture and a customer base to games companies. Gamers have very few rights in regards to ownership of the game, their game-playing experience, or the mods. The payoff in this arrangement, however, means that gamers are the group most likely to immediately benefit from the production of mods. For gamers, who purchase the original computer games, mods increase the value, functionality and playability of the game over time. The economic value of the purchase is increased as the mod represents new and unpaid for content. Effectively mods provide gamers with a new level of control over the product, a new form of digital user agency. Many mods enable the gamer to tinker with the game beyond the boundaries originally established by the games company's programmers.

Computer games companies have a financial incentive to encourage this alternative stance on the appropriation of their intellectual property. The standard deployment of the EULA with their products assures the games companies that, regardless of what

direction intellectual property laws take, their contractual relationship, activated by both gamers and modders in the use of the game software, takes precedent. This method of operation, according to de Certeau's (1984: xix) logic, is a strategy or a "calculus of force-relationships" designed to legally and economically separate the official from the unofficial productions. The EULA is a generalised but formal legal structure, applied as a private and individual contract to operate beyond the limitations of copyright legislation. The game EULAs are the central tenet in the relationship between modders and games companies, one that limits modders to the status of 'unofficial' contributors of content, enabling games companies to add value to their products without direct compensation to modders unless further licensing terms are negotiated.

In their basic function EULAs are analogous to CC licences, as both are prefabricated contractual licences designed to define permissible appropriative uses of certain intellectual goods, but obviously operating in different directions. EULAs have become a ubiquitous part of commercial software, and therefore represent much of the extent of a software company's goodwill towards its consumers. The majority of computer users encounter EULAs when attempting to install commercial software on their PCs. The user must accept the licence before the software will install and function. This has been a remarkably unchallenged practice in the PC software industry, which suggests that PC users ignore the EULA details, don't understand them, or are at least content with their rights being articulated on a case-by-case basis. The EULA for the most recent *Half-Life* game, for example, explicitly states that anyone who purchases the game has the right to use the source code on "a non-commercial basis solely to develop a modified game" (Valve, 2006). This indicates that the modders will retain authorial control over the mod itself and copyright over any new material, but they cannot market or sell the game without a separate licence from the game owner.¹⁰

Sarvas *et al.* (2005) report on the user-created content for the PC role-playing game *Neverwinter Nights*, a title that includes software designed to aid players in publishing new content online for other users to download. The game's producer, BioWare, attempted to capitalise on the potential value of this material by imposing a EULA that prevented users from privately selling their work. Coupled within this contract was the caveat that by distributing the home-made content to other players, these creators gave BioWare the right to use and distribute the materials themselves for commercial

¹⁰ The 'original' material in this sense is the work done solely by the modder, but because this often uses, samples, copies or modifies existing works, the lines of ownership and the notion of originality, are completely blurred.

purposes (Sarvas *et al.*, 2005). These clauses were not a disincentive to users, who, regardless of their absent ownership rights, created many thousands of hours of new content and games companies have proven to be particularly receptive to this freely provided labour.¹¹

Games companies, like Valve, have recognised that enabling others to use their source code and change their intellectual property, without seeking permission first, does not always mean a loss of revenue or control over their proprietary goods, but leads to volunteer contributions and expansion of their own intellectual property resources. Perhaps these leading games companies within the industry have also recognised that, while intellectual property laws have been updated and strengthened to give them more enforcement measures, modding practices will become increasingly difficult to prevent and discourage, and that doing so could have negative consequences in the marketplace. Modding is a proven and profitable practice, primarily for games companies, one that is easier to accommodate rather than dispute; not unlike the music industry's eventual acceptance of online distribution of music that replicates the practices established by unauthorised peer-to-peer software. The situation between modders and the games industry has not descended into anti-commercial mayhem just because the methods of production and distribution have changed.

7.6 A Case of Goodwill

Herman *et al.* (2006: 184-185) examine the “performativity of intellectual property in digital gaming environments” with a focus on the creation and management of goodwill, which is described as an intangible asset of value. Goodwill, in this context, is an informal indicator of the affective bonds between consumers, corporations and their commodities in the marketplace. Herman *et al.* (2006: 184) have developed a theoretical framework based on “cultures of circulation”, to describe the “shifting relations of power and reciprocity between corporations and consumers in digital gaming contexts, where the division between player-consumption and player-productions is increasingly blurred”. They suggest that the encouragement of modding

¹¹ In 2004 a conglomerate of gaming software producers, distribution agencies and PC hardware companies ran a competition offering a US\$1,000,000 prize pool for the best mod package designed using the game *Unreal Tournament*. Epic Games, the game's intellectual property owners, ensured the mods submitted in the contest were made available to download for free, but also reserved the right to use the entrants' materials for “any business purpose, including for promotional purposes in any media” (Epic Games, 2004).

practices is one of the outcomes of the strategic management of intellectual property in the marketplace in which accumulation of goodwill is manifested in the corporate responses to the performativity of user production (Herman *et al.*, 2006). Evidence for this is the positive reception of 'mod-commerce' in which users of computer games consoles, like Microsoft's *Xbox* and *X-Box 360*, can now subscribe to fee-based services and pay for individual mod downloads.¹²

Goodwill is an informal concept used to describe successful business practices, but Herman *et al.* (2006: 186) frame goodwill as a useful narrative for describing a social relationship of trust that is generated when a corporation delivers a positive and therefore valuable experience for its consumers, and consequently encourages the continued consumption of the corporation's goods. Goodwill enables corporations to claim economic value over their relationship with the fans of the corporation's products, without having to exercise direct intellectual property controls, such as the Cease-and-Desist orders, and, therefore, the strength of the goodwill relationship offers fans alternative tactical positions from which to appropriate and re-create. The degree of goodwill in the online computer games industry is considerable; the large number of games supporting mods and the massive number of mods available are evidence of this, but it is within the EULAs of computer games that the relationships between modders and games companies are anticipated and articulated.

Contributors to mod projects may own the copyright over specific contributed elements, such as images or a sound files, but the mods themselves are not usually considered privately owned properties in the same way that stand alone commercial games are. The mod's copyrights are still restricted under the terms of the original game's EULA, which allows the games company to regulate the commercial application of the mod. Only a separate licensing agreement between the mod group and the games company permits the transition from mod to official retail product. This is no longer a rare occurrence and more mods continue to change from being considered unofficial fan group productions to being part of the official members of the industry each year. This reveals a more complex order of productivity, motivation and incentive than is expressed in copyright law or the division between official and unofficial modes of production. Mods, even though considered to be derivative works in copyright law, are contributing innovation to the industry at a rate that has captured the attention of

¹² Games mods are available online for free for PC games users, but online console games services, like those offered for the X-Box operate via Microsoft's proprietary network on a pay-per use model of content delivery.

copyright owners who have adjusted their EULAs accordingly. The games industry has subsequently employed the licensing system to capture the benefits of the highly social, often unstable, but always creative digital workplace that mod communities establish.

Modding benefits gamers and programmers who seek employment within the games industry, escalating the general level of goodwill between games companies and modders. Even on a more general level, modding communities and practices aid gamers in learning programming and design skills. Cleveland (2001) argues that mods represent a new way to create games that is similar to the open source and free software model of peer-production and social management. Unlike the open and free software movement and the creative commons, however, modders do not have a collectively managed licence system. Instead modders operate under the terms of the game EULA, which would be considered a tactically weak position if it were not commons-like formation of modding groups.

In this online digital environment modders can work on their own terms, contributing as much or as little as they like, participating in specialised roles within the community. Mod groups can be considered as informal digital commons formations, since they range from small closed projects to large groups with loose associations and networks of gamers and programmers, where their social and productive bonds are established and maintained through input and contribution (Moore, 2005b). The balance in this system is determined by the production and balance of goodwill between the industry and modders. Some games companies support modding while others actively discourage it. Some games companies simply don't wish to make their intellectual property available to modders and phrase their EULAs to make this explicit.¹³

7.7 Mods as User Agency

Poremba (2003) reports that following the events of September 11 2001, public *Counter-Strike* servers became the site of "peace-themed" modifications and anti-war

¹³ Modding practices and modders themselves can reduced the level of goodwill by attracting negative public attention; for example, the 2005 mod *Hot Coffee*, a few lines of software code that, when downloaded and introduced into the game by the gamer, unlocked adult content included in the *Grand Theft Auto: San Andreas* that was turned off in the commercial release to avoid the Adults Only 18+ classification. The mod prompted a debate in the US as to the nature of computer game regulation and Senator Hillary Clinton appealed to the Federal Trade Commission to launch an inquiry into modding and the games industry (Feldman & Sinclair, 2005).

and anti-violent protests. She documents the creation of 'tags' and 'sprays', artifacts used for digital graffiti within *Counter-Strike*, and their use by players in the virtual terrorist and counter-terrorist teams of the game. Poremba (2003) argues that these types of politically, or socially motivated, mods are a form of "distributed agency" that is made possible by a goodwill relationship between the creator of the mod and the game's copyright owner, a relationship that taps into the playing of the game, the creation of the mod, as well as the playing and sharing of the experience. One Australian mod that demonstrated such user agency received intense criticism in 2003 from then Immigration Minister, Phillip Ruddock. The mod, *Escape From Woomera*, developed from the original *Half-Life* engine, was modeled on the controversial Australian detention centres for asylum seekers and recreated the conditions of the camps from television footage, press reports and interviews with former detainees and centre guards (Hughes, 2003). The mod team included documentary filmmakers, artists, and game designers and was allocated a AU\$25,000 grant from the New Media Arts Board of the Australia Council (Age, 2003). The mod, which challenges players to escape from the Baxter, Woomera and Port Hedland detention centers, replicates the experiences of detainees through encounters with guards, refugee action groups, and lawyers, as well including more traditional game concepts such as digging tunnels and scaling fences. Then Minister for Immigration, Phillip Ruddock, was highly critical of the Australia Council and the mod producers for "promoting unlawful behaviour" (Nicholls, 2003).

The political messages designed to be conveyed by these mods are embedded in the game and changed the experience of the original game. As Poremba (2003) further suggests, these mods operate as a form of user agency not normally generated by the standard producer/consumer or the gamer/game relationship. Herman *et al.* (2006: 193) suggest this agency arises out of online computer games provision of the conditions for Jenkins' participatory culture and interactive audiences (Jenkins, 1992, 2003):

...we are witnessing a subtle and evolving dance of collaboration and cooperation in which the corporate persona becomes articulated with the creative and interpretive work of the gaming community to generate goodwill (Herman *et al.*, 2006: 193).

Both user agency and participatory culture exist through the creation and play of computer games mods, but these observable phenomena have an uneasy and

frequently subordinated relationship with commodity culture, which materialises in the fluctuating goodwill between gamers, modders and the games companies.

It is these types of meta-gaming activities that are increasingly insinuating themselves within the official mode of production of the PC games industry which complicate de Certeau's (1984) observations on consumption. The concept of the 'official' mode of production which marks the divide between content owners and consumers is altered by the tactical poaching and re-appropriative productive practices of gamers and games companies that expand the traditional limits and boundaries of intellectual property laws. By becoming licenced official sources of production, modding cultures are at risk of losing the characteristics that support their tactical advantages: there is no limitation on the number of contributors to unofficial mod projects, from individuals to massive groups; there is no prescribed model of organisation for mod groups; there is no bottom line for mods either, and no demand for an actual product; goals are set from within the group and are subject to social changes as contributors come and go.

Modding's tactical strength is dependent on these types of social factors, and therefore their dynamics change as mods become directly involved with the official PC games industry. Many mod projects, like *Escape From Woomera*, have dissolved before a working release has been finalised as contributors move on to other projects, while other mods have been turned out virtually overnight. The situation is still one of great flux and rapid change but it is the degree to which the computer games industry has already accommodated the practice of modding that makes this case important. Unlike the music industry, which has rebutted and prosecuted this kind of user appropriation and remix culture, some major participants in the computer games industry have provided a positive response and effectively opened the door to a new range of user creative practices making the most of games as digital tools and derestricted intellectual properties.

7.8 Machinima: Lights, Camera, Frag

A short film opens with a lone armoured figure standing on the deck of a sailing ship, waiting for it to dock at a rickety wharf. The narrator recounts his tale, while the screen cuts between pitched battle scenes and the reuniting of the hero with family, returning to the warmth of the home after a long absence. This film (however dramatically

overdone) is produced like any other movie; it has a complex plot, the cinematography is well composed, it comes complete with soundtrack, sophisticated editing and other filmic techniques, but it has no budget. Its director/screen writer is a computer games fan, so are its actors and cameras which are operated by gamers remotely recording the action from their home computers. It is the opening sequence of the fantasy epic, *Return* (2005), written, directed and edited by Rufus Cubed and 'filmed' entirely within the computer game *World of Warcraft*.

The practice of creating animation within computer games became popular in 1996 with *Diary of a Camper*, a short animation parodying online game play and produced by a group called The Rangers using the *Quake* game engine to record the footage (Dulin, 2004). Although games released earlier in 1993, such as *Doom* and *X-Wing*, had video recording features, most of the animations produced were only recordings of the game being played. It wasn't until *Diary of a Camper* was circulated via emails and games fan websites that the creative potential of the technology was explored in depth. This kind of narrative based computer game animation became known as machinima, a name which Kahney (2003) links to the abbreviation of 'machine cinema'.

Machinima titles are scripted and acted, recorded, edited and given post production treatments like any other form of animation. Multiple operators, essentially games users, can work together from different remote locations, acting in the game to move characters, organise the sets, establish camera angles and digitally capture the sound and vision. This material is then edited together, most often on home computers, with widely available digital editing software. Music and sound effects are added to create a soundtrack and voice actors contribute dialogue for the characters. Machinima, as a genre of animation and as a meta-gaming practice, can be considered a type of hack. It uses computer games technology, both the hardware running the game and the software providing the in-game environment, to create new materials in ways not originally designed by its publishers. Machinima should also be considered as a technical and creative hack in the mode suggested by Wark (2004), as the genre exemplifies the ways in which new technologies can be adapted to enhance the creative activities of consumers.

Not all machinima works have a narrative structure; many titles are little more than game players experimenting with the digital tools available to them, often simply

showing off their in-game talents set to popular music. Other machinima titles are highly cinematic and experimental works designed to appeal to a broad range of media fans. For example, the machinima director of *Ozymandias* and the H.P. Lovecraft-inspired short film, *Eschaton: Nightfall*, Hugh Hancock (2001), suggests his works were designed for Lovecraft fans as well as audiences of shows like *Star Trek* and books such as Robert Jordan's *Wheel Of Time* series. This type of fandom fits squarely within the self-publishing, poaching and appropriating practices examined by Brooker (2002), Jenkins (1991, 1992, 2003, 2006a) and Hills (2002), in which the gamer becomes an unofficial author of new works. As Brooker (2002: 265) argues, fan-based production does not change the ultimate base of power relations between the consumer-fan and the intellectual property owner, but it does raise the question as to who is entitled to the copyright of the machinima; is it the director/writer as the author of the animation or the game's publisher as the developer of the software and digital objects that enable the production? The games companies assert their ownership through the EULA of the games, but these legal contracts are untested in court in relation to machinima ownership.

Given the intimate marketing relationship between Hollywood movies and PC computer games merchandising, and the steady improvement of digital video game rendering technology, it is reasonable to expect that machinima set in the worlds of *Harry Potter*, *Star Wars* and the *Lord of the Rings* will continue to more closely replicate the visual quality of the parent cinema works. There are obvious parallels between machinima works and the 'pre-visualisation' design techniques of special-effects driven productions. Machinima production techniques are highly valuable to future writer/directors looking to enter the animation industry. The most innovative and creative machinima producers overcome the technical limitations of their digital tools, just as a good director faced with the limitation of any genre or technology finds new ways to tell their story. This underscores the significance of the industry's embrace of modding, machinima and other meta-gaming activities. The relaxed enforcement of the game's intellectual property is crucial to the expanding ability for machinima producers to develop the genre as an expression of creativity and art, not solely to celebrate any particular fandom.¹⁴

¹⁴ The debate over computer games as art was reignited by film critic Roger Ebert in 2005 when he claimed in the *Chicago Sun-Times* that computer games would never be considered an art form, which was met with fierce feedback from gamers around the world (Moses & Murray, 2006).

By allowing the game software to record digital animation, or at least function with other software to record the animation, computer game companies have tacitly approved these productive activities. Machinima therefore disrupts the traditional principles of intellectual property law by allowing the use of privately owned materials for the production of new media; for example, the game levels of the FPS game *Quake* become the corridors and hallways of digital sets, while the textures and 3-d animations of avatars in *The Sims* become the actors and extras in user-created dramatic productions. This disruption, however, is already anticipated by some games companies who have reappropriated these creative practices for themselves via the terms of the game's EULA. As Walsh (2005) notes, *The Movies*, a Hollywood simulation game designed to encourage gamers to produce their own machinima based on the Hollywood genre and studio system, is published by Activision with a EULA that maintains copyright to all machinima produced with the game.

Machinima is a remediation, a form of remix culture; it uses and appropriates elements of other media to create new works, and like mashing the popularity of machinima exposes the practice to a range of copyright and intellectual property issues. If machinima producers transgress the terms of a game EULA, attempting to sell the work commercially, for example, either as a physical commodity on DVD or as a pay-per download product, they will not be protected against copyright infringement claims under the doctrine of fair use due to the commercial nature of the use. However, one machinima series has demonstrated legitimate commercial success through individual licensing negotiations; *Red vs. Blue (RvB)* was 'filmed' with a network of Microsoft X-Box game consoles and characters from the X-box game *Halo*. The series was published online as a free download, and later sold as a high-resolution copy on DVD. The series, now in its third season, started out in 2003, like *Diary of a Camper*, as a parody of online computer games culture and games practices. The game *Halo* was chosen for the filming of the series, not strictly for fan interest in the particular title, but because it was the first game available for the Xbox that could be used to record the series (Konow, 2005). A narrative emerged during the improvised filming of the pilot episode and more scripts were developed for the series. The pilot episode playfully ridicules many of the conventions of online FPS computer game play and Arnone (2004) suggests that fans of *South Park* would be right at home with the type of sarcasm and level of profanity of the series.

The second *RvB* episode received more than 25,000 downloads per day for over a month, after which, the *Red vs. Blue* production team, RoosterTeeth, was contacted from the developers of the *Halo* game, a company called Bungie, which is a subsidiary of Microsoft:

"When we started we figured if they ever contacted us they were just going to shut us down and that would be the end of the project," Sorola said. "But after we did our second episode we got an e-mail from them, and they've been really supportive. They have every legal right in the world to shut us down, but they've been great to us" (Konow, 2005).

Gustavo Sorola, one of the co-creators of *Red vs. Blue*, identifies the central copyright issue with the concept of machinima, that even if the material is entirely creative and new, machinima is technically considered to be a derivative work. Fiona Ng (2004) suggests that games companies have, so far, taken a general "hands-off approach" as long as the machinima works have remained not-for-profit, but notes that many machinima producers have been calling for a general licensing scheme which would enable them to engage in a standardised royalty scheme for commercial machinima releases.

Games companies gain commercial benefits from machinima productions of a different order to that of game mods. This is because the act of watching or making machinima is now part of the wider PC games playing fan culture, which also helps to increase the general level of goodwill between gamers and games companies. From the gamer's perspective machinima productions are a remediation of the in-game experience. This means the images, sounds and other digital elements appropriated by machinima producers are recognisable to the audience of gamers and games fans. The level of intertextuality between the forms of digital entertainments such as machinima, games and movies is therefore exponentially increased. Gamers can continue the experience of a Hollywood blockbuster movie like *Spiderman* through their copy of the PC game *Spiderman*, and then go beyond the game as they create their own *Spiderman* machinima, with themselves and their friends involved in the production. This relationship is produced without increased expense for the official copyright owner. The trade-off in this situation is that while the copyright owner is less likely to have complete editorial control, machinima titles, like *Red vs. Blue*, provide a type of free advertising for the original game and other official *Halo* products. The EULA maintains strict copyright enforcement over the original work, leaving only derivative rights to the

machinima authors. This division of rights, however, has not been a disincentive to modders or machinima creators. Like other remix subcultures, due to the lack of prosecution of machinima producers by the owners of these intellectual properties, the practice thrives.

Microsoft, usually one of the more zealous enforcers of intellectual property rights, sanctioned machinima filmmaking via its licenced games publisher, Bungie, with yet another licensing contract. Unlike the battles mentioned earlier between fans and media owners, in which the Cease-and-Desist orders are usually the first and final word for this kind of productive activity, machinima practices, like modding culture, have been tolerated to a higher degree. This does not imply that games companies will completely refrain from employing Cease-and-Desist strategies to discourage commercial applications of this productive sub-culture, but it does suggest that these companies have recognised the commercial benefits associated with the popularity of machinima and mods. It demonstrates that leaders in the computer games industry have actively increased the level of goodwill by encouraging the appropriational activities of their consumers by including video recording features with game software. This is indicative of a new, but generally unequal order of productive relations in the digital environment in which the capacity for voluntary – in the sense of being unpaid – productivity is recognised as an economic benefit rather than as a threat to the exclusive control of the material. It also suggests that rather than simply having official and unofficial modes of production, fans, modders and machinima creators occupy points on a spectrum of unfinished production where the official product merges into the unofficial.

7.9 Meta-gaming

The umbrella term ‘meta-gaming’ is described by Herman *et al.* (2006: 194) as involving the dissemination of user-created content, information and discussion through a network of interactive virtual gaming communities. Meta-gaming occurs within games through the social interactions of the players, but also outside the game world. Mods and machinima are both prominent forms of meta-gaming practices. The following sections of the chapter examine two specific meta-gaming practices; the creation of screenshots and the formation of player groups known as guilds, as they relate to the

appropriation of intellectual property and copyright protected materials from the biggest of all Massive Multiplayer Online Role Playing Games (MMORPG), *World of Warcraft*.

Following the November 2004 launch of the *World of Warcraft*, the substantial network of US based game servers buckled under unprecedented demand. Users were forced to queue in their thousands, not to purchase the title, but to actually play the game once it was installed on their home PC. By December 2005 more than 5,000,000 gamers in the US, Europe and Australia had signed up for the US\$15 monthly subscription, on top of the retail price, to participate in the adventures of this online world (Blizzard, 2005). The global subscription figures shattered the industry's assumptions about the potential size of the global MMORPG market (Schiesel, 2005). In comparison, *Everquest*, the previous dominant MMORPG title, had its subscription peak at just over 460,000 subscribers in 2004 and *Everquest 2*, one of the direct competitors of *World of Warcraft*, is reported to support 278,000 subscribers (Woodcock, 2005).

World of Warcraft, produced by Blizzard Entertainment, is a highly sophisticated and detailed three dimensional virtual world. Blizzard provides an exquisitely detailed and colorful environment designed for a general audience, featuring realistic geography, diverse climates and complex cultural histories, all of which players can explore at their leisure, adding to the immersive quality of the game. The variety of sound effects, music, textual narratives, character animations, environmental design and other digital elements of the game all represent a significant involvement of creative talent, and an impressive level of intellectual property investment. The MMORPG genre is descended from the pen-and-paper style role-playing game, *Dungeons and Dragons*, and its multiple iterations on the PC as an offline single-player experience. The MMORPG genre also draws heavily on the game play of text-based multiple user domains (MUDs) in which thousands of users are simultaneously able to log in, create and access their personal avatar and explore a virtual world together.¹⁵

¹⁵ Progress in any MMORPG is achieved by completing quests, conquering monsters, defeating villains and gaining experience, thus enabling players to regularly upgrade their hero's abilities and equipment. The *World of Warcraft* supplies its players with a range of fantasy-based ethnicities to choose from, including the Human, Elf, Dwarf and Halfling of the Alliance faction and the Orc, Troll, Undead and Tauren races of the Horde faction. Users can then select one of the archetypal hero classes to play, choosing to be a Warrior, Mage, Hunter, Rogue, Priest or Druid, among others, which all have specific in-game talents, abilities and combat specialisations. The player's avatar can be graphically tailored with facial features, hair colour, and other distinguishing characteristics to individualise the character's appearance in the game.

MMORPG users must pay a monthly subscription on top of the retail game price, and are considered ongoing customers for the publisher, and as such they engage in numerous behaviors which feed directly back into the official production of game content.¹⁶ The *World of Warcraft* official forums are one of the major locations for users engaging in meta-gaming activities. These forums are densely populated by vocal and determined users, demanding better customer services, greater rules balance, extended game content and the elimination of wait times and server delays, called 'lag' or 'latency', which can dramatically interrupt play. At times the level of goodwill has been challenged inside the game itself as customer demands have manifested inside the game as sit-in protests and disgruntled players have forced server shutdowns by bombarding the system with chatter and requests in lag-prone online cities. Almost certainly to protect its revenue, Blizzard has acted, both in the forums and within the game, to address many such requests, although certainly not all, which suggests that gamers in the MMORPG are capable of harnessing these tactical operations, as acts of user agency, to contribute to the production of the gaming experience.

The meta-gaming activities of the MMORPG players have disrupted the traditional conventions of the consumer in the computer games industry by encouraging complex community formations, dynamic social activities and productive player innovations. This can be observed through simple meta-gaming practices such as the process of making and sharing game 'screenshots'. *World of Warcraft*, like other PC games, includes the 'print screen' feature which is used to capture what the screen displays in a digital picture format. Making screenshots is a common feature of PC operating systems, but the function can be turned off by games programmers. The official Blizzard website encourages players to record screenshots and submit these images on a daily basis. Many *Warcraft* fan websites also feature competitions for the best screenshot of the week and other similar events based on these popular forms of expression. Games companies also benefit from the use of screen shots in fan websites, in emails, and on internet forums as a form of promotion for the game.¹⁷

¹⁶ While most PC games can expect an average lifespan of one or two years, the MMORPG genre seems to be extending this period significantly. The original *Everquest* title released in 1999 is still played online today, although numbers are diminishing. The business model of MMORPGs includes releasing regular commercial expansion packages for the games, which has contributed to the long term game play. Where a non MMORPG title may take between 10 to 30 hours to complete, MMORPG titles regularly have content that requires 200+ hours to progress through, and even then game play is highly open ended.

¹⁷ Screenshots, from the perspective of the game's publisher, are a useful marketing tool, functioning like give-away postcards, which are promotional devices used to attract attention to various products, issues or locations.

Despite the simplicity of the creation of these images, they should be considered as important artifacts of individual and social expression among MMORPG users.

Screenshots are significant communicative acts. They act as visual components of the communication between players, and are an important component of the computer game magazine industry. Without the ability to copy the images on the PC screen during the game, games magazines would not be able to communicate the visual experience to the reader. As a result of this, gamers have become familiar with screenshots accompanying descriptions, reviews, features and stories about gaming. They appear in web forums, fan sites, emails and blogs. Screenshots represent distinctive user agency as they have become an effective method for MMORPG users to share moments of their experiences, record their adventures together and build social bonds by recalling humorous moments or impressive victories.

Who owns these acts of digital creation? Does the user own the products of their playing, when it is produced on the player's computer and captured via the player's actions? Or is the material encompassed within the copyrights of the images, software and other elements of the digital world created by Blizzard employees and therefore the property of Blizzard? According to the game's EULA, Blizzard retains all copyrights over game content:

All title, ownership rights and intellectual property rights in and to the Game and all copies thereof (including without limitation any titles, computer code, themes, objects, characters, character names, stories, dialog, catch phrases, locations, concepts, artwork, character inventories, structural or landscape designs, animations, sounds, musical compositions and recordings, audio-visual effects, storylines, character likenesses, methods of operation, moral rights, and any related documentation) are owned or licenced by Blizzard (Blizzard, 2006).

Yet the company has not prosecuted users who make machinima, mods and take screenshots of the game. Blizzard's tacit permission appears to depend on two factors; the use they are being put to and the degree to which the intellectual property owner benefits. This is similar to the criteria of fair use exceptions for copyright infringement, in which commercial exploitation is not considered as being 'fair'. If collections of *World of Warcraft* screenshots were being published, in a coffee-table book for example, it is assumed that the publishers would require some form of licensing arrangement and

therefore the practice of making and distributing screenshots in this context would become part of the official production of the game.¹⁸

7.10 Guilds

Online games have also produced a social form of meta-gaming called guilds. Guilds, also known as clans in the FPS genre, are groups of gamers who communicate and organise social events both inside and outside the games they play. In Moore (2005b) I describe guilds as commons-like formations, because it is difficult for communities, like fan communities, to function purely as a commons when the subject matter of their interest is controlled by a third party intellectual property owner. Guilds, in the MMORPG genre, range from groups with casual social bonds to complex community organisations; they are a nexus for social participation, and are typically structured around a hierarchy of long-term members. MMORPG play is often dependent on accomplishing quests or missions with small, ad-hoc and short-term groups, usually around five players. Guilds offer their members a way of coordinating these groups and developing in-game alliances of trust and interdependency. Guilds attract other meta-gaming activities, including the exchange of screenshots, discussion and use of mods, and the shared enjoyment or production of machinima. They offer a long term community life within the game by supporting players in the accomplishment of the in-game quests and resulting in the formation of complex social identities.

Meta-gaming of this type results in the production of highly valuable information. This information is managed by guilds in commons style; the information is both shared between members in real time, through the in-game chat features, and also accessed via guild websites. Humphreys (2005a: 41) notes that the structure of the MMORPG genre, and its integrated features, such as the support of guilds, leads directly to economic benefits for the publisher. Guilds produce and share information, offer in game help to new players and generally increase the social experience of the game in ways that would otherwise cost the publisher to provide. Guilds are supported in the game with membership features, such as private 'chat' channels, as a measure of incorporation within the 'official' production of the game. In terms of goodwill, the less pressure the publisher applies in enforcing its intellectual property rights, especially its

¹⁸ Blizzard has a history of taking legal action against fans which threaten its direct control over its intellectual property, see the case of *Blizzard v. Bnetd* (Band, 2005).

use by guilds, the greater the level of goodwill among players, the game and the publisher. The situation, similar to the fan-based production discussed earlier in the chapter, deteriorates when either the user or the publisher attempts to capitalise too greatly on the economic value of the information generated through these activities.

Community knowledge is one of the most important resources that guilds enjoy. This kind of knowledge is socially produced and recorded via guild websites and discussion forums, and the level of present knowledge fluctuates as guild membership changes, but it is a type of resource that is produced purely through the mechanisms of game play and the sharing of experiences by gamers. Taylor (2003) recognises that this kind of knowledge is a kind of collective collaboration in the creation of game resources at the centre of the production and maintenance of social relationships within game guilds. This knowledge, however, is also stored outside guilds on fan and player-community websites known as 'portals', such as *Thottbot.com* and *Allakhazam.com*, which are databases filled with details gained directly from play within online game worlds, such as player-submitted descriptions of the puzzles and challenges found within the games.

Given the considerable volume and verbatim nature of this kind of extensive replication of in-game content and information and its derivative nature, such community knowledge is presumably not protected under the legal defence of fair use, and therefore enjoys a similar unprosecuted status as modding and machinima. However, in the case of Brian Knopp, a 24 year old *World of Warcraft* player in the US, who sold his *Ultimate World of Warcraft Leveling & Gold Guide* via eBay, Blizzard fell back on the Cease-and-Desist procedure and issued a DMCA-based take down order. Knopp's eBay account was shut down and his personal website was removed by his ISP under the DMCA order (Rasch, 2006). Blizzard threatened Knopp with copyright and trademark infringement, but he responded with 'counter-notices' against the company in the California federal court, arguing that his book clearly announced its unauthorised nature and contained no copyrighted text or storylines from the game, and that its use of screen shots from the game was entirely "fair" (Broache, 2006). Blizzard settled with Knopp out of court, with an agreement to leave Knopp and his guide alone. Perhaps Blizzard recognised that it had already passed the time where it could restrict the use of its intellectual property in such a way, or the case represented too great a pressure on the level of goodwill between the company, the game and its fans.

The 'unofficial' fan guide is not a new concept. Publishers have a long record of tacit approval of these types of publications, and yet Knopp's game guide demonstrates the increased strength of this kind of tactical poaching in the digital environment, as de Certeau describes:

A tactic insinuates itself into the other's place fragmentarily, without taking it over in its entirety, without being able to keep it at a distance. It has at its disposal no base where it can capitalise on its advantages, prepare its expansions, and secure independence with respect to circumstance (de Certeau, 1984: xix).

Knopp employed appropriative tactics that are examples of two common practices of the digital environment. First, he used purely digital tools to assemble and collect his guide, remixing personal game knowledge, community knowledge, with his own editorial style, to produce a new work. Secondly, Knopp used these tools to insinuate his guide into the spectrum of resources available online by marketing digital copies of his work through his eBay account. Knopp's work is a tactical operation entirely dependent on Blizzard's products but containing none of the materials that would challenge Blizzard's copyrights, such as copies of images or text from the game. It is evidence of a successful tactic that has fragmented the notion of official sources of production; by making his 'unauthorised' guide available alongside the Blizzard-licensed guides in the marketplace, without the expense of physically printing and distributing it. Knopp's guide stands as an example of the appropriational tactics that currently give fans, users and gamers, serious creative and economic agency. Their tactics, as de Certeau (1984: xix) describes, are tactics of opportunity and circumstance, and the realisation of "seized on the wing" advantages.

7.11 Virtual Property

The final component of this case study examines what role copyright and intellectual property laws play in deciding the legal status and economic stability of digital property. The rapid growth of the online gaming industry, as demonstrated by games like *Everquest* and *World of Warcraft*, means the debate over who owns the exclusive rights to the digital properties created within a MMORPG has become an economic concern, drawing attention to parallel concerns about the regulation of digital property through physical property law. Should the digital artifacts awarded or created by

gamers through MMORPG play be considered as part of the original copyright protected work or should they be considered as independent digital objects with associated rights equivalent to physical property?

While PC games companies have relaxed the enforcement of intellectual property law in regards to some meta-gaming activities, most games companies have banned the private sale of in-game created items and characters for real world currency. Game EULAs are employed by publishers to force customers to limit their virtual property rights, as demonstrated in the *World of Warcraft* EULA (Blizzard, 2006). Users have the freedom to sell items belonging to the avatar within the game, but they are not invested with the property rights over their in-game 'selves' and their virtual properties. Companies like Blizzard regularly take legal and administrative action against users attempting to promote the sale of individual characters and items online. Blizzard closed more than 30,000 user accounts in 2006 alone, banning gamers suspected of being 'gold-farmers', users who are employed by ad-hoc agencies and digital 'sweatshops' to accumulate in-game currency and items to sell to other gamers in exchange for American dollars (Mahmood, 2006). As Humphreys (2006) notes these banned users have no recourse to justice and nowhere outside of the game to have their appeals heard.

Humphreys (2005a) argues that the MMORPG genre is a new media form, generating new relationships between developers and players that do not replicate the same conditions of the traditional author, publisher and audience relationships. The MMORPG genre, in her argument, therefore represents a convergence of new media forms in which the relationships between consumer and producer sustain a level of creativity and social productivity with unpredictable outcomes that have not been adequately addressed within intellectual property legislation. Legitimately recognising gamers as creators, even derivative ones, is a contentious suggestion, but are gamers any different to musicians or authors who must make creative decisions within the boundaries of the rules to use already established conventions and discursive features to express themselves? The distinction between idea and expression has already begun to expire in recent legislative and courtroom copyright decisions. It may collapse to the point where elements of language and ideas can be owned exclusively, and in perpetuity, a return to the 1769 proposition of *Millar v. Taylor* and a future of perpetual copyrights.

One of the key issues of the new dynamically productive relationships between gamers and games companies is characterised by the restrictions on user ownership, outlined by Humphreys (2005a: 42), as “the ‘enclosure’ of symbolic space by corporations as they increasingly control access to community spaces and cultural capital”. This enclosure of cultural spaces is reflected in the pay-per society as described by Vincent Mosco (1989), where, as part of a ongoing and general transformation, access to resources such as radio and television transmissions, and even public institutions such as libraries and universities, is being reconfigured to a model of subscription that demands individual fees for each case of access and use. This kind of enclosure is becoming more popular in the digital environment, where social and cultural environments are developing within privately owned intellectual properties; the MMORPG genre is a clear example of this. Currently the pay-per society described here forces individuals to enter into licensing contracts with the intellectual property owners in order to gain access. These privately owned spaces, however, as this study has shown, do not always diminish the importance or the potential of socially produced communities within these private spaces.

One MMORPG which has reversed the current standards of EULAs by allowing gamers to own the products of their play, is a game called *Second Life*. Breaking away from the role-playing elements of the MMORPG genre, *Second Life* has no formal game rules. It is a virtual simulation of the real world with an open-ended sandbox style of game play, with no formal outcome, only exploration, creation and interaction with other players. The game software is initially made available via the internet without cost to the user. The game provides the user with design tools to build digital objects and create virtual works; these tools can be used to build anything in *Second Life* from cars and houses to lightsabers and virtual poker machines. Users can subscribe to the game and purchase blocks of virtual land and directly exchange US dollars for the virtual currency, called Lindens (L\$). *Second Life* also stands out as one of the few massively multiplayer online games where users can sell their digital goods in the game and re-exchange Lindens through the game’s own currency market for US dollars. The *Second Life* EULA simulates the legal treatment of physical property in its treatment of virtual ‘chattels’ by allowing users to both purchase and resell goods within the game, but it does so by providing users with the rights to their intellectual property .

Created by Linden Labs, a company started by Philip Rosedale in San Francisco, *Second Life* was launched in 2003. The game's population is only equal to a fraction of games like *World of Warcraft* – with just over 10,000 users purchasing accounts to the game in its first year – but it has become a cult favourite amongst adult gamers, likely due to the high level of adult content in the 'mature' regions of the virtual game world. Haugey (2003) reported that by the end of 2003, *Second Life* had been populated by a diverse range of characters, as users could assign any size, colour, shape, and even fetish, to their in-game avatar. From felines to robots, users have created their own game environments including "whimsical hobbit-style homes to urban apartments, sprawling mansions, and special recreational areas including a 40-ride amusement park and an island retreat" (Haugey, 2003).

More than 19 Million 'Lindens' changed hands in the first year of *Second Life* creating a stable economy complete with a virtual real-estate market. Late in 2003 Linden labs announced that it would adopt a Creative Commons approach to its intellectual property and changed the EULA so that users would legally own the products of their play:

We believe our new policy recognises the fact that persistent world users are making significant contributions to building these worlds and should be able to both own the content they create and share in the value that is created. The preservation of users' property rights is a necessary step toward the emergence of genuinely real online worlds (Davidson, 2005).

Rather than automatically acquiring the work that players produce, or restricting players from acquiring property through their play, the creators of *Second Life* argue for greater productivity in future gaming worlds by pursuing a licensing arrangement that encourages rather than appropriates user ownership. The response to the *Second Life* EULA innovation from Yochai Benkler at the 2004 State of Play digital games conference, as described by Grimmelmann (2004), was the same response that Benkler makes to the Creative Commons, which is to ask why bother with a substitute for a commons when a real commons is possible:

I'm baffled by this embrace of intellectual property rights...You're creating this world in which people come to play and be creative, and yet you've given this world a system that has been extensively criticised as limiting creativity. Haven't you just given them a new set of hurdles to creativity (Grimmelmann, 2004)?

Benkler sees the inclusion of Creative Commons licences within the EULA of *Second Life*, or any online game, as simply a replication of an already existing flawed system, meaning copyright. This is a fair criticism, since both the Creative Commons and the Second Life EULA rely on established copyright law to protect their version of creativity and freedom of appropriation. Benkler (Grimmelmann, 2004) considers the use of a licensing system for a game that charges users fees for entering the virtual world and for creating their own content to be a failure to live up to the potential to create an unbridled virtual world of unlimited resources and unrestricted creativity.

Grimmelmann (2004) further argues that *Second Life*'s adoption of a licensing system for its user-created content is an attempt to provide players with an incentive to create:

It's the classic economic argument for intellectual property rights: if we give people exclusive rights, then they'll have greater incentives to be creative (Grimmelmann, 2004).

There is a charming, if entirely misleading, notion behind the idea that there is a need to introduce greater incentives for players to create. As this thesis has consistently demonstrated, people can and do volunteer their creations for use by others without consideration of payment all the time. The real issue, wrapped in the concern over incentive, is the potential for exploitation. Some games companies do react to this new order of productivity in a voracious manner, extending all possible intellectual property rights as broadly as possible through the terms of game EULAs in the pursuit of potential property and explicit control. Other companies have seen an opportunity to profit from the activity of their games fans by incorporating them directly into official modes of production, again via a licence agreement. Occasionally games companies simply say 'no' in the terms of the EULA, or use technology that does not permit appropriative activities. The market has already shown that gamers will support games with significantly different standards of intellectual property enforcement control beyond those afforded by copyright legislation. The system is far from perfect, but it does seem to possess a great deal of flexibility, which is crucial in this climate of rapid social, political and economic change. As the users of virtual worlds play and work to create virtual goods and services to which they have no intellectual property entitlements, merely access privileges based pay-per-use models, they create further questions about the nature of intellectual property laws and their relevance to the digital environment.

Economics is defined by Castranova (2005: 172) as the study of choice under scarcity, but scarcity is not sufficient on its own to commodify information. One useful way to examine the issue of information scarcity is to separate out the qualitative and non-rivalrous features of information from its quantitative and therefore scarce properties. Software code is an example of information that has both qualitative and quantitative characteristics. Software code has intangible non-rivalrous and non-scarce properties because its digital expression can be infinitely copied and accessed without diminishing its functions or restricting access to it by others. However, once packaged and commodified as an individual unit, and restricted via software licensing and digital rights management technologies, software becomes a highly scarce and therefore a marketable commodity. The potential value of software is assured by the enforcement of intellectual property laws, and yet it still retains its qualitative nature regardless of its market value. The problem with digital goods is the lengths owners must go to in order to achieve their quantitative value, while the qualitative potential can remain independent; for example, an MP3 file has a qualitative potential value regardless of whether the MP3 was downloaded illegally or legitimately purchased via an online system, such as iTunes.

Fairfield (2005: 103) suggests there are two types of code. The first is non-rivalrous code and therefore almost perfectly qualitative in that it is “one step removed from a pure idea”. This non-rivalrous code can have physical expression, occupying digital space in the memory of a computer, but this expression can be infinitely copied and accessed simultaneously by any number of users without interfering with its operation. The second type of code is designed to act more like physical property, which Fairfield (2005: 104) refers to as ‘chattels’. The ‘space’ in cyberspace, according to Fairfield (2005: 107), is a space of chattels where scarcity is produced by limited digital resources, such as domain names, URLs, websites, and user accounts. Like Lessig (1999), Fairfield argues that code can be ‘designed’ to act either as a non-rivalrous qualitative resource, or as a restricted private good. Fairfield (2005: 116) suggests the tension between these two types of code stems from owners of intellectual property as they use intellectual property law to override the prospective chattel rights through private contract law and copyright licences.

As part of Fairfield’s (2005: 120) ‘virtual property’ theory, he calls for the legislating of property in the digital environment in a way that is not dependent on intellectual

property laws. He argues that virtual property legislation is necessary for the efficient use of internet resources that would ensure legal protection of virtual property for the “benefit of medical, commercial, social, military, artistic and cultural advancement” through the protection of the alienability of property (Fairfield, 2005:106-107). Just as cyber-utopianism linked the digital environment to concepts of liberty, democracy, knowledge, society and progress, Fairfield links the concept of virtual property to economic, social, technological and even medical and artistic progress. He argues that the need for virtual property laws, as opposed to either intellectual property laws or physical property laws, will only become more important as more people buy virtual objects with real money.

Castranova (2005) examines the quantitative value of virtual economies and suggests that the currencies and chattels of online game worlds demonstrate all the features of money and goods in the physical world. Like Castranova, Lastowka and Hunter (2004: 5) argue that real and virtual economies have been overlapping since the “dawn of currency”, and that MMORPG economies are not substantially different from other forms of commerce. However, Lastowka and Hunter (2004: 5) also argue that “the laws of virtual worlds provide a parallel alternative to existing legal systems where new forms of social regulation can be explored”. This has been a source of contention for those scholars, like Humphreys (2003, 2005b), who consider the investment of time and energy by players as being unfairly leveraged and incorporated by game developers.

Humphreys (2005b: 10) argues that players are unfairly bound by a contractual relationship within a game in which they trade their ownership rights in return for access to the game. This contractual relationship, which is largely based on the regulation of the game’s intellectual properties, is problematic when considering the potential of the interactions between real world and virtual world economies, as activities that attempt to trade in-game chattels for real world currency operate in contradiction of the EULA of most games. In response to this problem Lastowka and Hunter (2004: 17) have produced a “normative account” of virtual property in which they examine three theories for the justification of establishing virtual property laws, based on a utilitarian hypothesis, Locke’s natural rights theory and Hegel’s personality

thesis. Coincidentally these are different interpretations of three theories traditionally underpinning justifications for intellectual property, as discussed in Chapter One.¹⁹

Balkin (2004: 2044) views Lastowka and Hunter's argument that virtual worlds should be treated as foreign jurisdictions with distinctive community norms, laws and rights, as overly similar to the arguments made in the first generation of cyberlaw and cyberutopian scholarship, which urged courts to treat the internet as a separate space that could produce its own rules. Ultimately, the idea of virtual property rights in the digital environment is still in its infancy. As Julian Dibbell describes in his book *Play Money*, his attempt to declare income earned by trading in virtual chattels was met only with confusion and governmental failure to appreciate the value of virtual economies (Dibbell, 2006: 307). Lastowka and Hunter (2004: 20) suggest that courts and legislature may eventually find that virtual property rights exist in virtual assets, but even then the allocation of those rights will depend largely on the regulation of licensing contracts.

The growing number of user subscriptions indicates that gamers are supporting the pay-per use model of access, but MMORPG titles are not only forms of entertainment, they are also places where people live, work, play, communicate and interact. The restrictions on user freedoms, including the lack of ownership over their personal

¹⁹ According to Lastowka and Hunter (2004:18) the economic emphasis in current American intellectual property debates is utilitarian at heart and the US constitutional prerogative designating Congress to protect patents and copyrights in the "promotion" of art and science, is a utilitarian justification. Virtual property can be describe in utilitarian terms as the value produced by cultural materials composed of the aggregate of individual actions and goods; for example, the chattels produced inside a game are an aggregation of the player's time and energy and the investment by the gamer in computer hardware, internet access and other fees required to participate. Since the game owner profits from games sales and user subscriptions and establishes the environment for a significant number of people to create large amounts of objects of value in the virtual world through their own game play, there is a utilitarian ground for granting property rights and considering these artifacts as the legal property of the players in the physical world.

Alternatively the Lockean theories of virtual property are based on Locke's proviso that whoever takes from their environment and expends labour to produce objects of value has a natural right to own that property, as long as they do not encroach on the ability of others to do the same (Lastowka & Hunter, 2004:19). Virtual property, having no physical limitations on production, would seem to support this proviso. As Lastowka and Hunter (2004:19) argue "anyone who has slaved over a virtual forge will tell you, creating virtual-world property can involve at least as much tedium as any real-world work". Creating goods in virtual worlds is not as simple as summoning them out of the digital air but involves sustained effort and considerable labour.

The third justification proposed by Lastowka and Hunter (2004) for a virtual property right is Hegel's personality thesis, which works on the concept of property as an extension of an individual's personality, and functions similarly to the moral rights principles of copyright doctrine. Property rights in this model are considered a necessary condition for human rights, and equivalent to other human rights such as the right to protect our freedoms, identities and privacy. The objects and the values to which we ascribe them are connected to the individual's sense of self, regardless of their digital or physical nature, which would also suggest that the qualitative and quantitative components of these properties are inseparable. In this view in-game avatars are the result of a complex series of individual choices, activities and emotional responses, but Lastowka and Hunter (2004:19) acknowledge that granting property rights in a player's avatar based on the degree to which their creator identify with them does not automatically justify a broad alienability right to sell them as property.

avatars in these games, demonstrate that, while the games industry has made considerable strides in relaxing some proprietary controls, the situation is still one of a subordinated user. The refusal to give individual gamers autonomy over their characters, and the products of their play, reflects an advanced form of consumerism. The enforcement of the traditional producer/consumer relationship in the virtual game world is extended to limitations on gamers' ability to negotiate their own terms of existence and experience, and ensures a strategic dominance over the activities of the player.

Klang (2004) suggests that, as online games become more sophisticated and habitual, we will become more dependent on avatars as a natural extension of the individual in the digital environment, and they will become integral to the manner in which we express ourselves and perceive others in the digital environment. If we are to have virtual property rights, then, as Peter Jenkins (2004) argues, we should also expect to have virtual liberty rights as well. Jenkins believes that freedom of expression in the digital, and more specifically the virtual environment, should be written into the private law of EULAS:

...not only because of the need to deal with issues such as in-game whistleblowing by players concerning sexual content available to minors, in-game protests about the violent nature of the game, the use of in-game stores to sell commercial products, raising issue about picketing of businesses and in-game peace rallies. It is also because the case law regarding MMORPGs will have a profound precedent-setting effect on freedom of expression issues when these virtual worlds in the future become inextricably intertwined with the fabric of our daily lives (Jenkins, 2004: 2).

Jenkins argues that owners of all kinds of games and games companies need to pay attention and respect to the liberty rights of their customers. Any restriction on the ability to own the avatar reduces the overall effectiveness of any potential rights the user will be able to exercise; for example, the right of gamers to protest in the game against the publisher's decisions, or to make political or social protests in the game about issues outside the game. Based on the analysis of the three case studies presented I would consider intellectual property and copyright doctrine as more than capable of accommodating virtual property, and predict that individual licensing arrangements will play a greater role in the future.

7.12 Conclusion

The PC computer games industry has responded positively to the challenges posed by the appropriative and productive activities of gamers. There remains considerable discrepancies of power and games consumers are unlikely to improve their rights in regards to the ownership of the products of their play, despite the progress made by the *Second Life* example. Gamers, however, have demonstrated the effectiveness of certain tactical operations, such as the organisation of formal or informal social networks to contribute innovations without direct financial compensation in commons-like formations, enabling them to insinuate themselves, as de Certeau's logic suggests, into a fragmented and dynamic new order of production that is neither official or unofficial, or even finished in a conventional production sense. These tactics have been effective in the PC games industry because, like all entertainment industries, it is facing an increased demand for dynamic digital content. It is the gamers and the game companies that have rendered these changes in the way the industry conceives of the production of content. Entertainment industries are notorious for capitalising on the multiple ways that productivity can be encompassed and packaged. Capitalising on the productive activities of gamers and the move to a subscription-based service, a pay-per use digital environment, appears to be part of the next stage in the creation and delivery of content for the PC games industry, and may be an indicator for the direction of other industries.

What is clear about all the examples presented in this chapter is the inescapability of the intellectual property licence. Whether the licences take the form of EULAs or the agreements between modders and games companies for commercial distribution, this chapter has demonstrated how licensing has become the new intermediary between acts of appropriation of cultural materials and their status as official sources of production. Licences are an expedient solution for an already flawed system, one that is well known to stifle creativity, but they are without doubt the direction that intellectual property management is heading, especially in the digital environment where enforcement can be included in products as part of their software code. The licence arrangements for gamers and modders operate by making the use of the software dependent on the legal contract. This reduces the relationship the software user has with the product; they are not a consumer, or a fan, or even a user, but a licensee. The

licence expresses the rights and obligations for those concerned with the use of the product. This situation is considered by Bowrey (2005: 166), as she says of the Creative Commons licence, as an extension of legal power and “juridification”; which is interpreted here as a disparagement of the bureaucratic culture of law surrounding licences, most notably their technical language and legal subjectivity. It is also important to remember that while licences can define, expand or restrict copyrights, they are not neutral legal technologies and they are designed to enforce a specific power relationship.

This chapter has demonstrated that some new media industries are more than capable of accommodating the creative practices of their customers. It has shown the potential for fans and gamers to create, innovate, remix and recontribute in the production of cultural materials as well as the benefits of relaxed intellectual property enforcement. It has shown how the productive practices of fans and gamers have challenged assumptions about the nature of consumerism and indicates that there is a future for the encouragement of unauthorised creative appropriation of privately owned intellectual goods. Jenkins (2006a) has observed and encouraged the emergence of participatory cultures and meta-gaming is entirely participation oriented culture. The use of mods for political, entertainment or economic goals makes them highly interesting cultural objects in which the prospect of ownership is not necessarily what drives their production. The influence of modding culture on the games industry means that other such industries may experience parallel developments. This is not a return to ‘bluesky’ predictions about the future of digital culture; this is an attempt to offer an account for observable remix behaviours. The pay-per society will be accompanied by the licenced society and the tactics of appropriation and production will change, as they have changed in the past. Production in the PC games industry is the result of a network of social and economic forces and relationships; from the games distribution companies to games programmers, to hardware manufacturers and the games media, to modders and machinima producers, and to the gamers. Certainly it is not a network of equal relations, but it is a network perhaps even more fragmented, temporal in nature, than even de Certeau could have predicted.

Conclusion

This research has provided an inquiry into copyright's legal and legislative origins, coupled with an analysis of the processes and outcomes of its most recent period of expansion. It has engaged with a selection of the legal, economic, social, political and cultural conditions contributing to the development of the copyright doctrine. The intention has not been to deride, but to critically engage with the results of the changes to the doctrine within US and Australian legislatures that have promoted enforcement at the cost of legitimate user rights and freedoms. This approach has highlighted the tensions generated by those popular cultural practices challenging or infringing the rights of copyright owners as part of the everyday activity within the digital environment.

This thesis has examined the relationship between trade regulation, liberalisation and the establishment of a global intellectual property regime. It has discussed the costs of this regime to developing nations and examined WIPO's reaction to the proposal for an intellectual property-based development agenda for its member nations. It has also expressed concern over what Boyle (2004) refers to as the maximalist agenda of the major intellectual property owners on the long term prospects of developing nations; specifically their access to technological innovation, knowledge and cultural materials. Most significantly this research has demonstrated that, alongside the pressure for greater protection and enforcement, there are calls for the progress of all nations through a less excessive intellectual property regime designed to enhance levels of creativity and innovation rather than restrict them.

This inquiry has been occupied with the legislative transformation of copyright law into a series of technology-based provisions for the control of access to digital sources of information and cultural goods. Coupled with a detailed analysis of the effects of extending copyright duration on the public domain, this research has examined the outcomes of the importation of US intellectual property legislation into Australian law. It contemplates what effects this will have on the future of Australian user rights. This thesis contributes to the recent expansion of interdisciplinary intellectual property

studies characterised by a view of copyright as a fascinating and entirely relevant subject for scholarly examination, particularly within cultural studies. This is not to suggest that the research provides an exhaustive account, since some important issues have been introduced but remain largely outside the scope of this thesis. These include concerns about virtual property and the potential for the exploitation of volunteered labour.

The three case studies presented in this thesis have investigated alternatives to the dominant intellectual property system, and provided a robust analysis beyond the polarised notion of copyright. The initial research plan was to demonstrate a range of alternatives to copyright law, but it quickly became apparent that there are no practical alternatives *to* copyright. This was somewhat unsettling. Discounting the possibility of removing copyright law entirely, as an impractical measure, only non-participation remains; but even that does not result in the freedom from the purview of copyright law. If an author wished to eschew their copyrights to a certain text, the publication of the work results in its immediate shift to the public domain. The public domain, however, is still a construction of copyright law. Copyright applies to all works, regardless of the author's intention. This produces a less expensive and bureaucratic system than registering copyrights, as with the patents system, but it is ultimately an inflexible one. Works appearing to be orphaned or authorless are usually considered to be 'untouchable', especially in a commercial setting, because the required copyright clearances and royalties are difficult to undertake and determine. Non-legal actions cannot be considered as viable alternative options either, as infringing activities, black-market piracy, and unauthorised access are all defined by their transgression of the law itself.

What was discovered, and is presented in the three case studies, is the alternative treatment *of* copyright, not *to* copyright. Instead of alternatives to copyright, this thesis has examined the emergence of legal licences for the alternative treatment of copyright and their nuanced approach to the expression of individual rights. This thesis has demonstrated that a copyright licence is not neutral and can be employed to curtail user rights or to expand them. It has argued that relevant and highly functional copyright alternatives are compatible with the demands of economic orders of production. This has provided a discussion of the kinds of relationships between users and owners that are not fully appreciated under the modern copyright regime. While

critics may object to the fundamental principles of licensing arrangements, that further complicate an already complex doctrine and subjects users to a range of avoidable legal relations, the degree to which alternative copyright licensing has been embraced in the digital environment speaks to the future direction of this option. The aim of this research has been to examine the processes and cultural conditions involved in the formation of these alternative copyright licensing systems and analyse the characteristics of the organisations, community formations and practices which employ them. This study has not attempted to critique the exact legal components of the licences, instead it has considered to what extent the application of copyright law through licensing succeeds in producing greater options for the application of individual rights.

The first case study examined the philosophical, ideological, cultural and economic motivations involved in the use of alternative copyright licensing schemes within the field of computer software. It has provided a detailed analysis of the concept of freedom involved in the free and open source software movements. The research has accounted for a range of motivations expressed by individuals engrossed in the production of goods that are available for anyone to use, copy and modify. The result of this approach is an original contribution to the academic inquiry into the role of copyright in the digital environment by further examining the balance of rights in this system; the tradeoffs, benefits and sacrifices involved in the choice of copyleft, not as it replaces copyright, but as to how the two legal operations overlap.

The second case study has critically examined the use of the metaphor of the commons as a means of contributing to the discussion regarding the open production and management of cultural goods. It has discussed the relevance and importance of remix culture and explored the Creative Commons method for providing legitimate access to cultural materials for the purpose of creative appropriation without clashing with the restrictions of private and commercial ownership. This case study recognised that licences are not the most ideal of alternatives, but suggests that while intellectual property owners continue to seek greater levels of enforcement and protection, the principles of open-content production and open-content licensing are compatible with the desires and rights of users, particularly in the digital environment.

The third case study has demonstrated that copyright licences have become the default regulatory device for intellectual property involved with virtual worlds, through the standardised implementation of private intellectual property agreements and EULAs. It has employed fan theory to examine how gamers have tactically negotiated copyright laws in order to make independent contributions to the online games industry. The third case study examined a range of productive user practices, from the creation of new game content to the production of entertainment media and the activities of commons-like formations, which have challenged the official modes of production in the games industry. This approach has suggested that users operating in commons-like formations have gained the attention of intellectual property owners, who have responded by encouraging the appropriation and use of their private property for the creation of new works. During the period of this research, academic inquiry into this field has become increasingly popular and its relevance will continue to increase as individuals further engage in the participatory aspects of the digital environment; contributing to blogs and web forums and submitting their own materials to social media sites like *Flickr*, *YouTube*, *MySpace*, *Digg.com*, *Wikipedia* and other forms of 'DIY' media where the democratic potential of participation is limited by the evaporation of legitimate copyright exceptions. It views this material as the subject for further research and inquiry beyond the scope of this thesis.

Vaidhyathan (2006) has advocated a proactive academic discourse of participation in the digital environment where analysis and discussion accompanies news review and commentary. Critical examination of the economic, legal, and cultural intersections of intellectual property and participatory culture is already underway through the blogs of academic luminaries, including Henry Jenkins' *Confessions of an Aca/Fan* (Jenkins, 2006b), Lawrence Lessig's *Lessig.Blog* (Lessig, 2006), Edward Felten's *Freedom To Tinker* blog (Felten, 2006) and Edward Castranova's *Terra Nova* blog (Castranova, 2006). These are joined by the journalistic approaches of writers like Cory Doctorow, host of the website/blog *BoingBoing*, providing opportunities for communities of users/readers to contribute comments, updates and news items, linking to developments in the regulation of intellectual property, information, technology and their relevance to everyday life. There is a growing connection between academics involved in this field and the politics of activism against the curtailment of user rights. These academics operate as users themselves in a manner that invites comments and

includes those outside academic disciplines, forming a test bed for scholarly ideas, drafts and conversations.¹

This online presence encourages activity beyond the margins of traditional sites of academic discourse, as discussion frequently originates from concerns expressed as a result of wider participation. There is an opportunity for greater levels of interaction between these sites and the more institutional forms of academic publication; including the opportunity for these practices to operate in conjunction with those academic journals which publish only online. This would enable academic writing to reach a wider participatory readership, especially from those readers who are inclined to make comment and provide feedback. The popularity and relevance of this format can be seen in McKenzie Wark's (2006) website, *GAM3R 7H30RY*, which uses a draft of his latest book in an HTML note card format to invite comment from the reader.² This is the kind of approach that I envision for my own future contributions, alongside the more traditional outlets of academic publishing.

Copyright and intellectual property laws are at a crossroads, perhaps even a divergence, one that is largely associated with the non-rivalrous and non-scarce qualities of information and objects in the digital environment. This thesis has not suggested that information in general is non-scarce and non-rivalrous, since the economics of scarcity have long demonstrated that this is not the case. This study argues that intellectual property, whether it is in the form of information, knowledge or intangible cultural goods, has significant non-rivalrous and non-scarce properties when in digital form that disrupt the traditional operation of copyright laws. By enforcing the monopoly right to copy, distribute, use (and now access) information, copyright laws have been retrofitted to regulate information scarcity and ensure property rights over intangible goods that are equivalent to physical property. However, as we have seen in the last case study, the economics of information in the digital environment are undergoing new scrutiny.

¹ One of the best examples of this has been the blog of Kim Weatherall, a prominent Australian intellectual property lawyer, who has provided a daily update to the analysis of the reforms to Australian copyright law since 2002. Her blog, *Weatherall's Law* (Weatherall, 2006) has guided non-legal academics, journalists, policy advisors and the general public through the legal details and potential outcomes of these reforms. The hiatus of this blog in 2007 leaves a distinct gap in the contemporary analysis of Australian intellectual property law and its reforms.

² Wark notably employs a Attribution/Non-Commercial/No Derivatives CC licence for the website and the upcoming book publication.

The copyright doctrine has proven that it can accommodate a spectrum of rights and provisions; moral rights protecting an artist's creative integrity; fair use ensuring the circulation of ideas and commentary; and the DMCA-based provisions regulating anti-copying technologies. The success of copyright licensing has also shown that copyright also offers a highly useful basis for individually expressed rights. Even though this research has demonstrated that these additions to copyright law can produce an awkward and unwieldy doctrine at times, the production of an entirely separate set of virtual property laws has serious potential to undermine the already precarious balance between users and owners of copyrights. The popularity of virtual worlds and the impressive revenue they generate, both in terms of virtual currency and real-world subscription fees, suggests that this issue will continue to call attention to the deficiencies in the current approach to intellectual property reform. The only certainty for the future is that remix and participatory culture and the creative innovations enabled by new digital technologies and practices will continue to invigorate discussions and experimentation into the alternative application of copyrights for some time.

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Note: this reference list is divided into the three separate lists, with the main body followed by the Case Law and Legislation and Conventions sections.

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