

Digital Property: The Ultimate Boundary?*

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Introduction

In a world where information is increasingly relevant to our social, cultural and economic existence it is vitally important to understand the legal boundary of digital property.¹ To this end this article presents a preliminary framework for understanding the process through which digital property is being constructed.² It aims to highlight through select and recent cases the constitutional, legislative, contractual and technological dimensions of digital property.³

I. The Constitutional Mandate: The Enumerated Intellectual Property (IP) Power

In Australia, Canada and the United States of America, the federal or national legislature is given significant power in their respective federating Constitutions to enact laws with respect to intellectual property. While not all “digital property” comes within the constitutional definition of intellectual property⁴ (as you will see below), these constitutional

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¹ See generally Carl Shapiro & Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy* 2 (1999) (explaining strategies for success in network economy); Lester C. Thurow, *Building Wealth: New Rules for Individuals, Companies and Nations in a Knowledge-Based Economy* 116-25 (Harper Business ed., 2000) (explaining the importance of intellectual property to modern company's success or failure); Frank Webster, *Theories of the Information Society* (John Urry ed., 1995) (announcing the predominance of information in modern societies); Bernadette E. Lynn, *Intellectual Capital: Unearthing Hidden Value by Managing Intellectual Assets*, *Ivey Bus. J.*, Jan.-Feb. 2000, at 48 (recognizing the importance of Intellectual Capital); see also Don Tapscott et al., *Digital Capital: Harnessing the Power of Business Webs* (2000) (discussing the business models used to create wealth in the digital economy); Stephan Bernhut, *Measuring the Value of Intellectual Capital*, *Ivey Bus. J.*, Mar.-Apr. 2001, at 16 (pointing out the vital importance of intellectual capital in the new economy).

² See also Brian F. Fitzgerald, *A Legal Framework for Understanding Informational Property Entitlements in the Digital Environment*, at <http://www.innovationlaw.org/lawforum/pages/lectureseries.htm> (last visited Oct. 20, 2001).

³ Brian F. Fitzgerald, *Intellectual Capital and Law in the Digital Environment*, *Ivey Bus. J.*, Mar.-Apr. 2001, at 22.

⁴ See generally Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, Legal Instruments – Results of the Uruguay

sources of the key type of information property, namely, intellectual property (IP), are an obvious and necessary place to begin this analysis. The constitutional provisions are expressed as follows:

Australia

Section 51 (xviii) of the Constitution provides that the Commonwealth Parliament may make laws for the peace, order and good government of the Commonwealth with respect to: “Copyrights, patents of inventions and designs, and trade marks.”

Canada

Pursuant to sections 91 (22) and 91 (23) of the Constitution Act, 1867 the Canadian Parliament has exclusive power to legislate in respect of "Patents of Invention and Discovery" and "Copyrights." Trademarks are covered by the trade and commerce power.⁵

United States

Article I, section 8, clause 8 of the United States Constitution empowers the Congress to legislate: “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.” Trademarks are covered by the Commerce Clause.⁶

Immediately upon reading these provisions one is drawn to comment that the U.S. provision is written in a more flowery and prosaic language, perhaps representing the style of constitutional drafting of an earlier era or one consequent to a revolution. The U.S. provision appears to be much more explicitly guided by a purpose for granting intellectual property rights – to promote the progress of science and the useful arts by securing exclusive rights for limited times – than are the Australian or Canadian provisions. The crucial issue that has arisen in relation to these sources or fonts of intellectual property is the extent to which they empower governments to propertize information. Are there any limits? Is it possible to create rights in information that last in perpetuity?

Different types of limits are asserted, such as:

- the purpose for which the IP right is granted/public domain user rights
- type of information that the constitution will allow to be propertized
- length of time a property right will endure
- medium in which the information exists, e.g., fixed in a tangible form

The follow up question that has arisen is whether these limits, if they exist, may be undermined or overridden by other constitutional clauses bestowing legislative power at the

Round vol. 31, 33 I.L.M. 81 (1994) [hereinafter TRIPS] (defining intellectual property rights). A large amount of intellectual property legislation is derived from international conventions/treaties, with the TRIPS agreement being a current and concise summary of those international principles.

⁵ See *McDonald v. Vapor Can. Ltd.*, [1977] 2 S.C.R. 134 (Can.).

⁶ *Trade-Mark Cases*, 100 U.S. 82, 93-95 (1879).

federal level or by state laws.⁷ For example, can the Commerce Clause in the United States or the trade and commerce clause in Australia be used to legislate informational property rights that surpass any constitutional limits inherent in the respective IP clauses?⁸ Or will the IP clause be read like the unjust acquisition (or takings) clause of the Australian Constitution so as to limit the other enumerated federal legislative powers?⁹

A. The Rationale and Purpose of IP Rights – The Scope of the Public Domain

A preliminary question and one that is central to the debate over propertizing information is the role and purpose of intellectual property law or, if looked at from another perspective, the scope of public domain rights.¹⁰ Fisher explains that there are (at least) four (imperfect yet useful) overarching theories of intellectual property.¹¹

- economic/utilitarian theory: intellectual property law is justified in terms of economic efficiency¹²

⁷ See *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141 (1989); *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470 (1974); *Goldstein v. California*, 412 U.S. 546 (1973); *Compco Corp. v. Day-Brite Lighting, Inc.*, 376 U.S. 234 (1964); *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225 (1964).

⁸ See Brian F. Fitzgerald, (*Australian Constitutional Limits on Intellectual Property*, 23 *Eur. Intell. Prop. Rev.* 103 (2001)).

⁹ See *Austl. Const.* ch. I, pt. V, § 51, cl. xxxi. The Australian Constitution, amongst other things, divides the legislative powers of the Australian federal system between the Commonwealth (central) and State (regional) governments. Section 51 of the Constitution provides that the Commonwealth Parliament shall have power to make laws for the peace, order, and good government of the Commonwealth with respect to an enumerated list of powers. As a general rule the empowering clauses of section 51 are seen as independent sources for legislative action, although section 51 (xxxii) is a clear exception to that rule. Section 51 (xxxii) confers a power on the Commonwealth Parliament to legislate with respect to “the acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws.” The provision operates, firstly, to give the Commonwealth power to acquire property and, secondly, as an individual right or guarantee to private property protected by “just terms.” See *Georgiadis v. AOTC* (1994) 179 C.L.R. 297 (Austl.); *Mutual Pools & Staff Ltd. v. Commonwealth* (1994) 179 C.L.R. 155 (Austl.). In acting as a guarantee, the clause is said to remove from other clauses the power to compulsorily acquire property. However, if another clause in section 51 displays, by words or content, an intention to allow acquisition without just terms or if the acquisition is of a type that is not susceptible to just terms, the guarantee is not operative. Therefore statutes imposing taxation, penalties by way of forfeiture of property or a bankruptcy scheme are not seen as infringing the guarantee of or right to private property protected by section 51 (xxxii). See *Mutual Pools*, 179 C.L.R. at 169-71, 177-81, 186-89, 219-22; see also *Health Insurance Commission v. Peverill* (1994) 179 C.L.R. 226 (Austl.); *Newcrest Mining (WA) Ltd. v. Commonwealth* (1997) 190 C.L.R. 513 (Austl.).

¹⁰ See generally Yocahi Benkler, *Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain*, 74 *N.Y.U. L. Rev.* 354 (1999) (including in the definition of the public domain works protected by copyright but that may be used without the permission of the copyright owner under privileges such as the fair use doctrine); Jessica Litman, *The Public Domain*, 39 *Emory L.J.* 965 (1990) (defining the public domain as the realm unprotected by copyright).

¹¹ William Fisher, *Theories of Intellectual Property*, in *New Essays in the Legal and Political Theory of Property*, 169-73 (Stephen R. Munzer ed., 2001); see also Anne Fitzgerald, *Intellectual Property 7-9* (Law Book Co., Sydney 1999); Robert P. Merges et al., *Intellectual Property in the New Technological Age* 1-21 (2d ed. 2000); Justin Hughes, *The Philosophy of Intellectual Property*, 77 *Geo. L.J.* 287, 288-89 (1988).

¹² See, e.g., *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 429-32 (1984); *Millar v. Taylor*, 98 *Eng. Rep.* 201, 218, 252-53 (K.B. 1769); Adam Smith, *Lectures on Jurisprudence* 83 (Ronald L. Meek et al. eds., Liberty Classics 1982) (1762); William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 *J. Legal Stud.* 325 (1989); Neil W. Netanel, *Copyright and a Democratic Civil Society*, 106 *Yale L.J.* 283 (1996).

- Lockean/labor desert: intellectual property rights are natural rights earned through adding labor to the common resource of information with the proviso that enough and as good is left for others¹³
- personhood: intellectual property is an emanation of the person and the law should facilitate this personal aspect¹⁴
- social planning: intellectual property law should be designed to culturally enrich democratic society¹⁵

Economic Rights

Arguably, the guiding premise of American copyright and patent law is the utilitarian ethic that legal protection of intellectual property is needed to advance public welfare because it fosters creative genius/product, which can in turn be distributed for the good of the general public.¹⁶ In the words of the United States Supreme Court in *Mazer v. Stein*:¹⁷

The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in ‘Science and useful Arts.’¹⁸

This economic conception of intellectual property is reinforced by the copyright and patent statutes, which bestow rights upon the IP owner to control the economic exploitation of the work or product. The intellectual property law of the United Kingdom, Canada and Australia has exhibited a similar utilitarian economic basis.¹⁹ As well, in these systems the IP owner holds economic rights to exploit the information, e.g., the exclusive right of the copyright owner to control reproduction.

Lockean Natural Rights

The view that a person possesses a natural right to own what they have created through their labour is also very influential in many intellectual property systems throughout

¹³ See Universal Declaration of Human Rights, G.A. Res. 217 A (III), U.N. GAOR 3d Sess., pt. 1, at art. 27(2), U.N. Doc. A/RES/217 A (III) (1948) (stating “[e]veryone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.”); Wendy J. Gordon, *A Property Right in Self Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 Yale L.J. 1533 (1993).

¹⁴ See generally Margaret J. Radin, *Property and Personhood*, 34 Stan. L. Rev. 957 (1982) (exploring the relationship between property and personhood).

¹⁵ See generally Peter Jaszi, *Toward a Theory of Copyright: The Metamorphoses of “Authorship”*, 1991 Duke L.J. 455 (1991); *The Construction of Authorship: Textual Appropriation in Law and Literature* (Martha Woodmansee & Peter Jaszi eds., 1994) (discussing the relationship between copyright and literary and artistic culture).

¹⁶ See e.g., Paul Goldstein, *Copyright’s Highway* 165-96 (1994).

¹⁷ 347 U.S. 201 (1953).

¹⁸ *Id.* at 219.

¹⁹ See *Welcome Real-Time SA v. Catuity Inc.* [2001] F.C.A. 445, at para. 129 (Austl.); David Vaver, *Intellectual Property Law* 6-13 (1997); David Fewer, *Constitutionalizing Copyright: Freedom of Expression and the Limits of Copyright in Canada*, 55 U.T. Fac. L. Rev. 175, 187-93 (1997).

the world.²⁰ In more recent times, though, copyright claims to own information on the basis of labour have not been accepted in the United States or Canada *per se*, although a recent decision in Australia was more receptive to such claims.²¹ If copyright is to be the vehicle for the claim to own the value of adding one's labour to the common stock of information in the United States and Canada, then the labour must produce an intellectual product. Otherwise mere "sweat of the brow" claims in those countries will need to be asserted under *sui generis* law like the emerging European database laws, unfair competition law²² or unjust enrichment law.²³

Moral Rights

In contrast to the Anglo-American approach, the intellectual property law of continental Europe (especially copyright law) has long recognised both an economic and personal aspect to intellectual property rights.²⁴ The personal aspect which is encompassed by the third category of theories in Fisher's taxonomy is known as a moral right.²⁵

Moral rights are personal rights belonging to authors or creators of copyright material and exist quite independently from economic rights. They continue to exist even after the economic rights have been transferred. The principal moral rights are:

- The right of *attribution*, that is the right of the creator of a work to be publicly identified as such and to prevent others from claiming authorship of the work, to prevent others from wrongfully attributing to an author works that are not his or hers or that are unauthorised altered versions of his or her work; and

²⁰ See Charter of Fundamental Rights of the European Union art. 17, at para. 2. ("Intellectual property shall be protected."); Fewer, *supra* note 19, at 187-89, 191-93 (discussing the application of this theory to Canadian intellectual property law).

²¹ See *Telstra Corp. v. Desktop Marketing Sys. Pty. Ltd.* [2001] F.C.A. 612 (Austl.).

²² See *generally* *Int'l News Serv. v. Associated Press*, 248 U.S. 215 (1918) (discussing unfair competition law); *Nat'l Basketball Ass'n v. Motorola, Inc.*, 105 F.3d 841 (2d Cir. 1997) (ruling professional basketball games were not "original works of authorship" protected by Copyright Act); *Bd. of Trade of City of Chicago v. Dow Jones*, 456 N.E. 2d 84 (Ill. 1983) (ruling publisher's stock market indexes and averages could not be used by board of trade as the basis for its proposed stock index futures contracts without the consent of the publisher); Wendy J. Gordon, *On Owning Information: Intellectual Property and a Restitutionary Impulse*, 78 Va. L. Rev. 149, 281 (1992) (suggesting that "the judicial experience in the allied area of restitution has suggested that economic and other norms should, and do, condition the implementation of the impulse to grant reward for labor expended"); J.H. Reichman & Pamela Samuelson, *Intellectual Property Rights in Data?*, 50 Vand. L. Rev. 51, 56 (1997) (proposing "either the use of unfair competition principles to protect database contents, or the adoption of an intellectual property regime based on more refined liability principles, rather than on exclusive property rights, that would reconcile the need for legal incentives to invest with a calculus of net social benefits").

²³ See *Matarese v. Moore-McCormack Lines, Inc.*, 158 F.2d 631 (2d Cir. 1946); *Bristol v. Equitable Life Assurance Soc'y of U.S.*, 30 N.E. 506 (N.Y. 1892); Brian F. Fitzgerald & Leif Gamertsfelder, *Protecting Informational Products (Including Databases) Through Unjust Enrichment Law: An Australian Perspective*, 20 Eur. Intell. Prop. Rev. 244 (1998).

²⁴ See *Joined Cases C-241-242/91, Radio Telefis Eireann and Indep. Television Publ'ns Ltd. v. Comm'n*, 1995 E.C.R. I-743, at para. 71, [1995] 4 C.M.L.R. 718 (1995) (explaining "The Court of First Instance is right . . . in stating that the essential function of copyright is to protect the moral rights in the work and ensure a reward for creative effort"); see also *Universal Declaration of Human Rights*, *supra* note 15; see *generally* *Millar*, 98 Eng. Rep. at 252-53; Gerald Dworkin, *Moral Rights and the Common Law Countries*, 5 Austl. Intell. Prop. L.J. 5 (1994).

²⁵ Fisher, *supra* note 12.

- The right of *integrity*, that is the right to object to distortions or derogatory distortions of a work.²⁶

The obligation to afford moral rights to creators of copyright materials arises from Article 6bis of the Berne Convention, which provides that:

(1) Independently of the author's economic rights, and even after the transfer of the said rights, the author shall have the right to claim authorship of the work and to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, the said work, which would be prejudicial to his honour or reputation.

(2) The rights granted to the author in accordance with the preceding paragraph shall, after his death, be maintained, at least until the expiry of the economic rights, and shall be exercisable by the persons or institutions authorised by the legislation of the country where protection is claimed. However, those countries whose legislation, at the moment of their ratification of or accession to this Act, does not provide for the protection after the death of the author of all the rights set out in the preceding paragraph may provide that some of these rights may, after his death, cease to be maintained.

(3) The means of redress for safeguarding the rights granted by this Article shall be governed by the legislation of the country where protection is claimed.

Until recently, Australian law provided only minimal and indirect recognition for moral rights, notwithstanding Article 6bis of the Berne Convention. The recognition of moral rights under the **Copyright Act, 1968**, was limited to a duty not to falsely attribute the authorship of a work, a duty not to falsely attribute the authorship of an altered work and a duty not to falsely attribute the authorship of a reproduction of an artistic work. The **Copyright Amendment (Moral Rights) Act, 2000, which entered into force on December 21, 2000**, introduces the moral rights of integrity and attribution of authorship and strengthens the earlier prohibition on false attribution of authorship. Under the new Australian law, moral rights are not infringed by acts to which the creator has consented, providing the consent is in writing and meets certain other conditions.

Interestingly, Canada introduced moral rights in the **Copyright Act** of 1931; however, scope for waiver has meant that a culture of moral rights has not been prominent in Canadian copyright law.²⁷ The United States has legislated for some very limited applications of moral rights,²⁸ however many American academics are wary of the potential of moral rights to lock up information and inhibit free speech, especially in the context of the Internet.²⁹

Culturally Enriching Rights

²⁶ Brian F. Fitzgerald & Anne Fitzgerald, *Cyberlaw: Cases and Materials on the Internet*, Digital Intellectual Property and Electronic Commerce 336 (Prospect Media, Sydney 2002).

²⁷ See Vaver, *supra* note 19, at 87-96.

²⁸ See generally Visual Artists Rights Act, 17 U.S.C. § 106A (1994 & Supp. IV 1998) (granting rights of attribution and integrity to certain authors of visual art); *Carter v. Helmsley-Spear, Inc.*, 71 F.3d 77 (2d Cir. 1995) (summarizing the scope of moral rights in the law of the United States).

²⁹ See generally William W. Fisher III, *Property and Contract on the Internet*, 73 Chi.-Kent L. Rev. 1203 (1998) (suggesting moral rights should have more limited application in the eclectic transnational and digitized world of the Internet).

In a world where digitized information (and its control/ownership) is of continuing and increasing significance to the economy, society and culture, we have seen renewed relevance for and interest in Fisher's fourth category of IP theory: social planning or cultural enhancement theory. Every significant claim over digital value at issue at the moment can be described as one involving a battle between utilitarian or Lockean/natural rights claims to ownership versus the creation of intellectual property rights for reasons of cultural enhancement. In the digital environment of an information society, where "information is lifeblood," the cultural aspects of intellectual property are brought into focus. The decentering of the author as creator is part of this phenomenon, but more so the realisation that an expressive work is a collection of culturally imbued facts. As we shall see below, in the United States, the power of the First Amendment is being employed to attack the "private property" imperialism of the IP statues over information and to thereby assist the case of the culture theorists.

If we live in an information based economy, culture and society, the process of propertizing information³⁰ must be seen as being inherently concerned with the way we live, think, communicate and construct knowledge. This takes us far beyond questions of economics to key cultural and social issues, which the process of propertizing information must now accommodate. For instance, it is no longer good enough to allocate property rights in software without considering the social and cultural implications of the market power and monopoly of thought that such a process will engender. Software is not just code, it is discourse, in that it allows us to see and say things in digital space.³¹

Free software and open code software projects, in some instances, epitomize a cultural rationale for intellectual property rights.³² In the classic free software scenario embodied in the GNU General Public Licence (GPL), code is distributed in a manner that is open and free

³⁰ See Felix S. Cohen, *Transcendental Nonsense and the Functional Approach*, 35 Colum. L. Rev. 809, 814-17 (1935); see e.g., E. Richard Gold, *Body Parts: Proprietary Rights and the Ownership of Human Biological Materials* (Geo. Univ. Press 1996); Ejan Mackaay, *The Economics of Emergent Property Rights on the Internet, in The Future of Copyright in a Digital Environment* 13 (P. Bernt Hugenholtz ed., 1996) (stating that although traditional property fencing techniques do not work well on the Internet, property is by no means dead, because of the initiatives exploring alternative fencing and new extensions of property rights); Thomas A. Stewart, *Intellectual Capital: The New Wealth of Organizations* (Bantam Doubleday Dell 1997); James Boyle, *Cruel, Mean or Lavish? Economic Analysis, Price Discrimination and Digital Intellectual Property*, 53 Vand. L. Rev. 2007 (2000); Julie E. Cohen, *Copyright and the Perfect Curve*, 53 Vand. L. Rev. 1799 (2000); Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition From Marx to Markets*, 11 Harv. L. Rev. 622 (1998) (discussing the dangers of anticommons property, specifically the under use of resources and the lack of effective privileges to use); David Lange, *Recognizing The Public Domain*, Law & Contemp. Probs., Autumn 1981, at 147; Pamela Samuelson & Kurt Opsahl, *Licensing Information in the Global Information Market: Freedom of Contract Meets Public Policy*, 21 Eur. Intell. Prop. Rev. 387 (1999); Lester C. Thurow, *Needed: A New System of Intellectual Property Rights*, Harv. Bus. Rev., Sept.-Oct. 1997, at 95; Hal R. Varian, *Versioning Information Goods*, (Mar. 13, 1997) (discussing differential pricing known as quality discrimination or versioning), at <http://www.sims.berkeley.edu/~hal/people/hal/papers.html>.

³¹ See Brian F. Fitzgerald, *Software as Discourse: The Power of Intellectual Property in Digital Architecture*, 18 Cardozo Arts & Ent. L.J. 337 (2000).

³² See Marcus Maher, *Open Source Software: The Success of an Alternative Intellectual Property Incentive Paradigm*, 10 Fordham Intell. Prop. Media & Ent. L.J. 619 (2000) (showing how the science of complexity theory is able to explain the open source movement's ability to translate non-economic incentive mechanisms into a process for technological development and innovation); David McGowan, *Legal Implications of Open-Source Software*, 2001 U. Ill. L. Rev. 1, (2001); Stephen M. McJohn, *The Paradoxes of Free Software*, 9 Geo. Mason L. Rev. 25 (2000) (concluding that open source software may have a greater effect on the law of developing technologies than the law will have on software practices); David Bollier, *The Power of Openness: Why Citizens, Education, Government and Business Should Care About the Coming Revolution in Open Source Code Software*, available at <http://eon.law.harvard.edu/opencode/h2o/#intro> (last visited Oct. 27, 2001) (illustrating the broad effect of changes in open code software); www.gnu.org; www.opensource.org (last visited Oct. 27, 2001).

(not free as in beer but free as in speech), allowing software developers further down the line to modify and improve upon the initial software product. The initial distributor of the code controls its presentation and further dissemination through copyright and contract law (contractual software license). In general, subsequent users and modifiers are required to further distribute the code they received and to make code of any derivative work available to the public. In this process, copyright law is used to create a “copyleft” effect as opposed to a “copyright” effect by mandating that code should be open and free for all to use in the innovation and development of software. In doing so, copyright law is used to structure the practices of software developers into a community of effort, while in a broader sense ensuring diversity and social innovation of the digital environment and, thereby, social existence. In short, free software and open code projects have the potential to use intellectual property law (copyright) to enrich and to better structure cultural existence. Not every developer or all projects under these banners will be minded to act in a culturally benevolent manner – some will do it for the purpose of building a reputation that can later be exploited for monetary rewards and others will increasingly use open code to augment already thriving proprietary business models.³³

Two difficult issues remain to be considered in relation to the culture theory. Firstly, how does it relate to the first theory considered, which is primarily focused on public welfare in an economic sense? There can be little doubt that both theory one and four are concerned with public welfare, but in different ways. Theory one proposes to reward the author in the name of public welfare, but the benefit to community or culture becomes a “presumed” consequence of the creative activity.³⁴ Theory four is the reverse in that it starts out with the community or culture and seeks to explain when it is beneficial for a creator to become a property holder. In this equation, economic efficiency may be considered but is by no means a totalising criterion or rationale.³⁵ The conclusion must be that both seek to prosper public welfare but from completely different ends of the spectrum.

Secondly, claims for protection of indigenous cultural materials are also subject to increasing attention. These might be seen as claims to collective or group moral rights or, more broadly, as claims that IP law should be used to respect and enhance cultural tradition and spirituality.³⁶ A concern is that granting perpetual rights to control information that has special cultural significance to indigenous peoples locks up information in a society where access to and use of information should be optimised. Another concern is that if indigenous peoples can be allowed to claim the special cultural significance of information, then a way will be opened for non-indigenous people to make similar claims in respect of other (religious or social) information culturally significant to them. These responses understate the richness of indigenous culture and its plight in the face of unethical economic exploitation.

Proprietary Purpose: A Limiting Factor

³³ See generally Eric S. Raymond, *The Cathedral and the Bazaar*, available at <http://www.tuxedo.org/~esr/writings/cathedral-bazaar/cathedral-bazaar/index.html> (last visited Oct. 27, 2001) (discussing the evolution of Linux in the commercial world).

³⁴ See Benkler, *supra* note 10; Boyle, *supra* note 30; Julie E. Cohen, *supra* note 30, (criticising the presumption that Intellectual Property law is always economically and culturally beneficial).

³⁵ It is interesting to contemplate how a cultural approach to IP might be reconciled with the permitted exceptions stipulated under TRIPS, arts. 13, 17, 30.

³⁶ Maroochy Barambah & Ade Kukoyi, *Protocols for the Use of Indigenous Cultural Material*, in *Going Digital 2000: Legal Issues for E-Commerce Software and the Internet* 133 (Prospect Publishing Sydney ed., 2000); Terri Janke, *Our Culture Our Future: A Report on Australian Indigenous Cultural Intellectual Property Rights*, 43-48 (1988) (stating indigenous people’s desires for protection of indigenous cultural and intellectual property); United Nations Draft Declaration on the Rights of Indigenous Peoples, art 29 (1993).

Whether intellectual property rights are designed to reward people, or to reduce transaction costs and increase allocative efficiency, or for reasons of rewarding the fruits of labour, or personhood theories or cultural development, the question remains whether any purpose or rationale for such rights acts as a limit on what rights can be legislated?

There is sufficient United States Supreme Court jurisprudence to suggest that copyright or patent legislation should stimulate economic efficiency. But in light of the recent decision in *Eldred v. Reno*,³⁷ it might be doubted whether a United States court would use this as the basis for any general decision limiting the power of Congress to legislate. If anything, such a rationale for the IP clause would most likely be implemented through interpretation of the various elements of the clause. Notions of personhood³⁸ or cultural enhancement do not seem to be constitutionally required or entrenched. However, the following statement from *Graham v. John Deere Co.*,³⁹ read at its broadest, suggests that there may be a broader purposive limit which, with some imagination, could embrace notions of social impact:

The Congress in the exercise of the patent power may not overreach the restraints imposed by the stated constitutional purpose. Nor may it enlarge the patent monopoly without regard to the innovation, advancement or social benefit gained thereby.⁴⁰

In Australia and Canada it is doubtful whether any general limit based on notions of economy, personhood or culture would be operational. Once again, if any limits exist they must be found in the specific elements of the respective constitutional clauses. Although, the recent statement by Justice Kirby of the High Court of Australia in *Grain Pool of WA v. The Commonwealth*⁴¹ suggests democratic and cultural considerations may be relevant to interpreting the scope of legislative power on this issue:

No absolute or unlimited rule may be stated. The protection of intellectual property rights must be afforded in a constitutional setting which upholds other values of public good in a representative democracy. In the United States the relevant head of constitutional power has been viewed as containing in-built limitations many of which are derived from the competing constitutional objective of public access to information: *Graham v. John Deere Co.*; *Feist Publications, Inc v. Rural Telephone Service Co., Inc.* In Australia, the constitutional setting is different but the existence of competing constitutional objectives, express and implied, is undoubted.⁴²

³⁷ 239 F.3d 372 (D.C. Cir. 2001). In *Eldred*, the majority held that the perambulatory words of the United States Copyright and Patent Clause – to promote progress of science and the useful arts – are not to be read as limits on the legislative power of Congress. This suggests that the purpose for bestowing the legislative power becomes relevant if at all in relation to the operative parts or terms of the clause.

³⁸ See *Gilliam v. ABC Inc.*, 538 F.2d 14 (2d Cir. 1976). These issues can be relevant if related to the economic incentive argument.

³⁹ 383 U.S. 1, 5-6 (1966).

⁴⁰ *Id.*; see also *Sears, Roebuck & Co.*, 376 U.S., at 230 (quoting *Kendall v. Winsor*, 21 How. 322, 328 (1859)) (“[I]n rewarding useful invention, the ‘rights and welfare of the community must be fairly dealt with and effectually guarded.’”).

⁴¹ [2000] H.C.A. 14, available at http://www.austlii.edu.au/au/cases/cth/high_ct/2000/14.html.

⁴² *Id.*, at n.218 (citations omitted). Judge Kirby also talks of “potential benefit to the community.”; see also Lawrence Lessig, *Code and Other Laws of Cyberspace* 131, 133-34 (Basic Books 1999); Fitzgerald, *supra* note 8.

Having considered the difficulty courts have with invoking a broad notion of purpose for granting IP rights as an enforceable restraint on legislation, the more interesting question is to determine the specific limits that arise from the elements of the clauses.

B. The Type of Information That the Constitution Will Allow to be Propertized

Central to the presentation of digitised information is software. Software has been protected as a literary work under the US Copyright Act since 1980 and under the Australian Copyright Act since 1984. Article 10 (1) of the TRIPs agreement also provides that software shall be protected as a literary text in copyright law.⁴³ More recently, software has been subject to a vast amount of patenting throughout the world.⁴⁴ It is clear then that the most prominent form of digital property has been held to be a type of information that can be subject to IP rights. However, not all information, including digitised information, is constitutionally eligible for protection under the copyright and patent heads of power.

1. Raw Data

The classic example of unprotected information is raw data or ideas. Copyright law has long taken the view that it protects the expression of data/ideas but not the raw data/ideas themselves.⁴⁵ This view is known as the idea/expression dichotomy and is now embodied in the TRIPs agreement: “Copyright protection shall extend to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such.”⁴⁶

In the United States Supreme Court decision in *Feist Publications, Inc. v. Rural Telephone Service Co.*,⁴⁷ it was held that raw data, namely entries in a telephone directory, was not subject to copyright protection. The Court explained:

The sine qua non of copyright is originality. To qualify for copyright protection, a work must be original to the author. . . . Original, as the term is used in copyright, means only that the work was independently created by the author (as opposed to copied from other works), and that it possesses at least some minimal degree of creativity. To be sure, the requisite level of creativity is extremely low; even a slight amount will suffice. The vast majority of works make the grade quite easily, as they possess some creative spark, "no matter how crude, humble or obvious" it might be Originality does not signify novelty; a work may be original even though it closely resembles other works, so long as the similarity is fortuitous, not the result of copying. To illustrate, assume that two poets, each ignorant of the other, compose identical poems. Neither work is novel, yet both are original and, hence, copyrightable.

Originality is a constitutional requirement. . . . In The Trade-Mark Cases, the Court addressed the constitutional scope of “writings.” For a particular work to be classified “under the head of writings of authors,” the

⁴³ TRIPs, *supra* note 5, at art. 10 cl. 2 (providing that “Computer programs, whether in source or object code, shall be protected as literary works under the Berne Convention (1971)”).

⁴⁴ See, e.g., *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F. 3d. 1368 (Fed. Cir. 1998); *Welcome Real-Time*, [2001] F.C.A. 445.

⁴⁵ See *Feist Publ’ns, Inc. v. Rural Telephone Serv. Co.*, 499 U.S. 340 (1991).

⁴⁶ TRIPs, *supra* note 5, at art. 9 cl. 2.

⁴⁷ 499 U.S. 340 (1991).

Court determined, "originality is required." The Court explained that originality requires independent creation plus a modicum of creativity: "[W]hile the word writings may be liberally construed, as it has been, to include original designs for engraving, prints, &c., it is only such as are original, and are founded in the creative powers of the mind. The writings which are to be protected are the fruits of intellectual labor, embodied in the form of books, prints, engravings, and the like."

In *Burrow-Giles*, the Court distilled the same requirement from the Constitution's use of the word "authors." The Court defined "author," in a constitutional sense, to mean "he to whom anything owes its origin; originator; maker." As in *The Trade-Mark Cases*, the Court emphasized the creative component of originality. It described copyright as being limited to "original intellectual conceptions of the author," and stressed the importance of requiring an author who accuses another of infringement to prove "the existence of those facts of originality, of intellectual production, of thought, and conception."

"No one may claim originality as to facts." This is because facts do not owe their origin to an act of authorship. The distinction is one between creation and discovery: the first person to find and report a particular fact has not created the fact; he or she has merely discovered its existence. To borrow from *Burrow-Giles*, one who discovers a fact is not its "maker" or "originator."⁴⁸

Building upon this reasoning, the Court held that the copying of 1309 entries in the white pages of the telephone directory was not a copyright infringement nor was the selection or arrangement of the entries in basic alphabetical order creative enough to give a thin layer of copyright protection to the arrangement of the entries.⁴⁹

As a consequence of the *Feist* decision, arguments were made throughout the world for the creation of a *sui generis* form of legal protection for the time and expense of creating databases. In 1996, the European Union adopted a Directive on the Legal Protection of Databases⁵⁰ that proposed a *sui generis* regime; later in 1996, the World Intellectual Property Organisation (WIPO) produced proposals for a similar international scheme for the protection of databases. The EU Directive creates an exclusive *sui generis* right for the makers of databases.⁵¹ The general objective of this right is to protect the investment of time, money and effort by the maker of a database, irrespective of whether the database is in itself innovative. According to the Directive, a database is protected if there has been a substantial qualitative or quantitative investment in obtaining, verifying or presenting the contents of the database.⁵² The duration of the protection provided by the Directive is fifteen years.⁵³

⁴⁸ *Id.* at 345-47 (citations omitted).

⁴⁹ See *BellSouth Advertising & Pub. Co. v. Donnelley Info. Pub., Inc.*, 999 F.2d 1436 (11th Cir. 1993).

⁵⁰ Council Directive 96/9/EC, 1996 O.J. (L77) 20.

⁵¹ *Id.* at art. 8. The reciprocity principle embodied in art. 11 means that database makers from countries outside the EU will not be given the benefits of these database rights unless their countries offer comparable protection to EU database makers.

⁵² See *id.* at art. 7.

⁵³ *Id.* at art. 10.

At present, the WIPO proposal has stalled. However, the EU Directive is slowly being introduced.⁵⁴ The U.S. Congress has considered a number of proposals for database protection but has yet to enact a definitive *sui generis* regime. One proposal from 1999 was the Collections of Information Antipiracy Act,⁵⁵ which read in part:

1402. Prohibition against misappropriation

Any person who extracts, or uses in commerce, all or a substantial part, measured either quantitatively or qualitatively, of a collection of information gathered, organized, or maintained by another person through the investment of substantial monetary or other resources, so as to cause harm to the actual or potential market of that other person, or a successor in interest of that other person, for a product or service that incorporates that collection of information and is offered or intended to be offered for sale or otherwise in commerce by that other person, or a successor in interest of that person, shall be liable to that person or successor in interest for the remedies set forth in section 1406.

This Act proposed to protect databases for up to fifteen years.⁵⁶ A more “user friendly” proposal was the Consumer and Investor Access to Information Act.⁵⁷ Variations of both proposals are still being considered.⁵⁸ Canada and Australia do not have a *sui generis* regime for database protection although both countries have been examining the issue for some time.

An interesting question is whether the Commerce Clause could be used to legislate such *sui generis* database rights in Australia or the United States. This issue is dealt with more fully below; suffice to say, at this point the answer depends on whether the IP clause is seen to guarantee an individual’s right to access raw data, override other federal constitutional clauses.

While the Canadian⁵⁹ and Australian courts may not give exactly the same definition to the terms, there could be little conjecture that “copyright,” as listed in the respective constitutions, embodies notions of independent creation and a modicum of creativity.⁶⁰ However, a recent case in Australia concerning telephone directories has suggested that “compilations” may not require intellectual input (creativity) to secure copyright protection.

In *Telstra Corporation Limited v. Desktop Marketing Systems Pty. Ltd.*,⁶¹ Judge Finkelstein of the Federal Court of Australia held that Australia’s leading telecommunications provider, Telstra, could maintain an action for copyright infringement

⁵⁴ See, e.g., Council Directive 96/9/EC, 1996 O.J. (L77) 20, implemented by the Copyright and Rights in Databases Regulations 1997 (SI 1997/3032) (implementing the EU directive in the UK on Jan. 1, 1998); *British Horseracing Board Ltd. v. William Hill Org.*, [2001] R.P.C. 31 (Ch. 2001) (Eng.).

⁵⁵ H.R. 354, 106th Cong. (1999).

⁵⁶ *Id.* § 1408.

⁵⁷ H.R. 1858, 106th Cong. (1999).

⁵⁸ See Reichman & Samuelson, *supra* note 22; see also, Charles R. McManis & Christopher R. Alder, *Database Protection in the Digital Information Age*, 7 *Roger Williams Univ. L. Rev.* ??? (2001).

⁵⁹ See *Tele-Direct (Publications) Inc. v. Am. Bus. Info. Inc.*, [1997] 154 D.L.R. 4th 328 (Can.).

⁶⁰ See e.g., *Kalamazoo (Austl.) Pty. Ltd. v. Compact Bus. Sys. Pty. Ltd.* (1985) 5 I.P.R. 213 (Austl.); *ITP Pty. Ltd. v. United Capital Pty. Ltd.* (1985) 5 I.P.R. 315 (Austl.); *Ladbroke (Football) Ltd. v. William Hill (Football) Ltd.*, [1964] 1 W.L.R. 273 (Eng.); cf. *G A Cramp & Sons Ltd. v. Frank Smythson Ltd.* [1944] A.C. 329 (Austl.); Vaver, *supra* note 19, at 41-45; see also Copyright Law Review Committee, *Report on the Simplification of the Copyright Act, 1968*, Part 2, *Categorisation of Subject Matter and Exclusive Rights and Other Issues*, paras. 5.42-47 (1999) (noting their views on the production of copyright material with computers), at <http://www.agps.gov.au/clrc>.

⁶¹ [2001] F.C.A. 612.

based on their white and yellow pages telephone directories.⁶² In that case, the defendants had produced CD versions of the books with a number of value added features such as allowing people to search for names through postcode, address or reverse phone number searching.⁶³ Judge Finkelstein, relying on a series of English decisions, held that in the case of compilations it was not necessary for there to be originality in the sense of intellectual input or creativity; sweat of the brow was sufficient.⁶⁴ He explained:

There is debate as to the meaning of “originality” in copyright law. Everyone agrees that for a work to be “original” it must be independently created by the author; that is, it must not be copied from another work. But there is a further requirement. The disagreement concerns the nature of that requirement. There are two schools of thought. On the one hand there are those who say that copyright will only protect intellectual effort, and unless there is at least some intellectual labour in the creation of a work, it cannot be “original”. . . .

On the other hand there is a school that argues that at least in respect of a compilation, the originality requirement will be satisfied if there has been some effort expended in producing the work, especially effort in gathering or collecting the factual data that is reproduced, though there be no ingenuity in the arrangement or presentation of that data.

Quite apart from matters of policy, it might be said that the very nature of copyright requires the work to be the product of creative thought. The first copyright statute was enacted “for the Encouragement of learned Men to compose and write useful Books.” These books were necessarily the result of the author’s intellectual effort. That was also true of other works (engravings, sculptures, dramatic works and the like) that were given copyright protection by the early statutes. But a compilation is of a different character from a work of art or literature. This is especially true of a compilation of facts that are in the public domain. For this type of compilation to come into existence, the facts must be selected, collected, arranged in a particular fashion, and then produced in some form. It may be possible to describe as creative the processes of selection, collection or arrangement. But the creativity is of a different order from that involved in producing a work of art or literature. The

⁶² *Id.* at para. 147.

⁶³ *Id.* at para. 24.

The primary data that is used to produce DtMS’ products is taken from Telstra’s white pages directories and yellow pages directories. A Sydney company, Dependable Database Data Pty. Ltd., sends every white pages directory and yellow pages directory to the Philippines where a large team types (the technical term is key punches) all the listings into a computer. The information is changed in various respects. For example, abbreviations are expanded (Rd to Road), the name of the State is included, and the information is formatted so that it may easily be read by a computer. The information is then provided to DtMS in electronic form, usually as a computer disk.

The information is loaded onto the computer system maintained by DtMS. There is some cursory validation of the data, but not to any significant extent. Then information is added, such as the appropriate industry code, number of employees, facsimile number and Ausdoc DX number. The information is updated if errors are identified, or if there is a “do not contact” attached to a particular name

Id. at paras. 25-26.

⁶⁴ *Id.* at paras. 84-85.

English cases seem implicitly to accept this proposition, because the originality requirement for a compilation could not be the same as for other works. More particularly, when it was held that copyright could subsist in a work such as a chemist's stock list (*Collis v. Cater*), the preparation of which involved no intellectual effort, it was apparent that a work could be original in the absence of creativity. The old view of originality had disappeared. So, copyright protection could be claimed by a person who brought out a directory in consequence of an expensive, complicated and well organised venture, even if there was no creativity in the selection or arrangement of the data.

That being the law in England in 1911, it became the law in Australia in 1912 when the English statute was adopted as the law in this country.⁶⁵

The difficulty with the approach espoused by Judge Finkelstein is that if creativity is not required as an element of originality then copyright is awarded for the effort of collection and, in essence, provides copyright protection of the facts. This approach becomes problematic if the judge, (as Judge Finkelstein did in this case), takes a broad view of what amounts to copying in order to protect the labour of the data base compiler. While the CD versions of the books contained enhancements, the judge seem minded to protect the labours of Telstra from wholesale copying by finding that infringement had occurred:

In substance, the respondents say that "the look, feel, arrangement, functionality, extent of information, accuracy and purpose [of the CD-roms] are all radically different" from Telstra's products. They also contend that the visual appearance is different because the entries are alphabetically ordered by postcode, not arranged in geographical areas, contain full mailing addresses, have a layout that is continuous rather than in columns on pages, and are displayed in different fonts. When compared with the yellow pages directories, the respondents say that these differences are heightened by the fact that no advertisements are taken and the headings are not proximate to a group of business names and addresses. Instead, each business entry has its classification entered as part of the data shown in relation to that business. As for the headings, it is said that there has been no reproduction of the compilation of headings because what has been reproduced are individual headings in relation to individual records of data. . . .

In this case, the substance of the information that has been taken from Telstra's works (the directory portion of the directories and the headings that appear in the yellow pages directories and headings books) has been reproduced in the CD-roms. It must be remembered that copyright is not claimed for each particular entry, because copyright does not subsist in each individual recorded fact. It is claimed in the whole of the collected data, ordered in a particular way. As regards the directories, the significant recorded facts (name, address, telephone number, and the relevant type of business) are the same, or substantially the same, as they appear in Telstra's works. While there are differences, they are in the detail. For example, when displayed on a screen, the information from the CD-rom does not appear as columns on a page. But the information can be retrieved in alphabetical order (by postcode rather than region) and can be examined in much the same way

⁶⁵ *Id.* at paras. 8, 9, 84-85.

as one would read a column on a page. The fact that the alphabetical listings are by postcode and not region, is not a material difference. Nor is the fact that portions of the advertisements are not reproduced. As regards the headings, it is true that they appear once only in each yellow pages directory and that the heading appears with each business entry in the CD-roms. This difference is immaterial. All the headings have been taken, as have all the listings beneath those headings. The appearance of the headings and the listings in the CD-roms is sufficiently similar to constitute a reproduction.⁶⁶

The fear becomes that copyright law then takes on the job of protecting the compilation of data without adequate safeguards against locking up information. With the emergence of *sui generis* database regimes in Europe and, inevitably, the United States, it will be interesting to see how that case is decided if it goes to a higher court on appeal.

2. Plant Breeder's Rights – Are They Patents?

For digital property to be eligible for legislative construction and protection under the respective IP clauses, it must fall within some general notion of copyright or patent (and in Australia, design or trademark). A recent case on plant breeder's rights shows that, at least in Australia, the High Court is reluctant to construe the constitutional mandate too narrowly so as to exclude innovative informational products.

In *Grain Pool of WA v. Commonwealth*,⁶⁷ the plaintiff claimed that two Acts of the Parliament of the Commonwealth of Australia were beyond the enumerated legislative powers of that parliament. The High Court of Australia was asked to consider whether the two pieces of legislation – the Plant Variety Rights Act, 1987 ("the Varieties Act") and its successor, the Plant Breeder's Rights Act, 1994 ("the Breeder's Rights Act") – were duly enacted pursuant to section 51 (xviii) of the Constitution, as explained above, provides that the Commonwealth Parliament may make laws for the peace, order and good government of the Commonwealth with respect to: "Copyrights, patents of inventions and designs, and trade marks."⁶⁸

The Varieties Act provided for the grant of plant variety rights in new plant varieties for a period of twenty years.⁶⁹ The repeal of the Varieties Act by section 78 of the Breeder's Rights Act also brought into operation transition provisions, particularly section 82, which stated that plant variety rights under the previous statute were to be treated as plant breeder's rights under the new statute. Pursuant to this statutory regime, the second defendant, Cultivaust Pty. Ltd., argued that:

- it was the licensee from the State of Tasmania of the Franklin barley rights;
- this gave it the exclusive right to sell and export Franklin barley, and
- the plaintiff, in selling and exporting Franklin barley from Australia, had acted in breach of the second defendant's rights.⁷⁰

⁶⁶ *Id.* at paras. 104, 109.

⁶⁷ [2000] H.C.A. 14.

⁶⁸ *Id.* at para. 13.

⁶⁹ Plant Variety Rights Act, 1987, § 32 (Austl.) (commencing on the day of acceptance of successful application).

⁷⁰ Pursuant to section 26 of the Plant Variety Rights Act, a grant was made on January 19, 1990, in favour of the Tasmanian Department of Primary Industry and Fisheries with respect to Franklin barley.

The plaintiff, Grain Pool of WA, defended against the claims by asserting that the rights asserted by the second defendant were ineffective because the grant of those rights was beyond the Commonwealth's legislative powers in section 51 (xviii), (xxix) and (xxxix).⁷¹ The full bench of the High Court held that both Acts were within the powers contained in section 51 (xviii) of the Constitution and therefore it was unnecessary to consider whether the Acts could be supported under section 51 (xxix) or (xxxix).⁷²

The plaintiff had argued that the operation of section 51(xviii) with respect to "patents of inventions" was limited by certain traditional principles of patent law. They argued that:

- there were certain fixed minimum requirements for the "intellectual effort" required of inventors respecting novelty and inventive steps;
- there was a crucial distinction between process and product claims; and
- the term "patents" imports a constitutional requirement of the scope of the monopoly rights which must be granted and limits the permissible statutory qualifications to those rights.⁷³

The court rejected those arguments, finding that the legislative scheme before it was sufficiently connected to the notion of "patents of invention." While inventive step, novelty and exclusive rights might be determined differently than they would under the Patents Act, 1990, that did not mean that the legislation was not with respect to the subject matter of "patents of invention." In other words, the fact that the legislation invoked unique notions of novelty, inventive step and exclusive rights in relation to plant breeding did not mean the legislation was beyond parliamentary power to legislate with respect to "patents of inventions."

At a broader level, the plaintiff contended that the enumerated head of legislative power in the constitution did not support the Varieties and Breeders Act.⁷⁴ In particular, they claimed that the head of power should not be read so as to support legislation granting rights for products of every level of intellectual effort.⁷⁵

The majority commenced its reasoning by quoting from the joint judgment of the High Court in *Nintendo Co. Ltd. v. Centronics Systems Pty. Ltd.*,⁷⁶ upholding the validity of the Circuit Layouts Act, 1989, where the court considered the construction of the terms of section 51(xviii):

The grant of Commonwealth legislative power which sustains the [Circuit Layouts Act] is that contained in s 51(xviii) of the Constitution with respect to 'Copyrights, patents of inventions and designs, and trade marks'. It is of the essence of that grant of legislative power that it authorizes the making of laws which create, confer, and provide for the enforcement of, intellectual property rights in original compositions, inventions, designs, trade marks and other products of intellectual effort.⁷⁷

⁷¹ *Grain Pool*, [2000] H.C.A. 14 at para. 12.

⁷² *Id.* at para. 136.

⁷³ *Id.* at para. 12.

⁷⁴ *Id.* at para. 17.

⁷⁵ *Id.*

⁷⁶ (1994) 181 C.L.R. 134 (Austl.).

⁷⁷ *Id.* at 160; see *Grain Pool*, [2000] H.C.A. 14 at para. 17.

The majority explained that an appropriate approach to the interpretation of section 51(xviii) was that of Judge Higgins in *Attorney-General for NSW v. Brewery Employes Union of NSW* ("the Union Label Case"):⁷⁸

Higgins J observed in that case that trade marks were "artificial products of society" and that whilst "we are to ascertain the meaning of 'trade marks' as in 1900," trade marks usage in 1900 "gives us the central type; it does not give us the circumference of the power" with respect to trade marks provided for by s 51(xviii). The centre of the thing named – trade marks – was to be taken with the meaning as in 1900 to find the circumference of the power. However, it would be "a mistake to treat the centre as the radius."⁷⁹

In line with Judge Higgins's approach, the majority explained that the broad term "intellectual effort" embraced a variable, rather than a fixed, constitutional criterion and that the "origination" or "breeding" required respectively by the Varieties Act and the Breeder's Rights Act involved sufficient "intellectual effort" to enliven the power.⁸⁰

Judge Kirby, in a separate judgement, advocated an approach different from the majority regarding interpretation of the term "patents of inventions":

The power conferred by s 51(xviii) is a very broad one. The metes and bounds of the power are not to be ascertained in my respectful view, by an understanding of what fell within the class of "copyrights, patents of inventions and designs, and trade marks" in 1900. Because, in part of the joint reasons the other members of this Court have repeatedly referred to the consideration of the ambit of "patents of invention" in 1900 – lest that consideration be thought to control, or even significantly to influence, the contemporary meaning of the constitutional words, I am bound to express my different viewpoint. . . . [the] ultimate criterion was not pre-Federation legal understandings but a search for the "essential characteristics" of the words used in the Constitution. . . . The words used in the Constitution, and specifically those used in s 51(xviii), are not shackled to the legal understandings about the patents power in 1900. . . . Given the objects of the head of power, which include the facilitation and protection of intellectual inventiveness within Australia, it would be specially destructive of the achievement of those objects if the grant of power were to be attached – even as a primary reference point – to the particular notions which, up to 1900, "copyrights, patents of inventions and designs and trade marks" had been protected by the law. . . . To the full extent that the language of the Constitution warrants *and that other important values which it upholds permit*, meaning should be given to a provision such as s 51(xviii) in a way that allows the section to respond to the very great variety of inventiveness that may be considered by the Federal Parliament to necessitate protection for the "products of intellectual effort."⁸¹

⁷⁸ (1908) 6 C.L.R. 469, 610-11 (Austl.).

⁷⁹ *Grain Pool*, [2000] H.C.A. 14 at para. 19.

⁸⁰ *Id.* at para. 42.

⁸¹ *Id.* at paras. 90, 103, 132-33, 135 (emphasis added). Also consider the following passage from Judge Kirby's judgment:

However, the advent of biogenetically engineered organisms and of inventions in the field of information technology have stimulated an apparently increased willingness on the part of

C. The Length of Time a Property Right Will Endure

The United States Constitution contains the express words that the IP rights legislated should be for “limited Times.” It could be read to be an explicit guarantee of the public domain. In the recent case of *Eldred v. Reno*,⁸² the constitutional validity of the Copyright Term Extension Act, 1998 (CTEA)⁸³ legislation extending the U.S. copyright term from life of the author plus fifty years to life of the author plus seventy years,⁸⁴ was questioned. The plaintiffs, who were in the business of publishing materials when copyright had expired, argued that the CTEA was unconstitutional for three reasons:

- in both its prospective and retrospective applications the CTEA unjustifiably infringes upon freedom of speech protected by the First Amendment;
- in its application to preexisting works, the CTEA violates the originality requirement of the Copyright Clause;
- in extending the term of subsisting copyrights, the CTEA violates the "limited Times" requirement of the Copyright Clause.⁸⁵

The First Amendment argument, which was rejected, is considered below. On the issue of lack of originality, the court disposed of the issue saying:

The plaintiff’s reason from this that the CTEA cannot extend an extant copyright because the copyrighted work already exists and therefore lacks originality. Not so. Originality is what made the work copyrightable in the first place. A work with a subsisting copyright has already satisfied the requirement of originality and need not do so anew for its copyright to persist. If the Congress could not extend a subsisting copyright for want of originality, it is hard to see how it could provide for a copyright to be renewed at the expiration of its initial term -- a practice dating back to 1790 and not questioned even by the plaintiffs today.⁸⁶

The plaintiffs were also unsuccessful on the issue of “limited Times.” The court explained that, at widest, if “Congress were [sic] to make copyright protection permanent, then it surely would exceed the power conferred upon it by the Copyright Clause.”⁸⁷ It went on to dispose of the argument at hand by saying:

United States courts to recognise the way in which patents and analogous forms of legal protection can sometimes encourage technological innovation to the economic and social benefit of the United States and beyond. The specific inclusion of s 51(xviii) in the Australian Constitution affords a further reason for assigning to s 51(xviii) a meaning that permits the protection of "products of intellectual effort" in the variety in which such products now manifest themselves and the even greater variety in which they can be expected to appear in the future.

Id. at para. 134.

⁸² 239 F.3d 372 (D.C. Cir. 2001).

⁸³ 17 U.S.C. § 302 (1994 & Supp. V 1999).

⁸⁴ This change was made to bring the U.S. copyright law into line with the EU.

⁸⁵ *Eldred*, 239 F.3d at 374.

⁸⁶ *Id.* at 376-77.

⁸⁷ *Id.* at 377.

The present plaintiffs want a limit well short of the rule against perpetuities, of course. And they claim to have found it -- or at least a bar to extending the life of a subsisting copyright -- in the preamble of the Copyright Clause: "The Congress shall have power . . . To promote the Progress of Science and useful Arts . . ." Their idea is that the phrase "limited Times" should be interpreted not literally but rather as reaching only as far as is justified by the preambular statement of purpose: If 50 years are enough to "promote . . . Progress," then a grant of 70 years is unconstitutional. Here the plaintiffs run squarely up against our holding in *Schnapper v. Foley*, in which we rejected the argument "that the introductory language of the Copyright Clause constitutes a limit on congressional power." The plaintiffs, however, disclaim any purpose to question the holding of *Schnapper*; indeed, they expressly acknowledge "that the preamble of the Copyright Clause is not a substantive limit on Congress' legislative power." Their argument is simply that "the Supreme Court has interpreted the terms 'Authors' and 'Writings' in light of that preamble, and that this Court should do the same with 'limited Times.'"

The problems with this argument are manifest. First, one cannot concede that the preamble "is not a substantive limit" and yet maintain that it limits the permissible duration of a copyright more strictly than does the textual requirement that it be for a "limited Time." Second, although the plaintiffs claim that *Feist* supports using the preamble to interpret the rest of the Clause, the Court in *Feist* never so much as mentions the preamble, let alone suggests that the preamble informs its interpretation of the substantive grant of power to the Congress (which there turned upon the meaning of "Authors" and of "Writings," each standing alone). Similarly, the *Trade-Mark Cases* cited in *Feist* rest upon the originality implied by "invention [and] discovery" and by the "writings of authors," and make no reference at all to the preamble.⁸⁸

Such reasoning goes close to conflicting with the following statement of the Supreme Court in *Graham v. John Deere Co.*⁸⁹ "The Congress in the exercise of the patent power may not overreach the restraints imposed by the stated constitutional purpose. Nor may it enlarge the patent monopoly without regard to the innovation, advancement or social benefit gained thereby."⁹⁰ It also goes close to conflicting with the following passage from *Morton Salt Co. v. G.S. Suppiger Co.*:⁹¹

The grant to the inventor of the special privilege of a patent monopoly carries out a public policy adopted by the Constitution and laws of the United States, "to promote the Progress of Science and useful Arts, by securing for limited Times to . . . Inventors the exclusive Right . . ." to their "new and useful" inventions. United States Constitution. But the public policy which includes inventions within the granted monopoly excludes from it all that is not embraced in the invention. It equally forbids the use of the patent to secure an exclusive right or limited monopoly not granted by the Patent Office and which it is contrary to public policy to grant.⁹²

⁸⁸ *Id.* at 377-78 (citation omitted).

⁸⁹ 383 U.S. 1 (1966).

⁹⁰ *Id.* at 5-6.

⁹¹ 314 U.S. 488 (1942).

⁹² *Id.* at 492 (citations omitted).

In *United States v. Moghadam*,⁹³ a case concerning the constitutional validity of the anti-bootlegging statute (considered in more depth below), the court made note of the apparent perpetual duration of the intellectual property rights granted under the statute:

We note that there is another limitation in the Copyright Clause that may be implicated by the anti-bootlegging statute: the "Limited Times" requirement that forbids Congress from conferring intellectual property rights of perpetual duration. On its face, the protection created by the anti-bootlegging statute is apparently perpetual and contains no express time limit; therefore phonorecords of live musical performances would presumably never fall into the public domain. However, because *Moghadam* has not challenged the constitutionality of § 2319A on this basis, we decline to raise the issue *sua sponte*. Thus, we do not decide in this case whether extending copyright-like protection under the anti-bootlegging statute might be fundamentally inconsistent with the "Limited Times" requirement of the Copyright Clause, and we do not decide in this case whether the Commerce Clause can provide the source of Congressional power to sustain the application of the anti-bootlegging statute in some other case in which such an argument is preserved. We reserve those issues for another day.⁹⁴

In Canada and Australia the issue of limited times is not assisted by express recognition of such a limit in the constitutional mandate. However, upon further consideration of the matter there could be little argument in Australia or Canada with the view that the granting of intellectual property rights is in some way limited by the reason for granting those rights.⁹⁵ In fact, by way of tradition⁹⁶ and under International law,⁹⁷ there are limits – statutory intellectual property rights (IPR) are generally of a limited term and in certain circumstances subject to uses without permission of the IPR owner – and based on the rationale (even if somewhat vague) that allowing monopoly rights in information benefits society as a whole through the creation of value added informational products.⁹⁸ Whether such a balance is achieved is a moot point.⁹⁹ Vaver argues that “[i]f the rights restrict availability and use more than they increase them, they are unjustifiable”¹⁰⁰

⁹³ 175 F.3d 1269 (11th Cir. 2000).

⁹⁴ *Id.* at 1281 (citations and footnote omitted).

⁹⁵ See Australian Trademark Act, 1995, §§17, 72, 75. Although some may suggest statutory trademarks are of perpetual duration it is important to note they are usually only recognised where there is evidence of intended or actual use and are registered for a period of ten years, which can be renewed.

⁹⁶ See Statute of Anne (1709) 8 Ann., c. 21 (Eng.); Statute of Monopolies, 1623, 21 & 22 Jam. 1, c. 3 (Eng.); *Millar v. Taylor*, 98 Eng. Rep. 201, 231-32 (K.B. 1769).

⁹⁷ See Berne Convention for the Protection of Literary and Artistic Works (1971). International law can be used to assist in constitutional interpretation in Australia. See, e.g., *Kartinyeri v. Commonwealth* [1998] H.C.A. 22 (Austl.); “Applicant A” v. Minister for Immigration & Ethnic Affairs (1997) 142 A.L.R. 331 (Austl.); *Kruger v. Commonwealth* (1997) 146 A.L.R. 126 (Austl.); *Newcrest Mining (WA) Ltd. v. Commonwealth* (1997) 190 C.L.R. 513 (Austl.); *Minister for Immigration & Ethnic Affairs v. Teoh* (1995) 183 C.L.R. 273 (Austl.); *Horta v. Commonwealth* (1994) 181 C.L.R. 183 (Austl.); Bryan Horrigan & Brian F. Fitzgerald, *International and Transnational Influences on Law and Policy Affecting Government*, in *Government Law and Policy* § 1 (Bryan Horrigan ed., 1998).

⁹⁸ See Landes, *supra* note 12 (discussing the utilitarian/economic nature of such thinking); see also *Sony*, 464 U.S. at 429-32; Vaver, *supra* note 19, at 87-96 (noting the relevance of moral rights in Canadian copyright law).

⁹⁹ See Vaver, *supra* note 19, at 6-8.

¹⁰⁰ *Id.* at 8.

In defining a patent, Judge Kirby in *Grain Pool*, Kirby referred to its limited nature. He explained:

Upon this basis, the lawmaking power with respect to "patents of inventions" within s 51(xviii) involves the provision by the state to the grantee of exclusive rights for a *limited time* to exploit, and to authorise other persons to exploit, a novel object or process of *potential benefit to the community* in respect of which a patent may be granted and which is recorded in a public register upon conditions of disclosure. This is the bedrock. Nothing more is required by the "really essential characteristics" of "patents of inventions."¹⁰¹

While agreeing that the section 51 (xviii) head of power should be read generously, Judge Kirby made it clear that intellectual property rights should not be regarded as absolute; they must be constructed in the context of their proprietary purpose. He explained "the protection of intellectual property rights must be afforded in a constitutional setting which upholds other values of public good in a representative democracy."¹⁰²

In contrast, by suggesting Article 1, Section 8, Clause 8 of the United States Constitution is narrower than section 51 (xviii) in that it requires a purpose of promoting the progress of science and the useful arts, the majority in *Grain Pool* appears to say that a variety of intellectual property rights (from low to high intellectual input) can be legislated under the section 51 (xviii) head of power. It is not clear whether the majority is also suggesting that these rights, once legislated, have any constitutional limit in the name of the public domain.¹⁰³ Likewise, the following passage from Judge Higgins in the Union Label case might suggest that there are no constitutional limits on intellectual property rights: "The power to make laws 'with respect to' these rights involves the power to declare what shall be the subject of the rights."¹⁰⁴ But that is far from clear.

Further conjecture on this issue was raised by the High Court in explaining the notion of "property" in *Yanner v. Eaton*:¹⁰⁵

It refers to a degree of power that is recognised in law as power permissibly exercised over the thing. The concept of "property" may be elusive. Usually it is treated as a "bundle of rights." But even this may have its limits as an analytical tool or accurate description, and it may be, as Professor Gray has said, that "the ultimate fact about property is that it does not really exist: it is mere illusion." Considering whether, or to what extent, there can be property in knowledge or information or property in human tissue may illustrate some of the difficulties in deciding what is meant by "property" in a subject matter.¹⁰⁶

There is strong indication in this passage that informational rights do have boundaries. Furthermore, the passage expressly acknowledges that power is inherent in the notion of property. As it is the function of law to mediate power relations in the name of a prosperous,

¹⁰¹ *Grain Pool*, [2000] H.C.A. 14 at para. 135 (emphasis added).

¹⁰² *Id.* at n.218.

¹⁰³ *Id.* at para. 32 ("In particular it will be open to the Parliament to pursue its policies by legislation with respect to various subject-matters, if one of them appears in s 51 (xviii) on an adequate reading of that text.").

Id.

¹⁰⁴ (1908) 6 C.L.R. 469 at 611 (Austl.).

¹⁰⁵ (1999) 201 C.L.R. 351 (Austl.).

¹⁰⁶ *Id.* at 366; see generally Michael A. Heller, *The Boundaries of Private Property*, 108 Yale L.J. 1163 (1999) (arguing that private property is not a useful analytic concept unless it can be practically bounded).

humane and ordered society, one could logically assert that property will have some legally defined limits.

Lessig argues that just as real property has limits, e.g., it can be zoned, so does intellectual property, e.g., fair use in copyright law and these limits, when imposed, ensure that the collective interest of society to access or use are privileged over the absolute interest of the property holder.¹⁰⁷ Likewise, Judge Kirby's approach challenges us to conceptualise a more principled construct of intellectual property in accordance with the notion that "no right is absolute."¹⁰⁸ Are we to expect from such reasoning a view that demands (in a constitutional sense) that intellectual property rights must yield to the public domain where necessary? And will such reasoning support the notion that as intellectual property rights have had and still do have limited terms (based on a mixture of economic utility and the democratic and social value of the public domain),¹⁰⁹ the constitutional power to create such rights is subject to limits, specifically, a requirement that intellectual property rights be granted for limited terms?¹¹⁰ Further, will we see arguments suggesting that there is a constitutional guarantee to the public domain?¹¹¹

The *Grain Pool* case raises interesting questions concerning intellectual property and constitutional principle for the information age. It shows the willingness of the High Court of Australia to allow the Commonwealth or Federal Parliament to legislate on issues of intellectual product and gives insight into the variable definition of the term "patents of invention." On this plane, the High Court is clearly saying that, in terms of the federal division of legislative powers, the Commonwealth Parliament has a broad power to legislate on matters relating to intellectual effort. On another plane, Judge Kirby's judgement is extremely interesting in that it suggests that intellectual property rights do have constitutionally defined limits. In other words, the relationship of power between the Commonwealth Parliament and the people in legislating intellectual property rights is not absolute.¹¹² In their silence on this issue, the majority raises concerns and uncertainty as to the limits of intellectual property rights in the information age.¹¹³ We must be mindful that in an era when information is a core economic and cultural resource, it is vital as *democratic*

¹⁰⁷ See generally Lessig, *supra* note 42, at 131-35 (1999) (discussing the limits on the protection of property).

¹⁰⁸ See generally *Schenck v. United States*, 249 U.S. 47, 52 (1919) (quoting Holmes, J., "The most stringent protection of free speech would not protect a man in falsely shouting fire in a theatre and causing a panic.").

¹⁰⁹ Brian F. Fitzgerald, *Underlying Rationales of Fair Use: Simplifying the Copyright Act*, 2 S. Cross U. L. Rev. 153 (1998), available at <http://www.scu.edu.au/schools/lawj> (last visited Nov. 3, 2001).

¹¹⁰ See, e.g., Lessig, *supra* note 42, at 133-34 (explaining that in the United States, exclusive copyrights are granted for a limited term in accordance with the United States Constitution, and arguing the term should be limited by and linked to the purpose for which the exclusive rights are granted, progressing not hindering the useful arts); see generally *Eldred*, 239 F.3d at 372 (challenging the extension of U.S. copyright term to life of the author plus seventy years).

¹¹¹ See generally Lessig, *supra* note 42, at 133-34 (arguing that the public domain is implied in the United States Constitution as a consequence of the requirement that exclusive rights be for limited times).

¹¹² See generally Brian F. Fitzgerald, *Proportionality and Australian Constitutionalism*, 12 U. Tas. L. Rev. 263 (1993) (discussing the notion of sovereignty in Australian constitutional law).

¹¹³ See, e.g., Carl Shapiro & Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy* (1999); Benkler, *supra* note 10; Felix S. Cohen, *Transcendental Nonsense and the Functional Approach*, 35 Colum. L. Rev. 809, 814-17 (1935); Rochelle C. Dreyfuss, *We Are Symbols and Inhabit Symbols, So Should We Be Paying Rent? Deconstructing the Lanham Act and Rights of Publicity*, 20 Colum.-VLA J. L. & Arts 123 (1996); Rochelle C. Dreyfuss, *Expressive Generativity: Trademarks as Language in the Pepsi Generation*, 65 Notre Dame L. Rev. 397 (1989); Brian F. Fitzgerald, *Conceptualising the Digital Environment*, in *Going Digital 2000: Legal Issues for E-Commerce Software and the Internet 1* (Anne Fitzgerald et al. eds., 2d ed. 2000); Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition From Marx to Markets*, 111 Harv. L. Rev. 621 (1998); David Lange, *Recognising The Public Domain*, 44 Law & Contemp. Probs. 147 (1981); Ejan Mackaay, *The Economics of Emergent Property Rights on the Internet*, in *The Future of Copyright in a Digital Environment 13* (P. Bernt Hugenholtz ed. 1996).

principle that the legal process of commodifying information through intellectual property law be clearly defined and understood.

D. Fixed in a Tangible Medium?

A hallmark of copyright and patent law is that the intellectual knowledge must be embodied, manifested or fixed in a tangible medium. A recent Australian report by the Copyright Law Reform Commission suggests that in the realm of copyright law the whole notion of fixation in a tangible medium is redundant in the digital age and should be removed or at least reconceptualised as a criterion for copyright protection.¹¹⁴

While there is no express requirement for fixation in a tangible medium in the Australian or Canadian Constitutions, the word “writings” in the United States clause implies some notion of fixation. The issue was raised but not finally resolved in *Moghadam*. That case concerned the constitutional validity of an anti-bootlegging statute¹¹⁵ criminalizing the unauthorized recording, transmission to the public, and sale or distribution of or traffic in unauthorized recordings of live musical performances.¹¹⁶ Moghadam was convicted of violating the statute after he pleaded guilty to knowingly distributing, selling, and trafficking in bootleg (unauthorized) compact discs featuring live musical performances by recording artists including Tori Amos and the Beastie Boys. Moghadam then sought to challenge the constitutional validity of the statute arguing it did not fall within any of the federal legislative powers enumerated in Article I, Section 8, Clause 8 of the Constitution.¹¹⁷ The government responded that it was constitutional under either the Copyright Clause or the Commerce Clause.¹¹⁸ The anti-bootlegging statute, which was enacted as a consequence of and in implementation of the TRIPS agreement provides in 18 U.S.C. section 2319A that:

(a) Whoever, without the consent of the performer or performers involved, knowingly and for purposes of commercial advantage or private financial gain—

(1)fixes the sound or sounds and images of a live musical performance in a copy or phonorecord, or reproduces copies or phonorecords of such a performance from an unauthorized fixation;

(2)transmits or otherwise communicates to the public the sounds or sounds and images of a live musical performance; or

(3)distributes or offers to distribute, sells or offers to sell, rents or offers to rent, or traffics in any copy or phonorecord fixed as described in paragraph (1), regardless of whether the fixations occurred in the United States;

shall be imprisoned . . . or fined . . . or both . . . ¹¹⁹

¹¹⁴ Copyright Law Review Committee, *supra* note 60, at paras. 5.48-.53.

¹¹⁵ 18 U.S.C. § 2319A (1994 & Supp. V 1999).

¹¹⁶ *Moghadam*, 175 F.3d at 1271.

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ *Id.* at 1272.

The Act also contains a similar provision establishing civil liability for the same conduct but omitting the commercial advantage or private financial gain requirement.¹²⁰ There is little legislative history dealing with either provision because the Act was rushed through Congress on fast-track procedures, yet what exists suggests that Congress viewed the anti-bootlegging provisions as enacted pursuant to its Copyright Clause authority.¹²¹

The court explained that the rights created by the anti-bootlegging provisions were actually hybrid rights that in some ways resembled the protection of copyright law but in other ways were distinct.¹²² The court explained that it was unclear whether longstanding concepts generally applicable to copyright law such as fair use, the work-for-hire doctrine and limited duration, apply to the anti-bootlegging provisions.¹²³ The court noted that in contrast to the six exclusive rights of a copyright owner spelled out in 17 U.S.C. section 106, it appeared that the only exclusive right created by the anti-bootlegging statute is to record and/or re-communicate one's performance.¹²⁴ For all of those reasons, the court concluded that the protection the anti-bootlegging statute confers on musicians is best described as "quasi-copyright" or *sui generis* protection.¹²⁵

Judge Anderson, writing the opinion for the court, held the statute to be validly enacted under the Commerce Clause. On the issue of the Copyright Clause, the court explained:

This positive grant of legislative authority includes several limitations. Of these limitations, Moghadam has relied in the instant case only on the concept of "fixation" which is said to be embedded in the term "Writings."

The concept of fixation suggests that works are not copyrightable unless reduced to some tangible form. "If the word 'writings' is to be given any meaning whatsoever, it must, at the very least, denote some material form, capable of identification and having a more or less permanent endurance." Of course, the term "Writings" has been interpreted so broadly as to include much more than writings in the literal sense, or the lay definition of the word. In fact, since a sound recording qualifies as a "Writing" in the constitutional sense, "it is now clear that a writing may be perceptible either visually or aurally . . ." But the fixation requirement seems to have persisted through this expansion. Thus, although in the modern era the term "Writings" allows Congress to extend copyright protection to a great many things, those things have always involved some fixed, tangible and durable form.

Moghadam argues that a live performance, by definition, has not been reduced to a tangible form or fixed as of the time of the performance. Moghadam argues that, but for the bootlegger's decision to record, a live performance is fleeting and evanescent.

Because we affirm the conviction in the instant case on the basis of an alternative source of Congressional power, we decline to decide in this case whether the fixation concept of Copyright Clause can be expanded so as to encompass live performances that are merely capable of being reduced to tangible form, but have not been. For

¹²⁰ See 17 U.S.C. § 1101 (1994).

¹²¹ 140th Cong. Rec. H11441, H11457 (daily ed. Nov. 29, 1994) (statement of Rep. Hughes) ("There are a number of changes in copyright that will advance our interests in the area of bootlegging, which is going to basically protect our country.").

¹²² *Moghadam*, 175 F.3d at 1272.

¹²³ *Id.* at 1273.

¹²⁴ *Id.*

¹²⁵ *Id.*

purposes of this case, we assume *arguendo*, without deciding, that the above described problems with the fixation requirement would preclude the use of the Copyright Clause as a source of Congressional power for the anti-bootlegging statute.¹²⁶

E. The Commerce Clause

The enumerated powers in the United States and Australian Constitutions are designed to allocate legislative responsibilities between the federal and state governments. They do not necessarily limit governmental power or bestow rights on individuals, although clearly one provision in the Australian Constitution does – section 51 (31). In recent times serious arguments have been made – in the context of proposed database legislation and the Digital Millennium Copyright Act (DMCA)¹²⁷ – that the specific requirements of the IP clause define the parameters of the propertization of information through legislative means.¹²⁸ In essence, the argument is that the IP clause is both a grant of power and a limitation on government power ensuring such fundamental information rights of user and access, such as the right to ideas, the public domain and fair use.¹²⁹

An even more interesting argument arising from this approach is whether state governments are in any way limited by the specific requirements of the IP clause. In other words, does the IP clause in any way preempt state legislation on this topic? *Goldstein* held that the American states have, subject to preemption by legislation,¹³⁰ a concurrent power to legislate upon intellectual property rights.¹³¹ In that case, the Supreme Court implied that the states are not constrained by any limits in the federal IP clause as the legislation in question, which the Court upheld, allowed perpetual duration of copyright – in contrast to the limited times requirement in the federal clause.¹³²

The clause most likely to undermine the IP clause at the federal level is the Commerce Clause. The United States Commerce Clause reads that Congress has the legislative authority “[t]o regulate Commerce with foreign Nations, and among the several States”¹³³ The Australian Commerce Clause reads that the Commonwealth Parliament may make laws for the peace, order and good government of the Commonwealth with respect to trade and commerce with other countries and among the States.¹³⁴

In *Moghadam*, the court refused to decide whether the anti-bootlegging statute could be upheld under the Copyright Clause; they were of the view that it came within the Commerce Clause.¹³⁵ The court reviewed the two opposing precedents in light of the Commerce Clause in the face of other clauses and concluded that it was not against the spirit of the Constitution to allow the statutes to be upheld under the Commerce Clause. They

¹²⁶ 175 F.3d at 1273-74.

¹²⁷ 17 U.S.C. §§ 1201-1332 (Supp. IV 1998).

¹²⁸ See Marci A. Hamilton, *Database Protection and the Circuitous Route Around the United States Constitution*, in *International Intellectual Property and the Common Law World* (Charles E.F. Rickett & Graeme W. Austin eds., 2000); see also, Benkler, *supra* note 10, at 440-46; Paul J. Heald & Suzanna Sherry, *Implied Constitutional Limits on Congressional Power: Construing the Commerce Power in Light of the Intellectual Property Clause*, 2000 U. Ill. L. Rev. 1119 (2000); William Patry, *The Enumerated Powers Doctrine and Intellectual Property: An Imminent Constitutional Collision*, 67 Geo. Wash. L. Rev. 359 (1999).

¹²⁹ See *John Deere Co.*, 383 U.S. at 5.

¹³⁰ See, e.g., 17 U.S.C. § 301 (1994 & Supp. V 1999).

¹³¹ *Goldstein*, 412 U.S. at 560.

¹³² *Id.* at 560-61.

¹³³ U.S. Const. art I, § 8, cl. 3.

¹³⁴ Aust. Const. § 51(i).

¹³⁵ *Moghadam*, 175 F.3d at 1269.

reasoned that this type of legislation supplemented copyright protection and should be allowed.¹³⁶

The court started out by confirming that section 2319A concerned conduct that had a substantial effect on commerce between the several states and commerce with foreign nations, namely the sale of bootleg compact discs. The court explained that the more interesting question was whether Congress could use the Commerce Clause to avoid the limitations that might prevent it from passing the same legislation under the Copyright Clause. They explained:

that in general, the various grants of legislative authority contained in the Constitution stand alone and must be independently analyzed. In other words, each of the powers of Congress is alternative to all of the other powers, and what cannot be done under one of them may very well be doable under another.¹³⁷

The court noted that this general approach had been applied previously in a context involving the Copyright Clause and the Commerce Clause, namely, the *Trade-Mark Cases*.¹³⁸ In those cases, the constitutional validity of an early trademark law enacted by Congress in 1876 was at issue. The Supreme Court held that the Copyright Clause could not sustain the 1876 Act because “[t]he ordinary trade-mark has no necessary relation to invention or discovery,” which were the hallmarks of protectable subject matter under the Copyright Clause.¹³⁹ The Court explained that trademarks were inherently commercial; the concept behind the 1876 Act (and modern trademark law) was not to encourage intellectual and artistic development, but rather to protect businesses from predatory behaviour in the marketplace.¹⁴⁰ This concept was said to be outside the ambit of the legislative power contained in the IP clause.¹⁴¹

However, that was not the end of the matter and the Supreme Court proceeded to test the validity of the statute against the Commerce Clause. As the Commerce Clause at that time was narrowly construed, the legislation was not upheld. Since that time, an expanding view of the ambit of the Commerce Clause means that today the modern variant of this trademark law, the Lanham Act, is seen to be an exercise of the commerce clause.¹⁴² The Eleventh Circuit Court of Appeals summarised this point, saying that “although the 1876 Act did not survive due to the restrictive view of the Commerce Clause prevailing at that time, the Supreme Court’s analysis in the *Trade-Mark Cases* stands for the proposition that legislation, which would not be permitted under the Copyright Clause, could nonetheless be permitted under the Commerce Clause, provided that the independent requirements of the latter are met.”¹⁴³

However, the Court noted that another line of authority stood in contrast to the *Trade-Mark Cases* and needed more consideration. In *Railway Labor Executives’ Ass’n v. Gibbons*,¹⁴⁴ the Supreme Court considered a statute enacted by Congress that purported to alter a pending bankruptcy case by requiring the debtor railroad company’s bankruptcy estate to pay \$75 million to the company’s former employees. That statute directly clashed with the

¹³⁶ *Id.*

¹³⁷ *Id.* at 1277.

¹³⁸ See *United States v. Steffens*, 100 U.S. 82 (1879).

¹³⁹ *Id.* at 94.

¹⁴⁰ See *id.* at 94-99.

¹⁴¹ See *id.* at 96-98.

¹⁴² See Michael B. Gerdes, *Comment, Getting Beyond Constitutionally Mandated Originality as a Prerequisite for Federal Copyright Protection*, 24 *Ariz. St. L.J.* 1461, 1467 (1992).

¹⁴³ *Moghadam*, 175 F.3d at 1278.

¹⁴⁴ 455 U.S. 457 (1982).

Bankruptcy Clause of the United States Constitution,¹⁴⁵ which provides that Congress is empowered to pass "uniform" bankruptcy laws, because the law targeted a particular situation and was anything but uniform. The Supreme Court rejected the view that the legislation could nevertheless be sustained under the Commerce Clause, which contains no uniformity requirement, stating that "if we were to hold that Congress had the power to enact nonuniform bankruptcy laws pursuant to the Commerce Clause, we would eradicate from the Constitution a limitation on the power of Congress to enact bankruptcy laws."¹⁴⁶ The Court reconciled the authorities, saying:

We note that there is some tension between the former line of cases (*Heart of Atlanta*, the *Trade-Mark Cases* and *Authors League*) and the *Railway Labor Executives* case. The former cases suggest that in some circumstances the Commerce Clause can be used by Congress to accomplish something that the Copyright Clause might not allow. But the *Railway Labor Executives* case suggests that in some circumstances the Commerce Clause cannot be used to eradicate a limitation placed upon Congressional power in another grant of power. For purposes of the instant case, we resolve this tension in the following manner. In resolving this tension and in reaching our conclusion in this case, we undertake a circumscribed analysis, deciding only what is necessary to decide this case, and we reach a narrow conclusion. First, as described above, we hold the anti-bootlegging statute satisfies the "substantial effects" test of the post-*Lopez* Commerce Clause jurisprudence. Second, following the former line of cases (*Heart of Atlanta*, the *Trade-Mark Cases* and *Authors League*), we hold that in some circumstances the Commerce Clause indeed may be used to accomplish that which may not have been permissible under the Copyright Clause. We hold that the instant case is one such circumstance in which the Commerce Clause may be thus used. It is at this point that we must resolve the tension with *Railway Labor Executives*.

Resolving this tension, we take as a given that there are some circumstances, as illustrated by *Railway Labor Executives*, in which the Commerce Clause cannot be used by Congress to eradicate a limitation placed upon Congress in another grant of power. For the reasons that follow, we hold that the instant case is not one such circumstance. We hold that the Copyright Clause does not envision that Congress is positively forbidden from extending copyright-like protection under other constitutional clauses, such as the Commerce Clause, to works of authorship that may not meet the fixation requirement inherent in the term "Writings." The grant itself is stated in positive terms, and does not imply any negative pregnant that suggests that the term "Writings" operates as a ceiling on Congress' ability to legislate pursuant to other grants. Extending quasi-copyright protection to unfixed live musical performances is in no way inconsistent with the Copyright Clause, even if that Clause itself does not directly authorize such protection. Quite the contrary, extending such protection actually complements and is in harmony with the existing scheme that Congress has set up under the Copyright Clause. A live musical performance clearly satisfies the originality requirement. Extending quasi-copyright protection also furthers the purpose of the Copyright Clause to

¹⁴⁵ U.S. Const. art. I, § 8, cl. 4

¹⁴⁶ *Gibbons*, 455 U.S. at 468-69.

promote the progress of the useful arts by securing some exclusive rights to the creative author. Finally, with respect to the fixation requirement, upon which this opinion focuses, although a live musical performance may not have been fixed, or reduced to tangible form, as of the time the bootleg copy was made, it certainly was subject to having been thus fixed. Our conclusion that extending copyright-like protection in the instant case is not fundamentally inconsistent with the fixation requirement of the Copyright Clause is bolstered by an example from the prior copyright law. If a live performance is broadcast, e.g., by radio or television, and simultaneously recorded by the performer, any unauthorized recording by a person receiving the broadcast constitutes copyright infringement of the sound recording or motion picture, notwithstanding that the infringer actually copied the live performance directly, and not the fixation thereof. This result is based upon the last sentence of the definition of "fixed" in 17 U.S.C. § 101. That last sentence provides: "A work consisting of sounds, images, or both, that are being transmitted, is 'fixed' for purposes of this title if a fixation of the work is being made simultaneously with its transmission." This definition creates a legal fiction that the simultaneous fixation occurs before the transmission and the unauthorized recording. . . . While we are aware that the constitutionality of this aspect of the statute has never been tested, the ease with which it has been incorporated into the prior copyright law suggests that fixation, as a constitutional concept, is something less than a rigid, inflexible barrier to Congressional power. Indeed, if a performer under the prior law could effectively protect a live musical performance, circumventing the fixation requirement, simply by the device of simultaneous recordation, the anti-bootlegging law seems to us like more of an incremental change than a constitutional breakthrough. Common sense does not indicate that extending copyright-like protection to a live performance is fundamentally inconsistent with the Copyright Clause.

For the foregoing reasons, we conclude that extending copyright-like protection in the instant case is not fundamentally inconsistent with the fixation requirement of the Copyright Clause. By contrast, the nonuniform bankruptcy statute at issue in *Railway Labor Executives* was irreconcilably inconsistent with the uniformity requirement of the Bankruptcy Clause of the Constitution.¹⁴⁷

The question remains as to whether a *sui generis* database law enacted pursuant to the Commerce Clause would survive constitutional challenge. The argument would be made that the IP clause requires originality (a modicum of creativity and something that emanates from the author) and that allowing information to be propertized in situations where originality is not evident would be unconstitutional.¹⁴⁸ The focus of the argument is whether the IP clause sets the parameters for propertizing information through its specific requirements. One problem with this approach is that the IP clause was established in another era. Nowadays, information is a lifeblood, both in social and economic terms, and it is conceivable that new ways of propertizing information have emerged and will continue to emerge that will demand protection; yet the IP clause may not be up to this challenge in conceptualisation. A

¹⁴⁷ *Moghadam*, 175 F.3d at 1279-81.

¹⁴⁸ See *supra* note 128.

consequence of limiting the Commerce Clause in this respect may be that interested parties will resort to the states to enact their legislation (difficult, in the face of section 301 of the Copyright Act). This may result in less than desirable outcomes. While it is clear that restricting the scope of the Commerce Clause in the face of the IP clause has merit and legal precedent to support it, an over-zealous implementation of such a principle could mortify constitutional interpretation, stifle incentive to create and ensuing innovation and retard thinking about new forms of digital property.

In Australia, a similar question concerning the commerce clause and IP clause could arise although the specific requirements of the U.S. clause are not explicit and possibly not implicit in the Australian clause. This is nevertheless a dormant issue that needs to be considered when legislating in this area.¹⁴⁹

In summary, note that specific limits inherent in the IP clause may be asserted in constitutional litigation. The law in light of *Moghadam* appears to suggest that specific limits pertaining to the IP clause will limit the Commerce Clause in certain cases and that this might be an obstacle for any *sui generis* database law in the United States.

II. The Constitutional Imperative: Free Speech, Access to Information and Democratic Principle

The second dimension of traditional constitutional principle that promises to define, if not influence, the boundary of digital property is that of free speech: constitutionally and expressly enshrined in the United States First Amendment, and Article 2 of the Canadian Charter of Rights¹⁵⁰ and, existing to a limited and implied degree, in the context of political speech in Australia.¹⁵¹ As to this point, the First Amendment to the United States Constitution, which has been vigorously asserted in recent times by advocates fearful of growing intellectual property rights, has not been considered by the courts to be of overriding concern.

This is not to say that free speech considerations have not influenced the development and implementation of intellectual property law. The notion of free speech is implicated in the definition or construction of digital property because we use copyrighted/patented/trademarked items in the process of communicating – in constructing knowledge and meaning. The most obvious example might be when I copy an image and display it on my website. If that use is purely commercial then any chance of a fair dealing or fair use defence is weak, yet the more its shades into political or social commentary or research the more likely we are to have an allowable use.

Software which is integral to the digital communicative process is also an interesting example. Software is a form of discourse, making things manifest or allowing them to be seen; it is part of the speech or communicative process in the digital environment. If I proprietize software through copyright or patent, I allow a certain degree of control over communication.

In the United States, those adamant that IP rights must accommodate the necessity of consuming information and democratically distributed intelligence – the cultural or social aspects as opposed to the economics of information – have focussed on First Amendment

¹⁴⁹ See *Australian Tape Mfrs. v. Commonwealth of Australia* (1993) 176 C.L.R. 480 (Austl.) (while the general rule is that each head of legislative power stands alone, the High Court has interpreted section 51 (xxxi) of the Australian Constitution (the Australian version of the U.S. Takings Clause) as both a grant of power and a limitation on other powers in certain circumstances).

¹⁵⁰ See Fewer, *supra* note 19, at 226-39.

¹⁵¹ See *Lange v. Australian Broadcasting Corp.* (1997) 145 A.L.R. 96 (Austl.).

arguments. In order to speak and communicate or think and construct knowledge in the new digital environment, we need to be able to access and distribute information. “A broad dissemination of principles, ideas, and factual information is crucial to the robust public debate and informed citizenry that are ‘the essence of self-government.’ And every citizen must be permitted freely to marshal ideas and facts in the advocacy of particular political choices.”¹⁵² This is the essence of the debate, although the desire for informational liberty or diversity is not limited to just the political realm but also encompasses the economic, social and cultural plane.

A. Reconciling Free Speech and Copyright

In *Harper & Row Inc. v. Nation Enterprises*, the United States Supreme Court explained “[t]he Second Circuit noted, correctly, that copyright's idea/expression dichotomy “[strikes] a definitional balance between the First Amendment and the Copyright Act by permitting free communication of facts while still protecting an author's expression.” No author may copyright his ideas or the facts he narrates.”¹⁵³ In another passage the Court referred to “copyright as the engine of free expression,” as it gave incentive for people to express ideas.¹⁵⁴ The existence of the fair use, along with other exceptions, was also important.¹⁵⁵

The defendants in *Harper & Row* had extracted/copied 300 words from former President Gerald Ford’s biography, before it was published, ruining a deal that had been made with Time Magazine to do a pre-publication piece of 12,000 words. The Supreme Court held that copying 300 words was not a fair use as it contained the most sensational details, including information about former President Nixon’s pardon (quality not quantity mattered here), and ruined an aspect of the commercial exploitation of the work. The defendants argued for a special public figure or interest exception on top of fair use that would allow copyrighted work to be used in social communication. The Court rejected that argument, noting that copyright was itself an engine of free expression making it possible and rewarding for people to invest in the development and dissemination of ideas.¹⁵⁶ As the Act stood, there was sufficient reconciliation of the commodifying or propertizing of information through copyright and the notion of free speech.

The First Amendment challenge to intellectual property legislation was dealt a further blow in the *Eldred* decision when the United States Court of Appeals for the District of Columbia endorsed and reaffirmed the holding in *Harper & Row* that the Copyright Act and the First Amendment are adequately reconciled through the notions of the idea/expression dichotomy and the fair use (along with other permissive use) doctrine(s).¹⁵⁷ In other words, since the Copyright Act protects expression of ideas and not the ideas themselves, there is technically no barrier to any communicative activity. Furthermore, fair use makes socially necessary material available in the face of the exclusive rights of the owner.

In *Eldred*, the plaintiffs argued that the CTEA violated the First Amendment and was unconstitutional.¹⁵⁸ The Court explained:

¹⁵² *Harper & Row Publishers Inc. v. Nation Enters.*, 471 U.S. 539, 582 (1985) (Brennan, J., dissenting) (quoting *Garrison v. Louisiana*, 379 U.S. 64, 74-75 (1964)).

¹⁵³ *Harper & Row*, 471 U.S. at 556.

¹⁵⁴ *Id.* at 558.

¹⁵⁵ *Id.* at 560.

¹⁵⁶ *Id.* at 558.

¹⁵⁷ *Eldred*, 239 F.3d at 375.

¹⁵⁸ *Id.* at 374.

The decisions of the Supreme Court in *Harper & Row Publishers Inc. v. Nation Enterprises* and of this court in *United Video, Inc. v. FCC*, stand as insuperable bars to plaintiffs' first amendment theory. In *Harper & Row* the Court held that a magazine's advance publication of excerpts from the memoirs of former President Gerald Ford infringed the copyright thereon. In doing so the Court explained how the regime of copyright itself respects and adequately safeguards the freedom of speech protected by the First Amendment. . . . The [F]irst [A]mendment objection of the magazine was misplaced "[i]n view of the First Amendment protections already embodied in the Copyright Act's distinction between copyrightable expression and uncopyrightable facts and ideas, and the latitude for scholarship and comment traditionally afforded by fair use." In keeping with this approach, we held in *United Video* that copyrights are categorically immune from challenges under the First Amendment. There, certain cable companies petitioned for review of an FCC regulation providing that the supplier of a syndicated television program could agree to the program being broadcast exclusively by a single station in a local broadcast area. We rejected the first amendment aspect of their challenge as follows:

In the present case, the petitioners desire to make commercial use of the copyrighted works of others. There is no first amendment right to do so. Although there is some tension between the Constitution's [C]opyright [C]lause and the first amendment, the familiar idea/expression dichotomy of copyright law, under which ideas are free but their particular expression can be copyrighted, has always been held to give adequate protection to free expression.¹⁵⁹

The plaintiffs argued that those authorities were restricted solely to the narrow case where a litigant demands a right to use otherwise legitimately copyrighted material, which was distinct from the litigation at hand that sought to challenge the constitutional validity of the Copyright Act itself. The Court rejected this purported distinction as being "totally illusory."¹⁶⁰ The Court explained, "the relevant question under the First Amendment – regardless whether it arises as a defence in a suit for copyright infringement or in an anticipatory challenge to a statute or regulation – is whether the party has a First Amendment interest in a copyrighted work."¹⁶¹

The type of argument or justification for reconciling copyright and the First Amendment given in *Harper & Row* and *Eldred* is more difficult to sustain when a law proposes to protect facts or eliminates fair use. The European Database Directive of 1996 protects facts and gives very limited fair use rights, as do proposed database laws currently before the U.S. Congress. How might they stand up in the face of a First Amendment challenge? The scrutiny or balancing process here will be interesting. Furthermore, *Universal City Studios v. Reimerdes*,¹⁶² concerning the operation of the DMCA, suggests that the DMCA can act to protect facts and eliminate fair use rights where a technological protection measure is in place.¹⁶³ The DMCA does this by prohibiting actual circumvention

¹⁵⁹ *Id.* at 375-76 (citations omitted).

¹⁶⁰ *Id.* at 376.

¹⁶¹ *Id.*

¹⁶² 111 F. Supp. 2d 294 (S.D.N.Y. 2000).

¹⁶³ *Id.* at 322.

of an access control and by prohibiting providing, offering or otherwise trafficking in a device that will circumvent an effective technological access or copy protection measure.¹⁶⁴ It is no defence to this law to argue that the circumvention has taken place in order to make fair use of material behind the technological protection measure or to gain access to raw data or facts behind the technological protection measure.¹⁶⁵

In *Reimerdes*, the issue of free speech was raised in the context of the DMCA anti-circumvention provisions. The Content Scrambling System (CSS) was a form of encryption used to protect DVDs from being played on unauthorised players. An authorised DVD player, which included a computer running Microsoft Windows, would allow the DVD to be played but not copied. In order to allow people to speak in different digital voices, namely the Linux open code operating system, DeCSS was released. Initially, the 2600 website made the program available from their site, but after an interim injunction was issued they removed it from their site and linked to other sites. Judge Kaplan held that they breached the DMCA by providing or otherwise trafficking in a device that circumvents a technological protection measure.¹⁶⁶

One series of arguments in the case, which is now on appeal to the second circuit, was that the DMCA was unconstitutional on First Amendment grounds, as it restricted the expression of the computer code. Judge Kaplan held that while code in object or source code can be speech for First Amendment purposes, that does not mean it cannot be regulated.¹⁶⁷ He explained that while the code is expressive, the behaviour it causes is functional and the functional aspect of speech can be regulated even if it has an incidental impact on the expressive aspect.¹⁶⁸ He explained that regulation of the functional aspect of speech is content neutral, not content specific, and therefore only requires an intermediate, as opposed to a strict, level of scrutiny.¹⁶⁹ The government objective here was to prevent large scale copyright piracy in the digital environment – this was a legitimate objective and the scrutiny was satisfied.

I suggest the judge understated the discursive aspect of the functional behaviour of code. Code expressed as 1s and 0s is expressive, it is a literary text for copyright purposes – that much is obvious. But the behaviour that the code causes is not just functional, it is also communicative and discursive. The behaviour created by this code allowed the people using DeCSS to talk, communicate or consume information in differently coded speech, namely Linux. It may be that this communicative activity can be regulated because it could lead to

¹⁶⁴ See 17 U.S.C. §§ 1201(a)(1), (a)(2), (b) (Supp. IV 1998).

¹⁶⁵ *Reimerdes* 111 F. Supp. 2d at 321-323. Benkler argues that the DMCA, UCITA and the proposed database legislation violates the First Amendment. See Benkler, *supra* note 10, 412-446.

¹⁶⁶ *Reimerdes*, 111 F. Supp. 2d at 319 (S.D.N.Y. 2000).

¹⁶⁷ *Id.* at 326.

Defendants' assertion that computer code is "protected" by the First Amendment is quite understandable. Courts often have spoken of certain categories of expression as "not within the area of constitutionally protected speech," so defendants naturally wish to avoid exclusion by an unfavorable categorization of computer code. But such judicial statements in fact are not literally true. All modes of expression are covered by the First Amendment in the sense that the constitutionality of their "regulation must be determined by reference to First Amendment doctrine and analysis." Regulation of different categories of expression, however, is subject to varying levels of judicial scrutiny. Thus, to say that a particular form of expression is "protected" by the First Amendment means that the constitutionality of any regulation of it must be measured by reference to the First Amendment. In some circumstances, however, the phrase connotes also that the standard for measurement is the most exacting level available.

Id. (footnotes and citations omitted).

¹⁶⁸ *Id.* at 327.

¹⁶⁹ *Id.* at 328.

unlawful activity, but that is a question for further consideration and it may be more crucial in other cases. We need to keep in mind that software is not just code, it is discourse; it is not just a noun, it is also a verb. Software allows us to see and say things in digital space. Its expressive or discursive potential is not just in code written as static text but in the running code, allowing and facilitating people to move and consume information. Software is designed to process information – that is its entire function – so function here is integrally linked with communication, information and knowledge.

In Canada, there has been no success in invalidating the Copyright Act against the freedom of communication in Article 2 of the Charter of Rights and Freedoms. It has been suggested that in Canada the idea /expression dichotomy is not sufficient to ensure free speech, especially in the absence of a broad based fair use doctrine.¹⁷⁰ Canada, like Australia and the UK, has a much more limited and specific fair dealing doctrine.¹⁷¹ In Australia, there seems little doubt that the implied freedom of political communication could be invoked in a challenge to the Copyright Act in an instance of political discourse. Short of that, free speech considerations will need to be advocated through the interpretation of copyright law. In *Grain Pool*,¹⁷² Judge Kirby explained:

The protection of intellectual property rights must be afforded in a constitutional setting which upholds other values of public good in a representative democracy. In the United States the relevant head of constitutional power has been viewed as containing in-built limitations many of which are derived from the competing constitutional objective of public access to information. In Australia, the constitutional setting is different but the existence of competing constitutional objectives, express and implied, is undoubted.¹⁷³

The message from this passage is that intellectual property rights are subject to constitutional limits; yet, can it be suggested that fundamental democratic principles such as public access to information might act to influence the ultimate shape of copyright or information law?

There is a deeper question concerning the social, as opposed to economic, aspect of innovation in this entire debate. It revolves around a fundamental (engineering) principle of diversity in knowledge creation or distributed intelligence that is the hallmark of a democratic society. The notion of “diversity” stems from the cases of *Associated Press v. United States*¹⁷⁴ and *Turner Broadcasting Systems Inc. v. FCC*,¹⁷⁵ where the United States Supreme Court explained: “The basic tenet of national communication policy is that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public.”¹⁷⁶ This ethic also underpins the First Amendment.¹⁷⁷ A fundamental

¹⁷⁰ See Fewer, *supra* note 19, at 217-19. There are also issues raised by the Canadian notion of state action, which does not easily extend to common/judge made law and arguably non-government actors such as copyright owners.

¹⁷¹ Copyright Law Reform Committee, *supra* note 60, at Part 1, Exceptions to the Exclusive Rights of Copyright Owners (1998) (Austl.) (suggesting that Australia adopt a U.S. styled fair use provision).

¹⁷² [2000] H.C.A. 14 (Austl.).

¹⁷³ *Id.* at , f/n 218.

¹⁷⁴ 326 U.S. 1, 20 (1944).

¹⁷⁵ 512 U.S. 622, 662-64 (1994).

¹⁷⁶ *Id.* at 663.

¹⁷⁷ See *Whitney v. California*, 274 U.S. 357, 375 (1927) (Brandeis, J., concurring).

Those who won our independence believed that the final end of the State was to make men free to develop their faculties; and that in its government the deliberative forces should prevail over the arbitrary. They valued liberty both as an end and as a means. They believed liberty to be the secret of happiness and courage to be the secret of liberty. They believed that freedom

engineering principle of social and cultural communication pathways is that of diversity – monopoly of thought will not assist a pluralistic and tolerant society fuelled by distributed intelligence. For now the challenge by the First Amendment to the Copyright Act or the Patent Act has yet to be fully realised. This is not to say the arguments will never prosper. The assertion of free and open discursive frameworks that will allow diversity of opinion is of paramount importance to any society wishing to encourage independent thoughts and distributed (as opposed to centrally created) intelligence.

And as digital property is much more essential to communication than real property has ever been, the cultural aspect of its construction will continue to be highlighted. At present, though, these arguments are not eagerly received. The more fruitful area for debate is in relation to the general law defining and refining digital property.

III. The Defining Aspects of General (as Opposed to Constitutional) Statutory or Common Law

While a digital property right might be constitutional pursuant to the Copyright and Patent Clause or the Commerce Clause and survive First Amendment scrutiny in the United States, Article 2 in Canada, or the implied right to free political speech in Australia, it will still take definition from other principles of ordinary or general (as opposed to constitutional) law. In particular, digital property rights must “fit”¹⁷⁸ with other fundamental principles of general law, some of which exhibit a constitutional-like presence in terms of tradition and content.

Much of the specific definition of intellectual property law comes through statutes. My aim here is not to rehash those laws in detail but to look more at laws that limit those positive grants of property. There are a number of principles of law that act to encumber digital property rights with an obligation of “diversity.” This notion is the same as explained above in relation to free speech. Principles of general law, like antitrust/competition, copyright fair use doctrine (e.g., reverse engineering of software) and copyright misuse doctrine act to prevent extreme monopolisation or control of informational products by any one person. These principles of general law are dynamic in the sense that they capture the imagination and confidence of the courts and have been much more successful in harnessing the untold power of digital property rights. We must look more closely at this area of law, as much of the construction of digital property as played out in the courts is being undertaken in this space.

These laws also make an important statement about principles in our legal system and the notion of constitutionalism. Principles of law provide us with guidelines for regulating/mediating an exercise of power. They come in the traditional constitutional variety (relating to an exercise of government power: vertical constitutionalism), but also in a much more “private sphere” common law or statutory variety: horizontal constitutionalism. Examples of the latter are common law principles such as reasonable care, unconscionability and unjust enrichment or statutory principles such as antitrust and fair use/dealing. While

to think as you will and to speak as you think are means indispensable to the discovery and spread of political truth; that without free speech and assembly discussion would be futile; that with them, discussion affords ordinarily adequate protection against the dissemination of noxious doctrine; that the greatest menace to freedom is an inert people; that public discussion is a political duty; and that this should be a fundamental principle of the American government.

¹⁷⁸ See *Burnie Port Auth. v. Gen. Jones Pty. Ltd.* (1994) 179 C.L.R. 520 (Austl.); Ronald Dworkin, *Law's Empire* (Harvard University Press 1986).

this group of principles is not seen as constitutional law in the strict sense, they represent principles of constitutionalism (guidelines for regulating power relations)¹⁷⁹ and will be increasingly important in this form of conceptualization to the development of a theory of digital constitutionalism (discussed below). In short, non-constitutional principles of ordinary or general law as laid out in statutes or judicial decisions will bring definition to digital property. The interstices of ordinary law and the Dworkinian notion of “fit” bring much understanding to the defining process of digital property.¹⁸⁰

A. Antitrust/Competition Law

There is an inherent tension between IP law that creates a form of monopoly and antitrust or competition law that monitors the power of monopolies in the market place.¹⁸¹ It is becoming increasingly apparent that digital property will take a significant aspect of its definition from antitrust law or similar doctrines like copyright misuse, which is a defence to an action in copyright.

Antitrust or competition law, then, is the first fundamental principle to consider. Section 2 of the Sherman Act¹⁸² provides that a monopolist should not seek to grow or maintain¹⁸³ a monopoly through anti-competitive conduct. Section 46 of the Australian Trade Practices Act says that someone possessing substantial market power should not take advantage of that power to lessen competition, while in Europe an entity should not abuse a dominant position in the market.¹⁸⁴

Understanding the scope and function of these laws depends on understanding their purpose. There are at least two reasons for adopting competition laws:¹⁸⁵

- 1) to facilitate diversity of economic actors in the market place – suggesting a number of small or medium players rather than monopolies and;
- 2) to ensure economic efficiency leading to an optimisation of consumer welfare – suggesting a market place that provides the best economic outcomes for consumers

¹⁷⁹ Michel Foucault, *Power/Knowledge* (Colin Gordon ed., Pantheon Books 1980) (1972).

¹⁸⁰ See generally *Magbury Pty. Ltd. v. Hafele Australia Pty. Ltd.* [2001] H.C.A. 70 (employing restraint of trade doctrine in relation to a contractual obligation concerning information).

¹⁸¹ *Alcatel USA, Inc. v. DGI Technologies, Inc.*, 166 F.3d 772 (5th Cir. 1999) (discussing the notion of copyright and patent misuse as defences to actions for infringement rather than causes of action in themselves).

¹⁸² 15 U.S.C. § 2 (1994).

Section 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding \$ 10,000,000 if a corporation, or, if any other person, \$ 350,000, or by imprisonment not exceeding three years, or by both said punishments, in the discretion of the court.

Id.

¹⁸³ In *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, the Supreme Court explained that “[t]he offense of monopoly under §2 of the Sherman Act has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.” 472 U.S. 585, 596 (1985) (quoting *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966)).

¹⁸⁴ See Trade Practices Act, 1974, § 46 (Austl.).

¹⁸⁵ See David McGowan, *Innovation, Uncertainty and Stability in Antitrust Law*, 16 Berkeley Tech. L.J. 729, 741-64 (2001) (discussing “some of antitrust’s purposes”).

The first rationale promotes diversity while the second promotes economic efficiency, in terms of economic welfare.

Many subscribe to the view that the *Sherman Act* was enacted to protect the existence of small or medium size businesses in the face of monopolies.¹⁸⁶ However, under the influence of the Chicago School of Law and Economics, antitrust law is nowadays more frequently conceptualized in terms of the economic efficiency of market practices with consumer welfare as an economic issue being the ultimate criterion.¹⁸⁷ The economic efficiency approach at points seems to ignore political and social aspects of the market.¹⁸⁸ In Australia, section 2 of the Trade Practices Act provides: “The object of this Act is to enhance the welfare of Australians through the promotion of competition and fair trading and provision for consumer protection.”¹⁸⁹

David McGowan has recently written¹⁹⁰ about the competing rationales of U.S. antitrust law in light of the *Microsoft*¹⁹¹ decision. He ponders whether the decision is really about guaranteeing the existence of smaller firms and competition in the market place or whether it is about total economic efficiency analysed through producer and consumer equations and evidenced in optimal costs and pricing.¹⁹² He argues that Judge Jackson in the *Microsoft* case seemed to want to invoke both notions.¹⁹³ He questions whether “innovation,” as invoked in antitrust reasoning, is a pursuit of many small players in the market or the pursuit of best possible outcomes in terms of economic welfare.¹⁹⁴

So what is it that we really want from antitrust law – diversity or optimal consumer welfare? The two are not necessarily congruent. If we choose diversity as the touchstone, the exploitation of intellectual property rights will be defined in this light and we may see courts more willing to facilitate a broader range of access to informational products than we would under an economic efficiency approach. And if we marry a cultural theory of intellectual property law with a cultural theory of antitrust law, we are almost certain to see differently constructed digital property rights than if economic theory was the motivating force.

While antitrust or competition law may be seen by many to now rest in the lap of economic analysis, there can be little doubt that growing proprietary rights in digital architecture, such as software, which forms the basis of modern communication (form and content), are demanding that a diversity of communication pathways be opened.¹⁹⁵ The role of antitrust law in ensuring diversity of information and knowledge (in the mould of the First Amendment) is clearly articulated in the following passage from the *Associated Press* case:

¹⁸⁶ Herbert Hovenkamp, *Federal Antitrust Policy 47-76* (2d ed. 1999) (arguing this view is supported by more recent amendments to the Sherman Act and public choice theory of the role of interest groups in the legislative process); George J. Stigler, *The Origin of the Sherman Act*, 14 *J. of Legal Stud.* 1, 1-8 (1985).

¹⁸⁷ See Phillip E. Areeda & Herbert Hovenkamp, *Antitrust Law: An Analysis of Antitrust Principles and Their Application*, 8-11, 51-57, 94-137 (2d ed. 2000) (calling for a multi-dimensional approach yet arguing for the primary importance of consumer welfare over rivalry of small business – although economic theory is said to be limited); Robert H. Bork, *The Antitrust Paradox* 15-134 (1978).

¹⁸⁸ See *United States v. Aluminum Co. of Am.*, 148 F. 2d 416, 428-29 (2d Cir. 1945); *United States v. Associated Press*, 52 F. Supp. 362, 370-72 (S.D.N.Y. 1943); see also Areeda & Hovenkamp, *supra* note 142, at 97-115; Bork, *supra* note 142, at 50-56; Louis B. Schwartz, “Justice” and Other Non Economic Goals of Antitrust, 127 *U. Pa. L. Rev.* 1076 (1979).

¹⁸⁹ Trade Practices Act, 1974, § 46.

¹⁹⁰ See McGowan, *supra* note 140.

¹⁹¹ *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000).

¹⁹² See McGowan, *supra* note 192, at 766-76.

¹⁹³ *Id.*

¹⁹⁴ *Id.*

¹⁹⁵ See, e.g., *Microsoft*, 87 F. Supp. 2d 30; *Melway Publishing Pty. Ltd. v. Robert Hicks Pty. Ltd.* [2001] H.C.A. 13 (Austl.).

The First Amendment, far from providing an argument against application of the Sherman Act, here provides powerful reasons to the contrary. That Amendment rests on the assumption that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public, that a free press is a condition of a free society. Surely a command that the government itself shall not impede the free flow of ideas does not afford non-governmental combinations a refuge if they impose restraints upon that constitutionally guaranteed freedom. Freedom to publish means freedom for all and not for some. Freedom to publish is guaranteed by the Constitution, but freedom to combine to keep others from publishing is not. Freedom of the press from governmental interference under the First Amendment does not sanction repression of that freedom by private interests.¹⁹⁶

This passage, which some might suggest is outdated and others might characterise as timeless, highlights that welfare of the public is a social and not just an economic issue and that private corporations in their exercise of power are subject to constitutional like principles (another aspect of the notion of digital constitutionalism) of diversity rooted in antitrust law. Here lies an extremely important point. Access and user rights to – consumption of – information and the ensuing construction of knowledge should never be the domain of one entity, public or private. Competition law has the potential to implement such a principle and, if it is invoked in this manner, it will be central to the definition of digital property.

1. “Refusal to Deal”

One of the crucial issues that does much to define the scope of digital property is the extent to which someone can refuse to supply their property to a particular customer. This issue is usually much more delicate where the supplier has an intellectual property right (copyright or patent) to enforce the refusal to supply. In an environment where private corporations are making the highways and languages of the digital world, it becomes frightening to think they have the power to refuse entry to digital discourse.

“Refusal to deal”¹⁹⁷ has been considered in a number of cases.¹⁹⁸ In essence, it means that the supplier wishes to discriminate against a particular purchaser, normally for strategic business reasons, but also potentially for discrimination on the basis of ideology. Generally, as a matter of contract law, we can refuse to sell tangible property to someone so long as we

¹⁹⁶ *Associated Press v. United States*, 326 U.S. 1, 20 (1945); *see also* *United States v. Associated Press*, 52 F. Supp. 362, 372 (S.D.N.Y. 1943). There, the district court stated:

That interest [of the news industry to present a diversity of opinion] is closely akin to, if indeed it is not the same as, the interest protected by the First Amendment; it presupposes that right conclusions are more likely to be gathered out of a multitude of tongues, than through any kind of authoritative selection. To many this is, and always will be, folly: but we have staked upon it our all.

Id.

¹⁹⁷ That is, the right to refuse to sell a product to someone.

¹⁹⁸ *Compare* *Otter Tail Power Co. v. United States*, 410 U.S. 366 (1973) (stating that in terms of non-intellectual property protected products in a continuing relationship, refusal to sell may be an antitrust violation) *and* *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985) *with* *Intergraph Corp. v. Intel Corp.*, 195 F.3d 1346, 1362 (Fed. Cir. 1999) (stating that a refusal to license a patent or sell a patented item without more could not be an antitrust violation) *and* *In re Indep. Serv. Orgs. Antitrust Litig.*, 203 F.3d 1322, 1329 (Fed. Cir. 2000); *cf.*, *Image Technical Serv., Inc. v. Eastman Kodak Co.*, 125 F.3d 1195 (9th Cir. 1997) (holding that such a refusal may be an antitrust violation).

do not infringe discrimination laws concerning things such as race, sex and religion. That kind of strategic business discrimination is generally seen as part of the ethical cycle of business, and is confirmed in *Melway Publishing Pty. Ltd. v. Robert Hicks Pty. Ltd.*¹⁹⁹ However, there is a fine line as to when this becomes unjustifiable anti-competitive conduct. In the United States, in cases of a continuous relationship, this will be more likely to infringe.²⁰⁰

The recent *Independent Service Organizations Antitrust Litigation*²⁰¹ decision highlights some of these issues. In that case, Xerox made high volume copiers and had adopted a policy of refusing to sell parts that were unique to its "Series 10" copiers to independent service organizations ("ISOs"), including the company CSU, unless they were also end users of such copiers.²⁰² The policy was expanded in 1987 to include all new products and the older "Series 9" copiers.²⁰³ In 1989, the enforcement of the policy was tightened, which resulted in Xerox cutting off CSU's ability to directly purchase restricted parts.²⁰⁴ Xerox "also implemented an 'on-site, end user verification' procedure to confirm that the parts ordered by certain ISOs or their customers were actually for their end user use."²⁰⁵ That policy was applied to CSU, one of the more successful ISOs.²⁰⁶

In order to keep servicing Xerox equipment, CSU: used parts from used Xerox equipment; used parts obtained from other ISOs and used parts purchased from customers.²⁰⁷ In addition, CSU also obtained parts from Rank Xerox, a European Xerox affiliate, until Xerox stopped that practice.²⁰⁸ Xerox settled an antitrust lawsuit with some ISOs and agreed to suspend its restrictive parts policy and to license its diagnostic software for agreed upon periods.²⁰⁹ CSU opted out of that settlement and filed suit, alleging that Xerox violated the Sherman Act by setting the prices on its patented parts much higher for ISOs than for end users in an attempt to force ISOs to raise prices.²¹⁰ By that, the alleged violation would then eliminate ISOs, including CSU, as competitors in the market of high-speed copiers and printers. Xerox responded with patent and copyright infringement counterclaims and also contested CSU's antitrust claims because they relied on injuries that they alleged were solely caused by the refusal to sell and license patented parts and copyrighted software, which Xerox considered lawful.²¹¹

In dismissing the antitrust claims against Xerox, the court explained:

Intellectual property rights do not confer a privilege to violate the antitrust laws. "But it is also correct that the antitrust laws do not negate the patentee's right to exclude others from patent property." . . .

A patent alone does not demonstrate market power. . . .

¹⁹⁹ [2001] H.C.A. 13(Austl.).

²⁰⁰ See *Otter Tail Power*, 410 U.S. 366; *Aspen Skiing*, 472 U.S. 585.

²⁰¹ 203 F.3d 1322 (Fed. Cir. 2000).

²⁰² *Id.* at 1324

²⁰³ *Id.*

²⁰⁴ *Id.*

²⁰⁵ *Id.*

²⁰⁶ *Id.* Compare this case where Xerox said we will not sell you our parts unless you own the machine to the scenario in Kodak where Kodak said you cannot buy the machine unless you buy the service, which resulted in a finding of tying under section 1 of the Sherman Act (no contract should unreasonably restrain trade). See *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451 (1992).

²⁰⁷ *In re Indep. Serv. Orgs. Antitrust Litig.*, 203 F.3d at 1324.

²⁰⁸ *Id.*

²⁰⁹ *Id.*

²¹⁰ *Id.*

²¹¹ *Id.*

The patentee's right to exclude, however, is not without limit. As we recently observed in *Glass Equipment Development Inc. v. Besten, Inc.*, a patent owner who brings suit to enforce the statutory right to exclude others from making, using, or selling the claimed invention is exempt from the antitrust laws, even though such a suit may have an anticompetitive effect, unless the infringement defendant proves one of two conditions. First, he may prove that the asserted patent was obtained through knowing and willful fraud within the meaning of *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.* Or he may demonstrate that the infringement suit was a mere sham to cover what is actually no more than an attempt to interfere directly with the business relationships of a competitor. Here, CSU makes no claim that Xerox obtained its patents through fraud in the Patent and Trademark Office; the Walker Process analysis is not implicated.

...
... We therefore will not inquire into his subjective motivation for exerting his statutory rights, even though his refusal to sell or license his patented invention may have an anticompetitive effect, so long as that anticompetitive effect is not illegally extended beyond the statutory patent grant. It is the infringement defendant and not the patentee that bears the burden to show that one of these exceptional situations exists and, in the absence of such proof, we will not inquire into the patentee's motivations for asserting his statutory right to exclude. Even in cases where the infringement defendant has met this burden, which CSU has not, he must then also prove the elements of the Sherman Act violation.²¹²

The court then turned to the issue of copyright, stating:

The Copyright Act expressly grants a copyright owner the exclusive right to distribute the protected work by "transfer of ownership, or by rental, lease, or lending." "[T]he owner of the copyright, if [it] pleases, may refrain from vending or licensing and content [itself] with simply exercising the right to exclude others from using [its] property."

The Supreme Court has made clear that the property right granted by copyright law cannot be used with impunity to extend power in the marketplace beyond what Congress intended. The Court has not, however, directly addressed the antitrust implications of a unilateral refusal to sell or license copyrighted expression.

The Tenth Circuit has not addressed in any published opinion the extent to which the unilateral refusal to sell or license copyrighted expression can form the basis of a violation of the Sherman Act. We are therefore left to determine how that circuit would likely resolve the issue; the precedent of other circuits is instructive in that consideration. The Fourth Circuit has rejected a claim of illegal tying, supported only by evidence of a unilateral decision to license copyrighted diagnostic software to some but not to others. In reaching this conclusion, the court recognized the copyright owner's exclusive right to "sell, rent, lease, lend, or otherwise distribute copies of a copyrighted work," and concluded that "Section 1 of the Sherman Act does not entitle a purchaser . . . to buy a product that the seller does not wish to offer for sale."

²¹² *In re Indep. Serv. Org. Antitrust Litig.*, 203 F.3d 1322, 1325-28 (Fed. Cir. 2000) (citations omitted).

Perhaps the most extensive analysis of the effect of a unilateral refusal to license copyrighted expression was conducted by the First Circuit in *Data General Corp. v. Gruman Systems Support Corp.* There, the court noted that the limited copyright monopoly is based on Congress' empirical assumption that the right to "exclude others from using their works creates a system of incentives that promotes consumer welfare in the long term by encouraging investment in the creation of desirable artistic and functional works of expression. . . . We cannot require antitrust defendants to prove and reprove the merits of this legislative assumption in every case where a refusal to license a copyrighted work comes under attack." The court went on to establish as a legal standard that "while exclusionary conduct can include a monopolist's unilateral refusal to license a copyright, an author's desire to exclude others from use of its copyrighted work is a presumptively valid business justification for any immediate harm to consumers." The burden to overcome this presumption was firmly placed on the antitrust plaintiff. The court gave no weight to evidence showing knowledge that developing a proprietary position would help to maintain a monopoly in the service market in the face of contrary evidence of the defendant's desire to develop state-of-the-art diagnostic software to enhance its service and consumer benefit.

As discussed above, the Ninth Circuit adopted a modified version of this *Data General* standard. Both courts agreed that the presumption could be rebutted by evidence that "the monopolist acquired the protection of the intellectual property laws in an unlawful manner." The Ninth Circuit, however, extended the possible means of rebutting the presumption to include evidence that the defense and exploitation of the copyright grant was merely a pretextual business justification to mask anticompetitive conduct. . . . This is in reality a significant departure from the First Circuit's central premise that rebutting the presumption would be an uphill battle and would only be appropriate in those rare cases in which imposing antitrust liability is unlikely to frustrate the objectives of the Copyright Act.

We believe the First Circuit's approach is more consistent with both the antitrust and the copyright laws and is the standard that would most likely be followed by the Tenth Circuit in considering the effect of Xerox's unilateral right to refuse to license or sell copyrighted manuals and diagnostic software on liability under the antitrust laws. We therefore reject CSU's invitation to examine Xerox's subjective motivation in asserting its right to exclude under the copyright laws for pretext, in the absence of any evidence that the copyrights were obtained by unlawful means or were used to gain monopoly power beyond the statutory copyright granted by Congress. In the absence of such definitive rebuttal evidence, Xerox's refusal to sell or license its copyrighted works was squarely within the rights granted by Congress to the copyright holder and did not constitute a violation of the antitrust laws.²¹³

Both of these passages highlight the delicate interplay between intellectual property law, antitrust law and the constitutionally enumerated grant of power. The ambit of the copyright or patent is defined by the meaning of antitrust law, but antitrust law is also confined by the ambit of copyright and patent. One may refuse access to or use of an informational product or digital property, even where someone is willing to pay market price, so long as one does

²¹³ *Id.* at 1328-29 (citations omitted).

not engage in anti-competitive conduct. The questions then return to what anti-competitive conduct means and what is the desired or legislated role of antitrust law.

*Intergraph Corp. v. Intel Corp.*²¹⁴ is another case addressing refusal to deal. In that case, Intel, a manufacturer of computer microprocessors, supplied Intergraph, an original equipment manufacturer (OEM), with microprocessors for their computer workstations.²¹⁵ Intel saw Intergraph as a special customer and provided Intergraph with various special benefits, including proprietary information and products, under non-disclosure agreements.²¹⁶ Through a series of events in November 1997, Intergraph sued Intel for infringement of the certain patents that it held.²¹⁷ In this litigation, Intergraph also sought an injunction to stop Intel from cutting off the supply of benefits to Intergraph.²¹⁸ Intel opposed this motion and Intergraph amended their claim to say that Intel was in violation of antitrust laws, basically on the basis that it refused to deal its information to Intergraph, even though Intergraph was suing it on other grounds for patent infringement.²¹⁹ The question was, in essence, is it legitimate to refuse to supply someone with your informational value in the face of suit by them on other grounds?

The district court enjoined Intel from refusing to supply information and Intel appealed, arguing that no law required it to give such special benefits, including its trade secrets, proprietary information, intellectual property, pre-release products, allocation of new products and other preferences, to an entity that was suing it on charges of multiple wrongdoings.²²⁰

The court noted that Intergraph and Intel operated in different markets and were not competitors.²²¹ While Intel might hold a large share of the market for microprocessors, it could not be held liable for growing its monopoly through anti-competitive conduct by a non-competitor or consumer.²²² Intergraph also claimed that Intel's information was an essential facility and that it should be allowed access to it.²²³ The essential facility doctrine provides an obligation to deal/supply but usually relates to core tangible infrastructure, like railway lines or electricity wires. In the information age there have been a number of claims that core infrastructure of the information society is an essential facility and cannot be closed off from use.²²⁴

The court explained the notion of an essential facility as follows:

The "essential facility" theory of Sherman Act violation stems from *United States v. Terminal RR Ass'n*, wherein a group of railroads formed an association that controlled the railroad terminals, bridges, and switching yards serving the City of St. Louis. The Court held that this association was formed for an anticompetitive purpose, that the railroad terminals, bridges, and yards were facilities essential to competing railroads, and that section 1 of the Sherman Act was violated.

²¹⁴ 195 F.3d 1346 (Fed. Cir. 1999).

²¹⁵ *Id.* at 1349.

²¹⁶ *Id.* at 1350.

²¹⁷ *Id.*

²¹⁸ *Id.*

²¹⁹ *Id.*

²²⁰ *Intergraph Corp.*, 195 F.3d at 1350.

²²¹ *Id.* at 1352-56.

²²² *Id.* at 1353.

²²³ *Id.* at 1356.

²²⁴ See *eBay, Inc. v. Bidder's Edge, Inc.*, 100 F. Supp. 2d 1058 (N.D. Cal. 2000); *Cyber Promotions, Inc. v. Am. Online, Inc.*, 948 F. Supp. 436 (E.D. Pa. 1996); *Compuserve, Inc. v. Cyber Promotions, Inc.*, 962 F. Supp. 1015 (S.D. Ohio 1997).

The district court found that "the Advance Chips Samples and advance design and technical information are essential products and information necessary for Intergraph to compete in its markets." Reasoning that "[t]he antitrust laws impose on firms controlling an essential facility the obligation to make the facility available on non-discriminatory terms," the court held that Intel's action in withdrawing these benefits violated the Sherman Act. As authority the district court cited *Otter Tail Power Co. v. United States* and *MCI Communications Corp. v. American Telephone & Telegraph Co.*

....

In *MCI Communications*, the court enumerated the elements of liability under the "essential facilities" theory as "(1) control of the essential facility by a monopolist; (2) a competitor's inability practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility." The courts have well understood that the essential facility theory is not an invitation to demand access to the property or privileges of another, on pain of antitrust penalties and compulsion; thus the courts have required anticompetitive action by a monopolist that is intended to "eliminate competition in the downstream market."²²⁵

Ultimately, the court concluded this was not an essential facility scenario as Intel and Intergraph were not competitors and then moved on to reject the notion that Intel had done something wrong in refusing to supply its informational products to Intergraph:

Other than as a remedy for illegal acts, the antitrust laws do not compel a company to do business with anyone -- customer, supplier, or competitor.

. . . [I]t is well established that "in the absence of any purpose to create or maintain a monopoly, the [Sherman] act does not restrict the long recognized right of a trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal."

....

A "refusal to deal" may raise antitrust concerns when the refusal is directed against competition and the purpose is to create, maintain, or . . . enlarge a monopoly. For example, in *Lorain Journal Co. v. United States*, the only newspaper in town refused to sell newspaper advertising to persons who also advertised on a competing radio station; this was held to be an attempt to . . . monopolize the mass dissemination of all news and advertising, and to violate the Sherman Act.²²⁶

Claims of leveraging (using monopoly power to gain a competitive advantage in another market through illegitimate conduct), coercive reciprocity and tying (based on the allegation that Intel would supply the information if Intergraph settled the law suit) were also rejected by the court.²²⁷

Finally, the court more closely considered the issue of intellectual property rights. The court explained:

²²⁵ *Intergraph Corp.*, 195 F.3d at 1356-57 (citations omitted).

²²⁶ *Id.* at 1357-58 (citations omitted).

²²⁷ *Id.* at 1359-60.

In response to Intel's argument that its proprietary information and pre-release products are subject to copyright and patents, the district court observed that Intel's intellectual property "does not confer upon it a privilege or immunity to violate the antitrust laws." That is of course correct. But it is also correct that the antitrust laws do not negate the patentee's right to exclude others from patent property. The patent and antitrust laws are complementary, the patent system serving to encourage invention and the bringing of new products to market by adjusting investment-based risk, and the antitrust laws serving to foster industrial competition. The patent and antitrust laws serve the public in different ways, both of importance to the nation.

....

In *Image Technical Services* the Ninth Circuit reported that it had found "no reported case in which a court had imposed antitrust liability for a unilateral refusal to sell or license a patent or copyright." Nor have we.

. . . However, as we have stated, the owner of proprietary information has no obligation to provide it, whether to a competitor, customer, or supplier. Precedent makes clear that a customer who is dependent on a manufacturer's supply of a component can not on that ground force the producer to provide it; there must also be an anticompetitive aspect invoking the Sherman Act.²²⁸

The message from this case is that refusal to deal or supply information/intellectual property to a competitor or consumer is not of itself an antitrust violation. Consumers will generally have a difficult time raising successful antitrust violations, as anti-competitive conduct in competition is an important requirement. Where the dispute involves competitors, the refusal to supply, if it amounts to anti-competitive conduct, will raise a more serious issue. This case also confirms that the essential facility doctrine will be of limited application and will not readily provide a right to access informational architecture.²²⁹

ISO and *Intergraph* can be contrasted with *Radio Telefis Eireann v. European Commission (Magill)*, a decision of the European Court of Justice (ECJ).²³⁰ In *Magill*, due to the specific copyright laws in place, television stations were able to claim copyright in the listing of weekly programs in Ireland. The television stations published their own station specific as opposed to comprehensive weekly television guides and released daily and weekend details of programs to daily newspapers.²³¹ *Magill* attempted to publish a

²²⁸ *Id.* at 1662-63 (citations omitted).

²²⁹ See, e.g., Trade Practices Act, 1974, Part IIIA (Austl.); *Hamersley Iron Pty. Ltd. v. NCC* [1999] F.C.A. 1370; *Eastman Kodak Co.*, 504 U.S. 451; *Aspen Skiing*, 472 U.S. 585; *In re Indep. Serv. Orgs. Antitrust Litig.*, 203 F.3d 1322; *Intergraph Corp. v. Intel Corp.*, 3 F. Supp. 2d 1255 (N.D. Ala. 1998), *vacated by* 195 F.3d 1346 (Fed. Cir. 1999); *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 125 F.3d 1195 (9th Cir. 1997); *Data Gen. Corp. v. Grumman Sys. Support Corp.*, 36 F.3d 1147 (1st Cir. 1994); *MCI Communications v. AT&T*, 708 F.2d 1081 (7th Cir. 1983), *cert. denied*, 464 U.S. 891 (1983); *Byars v. Bluff City News Co.*, 609 F.2d 843 (6th Cir. 1980); *Hecht v. Pro-Football Inc.*, 570 F.2d 982 (D.C. Cir. 1977), *cert. denied*, 436 U.S. 956 (1978); see also Phillip Areeda, *Essential Facilities: An Epithet in Need of Limiting Principles*, 58 ABA Antitrust L.J. 841 (1990); Allen Kezsbom & Alan Goldman, *No Shortcut to Antitrust Analysis: The Twisted Journey of the "Essential Facilities" Doctrine*, 1 Colum. Bus. L. Rev. 1 (1996); David McGowan, *Regulating Competition in the Information Age: Computer Software as an Essential Facility Under the Sherman Act*, 18 Hastings Comm. & Ent. L.J. 771 (1996); W. Greg Paciak, *Essential Facilities Doctrine: Intergraph Corp. v. Intel Corp.*, 14 Berkeley Tech. L.J. 323 (1999).

²³⁰ See *Radio Telefis Eireann v. European Comm'n*, 1995 E.C.R. I-743; 4 C.M.L.R. 718 (1995); see also TRIPS, *supra* note 5, at art. 40; Inge Govaere, *The Use and Abuse of Intell. Prop. Rts.*, in E.C. Law 3-12 (1996); Irimi A. Stamatoudi, *The Hidden Agenda in Magill and Its Impact on New Technologies*, 1 J. World Intell. Prop. 153 (1998).

²³¹ *Radio Telefis*, 4 C.M.L.R. at para. 3.

comprehensive weekly television guide but was enjoined from doing so on the motion of the television stations.²³² Magill sought a declaration that in refusing to licence the copyrighted material the stations had engaged in antitrust violations or in European terms abused their dominant position in the market place.²³³ The ECJ agreed, opining:

In the present case, the conduct objected to is the appellants' reliance on copyright conferred by national legislation so as to prevent Magill--or any other undertaking having the same intention--from publishing on a weekly basis information (channel, day, time and title of programmes) together with commentaries and pictures obtained independently of the appellants.

Among the circumstances taken into account by the Court of First Instance in concluding that such conduct was abusive was, first, the fact that there was, according to the findings of the Court of First Instance, no actual or potential substitute for a weekly television guide offering information on the programmes for the week ahead. On this point, the Court of First Instance confirmed the Commission's finding that the complete lists of programmes for a 24-hour period -- and for a 48-hour period at weekends and before public holidays -- published in certain daily and Sunday newspapers, and the television sections of certain magazines covering, in addition, "highlights" of the week's programmes, were only to a limited extent substitutable for advance information to viewers on all the week's programmes. Only weekly television guides containing comprehensive listings for the week ahead would enable users to decide in advance which programmes they wished to follow and arrange their leisure activities for the week accordingly. The Court of First Instance also established that there was a specific, constant and regular potential demand on the part of consumers.

Thus the appellants -- who were, by force of circumstance, the only sources of the basic information on programme scheduling which is the indispensable raw material for compiling a weekly television guide -- gave viewers wishing to obtain information on the choice of programmes for the week ahead no choice but to buy the weekly guides for each station and draw from each of them the information they needed to make comparisons.

The appellants' refusal to provide basic information by relying on national copyright provisions thus prevented the appearance of a new product, a comprehensive weekly guide to television programmes, which the appellants did not offer and for which there was a potential consumer demand. Such refusal constitutes an abuse under heading (b) of the second paragraph of Article 86 of the Treaty.

Second, there was no justification for such refusal either in the activity of television broadcasting or in that of publishing television magazines.

Third, and finally, as the Court of First Instance also held, the appellants, by their conduct, reserved to themselves the secondary market of weekly television guides by excluding all competition on that market since they denied access to the basic information which is the raw material indispensable for the compilation of such a guide.²³⁴

²³² *Id.* at para. 7.

²³³ *Id.* at para. 8.

²³⁴ *Id.* at paras. 51-56 (citations and footnotes omitted).

The case is significant because it held that the copyright owner was not allowed to refuse to supply information, thereby making the TV listings tantamount to an essential facility.²³⁵ This decision of the ECJ, then, provides a more robust view in the context of information as to when it is legitimate to refuse to deal.

*Melway*²³⁶ provides yet another perspective on this notion of refusal to deal. *Melway's*, who produced a street directory for Melbourne, Australian, refused to supply the respondent, a wholesaler of motor vehicle parts and accessories, and a former authorised distributor, supplies of directories.²³⁷ The respondent alleged a breach of section 46 of the Trade Practices Act, which prohibits "taking advantage" of substantial market power to lessen competition.²³⁸ The court confirmed the relevant functional market was the wholesale and retail market for street directories in Melbourne and that *Melway's* held in 80 – 90% of the retail market share for street directories.²³⁹ *Melway's*, which had been marketing the directories since 1966, had developed a strategic method for distributing and selling the directories.²⁴⁰ The respondent had formerly been involved as a distributor but had that right terminated pursuant to the distributorship agreement.²⁴¹

The majority of the Australian High Court held that *Melway's* had the right to determine how to distribute their informational product.²⁴² In the absence of any evidence that they had intended to oust competitors, there was nothing wrong with what they had done – in fact, it was simply a normal business decision.²⁴³ The economic effect of *Melway's* action and ultimate consumer welfare (from an economic sense) seemed to be in harmony. *Melway's* was successful in having their action vindicated.

Judge Kirby dissent was geared toward guaranteeing and ensuring diversity of suppliers and access to the informational product. He explained:

The respondent's primary submission was that, properly analysed, *Queensland Wire* stands for only one relevant legal proposition applicable to this case. This was that "take advantage of" means no more than "use." In determining whether a corporation has "take[n] advantage of "its market power for a proscribed purpose, the respondent argued that all that was necessary was proof that, as a matter of fact, the corporation, having such power, had refused supply for a proscribed purpose. Upon this view, it was unnecessary to pose hypothetical questions (sometimes difficult to resolve) as to whether such corporation could or would, acting rationally, have engaged in the forbidden conduct if it were subject to effective competition. My own opinion is that this is correct analysis of s 46(1) of the Act. I also consider that it is what the decision in *Queensland Wire* stands for as a binding principle of

²³⁵ *Id.* at paras. 76-88.

²³⁶ [2001] H.C.A. 13 (Austl.).

²³⁷ *Id.*

²³⁸ *Id.* at para. 1.

²³⁹ *Id.* at para. 80.

²⁴⁰ *Id.* The way they distribute could also be seen as an architectural constraint on the way they do business – like code – by slowing down copyists or, in other words, implementing their copyright.

²⁴¹ *Id.* at para. 87.

²⁴² [2001] H.C.A. 13 at para. 80.

²⁴³ *Id.* at para 67. The majority explained:

But it does not follow that because a firm in fact enjoys freedom from competitive constraint, and in fact refuses to supply a particular person, there is a relevant connection between the freedom and the refusal. Presence of competitive constraint might be compatible with a similar refusal, especially if it is done to secure business advantages which would exist in a competitive environment.

Id.

law. There is nothing in the language of the section itself that obliges the ascertainment of an answer to a hypothetical question. If, as was held in *Queensland Wire*, "take advantage of" means no more than "use", that presents a purely factual question to be answered. In short, if the supplier enjoys a substantial degree of market power, the grant or refusal of supply is necessarily, as a matter of fact, taking advantage of (sc "using") such market power. It is doing so because the power to grant, or refuse, supply is part of the power substantially to control the market.

....

However, if I am wrong in the foregoing, it is appropriate to consider the alternative approach on the footing that the hypothetical question forms part of the rule for which *Queensland Wire* stands. If this is done, it was certainly open to the majority judges in the Federal Court to conclude that the impugned conduct on the part of the appellant involved its taking advantage of its market power, in the sense that, acting rationally, it would and could not (but for that power) have acted as it did. Specifically, it would and could not have refused the respondent's offer to purchase between 30,000 and 50,000 copies of the Melbourne directory each year.²⁴⁴

Judge Kirby's judgement is to the effect that anyone who holds market power and refuses to supply is taking advantage of that market power. This is very much a diversity (or non-discrimination) argument that requires the information to be dealt. It is tantamount to a right of access to information. Judge Kirby was not just looking at economic transaction costs but also the social innovation cost, remembering innovation has a social as well as an economic aspect. The delivery of this information needs a diversity of pathways. The monopolisation of the delivery of information to people is not good for them – socially. To this extent, Judge Kirby perhaps showed a social approach to competition law and the notion of welfare.

Another interesting issue arises from this case. Melway's owns an informational product in which they claimed copyright. This case, in essence, defines the right of the copyright owner – the right to distribute or sell the copyright product to whomever they wish. Yet in this instance, competition law puts a gloss on this right. In this case, we are really seeing the definitions of competition and copyright law being conflated – because the refusal to deal is intimately connected with intellectual property rights.

In summary, the power to make someone distribute an information product is contingent upon the power that they hold as a digital property owner, which will, to some extent, be defined by competition law. Refusal to deal, by itself, is not generally unlawful, but other factors (consider *Magill*) will raise the level of scrutiny; this is a difficult area in which to be confident that you will not be liable. Judge Kirby's approach of guaranteeing a right to deal in core informational products, a little like essential facilities doctrine, may suggest that the time is upon us to more seriously consider access to core informational products as part of antitrust or competition law.

2. The *Microsoft* Case

The *Microsoft* case also highlights how intellectual property rights in software may be questioned in light of antitrust law. This case concerned the dominance of the Microsoft

²⁴⁴ *Id.* at paras. 109, 112.

operating system, Windows.²⁴⁵ An operating system is software that allocates and manages the hardware resources of a computer. The operating system combined with the hardware is often called the operating platform upon which many forms of applications (specific kinds of) software are built. To write applications that will run on a particular platform or operating system one needs to ensure the application can interact with the operating system. An operating system will be programmed to allow such interaction through what is known as application programming interfaces (APIs). Therefore, to write code or software that will run on an operating system you will need to know and obey APIs. This need to write applications for specific operating systems means that it is more difficult for a generic application to be written that can be run on all platforms. As Judge Jackson found, Windows was by far the most dominant operating system in the market, with a market share in excess of eighty percent depending on how you calculated the figures.²⁴⁶

The emergence of the Internet browser and the development of the Java programming language by Sun Microsystems opened the way for diluting the dominance of the Windows operating system. The browser developed with such speed and popularity that the potential opened for people to write applications to run on the browser platform, thereby reducing the control Microsoft had over applications development and also threatening the continued primacy of its Windows operating system. Windows would become merely a part of the substratum that could be easily substituted if applications software could be written to the browser platform. Sun's programming language, Java, also allowed applications to be written in such a way that they could be ported from one platform to another. Both of those developments threatened Microsoft and made it more likely for a competitor such as the open source operating system, Linux, to be more successful.

One way Microsoft took on the challenge was to build up its market share in the internet browser area through its product, Internet Explorer (IE). Its main rival in this area was the Netscape internet browser, which showed the potential to become a dominant platform upon which to write applications software. Microsoft was also alleged to have tried to make it difficult for Java based programs to run on Windows without modification.²⁴⁷

Judge Jackson found that Microsoft breached sections 1 and 2 of the Sherman Act.²⁴⁸ They were found to have violated section 1 – unreasonable contracts in restraint of trade – by tying their browser to the operating system and ensuring through agreement with OEMs that the two were sold as a unit.²⁴⁹ Microsoft argued that Windows and IE were merely one product and there was no unlawful tying. The judge called this a form of technology tying where software code tied the software products together.²⁵⁰ He held that there was a clear market for two separate products and, as such, this was a case of tying.²⁵¹ As far as section 2 was concerned, Judge Jackson found that Microsoft's actions towards Netscape and Sun were predacious and in breach of the *Sherman Act*.²⁵² As a remedy, the judge ordered that Microsoft Corporation be broken up into an applications company and an operating systems company.²⁵³

On appeal, the judge's findings relating to tying and remedy were questioned.²⁵⁴ However, Judge Jackson's findings regarding anti-competitive use of monopoly power were

²⁴⁵ When joined with the Intel microprocessor or chip this is commonly referred to as a WinTel platform.

²⁴⁶ *Microsoft*, 87 F. Supp. 2d at 36.

²⁴⁷ *Id.* at 43.

²⁴⁸ *Id.* at 44-45.

²⁴⁹ *Id.* at 47.

²⁵⁰ *See id.* at 50-51.

²⁵¹ *Id.*

²⁵² *Microsoft*, 87 F. Supp. 2d at 44.

²⁵³ *United States v. Microsoft Corp.*, 97 F. Supp. 2d 59, 64-65 (D.D.C. 2000).

²⁵⁴ *See United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001).

not overturned. The matter has now been sent back to the district court for further consideration, yet how the situation will be remedied remains to be seen.

In summary, this case shows the limitations that can be imposed upon the owner of digital property (copyright in software) in the face of antitrust law.

B. Fair Use

The notion of fair use in United States copyright law²⁵⁵ and the narrower doctrine of fair dealing in UK, Canadian and Australian copyright law, defines to what extent the digital property owner can exclude others from use of the informational product.²⁵⁶ Fair use and fair dealing allow use without the (personal) permission of the copyright owner; for this reason, some call it a privilege. In *A & M Records, Inc. v. Napster, Inc.*²⁵⁷ and *Reimerdes*, fair use arguments were unsuccessfully raised. However, there has been more success in the area of reverse engineering of software.

1. Reverse Engineering for Interoperability

To ensure the diversity of digital identity we must argue for diversity in software products.²⁵⁸ Fundamental to software diversity is the notion of interoperability, defined in the DMCA as: "the ability of computer programs to exchange information, and of such programs mutually to use the information, which has been exchanged."²⁵⁹

If a software engineer or developer constructs software that becomes the industry standard, that software acts as architecture for communication and it becomes, in essence, a platform for discourse. In order to develop complementary and improved software products, in most cases, software developers will reverse engineer the industry standard software in an attempt to make software that can be interoperable (conversant) with the industry standard. To be able to successfully reverse engineer software, in most instances, one must copy (and in some cases "borrow" parts of) the software, which is technically an infringement of the copyright owner's exclusive rights over reproduction.²⁶⁰

In the United States, the courts have employed the fair use doctrine to mediate this issue,²⁶¹ while more recently, Congress has legislated on the notion of interoperability in relation to circumvention devices in the DMCA. Fair use defines the appropriate balance between a monopoly right given as an incentive for innovation and the public interest in the free flow of information for a variety of cultural reasons.²⁶²

²⁵⁵ 17 U.S.C. § 107 (1994).

²⁵⁶ William W. Fisher III, *Reconstructing the Fair Use Doctrine*, 101 Harv. L. Rev. 1659 (1988); Fitzgerald, *supra* note 109.

²⁵⁷ *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001)

²⁵⁸ See, e.g., *Associated Press v. United States*, 326 U.S. 1, 20 (1945); *Turner Broadcasting Sys., Inc. v. FCC*, 512 U.S. 622, 662-64 (1994) ("The basic tenet of national communication policy is that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public.")

²⁵⁹ 17 U.S.C. § 1201(f)(4) (Supp. IV 1998).

²⁶⁰ See Anne Fitzgerald & Cristina Cifuentes, *Interoperability and Computer Software Protection in Australia*, 4 Computer Telecomm. L. Rev. 271, 271 (1998).

²⁶¹ See generally *Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992) (holding that the use of copyrighted computer work to gain understanding of unprotected functional elements was fair use of the copyrighted work).

²⁶² See Fitzgerald, *supra* note 109, at 153.

In Australia the Copyright Law Review Committee (CLRC)²⁶³ recommended adopting a more broad-based fair use right similar to the U.S. model in place of the existing narrower and more specific fair dealing exceptions.²⁶⁴ However, the High Court of Australia, in the case of *Data Access Corp. v. Powerflex Services Pty. Ltd.*,²⁶⁵ refused, in the absence of legislative direction, to endorse the legitimacy of reversing engineering in an instance of literal copying.²⁶⁶ The government has since enacted a (partial) legislative solution through amendment to the Copyright Act, 1968 in 1999.²⁶⁷ The reproduction or adaptation of a computer program for the purpose of obtaining information necessary to the independent creation of a new program or a device to connect to and interoperate with a program or any other program is, in certain circumstances, exempted from infringement.²⁶⁸

In European Union member countries, specific exceptions have been enacted in national copyright laws,²⁶⁹ as required by the 1991 EC Directive on the Legal Protection of Computer Programs.²⁷⁰ Article 6 of the Directive provides that copying and adaptation occurring in the decompilation of software code is permitted where it is “indispensable to obtain the information necessary to achieve the interoperability of an independently created computer program with other programs.”²⁷¹

2. Porting to Platforms of Choice

Two recent cases highlight a more specific and immediate challenge for the principle of fair use for interoperability in the digital environment. The challenge is to enable software applications to be separated from and interoperable with a variety of operating systems and associated hardware (platforms).²⁷² It is in facilitating this choice with respect to operating platforms (e.g. open versus proprietary) that interoperability will allow the user to speak in their choice of differently coded/digital voices, thereby enhancing the goal of digital diversity.

In the U.S. case of *Sony Computer Entertainment, Inc. v. Connectix Corp.*,²⁷³ the Ninth Circuit Court of Appeals held firmly in favour of reverse engineering²⁷⁴ of software in order to allow different software products to be ported or joined (i.e., interoperate) with

²⁶³ Copyright Law Review Committee, *supra* note 60, at Part 1.

²⁶⁴ *See, e.g.*, Copyright Act, 1968, §§ 40- 42 (Austl.) (discussing fair dealing for purposes of research or study, criticism or review, and reporting news).

²⁶⁵ [1999] H.C.A. 49 (Austl.).

²⁶⁶ *Id.*

²⁶⁷ *See* Copyright Amendment (Computer Programs) Act, 1999, (Austl.); Anne Fitzgerald & Cristina Cifuentes, *Pegging Out the Boundaries of Computer Software Copyright: The Computer Programs Act and the Digital Agenda Bill*, in *Going Digital 2000: Legal Issues for E-Commerce Software and the Internet* 37 (Anne Fitzgerald et al. eds., 2d ed. (2000)).

²⁶⁸ Copyright Act, 1968, § 47D (Austl.), *amended by* Copyright Amendment (Computer Programs) Act, 1999, (Austl.).

²⁶⁹ *See, e.g.*, Copyright Designs and Patents Act, 1988, §§ 50A, 50B, 50C (UK) (discussing acts done under statutory authority).

²⁷⁰ Council Directive 91/250, 1991 O.J. (L122) 42.

²⁷¹ *Id.*

²⁷² Platform is defined, in terms of computer science, as the basic technology of a computer system's hardware and software that defines how a computer is operated and determines what other kinds of software can be used, *at* <http://www.dictionary.com/cgi-bin/dict.pl?term=platform> (last visited Nov. 3, 2001). *See also* *Microsoft*, 84 F. Supp. 2d at 12 (stating that because the operating system supports applications while closely interacting with the PC system's hardware, the operating system serves as a platform).

²⁷³ 203 F.3d 596 (9th Cir. 2000).

²⁷⁴ *See id.* at 599-601.

different hardware, firmware or software platforms.²⁷⁵ In that case, Judge Canby, delivering the opinion of the court, explained that the intermediate²⁷⁶ copying that occurred was legitimate because it merely facilitated the copying of the unprotected (non-copyright) function or idea of the software.²⁷⁷ Interestingly, the existence of a patent would have made things more difficult for *Connectix*.²⁷⁸ However, the court clearly stated that intermediate copying is allowable where it is used to determine function that can facilitate the making of transformative (better or extended) products.²⁷⁹

Connectix had developed software that emulated the Sony PlayStation on a personal computer.²⁸⁰ In other words, their Virtual Game Station allowed consumers to play Sony games on their personal computer and not just on the Sony PlayStation console. This allowed portability that the court also seemed to support in its discussion of transformative use: "The product creates a new platform, the personal computer on which consumers can play games designed for Sony PlayStation. This innovation affords opportunities for game play in new environments . . ." ²⁸¹ The court was not concerned with the number of intermediate copies that had been made nor that the end product (even though containing a different source code, yet the same function) competed with the Sony PlayStation.²⁸²

In contrast, *Reimerdes*, which was brought pursuant to the DMCA for offering, providing or otherwise trafficking in a device for circumventing a technological protection measure (TPM), a fifteen year old boy allegedly cracked the encryption code (CSS)²⁸³ of the software lock (a technological protection measure) employed (it was argued) to prevent easy

²⁷⁵ See *id.* at 609.

²⁷⁶ *Id.* at 598-99. Intermediate copying is that which is undertaken in the process of developing the final product which itself may not, as in the *Connectix* case, be a copy.

²⁷⁷ *Id.* at 602-03. The judge remarked:

[I]n the case of computer programs the idea/expression distinction poses distinct 'unique problems' because computer programs are in essence 'utilitarian articles - articles that accomplish tasks. As such they contain many logical, structural and visual display elements that are dictated by the function to be performed, by considerations of efficiency, or by external factors such as compatibility requirements and industry demands' . . . the fair use doctrine preserves public access to the ideas and functional elements embedded in copyrighted computer software programs.

Id. at 603.

²⁷⁸ See *Sony*, 203 F.3d at 596; Maureen A. O'Rourke, *Toward a Doctrine of Fair Use in Patent Law*, 100 Colum. L. Rev. 1177 (2000); Richard H. Stern, *Scope of Protection Problems with Patents and Copyrights on Methods of Doing Business*, 10 Fordham Intell. Prop. Media & Ent. L.J. 105 (1999). It may be necessary in the not too distant future to state the rationale more simply in terms of allowing copying on the basis of increasing portability and diversity.

²⁷⁹ See *Sony*, 203 F.3d at 602-03.

²⁸⁰ *Id.* at 599.

²⁸¹ *Id.* at 606.

²⁸² *Id.* at 604 (this might be termed "horizontal" interoperability); see O'Rourke, *supra* note 281, at 1213, 1223.

²⁸³ *Reimerdes*, 82 F. Supp. 2d at 214. The court explained that:

DVDs contain motion pictures in digital form, which presents an enhanced risk of unauthorized reproduction and distribution because digital copies made from DVDs do not degrade from generation to generation. Concerned about this risk, motion picture companies, including plaintiffs, insisted upon the development of an access control and copy prevention system to inhibit the unauthorized reproduction and distribution of motion pictures before they released films in the DVD format. The means now in use, Content Scramble System or CSS, is an encryption-based security and authentication system that requires the use of appropriately configured hardware such as a DVD player or a computer DVD drive to decrypt, unscramble and play back, but not copy, motion pictures on DVDs. CSS has been licensed to hundreds of DVD player manufacturers and DVD content distributors in the United States and around the world.

Id.

copying of the content of Digital Versatile Discs (DVDs).²⁸⁴ Judge Kaplan, in his interim and final judgement,²⁸⁵ held that the reverse engineering exception of the DMCA²⁸⁶ could not be invoked. In this case, the TPM was CSS and the circumvention device was DeCSS.²⁸⁷ The defendant was alleged in the final instance to be linking to websites that allowed the downloading of DeCSS.²⁸⁸

The defendants argued that reverse engineering of the software lock was needed in order to play DVDs on other platforms such as Linux.²⁸⁹ They argued that DeCSS was necessary to achieve interoperability²⁹⁰ between computers running on the Linux system and DVDs; therefore, the interoperability exception in the DMCA was enlivened. The judge explained that he could not accept such an argument for three reasons:

First, defendants have offered no evidence to support this assertion. Second, even assuming that DeCSS runs under Linux, it concededly runs under Windows -- a far more widely used operating system -- as well. It therefore cannot reasonably be said that DeCSS was developed "for the sole purpose" of achieving interoperability between Linux and DVDs. Finally, and most important, the legislative history makes it abundantly clear that Section 1201(f) permits reverse engineering of copyrighted computer programs only and does not authorize circumvention of technological systems that control access to other copyrighted works, such as movies.²⁹¹

The defendants also made the argument that they were engaged in a fair use under Section 107 of the *Copyright Act*.²⁹² The judge rejected this argument:

Section 107 of the Act provides in critical part that certain uses of copyrighted works that otherwise would be wrongful are "not . . . infringement[s] of copyright." Defendants, however, are not here sued for copyright infringement. They are sued for offering to the public and providing technology primarily designed to circumvent technological measures that control access to copyrighted works and otherwise violating Section

²⁸⁴ *Id.* at 214 (stating that "DVDs are five-inch wide discs that, in this application, hold full-length motion pictures. They are the latest technology for private home viewing of recorded motion pictures. This technology drastically improves the clarity and overall quality of a motion picture shown on a television or computer screen.").

²⁸⁵ See *Reimerdes*, 82 F. Supp. 2d at 217-18; *Reimerdes*, 111 F. Supp. 2d at 319-20.

²⁸⁶ 17 U.S.C. § 1201(f) (1994 & Supp. IV 1998).

²⁸⁷ *Reimerdes*, 82 F. Supp. 2d at 216-17. The court explained that:

CSS is a technological measure that effectively controls access to plaintiffs' copyrighted movies because it requires the application of information or a process, with the authority of the copyright owner, to gain access to those works. Indeed, defendants conceded in their memorandum that one cannot in the ordinary course gain access to the copyrighted works on plaintiffs' DVDs without a "player key" issued by the DVD CCA that permits unscrambling the contents of the disks. It is undisputed also that DeCSS defeats CSS and decrypts copyrighted works without the authority of the copyright owners. As there is no evidence of any commercially significant purpose of DeCSS other than circumvention of CSS, defendants' actions likely violated Section 1201(a)(2)(B).

Id.

²⁸⁸ See *id.* at 214-15.

²⁸⁹ See *id.* at 218.

²⁹⁰ See *id.* (This might be termed "vertical" interoperability); see O'Rourke, *supra* note 198, at 1213, 1219-1223.

²⁹¹ See *Reimerdes*, 82 F. Supp. 2d at 218.

²⁹² See *id.* at 219.

1201(a)(2) of the Act. If Congress had meant the fair use defense to apply to such actions, it would have said so.²⁹³

A crucial issue arising from such reasoning is whether the DMCA creates an exclusive right in the person or entity setting the technological protection measure to control access to copyright works. That would allow a person or entity to protect raw data (embodied in a copyright work) by encasing it in a TPM or to prevent fair use of copyright material by encasing it in the TPM – some suggest this is akin to locking a book or a database in a room or bank vault.²⁹⁴ *Reimerdes*, while acknowledging some limitations, intimates that the DMCA does create a right to control access to copyright works and that this does not violate of the First Amendment, as this incidental impact on protected expression is acceptable in light of the overall objective of Congress to protect copyright in the digital environment.²⁹⁵ It might be suggested that such an approach serves to eliminate fair use, create rights in unprotected data and portrays overly broad regulation.²⁹⁶ An even more pressing point to appreciate is that fair use rights to reverse engineer software architecture in the name of interoperability, where that software is a technological protection measure or lock, are severely restricted by the DMCA as interpreted in this case.

One further point arising in the case and throwing light on the meaning of the DMCA must be noted. In the process of arguing fair use, the defendants raised the *Sony* defence. The judge responded:

Defendants claim also that the possibility that DeCSS might be used for the purpose of gaining access to copyrighted works in order to make fair use of those works saves them under *Sony Corp. v. Universal City Studios, Inc.* But they are mistaken. *Sony* does not apply to the activities with which defendants here are charged. Even if it did, it would not govern here. *Sony* involved a construction of the Copyright Act that has been overruled by the later enactment of the DMCA to the extent of any inconsistency between *Sony* and the new statute. *Sony* was a suit for contributory infringement brought against manufacturers of videocassette recorders on the theory that the manufacturers were contributing to infringing home taping of copyrighted television broadcasts. The Supreme Court held that the manufacturers were not liable in view of the substantial numbers of copyright holders who either had authorized or did not object to such taping by viewers. But *Sony* has no application here.

When *Sony* was decided, the only question was whether the manufacturers could be held liable for infringement by those who purchased equipment from them in circumstances in which there were many noninfringing uses for their equipment. But that is not the question now before this Court. The question here is whether the possibility of noninfringing fair use by someone who gains access to a protected copyrighted work through a circumvention technology distributed by the

²⁹³ *Id.*; see also Kamiel J. Koelman & Natali Helberger, *Protection of Technological Measures, in Copyright and Electronic Commerce: Legal Aspects of Electronic Copyright Management* (P. Bernt Hugenholtz ed. 2000).

²⁹⁴ See Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to be Revised*, 14 Berkeley Tech. L.J. 519, 538-43 (1999).

²⁹⁵ See *Reimerdes*, 111 F. Supp. 2d at 322-23, 330; see also Council Directive 01/29, art. 6(1), 2001 O.J. (L 167) (prohibiting actual circumvention); cf. Copyright Amendment (Digital Agenda) Act, 2000, (Austl.) (failing to expressly prohibit actual circumvention).

²⁹⁶ In considering whether such legislation should be allowed to protect non-copyright data see Benkler, *supra* note 10; Patry, *supra* note 128; Reichman & Samuelson, *supra* note 22.

defendants saves the defendants from liability under Section 1201. But nothing in Section 1201 so suggests. By prohibiting the provision of circumvention technology, the DMCA fundamentally altered the landscape. A given device or piece of technology might have "a substantial noninfringing use, and hence be immune from attack under Sony's construction of the Copyright Act -- but nonetheless still be subject to suppression under Section 1201." Indeed, Congress explicitly noted that Section 1201 does not incorporate *Sony*.

. . . The fact that Congress elected to leave technologically unsophisticated persons who wish to make fair use of encrypted copyrighted works without the technical means of doing so is a matter for Congress unless Congress' decision contravenes the Constitution, a matter to which the Court turns below.²⁹⁷

In summary, the DMCA provides an exception for circumventing a TPM in order to look at a program to identify and analyse those elements necessary to achieve interoperability in the name of reverse engineering, but only to the extent permitted by copyright law, most commonly where a right to reverse engineer under the fair use doctrine is available.²⁹⁸ Thus, the value of interoperability and digital diversity was seen in *Reimerdes* as being of less importance than the copyright owners exclusive right to reproduction or to control access. This was a hard case and this type of fact scenario needs much more thought. However, to prevent the porting of informational products to different platforms stifles diversity and allows one entity to control the structure or architecture for disseminating information and constructing meaning. Is this acceptable? Obviously a very broad right to reverse engineer given as an exception to copyright (or circumvention?) law reduces the incentive for developing software or content. However, this must be balanced against the need for interoperability and digital diversity in software architecture.²⁹⁹

3. Fair Use: *Napster*

Fair use was also unsuccessfully argued in the recent *Napster* decision, although many would argue that this is a case in which the social benefits of the user outweigh the economic arguments of copyright protection.³⁰⁰

There have been a number of decisions concerning what is known as "mp3." Mp3 is a format/software that allows digitized music to be compressed and digitally distributed without losing sound quality.³⁰¹ The recording industry throughout the world has been

²⁹⁷ *Reimerdes*, 111 F. Supp. 2d at 323-24.

²⁹⁸ See, e.g., *RealNetworks, Inc. v. Streambox, Inc.*, 2000 WL 127311 (W.D. Wash. 2000); *Sony Computer Entm't of Am., Inc. v. Gamemasters*, 87 F. Supp. 2d 976 (N.D. Cal. 1999).

²⁹⁹ See Lessig, *supra* note 42.

³⁰⁰ See Fred von Lohmann, *Peer-to-Peer File Sharing and Copyright Law After Napster*, Cal. Law., Jan. 2001, at 42, available at http://www.eff.org/IP/P2P/Napster/20010309_p2p_exec_sum.html (last visited Nov. 17, 2001).

³⁰¹ See *Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc.*, 180 F.3d 1072, 1073-74 (9th Cir. 1999).

Until recently, the Internet was of little use for the distribution of music because the average music computer file was simply too big: the digital information on a single compact disc of music required hundreds of computer floppy discs to store, and downloading even a single song from the Internet took hours. However, various compression algorithms (which make an audio file "smaller" by limiting the audio bandwidth) now allow digital audio files to be transferred more quickly and stored more efficiently. MPEG-1 Audio Layer 3 (commonly

greatly concerned with the proliferation of mp3 formatted music files as this has (they say) the potential to undermine the whole system of copyright in popular music. The technology is such that a song can be “ripped” off a CD, uploaded to the Internet for copying, distribution, consumption and potentially downloading or “burning” onto a compact disc.

In many instances, the act of copying is obvious and arguably a breach of copyright. However, lawsuits so far have not been against the end consumer for direct copyright infringement but against the machine or technology manufacturers or developers for indirectly breaching copyright through facilitating infringement. *Napster* involved suits by the recording industry against the company that developed and distributed software that enabled people to reference and access mp3 files available via the Internet. A “live” index created and centrally stored at Napster allowed online users to share mp3 files/songs. For instance, if I want to listen to a song called “Red River,” I would use my Napster software to access a list of people currently online from the Napster central server who are registered as having a copy of the song; then, I would request the file directly from the person who has it stored on their hard drive. The file is not sent to me by Napster, but by the party who is registered as having a copy. This is sometimes referred to as peer-to-peer file sharing.³⁰² The important point is that Napster merely facilitates the delivery of the copied song, it does not do any copying itself. Should they be liable for copyright infringement? Does the digital property of the copyright owner control this situation?

In 1984, the United States Supreme Court, analogizing the “staple article of commerce” doctrine in U.S. patent law,³⁰³ held that Sony was not liable for copyright infringement for making a video recorder because a video recorder has substantial non-copyright infringing uses, such as time shifting, i.e., recording material so that you can watch it at a later date.³⁰⁴ Could Napster rely on the same *Sony* defence?

Ultimately, Napster was sued for copyright infringement on the basis of contributory or vicarious copyright infringement.³⁰⁵ Before those actions could be established, the court had to determine whether there had been any direct infringement by the end consumers.³⁰⁶ The court concluded that there had been.³⁰⁷ The court rejected arguments based on fair use sampling (listening to see if they liked the music) and space shifting (location of where one listened to the music).³⁰⁸ The court rejected arguments based on sampling, saying that there was evidence to show that sampling ruined the full commercial exploitation of the songs, and on space shifting, saying this was not like *Sony* in that space shifting in this instance opened up copied product to the world.³⁰⁹

The next issue the court considered was whether there was contributory infringement. They listed the following elements:

known as "MP3") is the most popular digital audio compression algorithm in use on the Internet, and the compression it provides makes an audio file "smaller " by a factor of twelve to one without significantly reducing sound quality. MP3's popularity is due in large part to the fact that it is a standard, non-proprietary compression algorithm freely available for use by anyone, unlike various proprietary (and copyright-secure) competitor algorithms. Coupled with the use of cable modems, compression algorithms like MP3 may soon allow an hour of music to be downloaded from the Internet to a personal computer in just a few minutes.

Id.

³⁰² See Andrew Oram, *Peer to Peer: Harnessing the Power of Disruptive Technologies* (2001).

³⁰³ 35 U.S.C. § 271(c) (1994 & Supp. V 1999).

³⁰⁴ *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984).

³⁰⁵ *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001).

³⁰⁶ *Id.* at 1013.

³⁰⁷ *Id.* at 1016.

³⁰⁸ *Id.* at 1018-19.

³⁰⁹ *Id.* at 1019.

- 1) Did Napster know or should they have known of the infringement – actual or constructive knowledge? Yes, they knew users were swapping infringing files;³¹⁰
- 2) Did Napster materially contribute to the infringement? Yes, they provided software;³¹¹
- 3) Were there any defences? No. The court assessed the *Sony* substantial non-infringing use defence, explaining that current and future uses need to be considered, but decided the *Sony* defence did not apply once knowledge was evident;³¹²
- 4) Did they sell the technology knowing people would use it for copyright infringement? In the *Sony* case the court said no – in *Napster*, the court said yes.³¹³

The next issue was that of vicarious infringement. The court considered the following elements:

- 1) Did Napster have authority to control or supervise infringement? Yes, because it could monitor song names;³¹⁴
- 2) Did Napster gain a direct financial benefit from infringement? Yes, because it gained more users and value through the infringement.³¹⁵

The court also stated that the *Sony* defence does not apply to an action for vicarious copyright liability.³¹⁶ Waiver, implied licence and copyright misuse arguments were all rejected.³¹⁷ The scope of the injunction was readjusted so that song names had to be delivered to Napster by the record companies.³¹⁸ The court of appeals left open the question of the application of the ISP immunity provisions of the DMCA to Napster.³¹⁹ Napster is now engaged in a process of signing licence agreements with music companies in the increasingly pay-per-view/hear world.

The key question arising out of this case is whether copyright is killing technological innovation. Should the developer or innovator be liable for copyright infringement in this case? What will this do for technological innovation? This is a case of copyright versus cultural/social/communicative experiment – should copyright give way a little?

Consider *Sony*, where it was held that a “finding of contributory infringement effectively extends the grant of power to encompass the accused instrumentality – where a technology has other lawful uses such a rule would block the wheels of commerce.”³²⁰ Is innovation stifled by this decision or was this simply a clear case of copying facilitated by a knowing intermediary? Should the digital property owner be able to control innovation in technology that may represent a risk to the value of that property? So far, in the context of the new digital technologies, the answer from the courts is likely to be “yes.”

³¹⁰ See *id.* at 1020-22.

³¹¹ See *Napster*, 239 F.3d at 1022.

³¹² See *id.* at 1020.

³¹³ *Id.* at 1020-21.

³¹⁴ *Id.* at 1023.

³¹⁵ *Id.*

³¹⁶ *Id.* at 1022.

³¹⁷ See *Napster*, 239 F.3d at 1026-27.

³¹⁸ *Id.* at 1027.

³¹⁹ *Id.* at 1025.

³²⁰ *Sony*, 464 U.S. at 441.

In light of the foregoing discussion it can be seen that fair use is an extremely important variable in the definition of digital property and will be raised in many instances, with varying degrees of success.

C. Privacy Law

The notion of privacy means at very least the right to control personal information/informational self-determination.³²¹ This right has long been recognised in international law.³²² Privacy or data protection law promises to be a key determinant of informational property in the digital age.

While use of private information by government and public bodies has been regulated in the United States, Canada and Australia during the last twenty years, the flow of data in the private sector has been subject to very little legal constraint. In 1995, the European Union, in response to concerns over the invasive nature of the Internet and its tremendous capacity to trace and profile individual identity, promulgated the European Directive on Data Protection.³²³ In short, the Directive requires member states to enact legislation covering the processing of data collection in the private sector.³²⁴ The purpose for which the information was gathered must be disclosed at the point of receipt, and the information may only be used for that purpose.³²⁵ Individuals have the right to see data on themselves, yet full and informed consent by the data subject may be used to override many of the obligations imposed by the Directive.³²⁶ Most importantly, Article 25 of the EU Directive stipulates that EU businesses cannot disclose data to members of third party states unless it is shown that effective data protection regimes are in place in those states. In April 2000 Canada responded by enacting similar obligations in the Privacy and Electronic Documents Act.³²⁷ Likewise, in December 2000 Australia enacted the Privacy Amendment (Private Sector) Act.³²⁸ In the United States, legislation has been avoided. In its place, the **United States Department of Commerce has promulgated safe harbour rules, which act as an optional self-regulatory structure. The efficacy of such a regime is still in question.**

In the United States, state constitutional law and other forms of specific state privacy legislation³²⁹ may also be relevant in some cases; e.g., Californian Constitution Article 1, Section (1): "All people are by nature free and independent and have inalienable rights. Among these are enjoying and defending life and liberty, acquiring, possessing, and

³²¹ See Lee A. Bygrave & Kamiel J. Koelman, *Privacy, Data Protection and Copyright: Their Interaction in the Context of Electronic Copyright Management Systems*, in *Copyright and Electronic Commerce: Legal Aspects of Electronic Copyright Management* 59, 64-65 (P. Bernt Hugenholtz ed., 2000); see also *Moore v. Regents of the University of California*, 793 P.2d 479 (Cal. 1990); Restatement (Second) of Torts § 652 (1977); Julie E. Cohen, *Examined Lives: Informational Privacy and the Subject as Object*, 52 Stan. L. Rev. 1373 (2000); Charles Fried, *Privacy*, 77 Yale L.J. 475 (1968); William L. Prosser, *Privacy*, 48 Cal. L. Rev. 383 (1960); Eugene Volokh, *Freedom of Speech and Information Privacy: The Troubling Implications of a Right to Stop People From Speaking About You*, 52 Stan. L. Rev. 1049 (2000); Samuel D. Warren & Louis D. Brandies, *The Right to Privacy*, 4 Harv. L. Rev. 193 (1890).

³²² Universal Declaration of Human Rights, *supra* note 15, at art. 12.

³²³ Council Directive 1/95, 1995 O.J. (C93) 1.

³²⁴ *Id.*

³²⁵ *Id.*

³²⁶ See *id.*; see also Charter of Fundamental Rights of the European Union art. 8 (reinforcing this idea).

³²⁷ Personal Information Protection and Electronic Documents Act, S.C., ch. 5 (2000) (Can.).

³²⁸ Privacy Amendment (Private Sector) Act, 2000, no. 155 (Austl.).

³²⁹ See, e.g., Cal. Civ. Code §§ 1749.60 (Supermarket Club Card Legislation) (2001), 1708.7 (2001) (Cyberstalking); Dorothy J. Glancy, *Privacy and Intelligent Transportation Technology*, 11 Santa Clara Computer & High Tech. L.J. 151, 189-202 (1995).

protecting property, and pursuing and obtaining safety, happiness, and privacy.”³³⁰ Through this provision, “California accords privacy the constitutional status of an inalienable right on a par with defending life and possessing property.”³³¹ “Privacy is protected not merely against state action; it is considered an inalienable right that may not be violated by anyone.”³³²

More recently, litigation in the United States against the banner advertisement company DoubleClick addressed the legality of “cookies” (technology that allows the viewing habits of your computer to be traced).³³³ The legal arguments made pursuant to federal law, which were based on the Electronic Communications Privacy Act, Wire Tapping Act, and the Computer Fraud and Abuse Act, against DoubleClick were dismissed.³³⁴ The more interesting state law claims concerning the privacy tort,³³⁵ unjust enrichment and possibly trespass to chattels were not dealt with by the federal court. It remains to be seen whether the privacy tort (intrusion upon seclusion) can successfully be argued in a case involving cookie technology. And when that happens, courts will have to ask: Would it be illegal for someone to follow you around in real space and note your buying habits?³³⁶ Have you put yourself in public view by logging onto the network? There may also be a First Amendment challenge against such state based privacy tort, unjust enrichment and trespass actions.³³⁷

Increasingly, privacy regimes for the private sector will regulate the way in which private data can be exploited in the market place. The message to be taken from the European Directive is that you should not collect private information unless you need to, but if you must then explain the purpose, collect it in a fair way, allow access to it by the data subject and gain their consent for using it in secondary ways. Surreptitious or covert ways of collecting information should not be encouraged; however if the information can be collected without identifying the subject then the law will usually not be breached.³³⁸ Although, in those cases where the manner of collection allows fairly precise identification, even without a name, such collection will not be allowed.

An interesting question that arose in the *DoubleClick* case and that is allied to the notion of database rights is whether the data subject has a right to claim payment for the data that has been collected and is being exploited. There, the court explained:

Plaintiffs also contend that they have suffered economic damages consisting of the value of: (1) the opportunity to present plaintiffs with

³³⁰ Cal. Const. art. 1, § 1.

³³¹ *Luck v. Southern Pac. Transp. Co.*, 267 Cal. Rptr. 618, 625 (Cal. Ct. App. 1990) (citations omitted), *cert. denied*, 498 U.S. 939 (1990).

³³² *Porten v. Univ. of S.F.*, 134 Cal. Rptr. 839, 842 (Cal. Ct. App. 1976) (citations omitted).

³³³ *In re DoubleClick Inc. Privacy Litig.*, 154 F. Supp. 2d 497 (S.D.N.Y. 2001).

³³⁴ *See id.*

³³⁵ *See* Restatement (Second) of Torts § 652 (1997).

³³⁶ *See generally* *Nader v. General Motors Corp.*, 255 N.E.2d 765 (N.Y. 1970) (holding that mere information gathering about a particular person does not give rise to action for invasion of privacy where information is open to the public and voluntarily given).

³³⁷ *See* *Volokh, supra* note 329; *U.S. West, Inc. v. FCC*, 182 F.3d 1224 (10th Cir. 1999); *see generally* Jennifer Barrett et al., *Data Privacy Laws and the First Amendment: A Conflict*, 11 *Fordham Intell. Prop. Media & Ent. L.J.* 1 (2000) (discussing First Amendment and data protection issues); Solveig Singleton, *Privacy Versus the First Amendment: A Skeptical Approach*, 11 *Fordham Intell. Prop. Media & Ent. L.J.* 97 (2000) (discussing same).

³³⁸ *See, e.g.*, Council Directive 95/46, art. 2(a), 1995 O.J. (L 281) (noting “‘personal data’ shall mean any information relating to an identified or unidentifiable natural person (‘data subject’); an identifiable person is one who can be identified, directly or indirectly, in particular by reference to an identification number or to one or more factors specific to his physical, physiological, mental, economic, cultural or social identity”).

advertising; and (2) the demographic information DoubleClick has collected. Essentially, they argue that because companies pay DoubleClick for plaintiffs' attention (to advertisements) and demographic information, the value of these services must, in some part, have rightfully belonged to plaintiffs. They point to AOL in which the court appeared to hold that damage to "reputation and goodwill" counted towards the damage threshold and argue that, by the same logic, the economic value of their attention and demographic information should count as well.

Even assuming that the economic value of plaintiffs' attention and demographic information could be counted towards the monetary threshold -- a dubious assumption -- it would still be insufficient. We do not commonly believe that the economic value of our attention is unjustly taken from us when we choose to watch a television show or read a newspaper with advertisements and we are unaware of any statute or caselaw that holds it is. We see no reason why Web site advertising should be treated any differently. A person who chooses to visit a Web page and is confronted by a targeted advertisement is no more deprived of his attention's economic value than are his off-line peers. Similarly, although demographic information is valued highly (as DoubleClick undoubtedly believed when it paid over one billion dollars for Abacus), the value of its collection has never been considered an economic loss to the subject. Demographic information is constantly collected on all consumers by marketers, mail-order catalogues and retailers. However, we are unaware of any court that has held the value of this collected information constitutes damage to consumers or unjust enrichment to collectors.³³⁹

While the court was apprehensive about recognising this personal claim for the value of the private data, some academics have gone as far as suggesting that people should be recognised in law as possessing a property (intellectual property?) right in their personal information.³⁴⁰ This would allow people to protect such information through law and to charge for it in the market place. Samuelson has cautioned against such an approach, arguing that it would distort the rationale for having property rights in information, which could lead to higher transaction costs and a worsened situation for the data subject.³⁴¹ She prefers a form of licensing that licenses private information along the same lines as trade secret licensing, where one contractually structures the usage rights of the information before disclosure.³⁴²

It can be seen from this brief analysis that the growing law on privacy or data protection, especially in the private sector, will have a significant impact upon the shape and content of digital property rights.

IV. Contractually Defined Digital Property

³³⁹ *In re DoubleClick*, 154 F. Supp. 2d at 525 (footnotes and citations omitted); *see also* *Weld v. CVS Pharmacy Inc.*, 10 Mass. L. Rptr. 217 (Mass. Super. 1999).

³⁴⁰ *See Cohen*, [supra note 327](#); *see also* Jessica Litman, *Information Privacy/Information Property*, 52 *Stan. L. Rev.* 1283 (2000).

³⁴¹ *See* Pamela Samuelson, *Privacy as Intellectual Property*, 52 *Stan. L. Rev.* 1125 (2000).

³⁴² *See id.*

The contract, an agreement between two or more parties, is the foundation of many privately ordered relationships and is increasingly being used to regulate informational property entitlements in the digital environment.

A. Contractually Created Informational Property Rights

Contractual rights can be used to extend public or legislative rights to informational value, especially in the area of data capital.³⁴³ While there may be no recognised legislative intellectual property right in data, a contract can be used to regulate the way in which people use information that has been collected to create contractual or privately ordered informational property rights. The limit of a contract (besides some complex constitutional issues) is that it is only enforceable against the parties to the contract and not the world at large. For instance, if I buy a licence to use data that contains restrictions on my further copying, selling or exploiting the data, that licence will not bind a stranger who copied the data.

B. Contractual Licensing

Contract is also very important to the broader issue of information licensing.³⁴⁴ In the information economy informational products are usually licensed and not sold; the license is the product. In most instances you do not receive an ownership right to anything but rather a right to use information. In real space, when I buy a book I do not obtain ownership of the copyright owner's right to reproduce the book, but I do gain ownership of the physical thing called the book. With informational products, such as software games and digital images, you are usually only given a licence to use the information for specific purposes, and to this end, you must read the licence closely to determine your user rights. In essence, the contractual licence determines "exploitation" and "user" rights in information and in this way contract is used as a mechanism for defining digital property.

C. Formation of Contractual Licences

An issue vitally important to this contractual definition of digital property is the way in which contractual licences are formed. In order to determine informational rights, it is important to know whether a contract is in existence and upon what terms. This question has been raised in the context of shrink-wrap and click-wrap/click-through contracts. "Shrink-wrap contracts" are normally used where the product, e.g., software, is sold in a store. The terms of the contract are shrink-wrapped around the product in fine print and in most instances not fully disclosed until after opening the package. "Click-wrap or click-through contracts" are normally employed in an online environment, such as the Internet, and may, at best, involve the acceptance of the terms of the contract by clicking on a digital icon denoting

³⁴³ See *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447 (7th Cir. 1996).

³⁴⁴ See Gail E. Evans & Brian F. Fitzgerald, *Information Transactions Under UCC Article 2B: The Ascendancy Of Freedom of Contract in the Digital Millennium*, 21 U. New S. Wales L.J. 404 (1998), available at <http://www.law.unsw.edu.au/pub-lications/journals/unswlj/e-commerce/evans.html>; Robert W. Gomulkiewicz, *The License Is The Product: Comments on the Promise of Article 2B for Software and Information Licensing*, 13 Berkeley Tech. L.J. 891 (1998); David Nimmer et al., *The Metamorphosis of Contract into Expand*, 87 Cal. L. Rev. 17 (1999). Licenses are contracts that define user rights in relation to information products.

consent after having been shown the terms. In some click wrap cases, which are highly questionable from a legal perspective, terms are not clearly displayed prior to the buyer entering into the agreement. In the recent decision of *Specht v. Netscape Communications Corp and AOL*,³⁴⁵ a third type of situation called “browse-wrap” was outlined. A browse-wrap scenario arises where the Internet consumer is not required to negotiate an “I agree” button or icon or view the licence terms before gaining access to the product. Instead, the terms are located behind a button/icon on the website that the consumer is not forced to view or engage. In *Specht*, the court held that the browse-wrap scenario would not usually give rise to a valid contract.³⁴⁶

In *ProCD, Inc. v. Zeidenberg*,³⁴⁷ the court held that shrink-wrap, and arguably click-wrap, licences are enforceable in certain circumstances.³⁴⁸ ProCD developed a product known as Select Phone (the compilation of over 3,000 telephone directories on CD), which was sold in stores for \$150.³⁴⁹ ProCD invested over \$10 million in developing this product.³⁵⁰ Mindful of the *Feist* decision and the inability of copyright law to protect raw data, ProCD sought to commodify informational value through a contractual agreement.³⁵¹ Shrink-wrapped around the CD in plastic or cellophane was a detailed user agreement or licence, which contained a term stipulating that the application program or information should not be on sold for commercial purposes.³⁵² Zeidenberg allegedly purchased the CD, went home and loaded it onto a website where it was sold at a price less than that charged by ProCD.³⁵³ He was sued for breach of contract and argued that nothing in the contract prevented him from selling the information.³⁵⁴ He argued that, at the point of purchase, it was impossible to read all the terms of the shrink-wrapped licence; therefore, he had no adequate notice of those terms and was not bound by them.³⁵⁵ The court held that the economics of the new information economy suggested that he should be bound by the shrink-wrapped terms and furthermore, if he did not like them, he could have taken the CD back, but by acquiescing and choosing to keep and use the informational product he was bound by the terms.³⁵⁶ While many have questioned whether this reasoning is fair, it is now embodied in sections 208 and 209 of UCITA, under the umbrella of layered contracting.³⁵⁷

³⁴⁵ 150 F. Supp. 2d 585 (S.D.N.Y. 2001).

³⁴⁶ *See id.* at 594.

³⁴⁷ 86 F.3d 1447 (7th Cir. 1996).

³⁴⁸ *Id.* at 1449; *see, e.g.*, *Register.com v. Verio Inc.*, 126 F. Supp. 2d 238 (S.D.N.Y. 2001); *Hotmail Corp. v. Van Money Pie Inc.*, 47 U.S.P.Q. 2d. 1020 (N.D. Cal. 1998); Lemley et al., *Software and Internet Law* 494-95 (2000); *see also* *Hill v. Gateway 2000, Inc.*, 105 F.3d 1147 (7th Cir. 1997), *cert. denied*, 118 S. Ct. 47 (1997); *Nat'l Basketball Ass'n v. Motorola, Inc.*, 105 F.3d 841 (2d Cir. 1997).

³⁴⁹ *ProCD*, 86 F.3d at 1449.

³⁵⁰ *Id.*

³⁵¹ *Id.*

³⁵² *Id.*

³⁵³ *Id.* at 1450.

³⁵⁴ *Id.* at 1450-52.

³⁵⁵ *ProCD*, 86 F.3d at 1450-51.

³⁵⁶ *See id.*

³⁵⁷ UCITA is a model law promulgated for adoption by the United States that creates a “sale of goods” styled regime for the licensing of software and other informational transactions. It is argued that the process of transacting software and other informational products is not adequately covered by existing sale of goods type legislation, which finds it hard to classify software. In the case law software is sometimes classified as a good and sometimes as a service; leading commentators to label software the digital chameleon. UCITA aims to avoid this debate by creating a sui generis regime governing the formation, performance and termination of information transactions. It has been highly controversial in its content and has only been adopted by two U.S. states: Maryland and Virginia. Uniform Computer Information Transactions Act, *available at* <http://www.law.upenn.edu/bll/ulc/ucita/ucita01.htm>.

Judge Easterbrook rejected the argument that the contractual licence was preempted by section 301(a) of the U.S. Copyright Act. The argument was that creating copyright-like rights in data, the contractual user agreement was in contravention of section 301 of the Copyright Act, which preempts states from legislating on the issue of copyright.³⁵⁸ Judge Easterbrook held that contractual information rights and legislated copyrights were fundamentally different.³⁵⁹ He explained that contract is a mechanism for private ordering that applies only between the parties to the contract whereas the Copyright Act is public legislation that applies to the world at large.³⁶⁰

Some critics have said that non-negotiated mass market licences are much more like legislation than contract and should be closely scrutinised in terms of preemption.³⁶¹ Lemley suggests that the weight of the *ProCD* decision should not be overstated as it goes against the majority of judicial opinion on the issue.³⁶² In Australia, the courts have yet to explicitly determine the legal validity of shrink-wrap and click-wrap contracts. Such contracts will inevitably be challenged, as in the United States, on the basis that they do not adequately disclose the terms of the contract prior to the entering of the agreement.³⁶³ The issue of the formation of contractual licences will continue to be important to the complexion and definition of digital property because knowing whether a contract exists, and upon what terms, is intimately connected to informational exploitation and user rights.

D. Contractual Allocation of Domain Names

Contract has been even more prominent in the area of domain name allocation. Allocation of the premium Internet commercial trading domain “.com” is now performed through a contractual regime created under the auspices of the Internet Corporation for Assigned Names and Numbers (ICANN)³⁶⁴ requiring arbitration.³⁶⁵

The recent string of personality cases concerning JuliaRoberts.com, Sting.com and Madonna.com are interesting examples.³⁶⁶ Enterprising business people moved in early and registered those domains. The famous stars behind the names wanted them and sought to invoke the ICANN dispute resolution policy, which involves compulsory arbitration. At the time of registration, the domain name registrants contractually bind themselves, in the

³⁵⁸ See *ProCD*, 86 F.3d at 1453.

³⁵⁹ *Id.* at 1454.

³⁶⁰ *Id.*

³⁶¹ See Dennis S. Karjala, *Federal Preemption of Shrinkwrap and On-Line Licenses*, 22 U. Dayton L. Rev. 511 (1997); Mark A. Lemley, *Beyond Pre-emption: The Law and Policy of Intellectual Property Licensing*, 87 Cal. L. Rev. 111 (1999); Maureen A. O'Rourke, *Copyright Preemption After the ProCD Case: A Market-Based Approach*, 12 Berkeley Tech. L.J. 53 (1997); David A. Rice, *Public Goods, Private Contract, and Public Policy: Federal Preemption of Software License Prohibitions Against Reverse Engineering*, 53 U. Pitt. L. Rev. 543 (1992).

³⁶² See Mark A. Lemley, *Software and Internet Law* 490-93 (2000).

³⁶³ See Mark Sneddon, *Legal Liability and E-Transactions* 33-34 (2000), available at http://www.noie.gov.au/publications/NOIE/NEAC/publication_utz1508.pdf (last visited Nov. 16, 2001); see generally *Thornton v. Shoe Lane Parking Ltd.*, 2 Q.B. 163 (1970) (holding in a case regarding contract printed on parking lot ticket that since plaintiff did not know of the exemption condition and the defendants had not done what was reasonably sufficient to bring it to his notice, it did not exempt them from liability); *Balmain New Ferry Co. v. Robertson* (1906) 4 C.L.R. 379 (Austl.) (holding that notice posted above wharf entrance was sufficient to show implied agreement to terms).

³⁶⁴ ICANN is available at <http://www.icann.org>.

³⁶⁵ ICANN: Uniform Domain Names Dispute Resolution Policy (UDRP), art. 4, at <http://www.icann.org/udrp/udrp-policy-24oct99.htm> (last visited Nov. 10, 2001).

³⁶⁶ These decisions are available at <http://arbitrator.wipo.int/domains/decisions/index.html>.

instance of a dispute, to enter arbitration and abide by the decision. If the registrant is found to have registered and used the domain name in bad faith, vis-a-vis a trademark, they stand to lose that registration. Julia Roberts and Madonna were successful in showing the necessary elements, including that they possessed a trademark, while Sting, due to the generic nature of the word and other difficulties, did not possess the requisite trademark.

This system is in line for an overhaul as the legitimacy, consistency and accountability of the process is in question.³⁶⁷ Nevertheless, let me make some observations. The ICANN system of resolving domain name disputes, which has dealt with in excess of 3,000 cases since the beginning of the year 2000, has sought to protect informational value through contractually agreed principles. To date, the majority of the decisions have favoured the traditional trademark holder and not the domain name speculator. Domain name speculation has been treated like a case of the theft of the investment value of the trademark.³⁶⁸ The speculator has rarely been regarded as deserving of reward. Perhaps there should be arguments for value on both sides, but this value is difficult to apportion. For good or bad, what this system shows very clearly is a contractual regime being used to ensure informational value is realised as wealth.

Recently, *Parisi v Net Learning Inc.*,³⁶⁹ held that Uniform Domain Names Dispute Resolution Policy (UDRP) determinations are not arbitrations for the purposes of the Federal Arbitration Act and thereby do not prevent access or review in the courts, explaining that “[a]lthough ICANN exerts quasi-governmental sway over the growth and administration of the Internet, the UDRP is enforced through contract rather than regulation.”³⁷⁰

To ease the pressure on the .com domain, to add greater specificity and to reduce disputes over domain names, ICANN has approved the allocation of seven new generic top level domains (TLDs): .aero, .biz, .coop, .info, .museum, .name, and .pro.³⁷¹ The interesting question is how these domains will be contractually allocated. Will trademark holders be given priority and, if so, which trademark holders will gain priority? Will existing .com registrants have the ability to block others registering in these domains?

The first to be allocated will be .biz and .info. According to the ICANN press release, .info will be an unrestricted TLD, open to any business or person to register for any purpose, while .biz will be a restricted TLD, open only for commercial or business purposes.³⁷² In November 2000, registry operators NeuLevel (.biz) and Afilias (.info) were among seven registry operators for new TLDs selected by the ICANN Board of Directors following an open process for submission of proposals. Agreements with the operators of .aero, .coop, .museum, .name, and .pro are in the process of being completed.

To provide for a stable, fair, and orderly introduction of the new TLDs, NeuLevel and Afilias will employ different three-step approaches to launch their registry services:

NeuLevel (.biz):

³⁶⁷ See generally A. Michael Froomkin, *Wrong Turn in Cyberspace: Using ICANN to Route Around the APA and the Constitution*, 50 Duke L.J. 17 (2000) (arguing that the use of ICANN to regulate in the stead of an executive agency violates fundamental values and policies designed to ensure democratic control over the use of government power, and sets a precedent that risks being expanded into other regulatory activities).

³⁶⁸ See Brian F. Fitzgerald & Emma Sheehan, *Trademark Dilution and the Commodification of Information: Understanding the ‘Cultural Command’*, 3 Macarthur L. Rev. 61 (1999) (Austl.).

³⁶⁹ 139 F. Supp. 2d 745 (E.D. Va. 2001).

³⁷⁰ *Id.* at 747.

³⁷¹ See Announcements, at <http://www.icann.org/announcements/icann-pr15may01.htm> (last visited Nov. 10, 2001).

³⁷² *Id.*

1. Intellectual Property Claim Service. Beginning in late May through the beginning of July, .biz will offer a fee-based service for businesses to submit trademark claims before the application process is opened. Under this service, domain-name applicants will be notified of a trademark owner's claim when they submit an application for a claimed name and, if they decide to go ahead with the registration, the business submitting the claim will be notified of the registration and will be given a window of opportunity to challenge the registration using an administrative dispute resolution procedure.

2. Domain Name Application and Selection. Beginning in July through late September, .biz will open the application process for businesses. Businesses will submit their applications through registrars; these applications will be randomly selected in batches and awarded. Businesses can submit an unlimited number of applications but there will be a \$2.00 fee for each application for a .biz name.

3. .biz Begins Operations. In October, .biz names that have been awarded will become operational. .biz will use a Restriction Dispute Resolution Process (RDRP) similar to the ICANN UDRP process to resolve challenges related to the business-only restricted nature of the registry.³⁷³

Afilias (.info):

1. Sunrise Period. Beginning in late June and ending in late July, Afilias will offer a 30 day "sunrise" period during which anyone with a registered national trademark can apply through a registrar for a .info domain name corresponding to the trademark. Trademark data will be provided at the time of application and the term of the domain name registration will be for at least 5 years. To assure fair and equal access during the sunrise period, registrars will first collect applications and deliver them to Afilias. Afilias will then implement a multi-round batch processing system in which it will randomly select applications from each registrar's batch. The World Intellectual Property Association (WIPO) will administer a challenge procedure through which any third party may challenge these sunrise period registrations to ensure that they comply with the applicable requirements. This challenge process will be available for approximately 120 days after Afilias begins accepting applications for .info domain names from the general public, ending in November.

2. Domain Name Application and Registration. Within 15 days after the conclusion of the sunrise period, Afilias will begin accepting applications for .info domain names from the general public. To ensure that ordinary Internet users have an equal chance to register names during the initial launch phase, .info names will be registered using a multi-round batch process similar to the one used for sunrise period applications. Using this process, Afilias will randomly select applications from batches submitted by each registrar. This process is an alternative to a pure first-come-first-served system which could operate to the unfair advantage of those with mechanized registration scripts.

³⁷³ *Id.*

This batch process will last approximately three weeks, after which Afilias will process applications on a real-time basis.

3. .info Begins Operations. Names awarded during the sunrise period will become operational one week after the beginning of the general application and registration process. The remainder of the awarded info names will become operational promptly after Afilias processes them.³⁷⁴

These policies are contractual in nature and already there has been concern over their implementation; NeuLevel was reportedly threatened with legal action over the random allocation of .biz in the face of competing trademark holders. Such a challenge will call into question the power of this new contractually based informational property regime to effectively operate. In this type of challenge, the power of contract to allocate “some” of the value of digital property created under statute will be closely considered. This may, in turn, lead parties to further contemplate the values or policies upon which the contractual regime is founded.

Overall, let me make this simple point. Contract is a vital strategy in creating and defining digital property.

V. Technologically Defined Digital Property

More and more, technology is being used as a means of regulating our behaviour in relation to informational products. In his seminal book, *Code and Other Laws of Cyberspace*,³⁷⁵ Stanford University law professor Larry Lessig highlights how the digital environment is not a given, but rather a construction of code writers. The “nature” we inhabit in the digital world is one constructed through technology and technologists. In Lessig’s theory, there are four modalities of regulation: customary norms; the market; law; and architecture. If I want to stop someone from speeding, I can employ the four modalities of regulation by encouraging a customary norm that speeding is bad through: advertising; raising the price of petrol; enacting a law to say speeding is an offence; and building a restraining architecture such as a mechanical limit in the car or speed bumps. It is as simple as speed bumps. Just as architecture in real space can constrain our action, Lessig explains architecture in the digital world (code) can regulate what we do.

Therefore, instead of relying solely on law (e.g., copyright law) to protect my informational value (e.g., software), I should consider what technological mechanisms are available to regulate access and use of my informational product. The big players have already begun this process and we will hear more and more about the role encryption will serve in the distribution of digital entertainment informational products through a framework of digital rights management. And while many advocate that technological restraints need to be principled and give balanced access to the public – in the way copyright legislation does – the legislatures have enacted laws like the DMCA in the United States and the Copyright Amendment (Digital Agenda) Act in Australia that serve to buttress technological constraints by making it a crime to deal in or provide devices that circumvent technological protection measures. These types of laws, combined with code, will make technological protection measures crucial in the new environment.

³⁷⁴ *Id.*

³⁷⁵ Lessig, *supra* note 42.

For example, the latest version of a popular software product contains technological or coded restraints that make it very difficult to copy and load the software on to a second machine. This technological constraint is designed to enforce copyright in the software. Likewise, DVDs are distributed with anti-copying CSS encryption, which will only allow them to be accessed through an authorised player. Some fear that coded restraints could become a law unto themselves and slant protection too far in favour of the property holder.

The *Reimerdes* case highlights the notion of “code as law.”³⁷⁶ The thrust of Lessig’s argument, in contrast to that of early digital libertarians, was that governments should regulate cyberspace to counteract the negative effects of code.³⁷⁷ He argued that the public values inserted into everyday life by legislation and the common law (for example the fair use doctrine in copyright law), were at risk in a code based world where private corporations regulated activity according to their private values.³⁷⁸ The world of code needed to be infused with public values through law. The DMCA, in essence, does the opposite, in that it is a law that has been enacted to preserve the power of the code by prohibiting people from breaking through or cracking code. In Lessig’s schema, there should now be another law that sits on top of the DMCA that inserts values into the system.

Imagine a world where an informational product can be distributed to the consumer in a way that copying of and access to the informational product can be severely restricted. Imagine a world in which chapters of a book can be downloaded or streamed, but not printed or copied. In this type of scenario, or “pay-per-view” world, encryption will be used as the technological mechanism for limiting use of informational products. A large number of people are concerned that such a state of affairs would lead to the demise of our current fair use rights to copy a chapter of a book or to read a book in a library. It could be argued that we should jettison fair use rights and reconceptualize the way public interest will be served in a world of code. Perhaps things might work better without fair use and that holding on to such a principle in the digital/crypto world is conservative and dated. However, I am yet to be convinced that I am a dinosaur, or that the demise of fair use is a good thing.

How do we ensure the code world and its digital property will espouse public values of user and access? The answer to this question requires us to determine the source and location of values inherent to digital property and their continued relevance and enforceability.

VI. The Values Defining Digital Property: Digital Constitutionalism

As we have seen to this point, digital property takes definition from legislation, contract and technology. The Constitution, as a foundational document bringing fairness to the exercise of power, acts as an overlay. However, U.S. constitutional law and its fundamental values, such as free speech and equality, are only operative where there is evidence of state action: legislative, administrative or judicial.³⁷⁹ Therefore, U.S. constitutional law will have limited application in the privatised world of code, where private technology corporations build self-

³⁷⁶ See *id.*

³⁷⁷ See *id.*

³⁷⁸ See *id.*

³⁷⁹ See *Flagg Bros., Inc. v. Brooks*, 436 U.S. 149 (1978); *Shelley v. Kraemer*, 334 U.S. 1 (1948); Laurence H. Tribe, *American Constitutional Law* 1711 (2d ed. 1988); see also *Hudgens v. NLRB*, 424 U.S. 507 (1975) (holding that picketers did not have a First Amendment right to enter the shopping center for the purpose of advertising their strike against their employer); *Amalgamated Food Employees Union Local 590 v. Logan Valley Plaza, Inc.*, 391 U.S. 308 (1968) (holding that a shopping center which serves as a community business block was the functional equivalent of a business block for First Amendment purposes); Andrew Clapham, *Human Rights in the Private Sphere* (Clarendon Press, Oxford 1994).

executing digital architecture embedded/coded with corporate, not public values. The doctrine of state action, which perpetuates the public/private divide, is a crucial issue to understand. Some suggest its enduring nature in U.S. constitutional law comes from the notion of *laissez faire* – the idea that people like to think their private actions are regulated by little more than the market.³⁸⁰ Whatever its rationale, the notion of state action means that, in many cases, values inherent in public constitutionalism will have limited impact in the digital world. This challenges us to conceptualise a notion of digital constitutionalism wherein public values are implemented. As this section will highlight, the notion of digital constitutionalism, which seeks to implement a principled allocation of power/rights over information, will combine aspects of public constitutionalism, statutory and common law adjudication and perhaps new legislation in relation to technology/code.

Where digital property rights are founded on legislative action pursuant to the IP clause, then constitutional values inherent in that clause, as well as notions such as free speech, will need to be weighed in the balance. Furthermore, general law principles of access and user rights, as evidenced by fair use doctrine and antitrust law, will provide definition to any legislated digital property right. I have argued above that legal principles such as antitrust and fair use have the potential to implement/guarantee a diversity ethic in the digital environment.

For digital property rights constructed or extended through contract, the role of constitutionally entrenched rights and values will be more remote. If the contract is simply building on legislative rights, then the constitutional issues will be relevant to that aspect, but what of the situation where contract purports to create digital property rights, e.g., in the case of raw data. First would come the question of whether this conflicts with the Constitution or legislation, such as section 301 of the Copyright Act; this might require further consideration as to whether it is a negotiated or mass market licence, the latter being more like conflicting legislative action.³⁸¹ However, assuming we take the view enunciated in *ProCD* that such a contractual process is lawful, then we are left to find values in the field of contract law. A vigorous notion of unconscionability developed to address the specific needs of information contracts might provide a way of ensuring that access and user rights are maintained. However, if contract is tied with technology and the contract is self-executing through technology – meaning access to data is denied if copying for fair use occurs – then enforcement of such a principle will require the user to litigate and enforce an emerging principle of unknown quality i.e., informational unconscionability.³⁸² The potential of self-executing contracts would also mean that state action would be hard to establish against the property holder and therefore issues such as free speech would not easily be raised.

A further question concerns the extent to which contract can be used to oust fair use rights bestowed by the Copyright Act.³⁸³ Does contract have the power to define digital property by removing access and user rights granted by the Copyright Act to engage in reverse engineering of software for interoperability purposes? This issue is hotly contested by different interest groups; however, if contract does have this capacity, then it becomes a

³⁸⁰ Paul S. Berman, *Cyberspace and the State Action Debate: The Cultural Value of Applying Constitutional Norms to "Private" Regulation*, 71 U. Colo. L. Rev. 1263, 1288 (2000).

³⁸¹ Custom or negotiated software licences are much more specific and contractual in nature. Mass market or non-negotiated licences, on the other hand, often act like a multilateral treaty or legislation to guarantee a uniform custom amongst all users. Some argue the latter are being preempted due to their legislative-like character while the former are more contractual in nature and therefore not preempted.

³⁸² See J.H. Reichman & Jonathon A. Franklin, *Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information*, 147 U. Pa. L. Rev. 875 (1999).

³⁸³ See UCITA § 105 (1999); Brian F. Fitzgerald, *Commodifying and Transacting Informational Products Through Contractual Licences: The Challenge for Informational Constitutionalism*, in *Intellectual Property and the Common Law World* 35 (Charles E.F. Rickett & Graeme W. Austin eds., 2000).

most important strategy in defining digital property rights. Another issue will be the extent to which contract is limited by antitrust doctrine through its definition of digital property.

Furthermore, can contract oust the first sale doctrine? The first sale doctrine, expressed in section 109 of the U.S. Copyright Act³⁸⁴ and implied in Australian copyright law,³⁸⁵ allows the copyright owner to control distribution of the tangible embodiment of copyright up to the point of first sale. For example, if I buy a book, I gain an ownership right to the book and can sell it but not reproduce it, unless I have a fair use/fair dealing right. I gain ownership of the tangible book and thereby reduce the power of the copyright owner, but I do not gain ownership of the remaining exclusive rights of the copyright owners such as the reproduction right. First sale is an important distributive principle and to some extent software licensing challenges this distributive mechanism. Software is generally licensed, not sold, as is an ever increasing variety of information products. We are sold access or user rights to information rather than tangible ownership rights. This is done through a contractual user agreement/licence, which stipulates the user rights of consumers. The contractual licence allows greater control over the exploitation of the informational product. On one hand, it could be that contract cannot be used to override such a fundamental principle of copyright law. Informational products are either sold or leased. In *DSC Communications Corp. v. Pulse Communications, Inc.*,³⁸⁶ the court suggested that contract can be used to oust first sale.³⁸⁷

Lastly, there is technologically created property. Once again, code has the power to define and enforce, through self-execution, access and user rights in accordance with the values of the private corporation setting the code. In this situation, the Constitution is unlikely to provide the values as there is no state actor, and in many cases, no need to use a court for enforcement purposes. However, if contract is intertwined with the coded distribution of information, there may be points at which constitutional or general law values can be argued. In the absence of applicable constitutional doctrine, statutory law or common law, technology will be used to construct property rights in the vision of the private corporation. This is the point at which Lessig suggests we need to legislate for digital constitutional values. Likewise, Berman has suggested that we need to invoke principles of public constitutionalism in disputes emanating from the private sphere.³⁸⁸

It is worth citing two examples to give further insight on these issues. There is the case where a large ISP blocks out unsolicited e-mail sent by a marketing firm (spam), who then argues that such action is an infringement on free speech.³⁸⁹ The ISP explains that they are not a state actor and the court agrees.³⁹⁰ Should private action of such a public nature, where the ISP's mailboxes and networks are vital to the widespread dissemination of information, trump the marketing firm's free speech interest? Should the private property be

³⁸⁴ See also 17 U.S.C. § 202 (1994).

Ownership of a copyright, or of any of the exclusive rights under a copyright, is distinct from ownership of any material object in which the work is embodied. Transfer of ownership of any material object, including the copy or phonorecord in which the work is first fixed, does not of itself convey any rights in the copyrighted work embodied in the object; nor, in the absence of an agreement, does transfer of ownership of a copyright or of any exclusive rights under a copyright convey property rights in any material object.

Id.

³⁸⁵ See *Pacific Film Laboratories Pty. Ltd. v. Fed. Comm'r of Taxation* (1970) 121 C.L.R. 154 (Austl.).

³⁸⁶ 170 F.3d 1354 (Fed. Cir. 1999).

³⁸⁷ See *id.* at 1361.

³⁸⁸ See Berman, *supra* note 390, at 1290 (calling this notion 'constitutive constitutionalism': the idea that the Constitution might appropriately be viewed as the touchstone for articulating constitutive values and for structuring public debate about fundamental social and political issues).

³⁸⁹ *Cyber Promotions, Inc. v. Am. Online, Inc.*, 948 F. Supp. 436, 438 (E.D. Pa. 1996).

³⁹⁰ *Id.* at 445

open for this purpose? In general, owners of private property are not required to allow their property to be used for speech purposes though there are exceptions.³⁹¹ Is there a principle of free speech in this private space where property law and notions such as trespass³⁹² and nuisance predominate? Had the ISP sought to enforce its rights through a trespass action, the issue of free speech and state action may gain more support.³⁹³ However, through self-executing code, an ISP is able to enforce its private norms, forcing the marketing firm to bring the action to court. In doing so, marketing firms must scramble to find an unconscionability or diversity principle/ethic in their favour since such a principle has yet to be fully developed for the digital environment. The lack of a sophisticated notion of digital constitutionalism hinders the making of an already difficult argument.

Secondly, imagine a private corporation that encrypts and distributes information in its own terms. UCITA contains the power to be activated remotely or through self-help;³⁹⁴ thus it is self-enforcing with no need for the court system. Code rules. In this case, the values or principles of the transaction are inserted and implemented by the private corporation. The public values of fair use and free access, and in a broader sense respect for the public domain, are not necessarily implemented in this regime. For example, I buy a book that may not be printed or copied and may be read or viewed only once. The code enforces this process and therefore a court will not be brought into the question unless there is a valid cause of action, i.e., unconscionability.

Contrast contract outside the realm of code. While I might sign a hard copy contract containing what I consider to be the complete terms of the agreement, the legislature and the courts may still insert public interest principles, such as the notion of unconscionability. Do we need legislation to ensure that these new code driven information contracts are informationally conscionable? Will the current law suffice?

Lessig explains much the same thing in the following way:

The dissimilarity is this: with every enforced contract – with every agreement that subsequently calls upon an enforcer to carry out the terms of that agreement – there is a judgment made by the enforcer about whether this obligation should be enforced. In the main, these judgments are made by a court. And when a court makes such judgments, the court considers not just the private orderings constituted in the agreement before it, but also issues of public policy, which can, in some contexts, override these private orderings. When a court enforces the agreement, it decides how far the power of the court can be used to carry out the agreement. Sometimes the agreement will be carried out in full; but often, the agreements cannot be fully effected. Doctrines such as impossibility or mistake will discharge certain obligations. Rules about remedy will limit the remedies the parties can seek. Public policy exceptions will condition the kinds of agreements that can be enforced.

³⁹¹ See *Logan Valley*, 391 U.S. 308 (holding that a shopping center which serves as a community business block was the functional equivalent of a business block for First Amendment purposes); cf. *Hudgens*, 424 U.S. 507 (holding that picketers did not have a First Amendment right to enter the shopping center for the purpose of advertising their strike against their employer).

³⁹² See e.g., *eBay, Inc. v. Bidder's Edge, Inc.*, 100 F. Supp. 2d. 1058 (N.D. Cal. 2000) (involving a case where an Internet auction site sued an auction aggregating site for trespass).

³⁹³ Cf. *Compuserve, Inc. v. Cyber Promotions, Inc.*, 962 F. Supp. 1015 (S.D. Ohio 1997) (holding that a company's intentional use of the service's proprietary computer equipment was actionable trespass to chattels for which First Amendment provided no defense).

³⁹⁴ See UCITA § 816 (1999); Julie E. Cohen, *Copyright and the Jurisprudence of Self-Help*, 13 Berkeley Tech. L.J. 1089 (1998).

‘Contracts’ incorporate all these doctrines, and it is the mix of this set of public values, and private obligations, that together produce what we call ‘a contract.’

When the code enforces agreements, however, or when the code carries out a self-imposed constraint, these public values do not necessarily enter into the mix. Consequences that a court might resist (forfeitures, for example), the code can impose without hesitation. The code writer operates free of the implicit limitations of contract law. He or she can construct an alternative regime for enforcing voluntary constraints. And nothing requires or ensures that this alternative regime will comport with the values of the background regime we call ‘contract.’

....

For again, in real space, one might well believe that a set of obligations imposed through contract was untroubling. Conditioned by antitrust law, limited by principles of equity, cabined by doctrines of mistake and excuse – the obligations would be checked by a court before the constraints were made effective. There is a structural safety check on obligations of this sort, which ensures that the obligations don’t reach too deep. When intervening to enforce these obligations, a court would carry with it the collection of tools that contract law has developed to modify, or soften, the obligations that contract law might otherwise enforce.

The cyberspace analog has no equivalent toolbox. Its obligations are not conditioned by the public values that contract law embraces. Its obligations instead flow automatically from the structures imposed in the code. These structures serve the private ends of the code writer; they are a private version of contract law. But as the Legal Realists spent a generation teaching, and as we seem so keen to forget: contract law is public law.³⁹⁵

The point to make is that technology will play a significant role in defining digital property and it is imperative that the values of such technologically constructed digital property be clearly enunciated. These are values that will underpin the construction of culture and knowledge, and define the framework for the creation and transfer of wealth through digitised informational products.

Conclusion: The Ultimate Boundary? A Question of Digital Constitutionalism

The purpose of this article has been to seek a better understanding and definition of digital property. As the foregoing pages show, this is a complex process of reasoning.

At a more traditional constitutional level, the intellectual property enumerating clauses will set limits and bring definition to digital property. As well, free speech, where constitutionally entrenched, has the potential to rigorously refine digital property, but has yet to fully achieve this outcome.

One of the most crucial points to appreciate in defining digital property is the role of concepts of statutory or common law (non-constitutional law). As the discussion of antitrust

³⁹⁵ Lawrence Lessig, *The Law of the Horse: What Cyberlaw Might Teach*, 113 Harv. L. Rev. 501, 530-31 (1999) (footnotes omitted).

and fair use principles highlights, general law will play an aggressive role in defining the boundaries of digital property and has the potential to infuse it with a diversity ethic designed to facilitate distributed intelligence and democratic society.

Next, we need to understand how contract and technology will coalesce in the digital world to refine access and user rights – to implement the emerging pay-per-view world/culture in which fair use rights evaporate in the face of information user rights distributed through digital rights management systems rooted in encryption and reinforced by anti-circumventions laws. Faced with this emerging technology based distribution of digital property, we are forced to ask whether “any” information at all should be open to be freely accessed or copied? If we answer “yes,” then we must advocate digital rights that enhance these social attributes. This challenges us to propose principles of digital constitutionalism: on one hand, we must question how informational power should be exercised and on the other, how value should be protected? For many of us, complete ownership will not be appreciated. A negotiated multitudinous distributed notion of ownership is sought in which the cultural dynamic of information must be appreciated.

In the final reckoning, the ultimate boundary of digital property will remain a hotly contested legal concept in which many aspects of law and culture will be presented. The more we realise the inherent and incredible discursive nature of information and informational products, the more we will look for diversity in the construction and use of digital property, as well as the principles that will guarantee this diversity against a backdrop of what might be termed “digital constitutionalism.”