INFORMATION PROPERTY: RIGHTS AND RESPONSIBILITIES

JACQUELINE LIPTON*

ABSTRACT

Many scholars criticize what they perceive to be a dangerous trend towards the 'over-propertization' of valuable information in the digital age. They argue in favor of limiting private rights in information either through 'fair use' exceptions to information property rights, and/or restrictions on their scope. This paper suggests an alternative way of balancing private rights and public interests in information. The 'property' concept itself might be utilized to create an appropriate balance.

Traditional property theory has always addressed the balance between private rights and public interests in property. The Hohfeldian 'bundle of rights' idea of property, for example, contemplates not only rights in property, but also obligations owed to society in respect of property (such as the obligation to maintain premises in good repair). The Lockean property concept also contemplates obligations owed by a property owner to society, such as the obligation not to waste resources, the obligation to leave 'as much and as good' in the common for the use of others, and the obligation not to harm others through an appropriation of resources from the common.

It is possible to create information age equivalents to these public obligations. Information property owners could be made liable for legal and financial burdens inherent in facilitating identified public interests in information. Some relevant public interests might include privacy rights in personal information, public access and use rights in scientific/technological/educational information, moral rights in 'information works', and/or cultural rights in information.

Any new system for information property rights based on traditional property theory should require the government to monitor and enforce the performance by information property holders of their public duties. This will match what has historically been the case in relation to real property rights and duties. In any event, where a government has created, or supported the creation of, private rights in information, it should be prepared to create and support concurrent public duties.

---

* Assistant Professor, Case Western Reserve University School of Law, 11075 East Boulevard, Cleveland, Ohio 44106. Email: JDL14@CWRU.EDU, Fax: (216) 368 2086. BA (Melb), BA (Hons) (La Trobe), LLB (Hons) (Melb), LLM (Monash), LLM (Cambridge), PhD (Griffith), Barrister and Solicitor of the Supreme Court of Victoria and the High Court of Australia. I would like to thank Professors Mark Lemley, Peter Gerhart, Cynthia Ho, and Andrew Morriss for assistance with developing the ideas presented in this paper. Thanks are also due to the participants at the Law and Society Conference in Pittsburgh, Pennsylvania on June 8, 2003 who provided very useful feedback and insights. Alanna Arnold provided valuable research assistance.

TABLE OF CONTENTS

INTRODUCTION: OVER-PROPERTIZATION OF INFORMATION PRODUCTS

Intellectual property scholars have, in recent years, expressed concern about the relatively unfettered rise of information property rights.[1] This is partly a result of legislation supporting these rights,[2] and partly due to the ability of information product developers to utilize contractual and technological protection measures to protect their investments to an extent never before possible.[3] The upsurge in powerful property rights in information products creates the potential for unfair monopolies in many markets,[4] and, more importantly, can reduce the availability of

---

1 *See*, for example, J H Reichman and Pamela Samuelson, *Intellectual Property Rights in Data?* 50 VAND L REV 51, 52-53 (1997) (on the concern about creating powerful property rights in databases in the United States); Jacqueline Lipton, *Information Wants to be Property: Legal Commodification of E-Commerce Assets*, 16(1) INT. REV. L COMP. & TECH 53 (2002) (on moves in a number of jurisdictions towards the increasing propertization of information products); John R. Therien, *Exorcising the Specter of a "Pay-Per-Use" Society: Toward Preserving Fair Use and the Public Domain in the Digital Age*, 16 BERKELEY TECH. L.J. 979 (2001) (on concerns that the DMCA will over-propertize digital information if courts do not take an adequate stance on protecting 'fair uses'); United City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294 (S.D.N.Y. 2000), *aff'd*, 273 F. 3d 429 (2d Cir. 2001) (Judge Kaplan held that the 'fair use' provisions of the Copyright Act cannot be used as a defense to an infringement of the DMCA's anti-circumvention and anti-trafficking provisions as this was not the legislative intent of 17 U.S.C. § 1201(a)); ProCD, Inc. v. Zeidenberg, 86 F. 3d 1447 (7th Cir. 1996) (holding that shrinkwrap agreements can be used to limit a user's fair use of a product under copyright law).

2 Obvious examples include legislation such as the Digital Millennium Copyright Act [hereinafter, 'DMCA'] in the United States: 17 U.S.C. § 1201 *et seq*, which supports technological protection measures applied to digital copyright works by prohibiting the use of and/or trafficking in devices that can circumvent such technological protection measures. An legislative example from the European Union is the E.U. Database Directive: Directive 96/9/EC of March 11, 1996 which creates *sui generis* intellectual property rights throughout the European Union in all paper-based and electronic databases in which the creator has expended a substantial amount of time and/or money regardless of the standard of originality in the selection or arrangement of the database's contents. An obvious example of judicial support of contractual and technological protection measures for digital information products is the court's decision in ProCD, Inc. v Zeidenberg, 86 F. 3d 1447 (7th Cir. 1996) where a 'shrink-wrap' contractual license was upheld in relation to limiting uses that could be made of a telephone directory made available on CD-ROM.

3 William W Fisher III, *Property and Contract on the Internet*, 73 CHI-KENT L REV 1203, 1211-1212 (1998); Michael Madison, *Legal-Ware: Contract and Copyright in the Digital Age*, 67 FORDHAM L REV 1025 (1998) (on concerns about contract law encroaching in an unprincipled manner on the current intellectual property matrix in relation to digital information products).

4 Much of the lititgation against Microsoft in current years exemplifies these concerns. *See* Will Wachs, *The Microsoft Antitrust Litigation: In the Name of Competition*, 30 U. TOL. L. REV. 485 (1999); Jonathan Zittrain, *The Un-Microsoft Un-Remedy: Law Can Prevent the Problem That It Can't Patch Later*, 31 CONN. L. REV. 1361 (1999); Thomas M Lenard, *Creating Competition in the Market for Operating Systems: Alternative Structural Remedies in the Microsoft Case*, 9 GEO. MASON L. REV. 803 (2001); Kenneth A Reid, *The Microsoft Litigation from a Law and Economics Perspective*, 9 DIGEST 77 (2001), Sara Stocky and

information and ideas for the use of others.[5] This can have a detrimental effect on those who do not have the financial resources to pay for access to information that arguably should be available to them at minimal or no charge.[6]

Information property rights, as the term is used here, can take many forms. At its most basic, the term relates to information that has a commercial value, and with which private market players want to transact in one or more markets.[7] Much of standard intellectual property law relates to what might be termed 'information property rights'.[8] Copyright and patent law, at least in the global information age, create property rights in aspects of valuable information products such as computer software[9] and Internet business methods.[10] Trade secret law also protects valuable commercial 'know how'.[11]

Reuven Levary, *Windows XP: Another Court Battle for Microsoft?,* 20 J. MARSHALL J. COMPUTER & INFO. L. 193 (2002).

5 Michael Madison, *Legal-Ware: Contract and Copyright in the Digital Age,* 67 Fordham L Rev 1025, 1097 (1998) (on the importance of a 'public domain' or intellectual commons to society).

6 J H Reichman and Paul Uhlir, *Database Protection at the Crossroads: Recent Developments and Their Impact on Science and Technology*, 14 BERKELEY TECH. L.J. 793, 800-802 (1999) (needs of scientists to make non-profit uses of valuable information).

7 Pamela Samuelson, *Information as Property: Do Ruckelshaus and Carpenter Signal a Changing Direction in Intellectual Property Law?,* 38 CATH. U.L. REV. 365 (1989) (distinctions between information property rights and intellectual property rights, and rationales for and against accepting broad 'information property rights); Raymond T Nimmer, *Financing the Enterprises of the Internet: Revised Article 9 and Intellectual Property Asset Financing*, 53 ME. L. REV. 287, 291-295 (2001) (regarding 'information assets' as comprising at least the standard forms of statutory intellectual property law – copyright, patent, trademark – plus trade secrets; defines 'information property' as something where the value is in the 'use and control' of the asset in question rather than its physical possession); Jacqueline Lipton, *Protecting Valuable Commercial Information in the Digital Age: Law, Policy, and Practice*, 6.1 J. TECH. L. & POL'Y 2 (2001) (listing the various information property assets that are not comprised in standard intellectual property regimes, and why they might nevertheless be considered 'property'); Jessica Litman, *The Tales that Article 2B Tells*, 13 BERKELEY TECH. L.J. 931 (1998) (criticizing the breadth of the definition of 'informational rights' in then-proposed Article 2B of the Uniform Commercial Code).

8 *id.*

9 John Swinson, *Copyright or Patent or Both: An Algorithmic Approach to Computer Software Protection* 5 HARV. J. L. & TECH. 145 (1991) (software is more appropriately protected by copyright than by patent); Julie Cohen and Mark Lemley, *Patent Scope and Innovation in the Software Industry*, 89 CALIF. L REV 1 (2001); 17 U.S.C. § 117 (contemplating copyright in computer programs and limitations on copyrights in computer programs); Copyright Act, 1968 (Australia), § 10 (defines 'literary work' to include computer program or compilation of computer programs).

However, there is much valuable information that is not necessarily protected by any specific intellectual property right. Non-original databases are an obvious example, at least in the United States.[12] Databases are not protected by copyright law in the United States unless they meet the somewhat vague 'originality' standard for copyright protection in relation to the selection or arrangement of their contents.[13] Nevertheless, this type of information is often 'propertized' through the use of restrictive contractual licenses and technological protection measures.[14]

[10] State Street Bank & Trust Co v Signature Financial Group, Inc, 149 F 3d 1368 (Fed Cir, 1998); Amazon.com, Inc. v. Barnesandnoble.com, Inc, 73 F Supp 2d 1228 (WD Wash 1999); Amazon.com, Inc. v. Barnesandnoble.com, Inc, 239 F 3d 1343 (Fed Cir 2001); Jared Grusd, *Internet Business Methods: What Role Does and Should Patent Law Play?* 4 VA J L & TECH 9 (1999); Jeffrey Kuester and Lawrence Thompson, *Risks Associated with Restricting Business Method and E-Commerce Patents*, 17 GA ST U L REV 657 (2001); Brian Biddinger, *Limiting the Business Method Patent: A Comparison and Proposed Alignment of European, Japanese and United States Patent Law* 69 FORDHAM L REV 2523 (2001); Colin Marks, *Opening the Door to Business Methods: State Street Bank & Trust Co v Signature Financial Group, Inc* 37 HOUS. L. REV. 923 (2000); Matthew Wells, *Internet Business Method Patent Policy*, 87 VA L REV 729 (2001); Richard Moose and John Vick Jr, *E-Commerce Patents: Moving at the Speed of Light* 12-JUN S.C. LAW 18 (2001).

[11] JAMES POOLEY, TRADE SECRETS, §1.01 (2002) ('trade secrets' are defined very broadly, and they include business information, such as customer lists, financial projections and marketing plans; trade secret law can protect any process or information that is both private and useful).

[12] The E.U. Database Directive has created a *sui generis* intellectual property right in such databases throughout the European Union.

[13] Feist Publications v Rural Telephone Service Co**,** 499 U.S. 340 (1991) (a white pages telephone directory is not sufficiently original in the selection or arrangement of its contents to attract copyright protection in the United States). This case may be contrasted with recent Australia legislation, currently on appeal to the High Court of Australia, which has so far held that a white pages telephone directory is copyrightable under Australian law: Desktop Marketing Systems v Telstra Corporation FCAFC 112 (2002) (available at www.austlii.edu.au, last viewed on May 31, 2003).

[14] ProCD, Inc. v Zeidenberg, 86 F. 3d 1447 (7th Cir. 1996); RAYMOND KU, MICHELE FARBER, ARTHUR COCKFIELD, CYBERSPACE LAW: CASES AND MATERIALS, 629-653 (2002); Dan Streeter, *Into Contract's Undiscovered Country: A Defense of Browse-Wrap Licenses*, 39 SAN DIEGO L REV 1363 (2002); Batya Goodman, *Honey I Shrink-Wrapped the Consumer: The Shrink-Wrap Agreement as an Adhesion Contract*, 21 CARDOZO L REV 319 (1999); Charles Mc Manis, *The Privatization (or "Shrink-Wrapping") of American Copyright Law*, 87 CALIF L REV 173 (1999); Madison, *supra* note ___; Uniform Computer Information Transactions Act [hereinafter, 'UCITA'], adopted in Virginia and pending in Maryland (*see* http://nccusl.org/nccusl/uniformact_factsheets/uniformacts-fs-ucita.asp, last viewed at January 9, 2003). Recently introduced in U.S. Virgin Islands and District of Columbia (*see* http://nccusl.org/nccusl/ActSearchResults.aspx, last viewed at January 9, 2003). *See* Scott J Spooner, *The Validation of Shrink-Wrap and Click-Wrap Licenses by Virginia's Uniform Computer Information Transactions Act*, 7 RICH J L & TECH 27 (2001); Fisher, *supra* note ___; Madison, *supra* note ___.

Along with concerns about unfair monopolies being created by this perceived over-propertization of information, scholars have also commented on 'cultural equities' and moral rights inherent in certain information, ideas, and narratives.[15] Commentators have criticized the domination by the western world, and western legal systems, of property rights in aspects of other cultures, such as aboriginal art[16] and music,[17] and words identifying culturally significant names and geographical places.[18] The global community has also become increasingly concerned about the rights of authors generally in respect of their works,[19] particularly their rights to be

---

15 David J Stephenson, *The Nexus Between Intellectual Property Piracy, International Law, the Internet, and Cultural Values*, 14 ST. THOMAS L. REV. 315 (2001) (impact of Western intellectual property system on New Zealand Maori cultural rights); Anupam Chander, *The New, New Property*, 81 TEX L REV 715 (2003) (impact of Internet domain name system on various cultural rights and cultural legal systems); ROSEMARY J COOMBE, THE CULTURAL LIFE OF INTELLECTUAL PROPERTIES (1998) (detailed examination of ways in which various Western intellectual property rights impact on cultural rights).

16 Colin Golvan, *Aboriginal Art and the Public Domain*, 9 J.L. & INFO. SCI., at http://www.jlis.law.utas.edu.au/v9i1aboriginal_art.html (last viewed June 10, 2003)(discussing Australian native title legislation); Colin Golvan, *Aboriginal Art and Copyright-An Overview and Commentary Concerning Recent Developments*, 1 MEDIA & ARTS L. REV. 151 (1996); Martin Hardie, *Current Litigation in Native Title and Intellectual Property: Bulun Bulun and Milpurrurru v R & T Textiles*, 3 ABORIGINAL L. BULLETIN 18 (1997); Chong Hui-Yeung, *IPR Draft Law for Aboriginies Under Attack*, at http://www.taipeitimes.com/news/2000/08/23 (last viewed June 6, 2003)(discussing draft of Protection of Traditional Aboriginal Intellectual Property Rights Law intended to protect the art and folklore of Taiwanese Aborigines).

17 Emil Chang, *Copyright Infringement? (Music to a Lawyer's Ears)*, at http://www.lawnewnetwork.com/stories/dec/3120798g.html (last viewed June 6, 2003).

18 Rosemary J. Coombe, *Objects of Property and Subjects of Politics: Intellectual Property Laws and Democrtic Dialogue*, 69 TEX. L. REV. 1853, 1876 (1991); Rosemary J. Coombe, *Critical Cultural Legal Studeis*, 10 YALE J.L. & HUMANITY 463 (1998); Chander, *supra* note ___, at 732 (describing a case involving a woman in Florida selling a domain name that referred to the name of a tribe of Brazilian Indians).

19 In recent years, moral rights legislation has been included, to a greater or lesser extent, in the copyright legislation in a number of countries that have historically not supported such rights: 17 U.S.C. § 106A; Copyright Act, 1968 (Australia), Part IX; Copyright, Designs and Patents Act, 1988 (Eng), §§ 77-85.

acknowledged as the author of a work (the right of 'attribution'),[20] and not to have a work subject to derogatory treatment (the right of 'integrity').[21]

Courts and legislatures have played a significant role in over-commodifying information to the detriment of the competing interests identified above. Examples of legislative involvement in this trend include: (a) the creation of powerful exclusive property rights in databases throughout the European Union under the E.U. Database Directive,[22] and, (b) the enactment of the Digital Millennium Copyright Act[23] [hereinafter, 'DMCA'] in the United States which strengthens claims to digital copyright throughout the United States by preventing trafficking in, and use of, devices which might circumvent digital rights management technology.[24] Both courts and legislatures have also supported attempts at private ordering in relation to information products through restrictive contractual provisions.[25]

---

20 The right of attribution is basically a right of an author of a work to have his/her work attributed to him/her, not to have the work falsely attributed to someone else, and/or not to have a work attribute to him/her that (s)he did not create: Copyright Act, 1968 (Australia), §§ 193, 195AC; 17 U.S.C. §§ 106A(a)(1), 106A(a)(2); Copyright, Designs, and Patents Act, 1988 (Eng), § 77.

21 The right of integrity is basically a right of the author not to have his/her work mutilated in any way and/or subject to any kind of derogatory treatment: Copyright Act, 1968 (Australia), § 195AI; 17 U.S.C. §106A(a)(3); Copyright, Designs, and Patents Act, 1988 (Eng), § 80.

22 Directive 96/9/EC (creating *sui generis* intellectual property rights throughout the European Union in all paper-based and electronic databases in which the creator has expended a substantial amount of time and/or money regardless of the standard of originality in the selection or arrangement of the database's contents);

23 17 U.S.C. §1201.

24 *See* 17 U.S.C. §§1201(a)(1)(A), 1201(a)(2). *See* also European Union Copyright Directive, Art. 6.

25 ProCD, Inc. v Zeidenberg, 86 F. 3d 1447 (7th Cir. 1996); RAYMOND KU, MICHELE FARBER, ARTHUR COCKFIELD, CYBERSPACE LAW: CASES AND MATERIALS, 629-653 (2002); Dan Streeter, *Into Contract's Undiscovered Country: A Defense of Browse-Wrap Licenses*, 39 SAN DIEGO L REV 1363 (2002); Batya Goodman, *Honey I Shrink-Wrapped the Consumer: The Shrink-Wrap Agreement as an Adhesion Contract*, 21 CARDOZO L REV 319 (1999); Charles Mc Manis, *The Privatization (or "Shrink-Wrapping") of American Copyright Law*, 87 CALIF L REV 173 (1999); Madison, *supra* note ___; Uniform Computer Information Transactions Act [hereinafter, 'UCITA'], adopted in Virginia and pending in Maryland (*see* http://nccusl.org/nccusl/uniformact_factsheets/uniformacts-fs-ucita.asp, last viewed at January 9, 2003). Recently introduced in U.S. Virgin Islands and District of Columbia (*see* http://nccusl.org/nccusl/ActSearchResults.aspx, last viewed at January 9, 2003). *See* Scott J Spooner, *The Validation of Shrink-Wrap and Click-Wrap Licenses by Virginia's Uniform Computer Information Transactions Act*, 7 RICH J L & TECH 27 (2001); Fisher, *supra* note ___; Madison, *supra* note ___.

These concerns are not particularly new. Indeed, they are only some of the more recent examples of a phenomenon that began in the latter part of the 20th Century when scholars started to debate the extent to which various computer-software related products were being over-propertized by the legal system. The earlier examples related to things like the validity of patents for computer software and Internet business method patents,[26] and the extent to which computer software might be protected under copyright law as a 'literary work'.[27]

Scholars have continued to be concerned about a perceived over-commodification of information products through the use of intellectual property and other laws.[28] The literature evidences much commentary about the fate of the 'fair

---

[26] *See*, for example, Colin Marks, *Opening the Door to Business Methods: State Street Bank & Trust Co v Signature Financial Group, Inc* 37 HOUS L REV 923 (2000); Jeffrey Kuester and Lawrence Thompson, *Risks Associated with Restricting Business Method and E-Commerce Patents*, 17 GA ST U L REV 657 (2001); Brian Biddinger, *Limiting the Business Method Patent: A Comparison and Proposed Alignment of European, Japanese and United States Patent Law* 69 FORDHAM L REV 2523 (2001); State Street Bank & Trust Co v Signature Financial Group, Inc, 149 F 3d 1368 (Fed Cir, 1998); Matthew Wells, *Internet Business Method Patent Policy* 87 VA L REV 729 (2001); Julie Cohen and Mark Lemley, *Patent Scope and Innovation in the Software Industry*, 89 CALIF L REV 1 (2001); Jared Grusd, *Internet Business Methods: What Role Does and Should Patent Law Play?* 4 VA J L & TECH 9 (1999); Amazon.com, Inc v Barnesandnoble.com, Inc, 73 F Supp 2d 1228 (WD Wash 1999); 239 F 3d 1343 (Fed Cir 2001); Diamond v Diehr, 450 U.S. 175 (1981); In re Alappat, 33 F 3d 1526 (1994); John Burtis, *Towards a Rational Jurisprudence of Computer-Related Patentability in Light of In re Alappat*, 79 MINN L REV 1129 (1995); John Swinson, *Copyright or Patent or Both: An Algorithmic Approach to Computer Software Protection*, 5 HARV J L & TECH 145 (1991); Russell Moy, *A Case Against Software Patents*, 17 SANTA CLARA COMPUTER & HIGH TECH L J 67 (2000); David Bender, *Business Method Patents: The View from the United States* 23(8) EIPR 375 (2001).

[27] Daniel Attridge, *Copyright Protection for Computer Programs* 22(12) EIPR 563 (2000); Ramond Nimmer, THE LAW OF COMPUTER TECHNOLOGY, ¶¶ 1.08-1.10, (3 ed, 1999); David W Carstens, *Legal Protection of Computer Software: Patents, Copyrights, and Trade Secrets*, 20 J CONTEMP L 13, 45-50 (1994). It is now accepted in most jurisdictions that copyright law will protect the source code of a computer program, but not necessarily the machine-readable object code, although in some jurisdictions the law may permit the copyrighting of object code: D B Webber, *Intellectual Property in Internet Software, in* GOING DIGITAL 2000: LEGAL ISSUES FOR E-COMMERCE AND THE INTERNET (Anne Fitzgerald, Brian Fitzgerald, Cristina Cifuentes and Peter Cook eds), 22 (2000). *See* also IAN LLOYD, LEGAL ASPECTS OF THE INFORMATION SOCIETY, 138-152 (2000); Hector L MacQueen, *Copyright and the Internet, in* LAW & THE INTERNET: A FRAMEWORK FOR ELECTRONIC COMMERCE, 181-224 (2 ed, Lilian Edwards and Charlotte Waelde, eds., 2000).

[28] *See*, for example, J H Reichman and Pamela Samuelson, *Intellectual Property Rights in Data?* 50 VAND L REV 51, 52-53 (1997) (on the concern about creating powerful property rights in databases in the United States); Jacqueline Lipton, *Information Wants to be Property: Legal Commodification of E-Commerce Assets*, 16(1) INT. REV. L COMP. & TECH 53 (2002) (on moves in a number of jurisdictions towards the increasing propertization of information products); John R. Therien, *Exorcising the Specter of a "Pay-Per-Use" Society: Toward*

use' doctrine as a balancing force between private property rights and certain public interests[29] in copyright law.[30] The DMCA, and its interpretation by courts,[31] coupled with the willingness of some courts to enforce restrictive contractual licenses involving information products,[32] have largely fuelled this debate.

In the European Union, similar concerns about the over-propertization of information products and the ineffectiveness of fair use doctrines have arisen in recent years, particularly in the wake of the enactment of the E.U. Database Directive[33] and

---

Preserving Fair Use and the Public Domain in the Digital Age, 16 BERKELEY TECH. L.J. 979 (2001) (on concerns that the DMCA will over-propertize digital information if courts do not take an adequate stance on protecting 'fair uses'); United City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294 (S.D.N.Y. 2000), *aff'd*, 273 F. 3d 429 (2d Cir. 2001) (Judge Kaplan held that the 'fair use' provisions of the Copyright Act cannot be used as a defense to an infringement of the DMCA's anti-circumvention and anti-trafficking provisions as this was not the legislative intent of 17 U.S.C. § 1201(a)); ProCD, Inc. v. Zeidenberg, 86 F. 3d 1447 (7th Cir. 1996) (holding that shrinkwrap agreements can be used to limit a user's fair use of a product under copyright law).

29 In this context, 'public interests' relates to uses contemplated by the fair use doctrine, such as 'criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research': 17 U.S.C. §107.

30 Wendy Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE LJ 1533, 1537 (1993) (expressing concern about the over-propertization of copyright material and the inadequacy of the fair use exceptions to copyright several years prior to the enactment of the DMCA); Madison, *supra* note ___ (raising concerns about over-propertization of digital information by the use of contractual measures that, at least in some contexts, will be enforced by state courts).

31 Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to be Revised*, 14(3) BERKELEY TECH L J 519 (1999); David Nimmer, *A Riff on Fair Use in the Digital Millennium Copyright Act*, 148 U PA L REV 673 (2000); Yochai Benkler, *Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain*, 74 NYUL REV 354 (1999); John R. Therien, *Exorcising the Specter of a "Pay-Per-Use" Society: Toward Preserving Fair Use and the Public Domain in the Digital Age*, 16 BERKELEY TECH. L.J. 979 (2001) (on concerns that the DMCA will over-propertize digital information if courts do not take an adequate stance on protecting 'fair uses'), Tricia J. Sadd , *Fair Use as a Defense Under the Digital Millennium Copyright Act's Anti-Circumvention Prosisions*, 10 GEO. MASON L. REV. 321 (2001); Harry Mihet, *iBRIEF: COPYRIGHTS & TRADEMARKS: Universal City Studios, Inc. v. Corley: The Constitutional Underpinnings of Fair Use Remain an Open Question*, 2002 DUKE L. & TECH. REV. 3 (2002).

32 ProCd, *supra* note ___; Madison, *supra* note ___ (Madison also expresses concern about the idea of the 'public domain' of information and ideas in light of these developments).

33 Catherine Colston, *Sui Generis Database Right: Ripe for Review?*, 3 THE JOURNAL OF INFORMATION, LAW AND TECHNOLOGY (JILT). (2001) available at http://elj.warwick.ac.uk/jilt/01-3/colston.html, last viewed on June 19, 2002 and on file with the author. These concerns are relevant in the United States as well as the European Union because of moves to enact legislation in the United States that achieves at least some of the same ends as the E.U. Database Directive. *See* J H Reichman and Pamela Samuelson, *Intellectual Property Rights in Data?* 50 VAND L REV 51 (1997); Davison, *Proposed U.S.*

the E.U. Copyright Directive.[34] Commentators are worried that large amounts of relatively mundane information could be locked away from society and might be only accessible through payment of prohibitive fees.[35] These fears are exacerbated by the fact that the 'fair use' provisions in the E.U. Database Directive are somewhat sketchy at best,[36] and that E.U. Member States have significant discretion about the extent to which they adopt fair use provisions in the domestic legislation that implements the Directive.[37] Another worrying development in the history of the E.U. Database Directive has been the removal from the final draft of the compulsory licensing provision for sole source information providers that had been included in an earlier draft of the Directive.[38] Such a provision would have given some comfort to those concerned about the creation of unfair monopolies in valuable information products.

The arguments against the over-commodification of information in the digital age are compelling. They are based on very real concerns about the creation of unfair monopolies in information, and the concurrent lack of support for competing interests in information. However, the focus of previous debates on preventing over-commodification of information creates an unfortunate implication that property

---

Database Legislation: A Comparison with the U.K. Database Regulations, 21 EIPR 279, 283 (1999) (comparing the E.U. database protection model with some of the legislative initiatives in the United States).

34 Directive 2001/29/EC, Art. 6 (similar provision to the anti-circumvention provisions of the DMCA in the United States).

35 J. H. Reichman and Pamela Samuelson, *Intellectual Property Rights in Data?* 50 VAND L REV 51, 71 (1997); J H Reichman and Paul Uhlir, *Database Protection at the Crossroads: Recent Developments and Their Impact on Science and Technology*, 14 BERKELEY TECH. L.J. 793, 808-10 (1999).

36 The 'fair use' provisions are found in Article 6 of the Directive and include, amongst other things, 'lawful use by a lawful user of database contents' (Art 6(1)), 'private use' (Art 6(2)(a)), 'sole purpose for illustration for teaching or scientific research' (Art 6(2)(b)), 'purposes of public security' (Art 6(2)(c)). The problem with these provisions is that there are no meaningful definitions or any useful guidance on the intended meanings of terms like 'lawful use', 'lawful user', 'private use', 'illustration for teaching or scientific research' (as opposed to conducting the research itself that might lead to the teaching illustration), or 'public security'.

37 All of the 'fair use' exceptions set out in Article 2(b) are discretionary and may or may not be transposed into domestic law at the discretion of each individual E.U. Member State.

38 Reichman and Samuelson, *supra* note ___ at 86-87; Catherine Colston, *Sui Generis Database Right" Ripe for Review?,* J. INFO., L. & TECH., at http://elj.warwick.ac.uk/jilt/-01-3/colston.html (last viewed June 6, 2003).

rights in information are necessarily a bad thing. In fact, property is a useful transactional tool that can assist in the development of new markets for the benefit of society as a whole.[39] The real problem is not, in fact, over-commodification of information *per se*, but rather the current *absolutism* of information property rights in terms of their failure to cater effectively to competing interests.

Historically, property rights are rarely absolute.[40] There is certainly no reason for a trend of 'absolutism' to start now in relation to information property rights. Drawing from traditional property theory, it is in fact possible to utilize the property concept itself to strike an appropriate balance between private rights and public interests in information. Rather than assuming that property rights are undesirable and inevitably lead to unfair monopolies, we could promote property rights that carry with them concurrent public duties, as has been the case in traditional property law and theory.

Such duties have unfortunately been missing from the law of 'information property rights' to date. The development and enforcement of such duties might be the answer to the perceived 'over-commodification' problem. In other words, we would not have to worry so much about 'over-commodification' of information if information property rights were not as *absolute* as they have been in recent years. Thus, the problem can be re-cast in terms of the 'absolutism' of information property rights, rather than in terms of 'over-commodification' *per se*. Property can be a useful device both for exploiting and for regulating/controlling information property rights,[41] if controlling mechanisms are incorporated into the property rights themselves as they historically have been with many other property rights.

---

39 Haik Sargsyan, *No Alternative But to Stimulate Export in Armenia,* ARMENIAN BUS. MAG., at http://www.abm.am/english/issues/issue1/article2.html (last viewed June 13, 2003); *Genesis of the Concept of the Competitiveness Capabilities,* Strategy for Increasing the Competitiveness Capabilities of Slovenian Industry, Government of Rep. of Slovenia, Ministry of Economic Affairs, 1996, ISBN 961-6069-04-7, at http://www.tradepoint.si/industrystrategy/Page1.htm (last viewed June 13, 2003).

40 Chander, *supra* note ___, at 778.

41 Jacqueline Lipton, *Mixed Metaphors in Cyberspace: Property Rights in Information/Information Systems*, LOYOLA LAW REVIEW, forthcoming, 2003.

Real property rights, for example, have always been subject to a myriad of limitations based on duties owed to particular individuals and/or to society at large. Landlord and tenant law imposes obligations on landlords to maintain premises in good repair.[42] Life tenants have a duty to protect the interests of remaindermen under the doctrine of waste.[43]

General property theory has always contemplated public duties owed to society in return for the grant of a property right. The 'bundle of rights' description of property[44] both describes the rights that a property holder may exercise, including the right to exclude, and the right to alienate property.[45] However, it also includes *obligations* inherent in property ownership such as the obligation to maintain premises in good repair.[46]

The Lockean idea of property ownership bases the right to own property on the effort made to 'appropriate' goods from the common.[47] However, Locke also contemplated a number of provisos on ownership that, at their foundations, relate to

---

42 Ohio Revised Code, § 5321.04 (statutory duties of a landlord to maintain premises in good repair).

43 RICHARD A POSNER, ECONOMIC ANALYSIS OF LAW, 83-84 (5th ed, 1998); RESTATEMENT 1ST OF PROPERTY, §§ 156, 197, 204 (duties of holders of present interests in property to preserve the rights of certain future interest-holders).

44 W. HOHFELD, FUNDAMENTAL LEGAL CONCEPTS, 96-97 (1923) (postulating basic legal relation to property); ROGER A CUNNINGHAM, WILLIAM B STOEBUCK, AND DALE W WHITMAN, THE LAW OF PROPERTY, § 1.2 (1984) (discussing the 'elements' or property using, *inter alia*, Hohfeldian analysis); A. M. HONORÉ, OWNERSHIP, IN OXFORD ESSAYS IN JURISPRUDENCE 108 (1961) (describing bundle of rights idea of property in terms of rights to use property, exclude others from it, and alienate it); J E Penner, *The 'Bundle of Rights' Picture of Property*, 43 UCLA L REV 711 (1996); JACQUELINE LIPTON, SECURITY OVER INTANGIBLE PROPERTY, 12-14 (2000).

45 *id*; CUNNINGHAM, *supra* note ___, at § 7.1 (freedom from physical intrusion), §§ 1.2, 2.2 (alienability as normal incident of property).

46 A practical example of this duty appears in the Ohio Revised Code, § 5321.04 (statutory duties of a landlord to maintain premises in good repair). Other obligations are discussed in CUNNINGHAM, *supra* note ___, at § 8.25 (covenants/servitudes running with land), §§ 9.4-9.11 (zoning restrictions), § 9.18 (growth management programs), § 9.19 (land use controls for aesthetic purposes), § 9.20 (historic district and landmark controls), and § 9.21 (environmental protection).

47 JOHN LOCKE, SECOND TREATISE OF CIVIL GOVERNMENT, §§ 27-30 (1690).

duties owed to society in respect of property ownership. There is a duty to 'leave as much and as good' to the common,[48] and another duty not to 'waste' resources.[49]

Even some areas of intellectual property law demonstrate that public duties are never far from property rights, although they are not always recognized as such. Patent law, for example, always requires the public disclosure of an invention in return for the grant of patent protection.[50] Additionally, the patentee is required to release the invention into the public domain after the patent term has expired so that society as a whole may benefit.[51]

Professor Chander suggests that as we enter the 'cyber-age' we should be particularly alert to possibilities to tailor information property rights to prevent absolutism.[52] Writing about property rights in Internet domain names, he suggests that the problem with increasing private rights in domain names is not so much accepting property rights *per se*, but rather thinking about how those rights are to be appropriately regulated.[53] He notes that: "Thinking of domain names as property reminds us that rights inherent in them may be limited *in ways that serve society*."[54] He further suggests that: "thinking of domain names as property forces us to allocate this resource with greater care."[55]

---

48 *id.*, at § 36.

49 *id.*, at § 33.

50 CHISUM ON PATENTS, § 7.01 (adequate disclosure requirement imposed on patent applicant ensures sufficient 'quid pro quo' for the public in respect of the limited monopoly granted to the inventor).

51 *id.* §7.01 (full disclosure also ensures that the relevant information will be available to the public once the statutory monopoly period expires); §1.0 (patent holder can only assert patent during the statutory protection period).

52 Chander, *supra* note ___, at 778 (recognizing a domain name as property alerts us to the need to regulate it appropriately).

53 *id*, at 776-779.

54 *id*., at 778 [emphasis added].

55 *id*.

I would make an even stronger case for promoting information property rights in the digital age. Private parties who feel that they can make a profit from dealing with a particular information product will do so regardless of whether Congress supports them or not.[56] As already evidenced by the current state of information markets, private players will utilize whatever means available to them to 'propertize' something that has not traditionally been regarded as property if it has a commercial value that they can exploit. An obvious example is the prevalent use of contractual and technological protection measures to erect intangible fences around valuable information.[57] Thus, regardless of whether or not a statutory property right is created in a valuable information product, a market-based 'quasi-property' right is likely to ensue if an item is perceived as having commercial value.

The market demands a property right in particular, as opposed to some other form of right, because property connotes something of value that is, at least to some degree, exclusive to the right-holder (thus preserving its value) and with which the holder is able to transact in a market.[58] Property rights can be extremely useful in the commercial context, provided that they are tailored with relevant public interests in mind. Property rights can significantly streamline information commerce by connoting valuable, easily transferable goods. However, as Professor Chander

---

56 In fact, to date Congress has been relatively supportive of information property right holders. The enactment of the DMCA is an obvious example of this. Courts have also been relatively supportive; for example, the ProCD case, *supra* note ___.

57 ProCD, Inc. v Zeidenberg, 86 F. 3d 1447 (7th Cir. 1996); RAYMOND KU, MICHELE FARBER, ARTHUR COCKFIELD, CYBERSPACE LAW: CASES AND MATERIALS, 629-653 (2002); Dan Streeter, *Into Contract's Undiscovered Country: A Defense of Browse-Wrap Licenses*, 39 SAN DIEGO L REV 1363 (2002); Batya Goodman, *Honey I Shrink-Wrapped the Consumer: The Shrink-Wrap Agreement as an Adhesion Contract*, 21 CARDOZO L REV 319 (1999); Charles Mc Manis, *The Privatization (or "Shrink-Wrapping") of American Copyright Law*, 87 CALIF L REV 173 (1999); Madison, *supra* note ___; Uniform Computer Information Transactions Act [hereinafter, 'UCITA'], adopted in Virginia and pending in Maryland (*see* http://nccusl.org/nccusl/uniformact_factsheets/uniformacts-fs-ucita.asp, last viewed at January 9, 2003). Recently introduced in U.S. Virgin Islands and District of Columbia (*see* http://nccusl.org/nccusl/ActSearchResults.aspx, last viewed at January 9, 2003). *See* Scott J Spooner, *The Validation of Shrink-Wrap and Click-Wrap Licenses by Virginia's Uniform Computer Information Transactions Act*, 7 RICH J L & TECH 27 (2001); Fisher, *supra* note ___; Madison, *supra* note ___.

58 JACQUELINE LIPTON, SECURITY OVER INTANGIBLE PROPERTY, 12-14 (2000); Chander, *supra* note ___, at 776; Jessica Litman, *Information Privacy/Information Property*, 52 STAN L REV 1283, 1295 (2000) (noting that the rationale for property rights is the ability to alienate them in a commercial setting); Jacqueline Lipton, *Mixed Metaphors in Cyberspace: Property Rights in Information/Information Systems*, LOYOLA LAW REVIEW, forthcoming, 2003.

suggests, if we accept such rights in the information age, we should be vigilant about allocating them with greater care because of the serious implications of describing information assets as property.[59]

Accepting the advantages and inevitability of information property rights, we can start to re-frame the debate about such rights not in terms of whether or not we should promote or acknowledge them, but rather in terms of how we might appropriately monitor and control them. In particular, we should ask who should bear the legal and financial burdens of imposing such control. In this paper, I argue that those burdens should predominantly be borne by the right-holders themselves, as public duties attached to the privilege of property ownership. I further argue that the State has a responsibility to monitor and control the performance of such duties, particularly where the State itself has supported the creation and commercial exploitation of the relevant property rights.

A brief word about terminology: When I talk about 'public obligations', 'public interests', or 'public duties' in this context, I am referring to issues that are of concern to the public as a whole, even though a specific interest or duty may pertain to one individual, or group of people. An obvious example relates to personal privacy. It is in the general public interest that information property holders are sensitive to the personal privacy of individuals with respect to data that may be collected in a proprietary database. If we conceptualize this issue in terms of creating a public duty upon the database owner to protect the privacy of relevant individuals, this may be described as a duty in the *general public interest*, although it may be a duty owed to one or more *private* individuals.

Thus, when I talk about public duties or public interests in this paper, I am speaking of the general public good inherent in promoting a particular group of duties or interests attached to information property ownership. Some of these interests would, in practice, be expressed in terms of a complaint or action brought by one or more private individuals against an information property holder for failure to perform a specific duty owed to him or her in the public interest.

---

[59] Chander, *supra* note ___, at 778.

Part I explains why current approaches to balancing information property rights against public interests in information have failed to strike an effective balance to date. Part II describes a methodology for balancing private rights against public interests in information, utilizing the property concept itself. As noted above, property rights can be very useful in society, but no property rights are absolute. Property rights should involve some concurrent social duties. Part III examines the appropriate role for governments in monitoring, and enforcing the social obligations inherent in property ownership. Part IV sets out some conclusions on these issues and summarizes the new framework proposed for information property rights and obligations.

I. EXISTING LIMITATIONS ON INFORMATION PROPERTY RIGHTS

The current approaches that are most often identified as mechanisms for limiting information property rights can be divided into two categories. The first category might be described generally as 'fair use'. It encompasses laws that place restrictions on the unfettered exercise of information property rights through the creation of defenses to infringement actions in respect of those rights. The obvious example is the fair use defense to copyright infringement in copyright law.[60] A similar defense is found in relation to the infringement of a *sui generis* database right in the European Union.[61]

The second category of limitation on information property rights might be described as involving limitations on the *scope* of the rights, particularly in terms of duration. [62] Debates about the appropriate duration of property rights in databases

---

60 *See* 17 U.S.C. § 107; Copyright Act, 1968 (Australia), §§ 40-42 ('fair dealing' defenses to copyright infringement); Copyright, Designs, and Patents Act, 1988 (Eng), §§ 29-30 ('fair dealing' defenses to copyright infringement, included in Part I, Chapter III of the Act which deals more generally with defenses to copyright infringement).

61 E.U. Database Directive, Art. 6; *See also* Collections of Information Antipiracy Bill, H.R. 354, 106th Cong, 1999, §1403; Consumer and Investor Access to Information Bill, 106th Cong, 1999, §103.

62 Edwin C Hettinger, *Justifying Intellectual Property*, 18(1) PHILOSOPHY AND PUBLIC AFFAIRS, 31, 51 (1989).

evidence the way in which scholars and legislatures have grappled with this issue,[63] as do concerns about the duration of copyright law in the United States, particularly in the wake of the recent copyright term extension legislation.[64]

Duration is not the only element of the scope of a property right in an information product that may be limited in some way. Registered trademarks, for example, are limited to one or more particular markets for identified goods and/or services.[65] Copyright protection is limited to fixed expressions of original works, rather than abstract ideas.[66] Patent protection is limited to novel and non-obvious inventions.[67]

The two approaches described above to limiting information property rights are not mutually exclusive. A particular information property right might be limited both in terms of its scope, and, at the same time, it might be subject to fair use defenses to an infringement action.[68] Thus, based on the existing literature, one might

---

63 *See* Wesley L Austin, *A Thoughtful and Practical Analysis of Database Protection Under Copyright Law, and a Critique of Sui Generis Protection*, 3(1) J TECH L & POL'Y 3, ¶ 86 (1997), available at http://journal.law.ufl.edu/~techlaw/3-1/austin.html - last viewed at January 16, 2001 and on file with the author; Jeffrey C Wolken, *Just the Facts, Ma'am. A Case for Uniform Federal Regulation of Information Databases in the New Information Age*, 48 SYRACUSE L REV 1263, 1301 (1998).

64 Sonny Bono Copyright Term Extension Act ("CTEA"), Pub. L. No. 105-298, 112 Stat. 2827. A challenge to the validity of this legislation was argued before the Supreme Court in October of 2002. Court documents and news items relating to the litigation are available at http://eldred.cc/legal/supremecourt.html, last viewed at January 12, 2003. *See* also the Electronic Frontier Foundation website, www.eff.org, last viewed at January 12, 2003; Eldred v. Ashcroft, 537 U.S. ___ (2003). [Judgment delivered January 15, 2003.]

65 When filing an application for a trademark, the applicant must identify the goods and/or services for which registratoin is sought: United States Patent and Trademark Office, *Basic Facts About Trademarks* (available at http://www.uspto.gov/web/offices/tac/doc/basic/appcontent.htm#goods , last viewed on May 31, 2003). Some guidance in terms of classifications of goods and services can be obtained from the International Schedule of Classes of Goods and Services, although this list is not exhaustive (see http://www.uspto.gov/web/offices/tac/doc/basic/international.htm, last viewd on May 31, 2003).

66 NIMMER ON COPYRIGHT, §2.03 [D] (copyright can only be claimed in a fixed expression and not an idea); § 2.03[B] (copyright work must be fixed in tangible form); § 2.01 (originality requirement for copyright protection).

67 35 U.S.C. §§ 102, 103. These requirements are distinct from the initial requirement of patentable 'subject matter': 35 U.S.C. § 101; CHISUM ON PATENTS, § 1.01.

68 Copyrights, for example, are both limited in statutory term and subject to 'fair use' defenses: 17 U.S.C. §§ 107 (fair use), 301-305 (duration).

assume that the best system that could be developed for balancing private information property rights against public interests in information would be a combination of these approaches.

However, this paper argues that there is a better way of balancing private rights and public interests in information without relying heavily on either of these mechanisms. Even broadly scoped private rights in information might be unobjectionable if tempered with appropriate concurrent public duties. Such duties currently exist in relation to intellectual property rights in various jurisdictions. Compulsory licensing is an obvious example,[69] as are legislative provisions requiring public disclosure of a patented invention in return for the grant of a patent.[70]

The problem today is that legislatures have not created an appropriate balance between private rights and public duties in information products. If an appropriate balance could be found, it might be more effective than limiting property in information through fair use and/or limitations on the scope/duration of relevant property rights. Some of the inherent disadvantages in relying solely on the latter approaches are set out below.

---

69 *See* Patents Act, Eng., §48 (1997) (compulsory licensing system for patents in the United Kingdom). Compulsory licensing is both politically and practically difficult to achieve and implement, and was, in fact, deleted from the final version of the E.U. Database Directive. However it may be necessary to seriously re-think the adoption of compulsory licensing regimes with respect to property rights in some information products if a government's policy aims in the digital information economy are to include an appropriate balance between private rights and public interests. There are a number of practical examples of compulsory licensing in place today which could be used as models that could be evaluated for their effectiveness in the context of a discussion about more broadly adopting compulsory licensing obligations for digital information products. In particular, compulsory licensing comes up repeatedly in debates about international access to patented pharmaceuticals: Dora Kripapuri, *Reasoned Compulsory Licensing: Applying U.S. Antitrust's "Rule of Reason" to TRIP's Compulsory Licensing Provision*, 36 NEW ENG.L. REV. 669 (2002); Joseph A. Yosick, *Compulsory Patent Licensing For Efficient Use of Inventions*, 2001 U. ILL. L. REV. 1275 (2001); Patrick Marc, *Compulsory Licensing and the South African Medicine Act of 1997: Violation or Compliance of the Trade Related Aspects of Intellectual Property Rights Agreement?*, 21 N.Y.L. SCH. J. INT'L & COMP. L. 109 (2001). The United States also has a compulsory licensing regime for nondramatic musical works: 17 U.S.C. §115.

70 CHISUM ON PATENTS, § 7.01 (adequate disclosure requirement imposed on patent applicant ensures sufficient 'quid pro quo' for the public in respect of the limited monopoly granted to the inventor).

A. FAIR USE

i. Legislative Models

The most obvious model of a fair use defense involving an information property right derives from copyright law. This is where the fair use concept originated, although the model has now been utilized in other contexts.[71] The idea of fair use in the copyright context is that where a person has used a copyright work in a manner that would otherwise amount to copyright infringement, a defense will be available in certain circumstances. The fair use defense in United States copyright law appears in Title 17 of the United States Code [hereinafter, "USC"].

Section 107 of Title 17 contemplates that certain uses of a copyright work will not amount to copyright infringement. The purposes contemplated in the section include 'criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research'.[72] The section also sets out four 'fair use factors' that can be considered by a court when making a determination as to whether a particular use amounts to a fair use of a copyright work. These factors are: (a) the purpose and character of the use, including whether the use is for a commercial nature or for non-profit educational purposes;[73] (b) the nature of the copyrighted work;[74] (c) the amount and substantiality of the portion used in relation to the copyright work as a whole;[75] and, (d) the effect of the use on the potential market for/value of the copyrighted work.[76] Obviously, the idea behind the fair use doctrine is to place some limitations on the rights of a copyright-holder in situations where the public interest would require those rights to be restricted.

---

71 This strategy has been utilized in various models of *sui generis* database protection law both in the United States and the European Union, but is not the most effective manner for balancing private rights and public interests in such information assets: Jacqueline Lipton, *Balancing Private Rights and Public Policies: Reconceptualizing Property in Databases*, BERKELEY TECH L J, forthcoming, 2003.

72 17 U.S.C. § 107.

73 17 U.S.C. § 107(1).

74 17 U.S.C. § 107(2).

75 17 U.S.C. § 107(3).

76 17 U.S.C. § 107(4).

This 'fair use' model for balancing private rights in an information product against public interests in relevant information has also been adopted in the E.U. Database Directive in relation to the *sui generis* database right established thereby. This right is distinct from copyright. It is a property right in a non-original database where a person has put substantial effort into compiling the database.[77]

As copyrights and database rights are different legal constructions, there was no inevitability that fair use provisions would be included in database law. The drafters of the E.U. Database Directive obviously chose to adapt the 'fair use' model for database law as one type of limitation on database rights. They also included limitations on the duration of database rights as an additional measure to prevent over-commodification of such information assets.[78] Neither measure has proved particularly effective in practice as a meaningful limitation on a database right.[79] The problems with the limitations on duration are addressed in the following section.

In terms of fair use, Article 6(2) of the Directive provides that Member States implementing the Directive 'have the option of providing for limitations on the [database right]' in four circumstances: (a) in the case of reproduction for private purposes of a non-electronic database;[80] (b) where there is use for the sole purpose of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved;[81] (c) where there is use for the purposes of public security or for the purposes of an administrative or

---

77 Database Directive, Art. 7.

78 *id*., Art. 10.

79 The reasons for this are explained in the following sections. Basically, fair use has been ineffective in this context because the 'fair use' provisions in the Database Directive are optional and are only implemented at the discretion of each European Union member state. The 15 year duration can be extended indefinitely if a database is continually updated, as is the case with most online databases: IAN LLOYD, LEGAL ASPECTS OF THE INFORMATION SOCIETY, 189-190 (2000); Mark Davison, *Proposed U.S. Database Legislation: A Comparison with the U.K. Database Regulations*, 21 EIPR 279, 283 (1999).

80 Database Directive, Art. 6(2)(a).

81 *id.*, Art. 6(2)(b).

judicial procedure;[82] and, (d) where other exceptions to copyright which are traditionally authorized under national law are involved.[83]

In this model, we see a reflection of the attitudes underlining copyright law in relation to fair use. The public policy is to preserve uses of database contents that do not create unfair commercial competition with the database right-holder, and which promote particular public interests such as education, research or public security. However, these public purposes are given lesser weight in the E.U. Database Directive than in the context of United States copyright law.

For one thing, the fair use exceptions to a database right only come into being in the domestic law of E.U. Member States at the option of each State's government.[84] Thus, they are not implemented uniformly across all E.U. countries. E.U. Member States are not obliged to implement any particular fair use exception into domestic law. The United Kingdom, for example, has only adopted a fair use exception relating to 'illustration for teaching or research and not for any commercial purposes'.[85] The domestic legislation in the United Kingdom further provides that in order to assert this defense, the user must be a 'lawful user' of the database,[86] and that the database must have been made available to the public.[87] This exemplifies the way in which an E.U. Member State can further limit the operation of the fair use defense contemplated in Article 6(2) of the Database Directive, if indeed its legislature chooses to adopt the defense at all.

ii. Fair Use in the Digital Age

82 *id.*, Art. 6(2)(c).

83 *id.*, Art. 6(2)(d).

84 *id.*, Art. 6(2).

85 Copyright and Rights in Databases Regulations, Eng (1997), reg. 20(1)(b). *See* also Schedule 1 which provides exceptions for use of databases in relation to various government purposes. However, these are not provisions which allow for private fair uses, as is regulation 20.

86 Copyright and Rights in Databases Regulations, Eng (1997), reg. 20(1)(a).

87 Copyright and Rights in Database Regulations, Eng. (1997), reg. 20(1). Regulation 20(1)(c) also requires the source of the database to be indicated by the person arguing 'fair dealing', the English term for 'fair use'.

Fair use can be effective in certain contexts. Historically, it was generally effective in copyright law. However, it is becoming increasingly problematic in the global information age for a variety of reasons. Some of the more obvious problems with relying on fair use to protect public interests in information products revolve around the uncertain legal and constitutional status of the defense, as well as its vagueness of application. In copyright law, it has never been clear in theory or practice whether the fair use defense creates a constitutionally protected right to use a copyrighted work for certain purposes, or is better described as a tolerated convenience in cases where it would not be cost-effective for a copyright-holder to bring an infringement action against a specific user.[88] If right-holders convince courts and legislatures that the latter view should prevail, this tips the private/public balance in favor of private interests in information to the detriment of competing public interests.

This problem is exacerbated in by the fact that copyright-holders, in the digital information age, can utilize encryption technologies in relation to copyrighted works to prevent unauthorized access and copying,[89] and/or to more easily track down those who make unauthorized copies of digital works than has been the case in the past.[90] At least in the physical world, it was easier as a matter of practice to make an

---

88 WILLIAM CORNISH, INTELLECTUAL PROPERTY: PATENTS, COPYRIGHT, TRADE MARKS AND ALLIED RIGHTS (1999) (assumption that 'fair dealing' rights in English copyright law probably do have the status of constitutionally guaranteed rights to access and use a copyright work); David Nimmer, *A Riff on Fair Use in the Digital Millennium Copyright Act*, 148 U. PA. L. REV. 673, 714-715 (2000) (questioning this proposition in respect to United States copyright law).

89 Julie Cohen, *DRM and Privacy*, BERKELEY TECH LJ, forthcoming 2003; Julie Cohen, *Lochner in Cyberspace: The New Economic Orthodoxy of "Rights Management"*, 97 MICH L REV 462, 470-471 (1998) (DRM creates market failures in the digital economy); Fred von Lohmann, *Fair Use and Digital Rights Management: Preliminary Thoughts on the (Irreconcilable?) Tension Between Them*, COMPUTERS, FREEDOM & PRIVACY (2002), at http://www.eff.org/IP/DRM/fair_use_anddrm.html (last viewed June 6, 2003).

90 Ingemar J. Cox and Matt L. Miller, *The First 50 Years of Electronic Watermarking*, EURASIP J. Applied Signal Processing 2002:2 (2002) 126-32, at http://asp.hindawi.com/volume=2002/S1110865702000525.html (last viewed June 9, 2003); Alex Simeonides, *Protecting Your Online Assets*, WebServer OnLine, at http://webserver.cpg.com/features/f3/2.7/ (last viewed June 13, 2003); E.J. Delp, *Watermarking: Who Cares? -Does it Work?*, Proceedings of the Workshop on Multimedia and Security at ACM Multimedia, 1998, Bristol, UK, September 12-14, 1998.

unauthorized copy of a copyright work without being caught, particularly if using the copy did not harm the economic position of the copyright holder.

However, in the digital world, copyright-holders are more likely to be in a position to locate and act against unauthorized users of copyright works. Thus, requiring such users to bear the legal and financial burdens of establishing their rights, in the absence of any consensus on the nature or constitutional strength of the rights, is likely to put those users in a difficult position. Many such potential users might be persuaded that the safest course of action is to avoid making *any* unauthorized uses of a relevant work rather than using the work and then having to argue fair use.

The lack of consensus about the constitutional basis of the defense goes hand in hand with the vagueness of the defense in general. The defense as incorporated in § 107 of Title 17 is only intended as a general guide for courts when determining fair use issues. The list of fair use 'purposes' in § 107 is not intended as exclusive,[91] and there is no instruction on how courts should weigh any of the four 'fair use' factors in a given case.[92] Although this vagueness gives the defense a certain flexibility of operation, it does sacrifice certainty.

People wanting to raise a fair use defense in respect of digital copyright works are often put in an untenable position if they want to pursue their perceived rights to make unauthorized use of a digital copyright work. First, they have to deal with the potential access problems if the work is digitally encrypted.[93] Then, they have to cope with the greater likelihood of being 'caught' by the copyright holder and having an

---

91 Sony Corp of America v Univeral City Studios Inc, 464 U.S. 417, 450 note 31, 104 S Ct 774, 792 note 31 (1984); Bruce A Lehman, Chair, Working Group on Intellectual Property Rights, *Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights*, U.S. PATENT & TRADEMARK OFFICE, 75 (September 1995).

92 Lehman, *supra* note ___, at 83-54, notes 263-264. Although Congress provided some fair use guidelines for libraries and educational institutions for 'educational uses' of copyright materials, none of the fourt sets of 'guidelines' were ever enacted into legislation. Existing guidelines, which are part of legislative history, discuss copying by and for teachers in the classroom context, the copying of music for educational uses, inter-library copying of recent journal articles, and off-air videotaping of educational broadcast materials.

93 Lohmann, *supra* note ___ (use of digital rights management to prevent access to and/or copying of digital copyright works).

action brought against them, or at least being threatened with legal action. Finally, their choice will be either to stop using the work altogether for fear of litigation, or to litigate and bear the legal and financial burden of convincing a court of their right to utilize the work in question. This creates an inappropriate balance between private and public interests in relevant works. Often the person whose use should be protected will back away from making the relevant use because of a lack of bargaining power outside the courtroom, and/or lack of financial resources for litigation.

Although many of these problems existed in the pre-digital world, they did not exist on the same scale, because copyright holders did not have such sophisticated technical means of controlling access to their works. Additionally, they only existed in the copyright world, and not in relation to other valuable information products. Now, as more laws are being drafted to protect proprietary and/or quasi-proprietary rights in digital information products,[94] and many legislatures are attracted to the 'fair use' model for protecting public interests in information,[95] these problems are likely to be multiplied.[96]

Another related problem with over-reliance on a fair use defense as a means of creating an appropriate public/private interest balance in valuable information products involves the increasing irrelevance of measures based on 'use' if the owner of an information property right is effectively able to prevent unauthorized 'access'. In the modern technological world, owners of such rights increasingly utilize technological protection measures,[97] often bolstered by restrictive contractual

---

94 For example, the E.U. Database Directive in respect of information property rights in databases; 17 U.S.C. §§ 901-914 (semiconductor chip rights).

95 *id*.

96 Jacqueline Lipton, *Balancing Private Rights and Public Policies: Reconceptualizing Property in Databases*, BERKELEY TECH LJ, forthcoming, 2003 (inappropriateness of utilizing a copyright model for protecting proprietary interests in databases).

97 Julie Cohen, *DRM and Privacy*, BERKELEY TECH LJ, forthcoming 2003; Julie Cohen, *Lochner in Cyberspace: The New Economic Orthodoxy of "Rights Management"*, 97 MICH L REV 462, 470-471 (1998) (DRM creates market failures in the digital economy); Fisher, *supra* note ___.

licenses,[98] and sometimes legislation as well,[99] to prevent unauthorized access *per se*. A person wishing to make a legitimate use of the work may not be able to obtain access, thus effectively preventing the otherwise permissible use.

This has been one of the more obvious problems arising in relation to digital copyright works, particularly in the wake of the enactment of the DMCA.[100] Even without such legislation, if right-holders can effectively prevent access to an information product through technological and contractual measures,[101] the debate about fair use becomes irrelevant *unless* fair use takes on the status of a constitutionally protected right. If it is regarded as such a right, courts may ultimately be compelled to make orders that strike down technological protection measures and restrictive contractual provisions to the extent that they infringe on a person's ability to exercise such a right.

However, the constitutional status of the fair use defense in copyright law remains uncertain.[102] The potential status of such a defense in other areas of information property rights law is equally, if not more, uncertain. While this is the case, reliance on fair use defenses to achieve an appropriate balance of private and public interests in information products is futile. Where potential fair users cannot access an information product, the protection of their right to use it is irrelevant.

iii. Fair Use Purposes

---

98 ProCD, supra note ___; Fisher, supra note ___; Madison, supra note ___.

99 The DMCA and the European Parliament and Council Directive 2001/29/EC, May 22, 2001 [hereinafter, 'Copyright Directive'], Art 6 are obvious examples. They both support technological encryption measures utilized by copyright holders to prevent unauthorized access to copyright works.

100 Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to be Revised*, 14 BERKELEY TECH L J 519 (1999) (overbroad reach of anti-access and anti-device provisions in the DMCA).

101 Fisher, *supra* note ___.

102 David Nimmer, *A Riff on Fair Use in the Digital Millennium Copyright Act*, 148 U PA L REV 673, 714-715 (2000).

Another problem with relying on fair use defenses to protect public interests in information products generally is that the fair use defense is derived originally from copyright law, and tends to reflect copyright policy even when translated into other contexts. While copyright law has historically been concerned with educational, research, and news-reporting uses,[103] many other potential uses of, and interests in, information products are becoming increasingly important in the digital information age. Thus, maintaining the copyright/fair use policy balance in relation to information products more generally creates a focus on public interests that is too narrow for the information age.[104]

People are becoming more concerned about their privacy in the global information age.[105] The traditional 'fair use' model from copyright law has nothing to say about protecting personal privacy interests in relation to information that may be incorporated into an information asset, such as a database of consumer spending profiles. This model also has nothing to say about protecting cultural interests that may inhere in elements of an information asset. As mentioned earlier, a copyright work may be derived from music, words, and/or artistic traditions from a particular group of people that ultimately becomes powerless to protect its spiritual, cultural, and/or financial interests once the work has been copyrighted.[106] Further, the traditional fair use model does not protect moral rights of an author in a particular work, although those are protected as separate rights, to a greater or lesser extent,[107] under many copyright schemes.

---

103 17 U.S.C. § 107.

104 *See* Jacqueline Lipton, *Balancing Private Rights and Public Policies: Reconceptualizing Property in Databases*, BERKELEY TECH LJ, forthcoming 2003 (discussion of this issue in relation to the problems with translating copyright fair use principles to *sui generis* database rights).

105 This is probably because digital technologies allow grander scale incursions on personal information than ever before possible: Ann Bartow, *Our Data, Ourselves: Privacy, Propertization and Gender*, 34 U.S.F.L. REV. 633, 624 (2000) (cyberspace is a fertile ground for harvesting consumer data and there is little that can be done to preserve personal privacy).

106 *Supra* note ___.

107 The extent of the protection varies from jurisdiction to jurisdiction; for example, the Visual Artists Rights Act in the United States protects moral rights only in certain classes of visual works: 17 U.S.C. § 106A.

The problem with adopting a fair use model more generically as the basis for balancing private rights in information products with public interests will be the limitations inherent in traditional fair use policy. Laws emulating the copyright model will tend to adopt only such fair use provisions as are historically provided in the copyright context, limited to the types of purposes and uses contemplated in copyright law.[108] Although this approach may be suitable for traditional copyright works, they are less likely to meet the needs of society in relation to more generic information products such as valuable online databases.[109]

The other limitation of adapting such a model more generically to balance private rights and public interests in information products is to recognize that fair use has traditionally applied in very specific contexts. It was never intended to provide a *comprehensive* balance of public and private interests in copyright works, to say nothing of information products more generally. It has only ever been part of the picture in relation to limiting a right-holder's ability to exploit his/her private rights in a copyright work. Limiting the duration of the copyright term,[110] limiting copyright to cover expressions and not ideas,[111] the 'first sale' doctrine,[112] and the recognition of moral rights[113] are other examples of attempts to balance private rights and public/personal interests in copyright works.

---

[108] For example, the 'fair use' provisions in the Database Directive tend to mirror copyright principles, with the addition of a 'public security' provision: Art. 6. Privacy rights are not included as part of these provisions, although they are provided for under the E.U. Data Protection Directive. Attempts to draft a database protection bill for the United States have also evidenced a limitation of 'fair use' provisions to the kinds contemplated in copyright law: Jacqueline Lipton, *Balancing Private Rights and Public Policies: Reconceptualizing Property in Databases*, BERKELEY TECH LJ, forthcoming, 2003.

[109] Jacqueline Lipton, *Balancing Private Rights and Public Policies: Reconceptualizing Property in Databases*, BERKELEY TECH LJ, forthcoming, 2003.

[110] 17 U.S.C. §§ 301-305.

[111] NIMMER ON COPYRIGHT, §2.03 [D] (copyright can only be claimed in a fixed expression and not an idea).

[112] The first sale doctrine, found at 17 U.S.C. §109(a) (1988), prevents the copyright owner from controlling subsequent transfers of the copies of a copyrighted work. The doctrine limits only the copyright owner's distribution rights, not his/her reproduction rights in the copyrighted work. Lehman, *supra* note ___, at 90-82. *See* also T B Harms Co v Jem Records Inc, 655 F Supp 1575, 1582 (DNJ 1987); Columbia Pictures Industries Inc v Aveco Inc, 612 F Supp 315, 319-320 (M D Pa 1985), *aff'd*, 800 F 2d 59 (3d Cir, 1986).

[113] 17 U.S.C. § 106A.

This does not mean that fair use cannot maintain its position as a useful *piece* of a strategy to balance private rights and public interests in information products. It has always served this function in the past in relation to copyright works. However, I would certainly caution against the over-reliance on it as the answer to all the problems posed in this respect by digital information technology.

Without necessarily rejecting fair use for the digital information age, we need to think more expansively about the kinds of public interests that need to be balanced against private rights in information. In so doing, we need to identify effective ways of approaching the problem on a more global scale than has been the case in the past.

In this context, Damstedt has recently suggested approaching some of the larger issues of balancing private rights and public interests in intellectual property through an expanded fair use concept developed with reference to public duties imposed on property holders under the Lockean property model.[114] This is undoubtedly an appealing notion, and may be a valuable addition to the debate about balancing competing interests in intellectual property in the digital age. However, ultimately I would argue that it is not the most effective way of dealing with these issues as it still fails to impose affirmative duties on information right-holders.

The model described in the following sections of this paper draws in part on traditional Lockean theory to redress the balance between private and public interests in information. Unlike Damstedt's paradigm, however, this new model utilizes elements of Locke, and other traditional property theories, to impose affirmative public duties on information property right-holders, that are to be monitored by the government, and enforced as burdens of property ownership. This redresses some of the current bargaining imbalances in relation to the enforceability of public interests in information property.

---

[114] Benjamin G. Damstedt , *Limiting Locke: A Natural Law Justification for the Fair Use Doctrine*, 112 YALE L.J. 1179 (2003).

B. LIMITATIONS ON PROPERTY SCOPE

Historically, the second obvious mechanism for balancing private rights and public interests in information products has been to limit the scope of the relevant rights in one or more ways. Limitations on the scope of private rights in information often relate to the duration of the relevant right(s). Patents are generally limited to a 20 year duration.[115] Copyrights are limited to the author's life plus 70 years.[116] In contrast, registered trademark rights can last indefinitely provided that they are renewed in conformity with the relevant legislation.[117] Trade secrets can also last indefinitely while their secrecy is maintained.[118]

Duration can be regarded, where applicable, as a limitation on a private right in terms of the *scope* of the right. It might also be regarded as a *public duty* inherent in the grant of the right. One could describe the duration of a patent as a limitation on the scope of the private right that protects the public domain by limiting the period during which only the patentee, or those authorized by the patentee, may exercise exclusive rights over the relevant invention. Alternatively, one could describe duration as a public duty inherent in the private right, requiring the invention to be released into the public domain at the expiration of the patent grant. I will return to this distinction later. Arguably, another public obligation inherent in the patent grant is the obligation to publicly disclose the invention on the patent register as a condition of the grant of the patent.[119]

---

115 35 U.S.C. § 154(a)(2) (patent term is generally 20 years from the date of filing the patent application).

116 In most jurisdictions, copyright lasts for the author's life plus either 70 years. On recent extensions of the copyright term in the United States, now bringing it into line with other jurisdictions, *see* Eldred v. Ashcroft, 537 U.S. ___ (2003) [judgment delivered on January 15, 2003]; William W Fisher III, *Property and Contract on the Internet*, 73 CHI-KENT L REV 1203, 1233 (1998).

117 Trademark registration under the federal register in the United States generally lasts for 10 years: 15 U.S.C. 22, § 1058(a)(1). Registrants can apply for successive 10 year renewal periods for their registered mark(s): 15 U.S.C. 22,§ 1059(a).

118 *See* RESTATEMENT (THIRD) OF UNFAIR COMPETITION, §39 (1995), Comment b (trade secrets are defined by secrecy and economic value); Lehman, *supra* note ___, at 174-175.

119 CHISUM ON PATENTS, § 7.01 (adequate disclosure requirement imposed on patent applicant ensures sufficient 'quid pro quo' for the public in respect of the limited monopoly granted to the inventor).

Apart from duration, there are other ways in which the scope of property rights in valuable information products has been limited in the past. Copyright, for example, protects fixed original expressions of ideas, but does not extend to the protection of abstract ideas.[120] Trademarks are required to be registered for identified markets within a jurisdiction.[121] Patents are only granted for novel and non-obvious inventions.[122]

Commentators on the creation of *sui generis* property rights in valuable electronic databases have often talked about drafting appropriate limitations for the rights in terms of the scope of the rights, notably the duration of those rights.[123] Unfortunately, attempts to limit the duration of the *sui generis* database right in the European Union to a time period less than that provided by copyright has backfired, potentially creating an indefinite right in the case of continually updated databases. Despite the 15 year duration of a database right set out in the E.U. Database Directive,[124] the provisions for a new 15 year term of protection for an updated database[125] create the potential for a database right to last forever.[126] Most electronic

---

120 NIMMER ON COPYRIGHT, §2.03 [D] (copyright can only be claimed in a fixed expression and not an idea).

121 When filing an application for a trademark, the applicant must identify the goods and/or services for which registratoin is sought: United States Patent and Trademark Office, *Basic Facts About Trademarks* (available at http://www.uspto.gov/web/offices/tac/doc/basic/appcontent.htm#goods , last viewed on May 31, 2003). Some guidance in terms of classifications of goods and services can be obtained from the International Schedule of Classes of Goods and Services, although this list is not exhaustive (see http://www.uspto.gov/web/offices/tac/doc/basic/international.htm, last viewd on May 31, 2003).

122 35 U.S.C. §§ 102-103.

123 It has been suggested in the database context that a three or four year term of protection for the relevant information property rights may be more appropriate than the original models that ranged between 15 and 25 year terms: Wesley L Austin, *A Thoughtful and Practical Analysis of Database Protection Under Copyright Law, and a Critique of Sui Generis Protection*, 3(1) J TECH L & POL'Y 3, ¶ 86 (1997), available at http://journal.law.ufl.edu/~techlaw/3-1/austin.html - last viewed at January 16, 2001 and on file with the author; Jeffrey C Wolken, *Just the Facts, Ma'am. A Case for Uniform Federal Regulation of Information Databases in the New Information Age*, 48 SYRACUSE L REV 1263, 1301 (1998).

124 E.U. Database Directive, Arts 10(1), 10(2).

125 *id*., Art. 10(3).

126 LLOYD, *supra* note ___, at 189-190.

databases will be updated sufficiently often to attract constantly renewed terms of protection, thus effectively granting them indefinite protection.[127]

Limiting the scope of property rights in information products is obviously one way of ensuring some kind of private/public balance in relation to interests in relevant information. The effectiveness of this approach will depend on the circumstances in which it is employed and the way in which limitations are drafted, as the E.U. Database Directive example illustrates.

The main disadvantage with relying too heavily on restricting the scope of information products as a means of ensuring a balance between private and public interests in information is that this mechanism is not specifically tailored to the precise public interests that may be implicated by a particular property right. However, limiting the scope of a private property right will generally have some positive effects on the public domain of information and ideas.[128]

If a patentee can only assert a patent for 20 years, society as a whole will presumably, in many cases, benefit from the development of the invention,[129] its publication on the patent register, and, ultimately, its release into the public domain. This is, of course, assuming that the incentive of a patent grant was required to

---

127 *id*.

128 Wendy Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE LJ 1533, 1559 (1993)(on the idea of a public domain of information): Madison, *supra* note ___, at 1097 (the idea of an 'intellectual commons'); Hughes, *supra* note ___, at 315 (noting that the intellectual commons is actually more similar to the commons that Locke had in mind than the physical commons); Malla Pollack, *The Owned Public Domain: The Constitutional Right Not to be Excluded-Or the Supreme Court Chose the Right Breakfast Cereal in Kellogg v. National Biscuit Co*, 22 HASTINGS COMM. & ENT. L.J. 265 (2000) (on the nature of the public domain); Benjamin G. Damstedt, *Limiting Locke: A Natural Law Justification for the Fair Use Doctrine*, 112 YALE L.J. 1179, 1191-1192 (2003) (comparing the nature of the intangible intellectual commons with the physical commons originally contemplated by Locke), 1192-1193 (distinguishing the 'intellectual common' from the public domain and criticizing previous scholarship for conflating the two).

129 It is assumed that society will benefit ultimately from patents: CHISUM ON PATENTS, § 7.01 (adequate disclosure requirement imposed on patent applicant ensures sufficient 'quid pro quo' for the public in respect of the limited monopoly granted to the inventor).

develop the invention in the first place,[130] and that the 20 year time period is appropriate.[131] However, this scheme does nothing to ensure that those who should have the ability to utilize the invention prior to the expiration of the patent period on public policy grounds may do so, at least in the absence of a compulsory licensing scheme.[132]

Additionally, limiting the scope of an information property right does not require the right-holder to take any positive steps to fulfil its public duties in respect of the relevant right(s). In other words, no significant affirmative public duties are imposed on the right-holders. There are only possibly implied negative duties such as the duty not to continue to assert a particular right after its duration has expired, and not to assert a right outside its expressed boundaries.

In any event, with encryption technologies supported by restrictive contractual measures, much of what is copyrighted, and some of what is currently patented, can be effectively commodified and monopolized outside of the copyright and patent systems, regardless of statutory limitations placed on the scope of standard copyrights and patents.[133] In the absence of affirmative duties on information property holders to facilitate certain competing interests in their property, regardless of the contractual and technological fences they may have constructed, the standard limitations in intellectual property scope become increasingly irrelevant.

As with fair use, one of the greatest problems with relying on limiting the scope of private property rights in information is the fact that contract and technological measures can effectively increase the scope of a property right, or even

---

130 In the software patenting context, *see*: John Swinson, *Copyright or Patent or Both: An Algorithmic Approach to Computer Software Protection* 5 HARV. J. L. & TECH. 145 (1991) (software is more appropriately protected by copyright than by patent); Julie Cohen and Mark Lemley, *Patent Scope and Innovation in the Software Industry*, 89 CALIF. L REV 1 (2001) (advantages of patenting software).

131 Swinson, *supra* note ___ (twenty year patent period is not in keeping with the way software innovation develops, suggesting at least one case where patent is not appropriate for a specific kind of invention).

132 There is a compulsory licensing scheme for patents in England: Patents Act 1977 (Eng.), § 48.

133 Fisher, *supra* note ___; Madison, *supra* note ___; Cohen, *supra* note ___.

create new property rights,[134] unless expressly prohibited by law.[135] Where right-holders are able use contract and technology in this way, and in the absence of affirmative duties to limit their use of these mechanisms in certain contexts, neither fair use defenses nor limiting the scope of property rights will be particularly effective.

Another way of looking at it is to say that while fair use defenses, and statutory limitations on the scope of property rights, are useful ways of preserving public interests in information, their major disadvantage is that they do not impose any affirmative duties on the right-holder. The onus of establishing that a particular use should be permitted as a fair use, or of proving that a particular right-holder is asserting rights beyond the scope granted by the State will not fall on the right-holder. Instead, it will be up to the party attempting to access or use a particular information product to convince a court of these things. Such a party may not have the time, resources, and/or inclination to take relevant action.

It makes more sense to charge the right-holders themselves with affirmative duties to protect competing interests in information and ideas, as a condition of their information property ownership. As an additional safeguard, a government that grants and supports the creation of such rights should be charged with the responsibility of monitoring and enforcing the duties owed by right-holders to the public.

II. RECONCEPTUALIZING THE ISSUES

A. PRIVATE PROPERTY/PUBLIC RESPONSIBILITY

The pattern of attaching concurrent public duties to the grant of property rights is evident in traditional property law. Property rights in the past have never been

---

134 For example, databases that are insufficiently original to attract copyright protection in the United States may effectively be 'propertized' through contract and technological measures: ProCD, *supra* note ___.

135 To date, the legal institutions in a number of jurisdictions have, in fact, supported, rather than monitored and controlled, new information property rights. Examples are the enactment of the E.U. Database Directive, the DMCA, the E.U. Copyright Directive, Art. 6, and the Uniform Computer Information Transactions Act.

absolute.[136] There is no reason why information property law should be any different. If information property rights are inevitable in the global information economy, we should be vigilant to ensure that all the elements of a legal property system, including obligations owed by right-holders to the public at large, are incorporated into the system.[137]

The problem with previous debates about rights in commercially valuable information is that scholars have largely focused on scaling back the 'proprietariness' of such information, due to fears about over-commodification.[138] In so doing, they have emaphasized the idea of ensuring that fair uses of relevant information are protected by the law,[139] and that the scope and duration of the rights are appropriately limited by law.[140]

There are two fundamental problems with approaching the issues in this way. The first is that if scholars reject the property model, they lose the opportunity to incorporate the advantages of information property into the legal system. The two

---

136 Chander, *supra* note ___, at 778.

137 *id*.

138 *See*, for example, J H Reichman and Pamela Samuelson, *Intellectual Property Rights in Data?* 50 VAND L REV 51, 52-53 (1997) (on the concern about creating powerful property rights in databases in the United States); Jacqueline Lipton, *Information Wants to be Property: Legal Commodification of E-Commerce Assets*, 16(1) INT. REV. L COMP. & TECH 53 (2002) (on moves in a number of jurisdictions towards the increasing propertization of information products); John R. Therien, *Exorcising the Specter of a "Pay-Per-Use" Society: Toward Preserving Fair Use and the Public Domain in the Digital Age*, 16 BERKELEY TECH. L.J. 979 (2001) (on concerns that the DMCA will over-propertize digital information if courts do not take an adequate stance on protecting 'fair uses').

139 Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to be Revised,* 14(3) BERKELEY TECH L J 519 (1999); David Nimmer, *A Riff on Fair Use in the Digital Millennium Copyright Act,* 148 U PA L REV 673 (2000); Yochai Benkler, *Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain*, 74 NYUL REV 354 (1999); John R. Therien, *Exorcising the Specter of a "Pay-Per-Use" Society: Toward Preserving Fair Use and the Public Domain in the Digital Age*, 16 BERKELEY TECH. L.J. 979 (2001).

140 It has been suggested in the database context that a three or four year term of protection for the relevant information property rights may be more appropriate than the original models that ranged between 15 and 25 year terms: Wesley L Austin, *A Thoughtful and Practical Analysis of Database Protection Under Copyright Law, and a Critique of Sui Generis Protection*, 3(1) J TECH L & POL'Y 3, ¶ 86 (1997), available at http://journal.law.ufl.edu/~techlaw/3-1/austin.html - last viewed at January 16, 2001 and on file with the author; Jeffrey C Wolken, *Just the Facts, Ma'am. A Case for Uniform Federal Regulation of Information Databases in the New Information Age*, 48 SYRACUSE L REV 1263, 1301 (1998).

most obvious advantages of property in this context are: (a) the benefit to market players of having a simple transactional tool to work with; and, (b) the ability to promote competing public interests in information as obligations inherent in property ownership.

The second problem with existing approaches to information property issues is that they tend to focus on current models of contract and intellectual property law. This is not particularly helpful. Arguing on an issue-by-issue basis about things like the duration of copyright, or the ability effectively to make fair use of digital copyright works in the wake of the DMCA, fails to approach issues of information property rights more generically and globally.

We need to start thinking about an over-arching system of information property rights that incorporates public duties. Those duties may take different forms in relation to different information assets, and may overlap with existing doctrines such as fair use in copyright law, but they will operate differently.

I am suggesting the acceptance and use of the property concept itself in relation to most, if not all, rights in commercially valuable information to both support efficient commercial activity in relation to such information, and to protect public interests in relevant information. Property is an ideal concept to achieve such a balance, if utilized and monitored appropriately. Property rights with inherent public obligations can be created in any way that a legislature sees fit. Historically, property has promoted commerce and preserved certain public interests in information where appropriate obligations have been imposed on property owners.[141] There is no reason to think that the same results cannot be achieved in the information age in relation to valuable information products.

---

[141] Examples of specific obligations owed to society by real property owners are provided in more detail in the following section. They include a landlord's obligation to maintain premises in good repair; a freehold land-owner's obligation not to waste premises and thereby harm the interests of remaindermen; the imposition of the rule against perpetuities to restrict dispositions a land-holder may make in a will to promote the overall public interest in the real property system.

Under such a model, for example, instead of placing an onus on private individuals to bear the costs of asserting an often ill-defined 'fair use' defense to an alleged copyright infringement, it would become an *obligation* attaching to copyright ownership that the *right-holder* ensures that certain uses of the copyright work are facilitated. These uses would need to be identified in relevant legislation somewhat more clearly than the current fair use provisions in copyright law. They would also need to be crafted so as to over-ride the operation of legislative provisions[142] and contractual/technological measures[143] that restrict *access* to the information property in question.

They would be *obligations* attaching to property ownership that would be enforceable at the behest of affected parties as strenuously as the property rights themselves could be asserted by the right-holders against 'bad faith'[144] copyright infringers.[145] These obligations might be extended to include duties of information property holders generally to facilitate *all* non-profit personal[146] and educational/scientific uses of their information products regardless of what

---

142 Such as the DMCA (17 U.S.C. § 1201).

143 Fisher, *supra* note ___; Madison, *supra* note ___; ProCD, *supra* note ___.

144 In this context, 'bad faith' copyright infringers need to be distinguished at the policy level from people who require to access and use copyright material in the public interest. This can be a difficult distinction, but a useful starting point is to focus on unfair commercial activities that compete with the copyright holder as the idea behind 'bad faith': Jacqueline Lipton, *Mixed Metahpors in Cyberspace: Property in Information/Information Systems*, forthcoming, LOYOLA LAW REVIEW, 2003.

145 Clearly to achieve these aims, significant thought would have to be put into distinguishing between an 'actual copyright infringer' and one who is entitled to access and use the copyright work in question as a matter of public policy. An 'actual copyright infringer' might be described in terms of the person's intent to economically injure the copyright holder, or in terms of the effect of that person's conduct being injury to the copyright holder. A bona fide user of copyright would presumably be defined in terms of a person with an intention to only make personal, educational, scientific etc uses of the material in question with no intention to injure the copyright holder, or with little chance of an injurious effect on the copyright holder resulting from his or her conduct. However, as the following discussion demonstrates, the property *obligations* model would not end with the idea of transforming 'fair use' exceptions to copyright into a right-holder's *obligations*. Thus, broader policy issues will arise than the problem of clearly delineating between a copyright infringer and a 'fair user'. *See* following discussion.

146 Adam D Moore, *A Lockean Theory of Intellectual Property*, 21 HAMLINE L REV 65, 85 (1997) (suggesting that a legal rule that allows for all non-profit personal uses of a intellectual work may be what is needed to maximize social utility in the area of valuable information).

technological or contractual measures might be in place to protect against unauthorized *competitive* market uses.

This model would obviously require detailed debate to determine the nature and scope of obligations to be imposed on information property owners in the public interest. Presumably, some thought would also have to be given to the actual implementation of those obligations, and the ability to re-work obligations if they are failing to strike an appropriate balance between private rights and public interests in information. Some of these issues are canvassed in the following section.

Despite the fact that the above example draws from fair use in copyright law, the information property model suggested in this paper would not be limited to copyright law. The more fundamental idea presented here is to create a model for all valuable 'information property rights' that balances those rights against various public interests in information and ideas. These public interests would likely include the kinds of things generally conceptualized under the fair use defense to copyright – such as scientific, educational, research, and private uses of information products. However, it could also incorporate interests such as privacy interests in relation to personal information, moral rights of authors in relation to their works, cultural rights in relation to information products derived from the works or traditions of specific cultural groups etc.

Thus, another example of how the model might operate in practice would be the imposition of obligations on information property right-holders in relation to the accuracy of any personal information maintained in a proprietary database[147] about particular individuals, and to the ability of the individuals in question to access and/or

[147] This suggestion is not implying any particular proprietary model for rights in databases; the suggestions about creating obligations in a database to counterbalance relevant property rights in the database could work under a copyright model of database protection such as that currently found in Australia (Telstra Corporation Limited v Desktop Marketing Systems Pty Ltd FCA 612 (2001), available at http://www.austlii.edu.au/au/cases/cth/federal_ct/2001/612.html, last viewed on Nov. 2, 2001, upheld by the Full Federal Court of Appeal and currently on appeal to the High Court of Australia), and/or a *sui generis* model such as that found in the E.U. Database Directive.

require removal of particular information from a database.[148] Crafting such provisions as *obligations* attached to property ownership might avoid arguments about the necessity to create strong property or personal privacy rights in personal data[149] under *sui generis* legislation; this could all be taken care of as part of the legislation creating the relevant property rights.

In a sense, this is what has been done in the European Union under the E.U. Data Protection Directive.[150] This Directive imposes significant limitations on what a 'controller'[151] of data may do with personal data about individuals. There are clear limitations on unauthorized uses and transfers of personal data imposed by the Directive on such controllers.[152] Controllers of personal data will often be organizations that manage large databases, and that can assert *sui generis* proprietary rights in their databases under the E.U. Database Directive. Thus, imposing obligations on such controllers under the Data Protection Directive is an effective counterbalance to the proprietary rights granted in the database.

This begins to look like an example of what I am suggesting in this paper, although obviously in a much more limited context. Here, an obligation to protect personal privacy of individuals is imposed *on an information property owner* as a

---

148 Models for such legislation can be found in some jurisdictions already, although not described in terms of incidents of property ownership of the information assets in question. *See*, for example, Privacy Act, 1988 (Australia), §§14.7, 14.8.

149 *See*, for example, Jessica Litman, *Information Privacy/Information Property*, 52 STAN L REV 1283 (2000) (arguing against the need for property rights in personal data and evaluating the basis for privacy rights in such data).

150 Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995.

151 The Directive defines 'controller' as: 'the natural or legal person, public authority, agency or any other body which alone or jointly with others determines the purposes and means of the processing of personal data': Art 2(d).

152 Data Protection Directive, Art. 6 sets out basic principles of fairness and lawfulness in relation to processing data, including provision that data should only be collected for 'specified, explicit, and legitimate' purposes (Art 6(1)(b)), data should be kept in a form that does not identify data subjects for longer than is necessary in respect of the purposes for which the data was collected (Art 6(1)(e)). The Directive also sets out a general prohibition on: 'the processing of personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, trade-union membership, and the processing of data concerning health or sex life' (Art. 8(1)), subject to some limitations. Art. 12 provides a right of access to data in relation to data subjects. Art. 25 provides a general prohibition of transfers of data by a controller to someone in a third country which does not ensure an adequate level of data protection. Again, there are exceptions to this set out in Arts. 25-26.

public interest limitation on its otherwise relatively unfettered proprietary interest in a database. The Data Protection Directive does not require private individuals to safeguard their own personal privacy interests, but puts the legal and financial burdens on the data controllers themselves to protect personal privacy interests of individuals. Although I would prefer a more comprehensive and generic approach to balancing public interests and private rights in information products, the European Union laws relating to databases and personal data contained therein demonstrate that information property rights can effectively incorporate public obligations.

Another area that could benefit from the model suggested in this paper relates to moral rights, which have had a greater impact to date in Europe than in the United States.[153] These are rights attached to authors of works that promote and preserve the integrity of the work in question (right of 'integrity'),[154] and the right of the author to be identified as the creator of the work in question (right of 'attribution').[155] These rights of the author could be re-cast as *obligations* of the copyright-holder which would again put the onus on the property right holder to protect the rights of the author as a social duty attached to the ownership of the property right.[156] In this context, some difficult policy choices have to be made in the international arena as to

---

153 Marina Santilli, *United States' Moral Rights Developments in European Perspective*, 1 MARQ. INTELL. PROP. L. REV. 89 (1997); Natalie C Suhl, *Moral Rights Protection in the United States Under the Berne Convention: A Fictional Work?*, 12 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1203 (2002); Susan P Liemer, *Understanding Artists' Moral Rights: A Primer*, 7 B.U. PUB. INT. L.J. 41 (1998).

154 The right of integrity is basically a right of the author not to have his/her work mutilated in any way and/or subject to any kind of derogatory treatment: Copyright Act, 1968 (Australia), § 195AI; 17 U.S.C. §106A(a)(3); Copyright, Designs, and Patents Act, 1988 (Eng), § 80.

155 The right of attribution is basically a right of an author of a work to have his/her work attributed to him/her, not to have the work falsely attributed to someone else, and/or not to have a work attribute to him/her that (s)he did not create: Copyright Act, 1968 (Australia), §§ 193, 195AC; 17 U.S.C. §§ 106A(a)(1), 106A(a)(2); Copyright, Designs, and Patents Act, 1988 (Eng), § 77.

156 The legal nature of moral rights has proved somewhat elusive in the past. It has been unclear whether they are best regarded as personal rights of the author or artist, or rather as a species of property rights in the hands of the author/artist: Dane S Ciolino, *Moral Rights and Real Obligations: A Property-Law Framework for the Protection of Authors' Moral Rights*, 69 TUL. L. REV. 935 (1995). It may therefore be preferable to take a fresh approach to these rights and regard them rather as *proprietary obligations* imposed on the holder of the relevant copyright to the benefit of the author/artist, perhaps like the obligation a trustee owes to a beneficiary.

the necessity for these rights given that major trading jurisdictions have not, in the past, seen eye to eye on the need for such rights.

The same would be true of policy decisions about protecting cultural rights attached to information products, as part of a model incorporating public duties in respect of information property. Legislatures would have to decide what kind of cultural interests should be protected as a duty attached to property ownership. There would also be a global dimension here, as with many other duties that might attach to information property ownership. Often cultural and moral rights in particular will attach to people or groups who are in a different jurisdiction to the person asserting a relevant information property right. This is all the more reason to consider these issues on a global scale where possible, perhaps through the auspices of an international organization, such as the World Intellectual Property Organization [hereinafter, 'WIPO'].[157]

B. MODELLING OBLIGATIONS OF PROPERTY OWNERSHIP

i. Traditional Obligations of Property Ownership

The above suggestions may seem novel from a legal point of view, but the novelty is only in applying traditional ideas of property to the information age. The notion of incorporating public duties into property ownership has existed in most traditional theories and models of property law. In the information property context, it is important to examine and understand how those obligations have developed and played out in more traditional areas of property law in order to develop an efficient and effective system for information property law.

The familiar 'bundle of rights' description of property,[158] for example, explains property in terms of a 'bundle' of sticks that make up the various rights held

---

157 *See* http://www.wipo.org.

158 HOHFELD, *supra* note ___.

by a property owner.[159] Property can exist in different items with greater or lesser sticks in the bundle.[160] The typical 'sticks', or 'rights', connoting property ownership under this model are the rights to use, exclude others from, and transfer an item.[161] These rights in particular are the hallmarks of the ability to trade with an item in commerce. The ability to use and transfer something gives the owner the opportunity to profit from the item, while the right to exclude others can preserve its value if the same, or similar, items are not freely, or more cheaply, available from other sources. Thus, property is a useful concept for promoting efficient market transactions.

However, what is often unfortunately forgotten about this 'bundle of rights' notion of property is that the bundle does not *only* include rights. Traditionally it has also included *obligations* owed by the property holder to society at large.[162] Examples of such obligations are: the obligation to maintain the premises in good repair;[163] the obligation to allow certain persons on to the property for particular purposes;[164] the obligation to allow people on the property to express themselves

---

159 Kenneth Campbell, *On the General Nature of Property Rights*, 3 KING'S COLLEGE LAW JOURNAL 79, 90 (1992); Michael Heller, *The Boundaries of Private Property*, 108 YALE LJ 1163, 1191 (1999); William W Fisher III, *Property and Contract on the Internet*, 73 CHI-KENT L REV 1203, 1207 (1998); James Boyle, *A Theory of Law and Information: Copyright, Spleens, Blackmail, and Insider Trading*, 80 CALIF L REV 1413, 1459 (1992); Pamela Samuelson, *Information as Property: Do Ruckelshaus and Carpenter Signal a Changing Direction in Intellectual Property Law?*, 38 CATH U L REV 365, 370 (1989); Chander, *supra* note ___, at 776.

160 Pamela Samuelson, *Information as Property: Do Ruckelshaus and Carpenter Signal a Changing Direction in Intellectual Property Law?*, 38 CATH U L REV 365, 370-371 (1989) (noting that a 'bundle of rights' may be 'thicker or thinner' but need not have a particular thickness to rise to the status of property so it is not impossible that information products can amount to property under the 'bundle of rights' description).

161 Chander, *supra* note ___, at 776; JACQUELINE LIPTON, SECURITY OVER INTANGIBLE PROPERTY, 12-14 (2000).

162 Joan L McGregor, *Property Rights and Environmental Protection: Is This Land Made for You and Me?*, 31 ARIZ. ST. L.J. 391, 396 (1999) (Hohfeld's 'bundle of rights' theory of property includes a duty of a property owner to prevent harm to others); J E Penner, *The 'Bundle of Rights' Picture of Property*, 43 UCLA L REV 711, 761 (Honoré's concept of ownership includes the prohibition of harmful use of property).

163 For a statutory example of this duty in the landlord and tenant context, *see* Ohio Revised Code (Annotated), § 5321.04 (setting out statutory duties of a landlord to maintain premises in good repair).

164 *See* William W Fisher III, *Property and Contract on the Internet*, 73 CHI-KENT L REV 1203 (1998) (noting the qualifications and exceptions to property rights in the physical world).

freely;[165] the obligation to pay taxes when required by the government; and, the obligation to cede the property to the government if required.[166]

If this idea of property-holders' *obligations* were incorporated into information property theory, the kinds of obligations involved would be different to those arising in the world of physical property. They might include things like: an obligation to facilitate scientific, technical, and educational uses of information in the public interest; an obligation to ensure the accuracy and accessibility to an individual of any personal information about him/her incorporated into a proprietary database;[167] an obligation not to subject an information product incorporating an author's creative work to derogatory treatment and/or to falsely attribute the work;[168] and, an obligation to protect cultural rights and interests in relevant information assets. Additional possibilities would include the obligation to submit to a compulsory licensing scheme in appropriate situations where there are powerful public interests in favor of such a scheme.[169]

---

165 Pruneyard Shipping Centers v. Robins, 447 U.S. 74 (1980) (on the use of free speech rights as a qualification on property ownership rights).

166 This happens in the United States under the doctrine of 'eminent domain' which is the power of a sovereign to take property for public use without the owner's consent': David B Fawcett III, *Eminent Domain, The Police Power, and the Fifth Amendment: Defining the Domain of the Takings Analysis*, 47 U. PITT. L. REV. 491, 491 (1986); J. SACKMAN, NICHOLS LAW OF EMINENT DOMAIN § 1.11 (rev. 3d ed. 1983).

167 This could be modelled on legal systems which include obligations of accuracy and rectification in personal information: *See* Privacy Act, 1988 (Australia), §§14.7, 14.8.

168 This supports the idea that the owner of an information product should have a legal duty to protect an author's moral rights in relation to a work, rather than the entire legal and financial burden of protecting the moral right resting solely on the author's shoulders.

169 Compulsory licensing is both politically and practically difficult to achieve and implement, and was, in fact, deleted from the final version of the E.U. Database Directive. However it may be necessary to seriously re-think the adoption of compulsory licensing regimes with respect to property rights in some information products if a government's policy aims in the digital information economy are to include an appropriate balance between private rights and public interests. There are a number of practical examples of compulsory licensing in place today which could be used as models that could be evaluated for their effectiveness in the context of a discussion about more broadly adopting compulsory licensing obligations for digital information products: *See* Patents Act, 1977 (Eng.), §48. In particular, compulsory licensing comes up repeatedly in debates about international access to patented pharmaceuticals: Dora Kripapuri, *Reasoned Compulsory Licensing: Applying U.S. Antitrust's "Rule of Reason" to TRIP's Compulsory Licensing Provision*, 36 NEW ENG.L. REV. 669 (2002); Joseph A. Yosick, *Compulsory Patent Licensing For Efficient Use of Inventions*, 2001 U. ILL. L. REV. 1275 (2001); Patrick Marc, *Compulsory Licensing and the South African Medicine Act of 1997: Violation or Compliance of the Trade Related Aspects of Intellectual Property Rights Agreement?*, 21 N.Y.L. SCH. J. INT'L & COMP. L. 109 (2001).

Although some of these possibilities may seem far-fetched or difficult to achieve politically, it is important to keep in mind that quite powerful public duties have been imposed on property owners throughout the ages, particularly in relation to land ownership. It is not an impossible step to draw on similar public policy concerns in the information age to create the same kind of dynamic in relation to information property rights. Real property ownership, like information property ownership, has powerful social consequences. The ability to own and monopolize land, like the ability to own and monopolize information and ideas, is something that must be carefully organized and monitored to achieve maximum benefits for society.

ii. Land Law

Land law has never granted absolute rights to real property owners.[170] Duties to the public at large or to a specific sub-set of the public have always been imposed on private land-holders. One example is the obligation imposed on a life tenant (property owner) to protect the interests of remaindermen of the relevant property under the doctrine of waste.[171] Another example is the obligation imposed on a landlord to maintain premises in good repair for the benefit of tenants, and others who may enter the premises.[172] As mentioned previously, there are also more general public obligations, such as the obligation to pay property taxes.

The rule against perpetuities is another example of the way land law has historically balanced private and public interests in realty in a more general way. This rule limits the kinds of dispositions an owner may make of his/her property in his/her

---

170 The most obvious example of this is the doctrine of eminent domain' which is the power of a sovereign to take property for public use without the owner's consent': David B Fawcett III, *Eminent Domain, The Police Power, and the Fifth Amendment: Defining the Domain of the Takings Analysis*, 47 U. PITT. L. REV. 491, 491 (1986); J. SACKMAN, NICHOLS LAW OF EMINENT DOMAIN § 1.11 (rev. 3d ed. 1983). The sovereign can always take property from property owners, although it may have to pay compensation.

171 *See* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW, 83-84 (5th ed, 1998); Restatement 1st of Property, §§ 156, 197, 204 (on duties of holders of present interests in property to preserve the rights of certain future interest-holders).

172 *See*, for example, Ohio Revised Code, § 5321.04 (statutory duties of a landlord to maintain premises in good repair).

will.[173] Again, there are public obligations at work in the application of this rule. The purposes of the rule include: (a) promoting certainty of title to real property;[174] (b) facilitating transferability of title;[175] (c) discouraging the 'fractionation' of title;[176] and, (d) restricting 'dead hand' interests in realty; that is, preventing a deceased person's wishes from determining even far remote interests in land.[177]

These aims are all related to the overall public interest in the land-holding system. Many of them are focused on facilitating dealings in land to the benefit of the market in general, and thus presumably also to the benefit of society. The fact that the rule against perpetuities restricts alienation of interests in land is particularly pertinent to this discussion. The rule exemplifies a clear public policy limitation on what a private right holder can do with his/her rights in terms of alienability. As alienability is a key element of property ownership,[178] this is a clear example of where real property law has historically been prepared to encroach on even this most basic aspect of property holding to protect the general public interest in property dealings.

The above examples from real property law demonstrate that even in an area where significantly powerful property rights are granted, often equally powerful obligations will be imposed on property owners to maintain an appropriate public/private interest balance. It is not for a tenant to establish to the satisfaction of a court that (s)he has some vague right not to be injured by the state of the premises in question. It is rather an obligation imposed squarely on the landlord by law, even though the tenant may have to initiate legal action to ensure that the landlord fulfils

---

173 Sharona Hoffman and Andrew Morriss, *Birth After Death: Perpetuities and the New Reproductive Technologies*, forthcoming, GEORGIA L REV, 2003; CUNNINGHAM, *supra* note ___, §3.17, at 136-138; J GRAY, THE RULE AGAINST PERPETUITIES, 191 (4th ed, 1942).

174 Hoffman and Morriss, *supra* note ___, at ___.

175 *id*, at ___.

176 *id*, at ___.

177 *id.*, at ___.

178 Chander, *supra* note ___, at 776; Litman, *supra* note ___, at 1295-1297; LIPTON, *supra* note ___, at 12-14.

his or her duties.[179] This can be onerous for the tenant, but not as onerous as convincing a court that (s)he actually *has* a basic right to enjoy the premises in good repair.

This contrasts with the 'fair use' approach to information property rights, where a user will often shoulder the burden of proving to the satisfaction of a court that (s)he has a right to make the use in question. This does not even take into account the difficulties that might be faced in establishing a right to *access* a relevant information product in order to get to the point of arguing about fair use. Real property owners are entitled to use and enjoy their property and to exploit it commercially. However, they also owe duties to the public that can be enforced by anyone harmed by a failure to fulfil a relevant duty. This model can be adapted to the field of information property rights.

Another advantage with looking to real property law for a model for information property rights is that real property law has traditionally been able to deal with situations where obligations may be owed by a property holder to more than one person at a time, and where not all potential 'beneficiaries' of an obligation are necessarily identified at the time of creation of the property right. The doctrine of waste, for example, has traditionally dealt with situations where remaindermen may not be identifiable, and may even be unborn, at the time of the creation of the life estate.[180]

Thus, in the information property context, it would not be a problem that potential 'beneficiaries' of an obligation imposed on an information property holder would not necessarily be existent or identifiable at the time of creation of the property

---

179 In some states there may also be criminal sanctions for failing to fulfil the obligation to maintain premises in good repair. The criminalization of this conduct clearly connotes the general public nature of the obligations imposed on the property holder. The failure to maintain leased premises in a habitable condition is a violation of several local housing and/or building codes in various states, and is a breach of the common law warranty of implied habitability. Sanctions for failure to comply with housing and/or building codes include substantial fines which are compounded daily. Criminal sanctions are imposed for criminal contempt when a landlord fails to comply with court or agency orders in this respect. *See* CUNNINGHAM, *supra* note 42, §§ 6.37-6.38, at 306-321; N.Y. Admin C §§ 27-2115(a), (h), 27-2029(a), 27-2031.

180 RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW, 83-84 (5th ed., 1998).

interest. If a proprietary interest in a particular database came into existence prior to a scientist developing an interest in accessing a portion of that database, the scientist's interest might nevertheless be included in a general public obligation attached to database ownership to allow access for certain scientific and educational purposes.

Trust law, too, has dealt with situations where a property holder owes significant duties in respect of the trust property to the beneficiaries, whether or not all beneficiaries are named or identifiable at the time of the creation of the trust.[181] Trust law is clearly not a perfect analogy to what is being described here, because the trustee's sole charge is to hold property for the benefit of others.[182] The information property holder on the other hand, like the real property holder described above, is permitted to utilize his or her property for his or her own commercial benefit, while at the same time safeguarding certain public interests.

Trust law is, in fact, an interesting metaphor her. Professor Ryan has suggested that it is possible to create a 'public trust' model for information property rights in cyberspace as a solution to the perceived over-commodification of digital information.[183] She argues that we could develop a public trust model to protect the public domain of information and ideas in cyberspace.[184] This is a very interesting and valuable argument, and is taken up in more detail towards the end of this discussion.

---

181 Restatement of the Law, Second, Trusts, §§ 120, 122 (on the rules for creating a valid trust in respect of a class of beneficiaries). The trust rules will not apply *mutatis mutandis* to the model suggested in this paper, but as a loose parallel it shows that the law has not previously objected to creating obligations towards a group of people that may in some way be identified by the obligor at some point after the creation of the property right in question.

182 Restatement of the Law, Second, Trusts, § 170(1) (the trustee has a duty to administer the trust solely in the interest of the beneficiary/beneficiaries); JOHN GLOVER, COMMERCIAL EQUITY: FIDUCIARY RELATIONSHIPS, 156-186 (1995) (on the duties of the trustee not to make personal profits from the trust and not to put himself/herself in a position where his/her interests conflict with those of the beneficiary/beneficiaries).

183 Maureen Ryan, *Cyberspace as Public Space: A Public Trust Paradigm for Copyright in the Digital World*, 79(3) OREGON L R 647 (2000).

184 *id.*

However, it is important at this point to distinguish Professor Ryan's suggestions from my own. Professor Ryan is talking about using a trust model in a public sense to protect an intellectual commons. I am suggesting the use of a private property model that incorporates specific public duties inherent in property ownership to achieve some balance between private and public interests in information. My model is not addressed specifically at protection of the public domain *per se*.

One of my assumptions is that an appropriate balance may be achieved between private and public interests in property through tailoring private rights more effectively to the needs of society more generally. Nevertheless, the models are not mutually exclusive. It would certainly be possible to combine elements of my model with those of the model suggested by Professor Ryan, and others writing along similar lines,[185] if that proves to be the most effective way of balancing private and public interest in information. This possibility is addressed in more detail in the following discussion.

iii. Locke and Obligations of Property Ownership

The idea of balancing private rights against public duties of property ownership is also inherent in the Lockean justification for property rights. This is a particularly pertinent issue for a discussion of information property rights. Lockean ideas of property were used historically to justify the grant of property rights in the physical world,[186] and have increasingly come to be utilized to justify the grant of intellectual property rights.[187]

---

185 For example, Madison, *supra* note ___, at 1137-1140 (advocating the developing of a Congressionally sanctioned jurisdiction of the 'public domain' to counter-balance concerns about over-commodification of digital copyright works).

186 Herman Schwartz, *Property Rights and the Constitution: Will the Ugly Duckling Become a Swan?*, 37 AM. U.L. REV. 9, 12-19 (1987) (analyzing the way in which Lockean theory has been applied to real property law in the United States); Carol Rose, *Possession as the Origin of Property*, 52 U. CHI. L. REV. 73, 73 (1985) (noting the prevalence of the Lockean theory to explain property law); Richard Epstein, *Private Property and the Power of Eminent Domain: A Last Word on Eminent Domain*, 41 U. MIAMI L. REV. 253 , 254-256 (1986) (applying Locke's theory to the United States real property system); Joan L McGregor, *Property Rights and Environmental Protection: Is This Land Made for You and Me?*, 31 ARIZ. ST. L.J. 391, 399-413 (1999) (examination of Lockean influence on modern real property theory).

187 Benjamin G. Damstedt, *Limiting Locke: A Natural Law Justification for the Fair Use Doctrine*, 112 YALE L.J. 1179, 1179-1181 (2003)(importance of Lockean theory in justifying

An interesting divergence between the way that Lockean property theory was originally explained in relation to realty, and the way it is now utilized in the context of information property rights, involves the imposition of public duties on property owners. Under traditional Lockean theory, it was always contemplated that property owners would owe particular obligations to society at large in respect of their property ownership.[188] However, in the information property context, these obligations have been largely overlooked. Although some commentators on Locke in the intellectual property context have tackled these obligations,[189] there is, as yet, no consensus as to how they would be played out in information property law and theory. This is not surprising as there is still no real consensus as to how these obligations are played out in the physical world.[190] However, at least 'real world' property involves some obligations, as detailed above.

---

intellectual property rights); Edwin C Hettinger, *Justifying Intellectual Property*, 18(1) PHILOSOPHY AND PUBLIC AFFAIRS, 31, 36-47 (1989) (Lockean analysis applied to intellectual property); Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO L J 287, 297-330 (1988) (Lockean analysis of intellectual property rights and obligations); Adam D Moore, *A Lockean Theory of Intellectual Property*, 21 HAMLINE L REV 65 (1997); Fisher, *supra* note ___, at 1212-1215 (recognizing the Lockean justification for intellectual property rights); Wendy Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE LJ 1533, 1549-1564 (1993)(application of Lockean theory to intellectual property); Wendy Gordon, *On Owning Information: Intellectual Property and the Restitutionary Impulse*, 78 VA L REV 149, 169-170 (1992) (criticism of Lockean theory in the intellectual property context).

188 Hughes, *supra* note ___, at 315-329 (on the Lockean provisos not to waste resources and to leave 'as much and as good' to the commons, as applied to intellectual property).

189 Edwin C Hettinger, *Justifying Intellectual Property*, 18(1) PHILOSOPHY AND PUBLIC AFFAIRS, 31, 36-47 (1989) (Lockean analysis applied to intellectual property); Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO L J 287, 297-330 (1988) (Lockean analysis of intellectual property rights and obligations); Adam D Moore, *A Lockean Theory of Intellectual Property*, 21 HAMLINE L REV 65 (1997); Fisher, supra note ___, at 1212-1215 (recognizing the Lockean justification for intellectual property rights); Wendy Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE LJ 1533, 1549-1564 (1993)(application of Lockean theory to intellectual property); Wendy Gordon, *On Owning Information: Intellectual Property and the Restitutionary Impulse*, 78 VA L REV 149, 169-170 (1992) (criticism of Lockean theory in the intellectual property context).

190 Adam Mosoff, *Locke's Labor* Lost, 9 U CHI L SCH ROUNDTABLE 155 (2002) (critiquing previous literature on the application of Lockean theory to general property law); Herman Schwartz, *Property Rights and the Constitution: Will the Ugly Duckling Become a Swan?*, 37 AM. U.L. REV. 9, 12-19 (1987) (analyzing the way in which Lockean theory has been applied to real property law in the United States); Carol Rose, *Possession as the Origin of Property*, 52 U. CHI. L. REV. 73, 73 (1985) (noting the prevalence of the Lockean theory to explain property law); Richard Epstein, *Private Property and the Power of Eminent Domain: A Last Word on Eminent Domain*, 41 U. MIAMI L. REV. 253 , 254-256 (1986) (applying Locke's theory to the United States real property system); Joan L McGregor, *Property Rights and*

Traditional Lockean theory holds that one is entitled to a property right in the 'fruits of one's labors'.[191] Locke also included a proviso, that could be regarded as a *public duty*, that 'as much and as good' be left to the common.[192] He also included a concern that property not be 'wasted',[193] and that the appropriation of property by one person does not harm others in the society.[194] These concerns can be interpreted as examples of *obligations* imposed on a property owner connected to his or her ownership of the property in question.

These obligations make more sense in relation to rivalrous goods such as land, crops, and livestock, than in relation to non-rivalrous goods such as information.[195] Because information can exist in more than one place at the same time, and it is far from clear that there is an 'intellectual commons' of information and ideas,[196] the

---

Environmental Protection: Is This Land Made for You and Me?, 31 ARIZ. ST. L.J. 391, 399-413 (1999) (examination of Lockean influence on modern real property theory).

191 Francis A Citera, *Vested Seniority Rights: A Conceptual Approach*, 36 U. MIAMI L. REV. 751, 757 (1982); Stephen R Munzer, *The Acquisition of Property Rights*, 66 NOTRE DAME L. REV. 661, 675 (1991) (assuming that it is morally wrong for a non-worker to intercept the fruits of a worker's efforts); Benjamin G. Damstedt, *Limiting Locke: A Natural Law Justification for the Fair Use Doctrine*, 112 YALE L.J. 1179, 1181 (2003) (a person is entitled to a property right in the product of his efforts under Lockean theory applied to intellectual property); Benjamin G. Damstedt, *Limiting Locke: A Natural Law Justification for the Fair Use Doctrine*, 112 YALE L.J. 1179, 1193 (2003) (acknowledging the 'fruits of one's labors' justification for property in Lockean theory).

192 Wendy Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE L J 1533, 1562-1563 (1993); Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO LJ 287, 297-298 (1988).

193 Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO LJ 287, 298 (1988). A number of other duties can be found in Locke's treatises including duties to let others share in one's resources in times of great need, a duty not to interfere in resources produced by others laboring on the common, a duty not to harm others, etc.: Wendy Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE L J 1533, 1541-1543 (1993).

194 Wendy Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE L J 1533, 1541-1543 (1993); Edwin C Hettinger, *Justifying Intellectual Property*, 18(1) PHILOSOPHY AND PUBLIC AFFAIRS, 31, 39-40 (1989).

195 Benjamin G. Damstedt, *Limiting Locke: A Natural Law Justification for the Fair Use Doctrine*, 112 YALE L.J. 1179, 1188 (2003) (non-rivalrous goods can be used at the same time by different people as opposed to tangible rivalrous goods which may only be used by one person at a time).

196 Some literature does assume that there is an 'intellectual commons' of information, ideas, and works that reside in the public domain and are not owned by anyone: Wendy Gordon, *A*

Lockean theory does not neatly map on to information property in respect of obligations to 'leave as much and as good in the common', and not to 'waste' goods. Therefore, the attraction in adapting the Lockean theory to information property is that it contemplates rewarding labor with property rights: one is entitled to the fruits of one's labors. The Lockean *obligations* of ownership have simply been sidelined in this context.

Herein lies a fundamental problem of the modern development of information property law, and its justification through the 'labor theory' of property rights. The justification for property rights in information has come from only *part* of the basic theory historically underlying property law. The 'rights granting' part of the Lockean theory has been applied to information property rights to justify the reward of a property right in return for effort. However, the social balance incorporated by the Lockean provisos has been omitted from these new property rights because the traditional obligations contemplated in the Lockean theory do not 'fit' the information property paradigm. Rather than accepting the importance of social obligations as part of information property ownership, and creating appropriate obligations for information property, this aspect of the Lockean property theory has more or less been removed from the application of the theory to information property.

The same can be said of the utilitarian theory of information property rights and the 'bundle of rights' model of property as applied to information property. The utilitarian theory justifies the grant of property rights as an incentive to innovate.[197] Legislatures have not recognized the importance of identifying and imposing significant obligations alongside what often become powerful information property

---

Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property, 102 YALE LJ 1533, 1559 (1993): Madison, *supra* note ___, at 1097; Hughes, *supra* note ___, at 315 (noting that the intellectual commons is actually more similar to the commons that Locke had in mind than the physical commons). *See* also Malla Pollack, *The Owned Public Domain: The Constitutional Right Not to be Excluded-Or the Supreme Court Chose the Right Breakfast Cereal in Kellogg v. National Biscuit Co*, 22 HASTINGS COMM. & ENT. L.J. 265 (2000) (on the nature of the public domain); Benjamin G. Damstedt, *Limiting Locke: A Natural Law Justification for the Fair Use Doctrine*, 112 YALE L.J. 1179, 1191-1192 (2003) (comparing the nature of the intangible intellectual commons with the physical commons originally contemplated by Locke), 1192-1193 (distinguishing the 'intellectual common' from the public domain and criticizing previous scholarship for conflating the two).

[197] Hettinger, *supra* note ___, at 47-48; Moore, *supra* note ___, at 65.

rights. Again, the focus has been on reward/incentive for innovation, and not on the responsibilities that should be inherent in the grant of the relevant rights.

As described in the preceding section, the 'bundle of rights' model has not been utilized to create obligations that might be imposed on information property holders. Instead, commentators have tried to demonstrate how the bundle of rights theory might *explain* the nature of information property rights, but only in terms of the rights that may be asserted by the property owner against others.[198] The debates to date have not addressed the kinds of obligations that should be imposed on owners as a condition of the grant of property ownership. This is out of step with traditional 'bundle of rights' jurisprudence in relation to physical world property ownership.

Thus, an important first step has been made by using all of these theories of property to explain the possible basis for the existence of property rights in information. The next logical step is to take the parts of these theories that relate to the public duties imposed alongside property ownership, and to apply them to information property. Obviously, the obligations will not look the same, or work the same way, as they do in the physical world.[199] This is because of the non-rivalrous nature of information, and because of the nature of the particular public interests that need to be protected in information.

It is important that future debates consider ways of framing public obligations for the information property context. We need to recognize that property theory has never supported the creation of absolute private rights devoid of any social responsibilities. As with the development of all property rights, we need to carefully

---

198 Pamela Samuelson, *Information as Property: Do Ruckelshaus and Carpenter Signal a Changing Direction in Intellectual Property Law?*, 38 CATH U L REV 365, 370-371 (1989) (noting that a 'bundle of rights' may be 'thicker or thinner' but need not have a particular thickness to rise to the status of property so it is not impossible that information products can amount to property under the 'bundle of rights' description).

199 In fact, no property regime looks the same as any other property regime in terms of rights or duties of property holders: Joan L McGregor, *Property Rights and Environmental Protection: Is This Land Made for You and Me?*, 31 ARIZ. ST. L.J. 391, 423 (1999) (incidents of ownership will vary even in physical world property systems in relation to the kind of thing that is owned and the context or community in which it is owned).

identify and define the limits of the public duties that should be imposed as a condition of information property ownership.

iv. Obligations of Information Property Ownership

In fact, the task of imposing social obligations on information property ownership is not as alien as it might first seem. A number of public duties already exist in intellectual property law, although they are not specifically described as obligations in the sense detailed in this paper. The problem in the current system is therefore not that there are *no* obligations imposed on information property owners. Rather, the balance of rights and obligations is in the wrong place. There are insufficient obligations imposed on information property holders to support important public interests.

Additionally, the current obligations of property ownership do not effectively deal with situations involving the use of contractual and technological protection measures by information property holders. Obligations to preserve science, technological advancement, education, moral rights, and cultural rights need to be more powerful than current contractual and technological measures that restrict access to information assets.

The obligations currently existing as a condition of ownership of certain intellectual property rights are a useful starting point for considering the development of more detailed and powerful social obligations for information property. Current intellectual property regimes at least demonstrate that no property rights, including intellectual property rights, have ever been absolute. Intellectual property right-holders have traditionally been subject to government mandated obligations as a condition of their property ownership. These are obligations in the sense of duties affirmatively to take particular action in respect of various kinds of information property.

As a pre-condition to the grant of a number of intellectual property rights, for example, a developer will often be required to submit to registration procedures that

may involve disclosure of valuable information,[200] submission to expert examination,[201] and/or submission of various affidavits in respect of current and intended uses of the property in question.[202]

In some jurisdictions, intellectual property right-holders are subject to compulsory licensing regimes in respect of their rights.[203] This is an obvious example of the imposition of a public duty inherent in an information property right. Under these schemes, right-holders are subject to certain public policy limitations on their property rights, and are required to license their property to others when the public interest mandates such a result.[204] Although compulsory licensing can be contentious, and problematic in practice,[205] it is clearly an example of a legislative balance between private rights in an information product and public interests in preventing unfair monopolies in the relevant information. The right-holder is subject to an

---

200 An obvious example is found in patent schemes requiring inventors to disclose full details of inventions for which a patent is claimed in return for the grant of the patent: 35 U.S.C. 11, §111. In the United States, applicants for copyright registration must disclose certain information about the copyright work in question: 17 U.S.C. 4, § 409. This is not the case in many other jurisdictions, including E.U. Member States, that do not have any copyright registers and therefore have no copyright registration requirements.

201 Again, patent law provides an obvious example here: 35 U.S.C. 12, § 131. There are also examination and publication requirements in trademark law: 15 U.S.C. 22, §1062A.

202 In the trademark law context, *see* 15 U.S.C. 22, §1051 (requiring applicants for trademark registration to submit affidavits in relation to bona fide existing or intended uses of the relevant mark).

203 *See* Patents Act, 1977 (Eng.), § 48.

204 *id*., § 50(1)(a) (public interest to be taken into account in compulsory licensing decision).

205 Compulsory licensing is both politically and practically difficult to achieve and implement, and was, in fact, deleted from the final version of the E.U. Database Directive. However it may be necessary to seriously re-think the adoption of compulsory licensing regimes with respect to property rights in some information products if a government's policy aims in the digital information economy are to include an appropriate balance between private rights and public interests. There are a number of practical examples of compulsory licensing in place today which could be used as models that could be evaluated for their effectiveness in the context of a discussion about more broadly adopting compulsory licensing obligations for digital information products: *See* Patents Act, 1977 (Eng.), §48. In particular, compulsory licensing comes up repeatedly in debates about international access to patented pharmaceuticals: Dora Kripapuri, *Reasoned Compulsory Licensing: Applying U.S. Antitrust's "Rule of Reason" to TRIP's Compulsory Licensing Provision*, 36 NEW ENG.L. REV. 669 (2002); Joseph A. Yosick, *Compulsory Patent Licensing For Efficient Use of Inventions*, 2001 U. ILL. L. REV. 1275 (2001); Patrick Marc, *Compulsory Licensing and the South African Medicine Act of 1997: Violation or Compliance of the Trade Related Aspects of Intellectual Property Rights Agreement?*, 21 N.Y.L. SCH. J. INT'L & COMP. L. 109 (2001).

obligation to release the property to another when required to do so in the public interest.[206]

Another example of an obligation inherent in intellectual property ownership is found in trademark law. In most jurisdictions, trademark law requires registered trademark holders to submit to cancellation of registration if their mark becomes 'generic'.[207] This can be regarded as an obligation to return to society a private asset when the public need for access to that information product outweighs the justification for the private right.[208] In other words, when a mark becomes the generic term that society uses to describe a particular product or service, it is unfair to allow the registrant of the mark to continue to monopolize it as a private asset. A generic mark has effectively entered the public domain as part of the general vocabulary, and it should not be private property. Inherent in the grant of the original private property right in the mark is the understanding, or condition, that if the mark becomes generic it will be surrendered into the public domain in the public interest.

Even the 'built in' expiration dates of intellectual property rights, such as copyrights and patents, could be regarded as examples of *obligations* of right-holders to return information assets to the public domain,[209] although in the modern world these obligations have clearly been tempered by contractual and technological

---

206 *See* Patents Act, 1977 (Eng.), §§ 48-50. The compulsory licensing scheme in the British patent legislation allows compulsory licenses of patents in the public interest, provided that the patentee is reasonably compensated. Note in particular §§ 50(1)(a) (public interest criteria) and 50(1)(b) (compensation to patent holder).

207 15 U.S.C.22, §1064(3); Trade Marks Act, 1995 (Australia), § 24; Trade Marks Act, 1994 (Eng.), § 46(1)(c).

208 Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO L J 287, 322-323 (1988) (describing this phenomenon in terms of Lockean property theory, stating that once the private property owner has been so successful in its marketing that it has 'lulled society into a dependency on a privately owned word', the property owner should be obliged to return the word to a permanent common).

209 In most jurisdictions, copyright lasts for the author's life plus either 70 years. On recent extensions of the copyright term in the United States, *see* Eldred v. Ashcroft, 537 U.S. ___ (2003) [judgment delivered on January 15, 2003]; William W Fisher III, *Property and Contract on the Internet*, 73 CHI-KENT L REV 1203, 1233 (1998). Patent rights generally last for a 20 year maximum period. It could be argued that even that time limit is too long given the nature of many information products involving things like digital information products and life-saving pharmaceuticals. *See* Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO L J 287, 323-324 (1988) (describing the expiration of intellectual property rights in Lockean terms as an obligation to return appropriated assets to the common).

measures that right-holders may employ to maintain their private property after the statutory obligation 'wears off'.[210]

As mentioned previously, the limits on duration of certain information property rights can be regarded as either a basic limitation on the scope of the right, or as an obligation to surrender the relevant information into the public domain at a particular point in time as a condition of the original property grant. In current legal systems, it is arguable that the time limits on such property are, in fact, more appropriately regarded as bare limitations on the rights, rather than public obligations, as they do not impose any affirmative duties on right-holders. In other words, there is obviously no affirmative duty to refrain from utilizing contractual and technological measures to effectively 'extend' the scope of a property grant both in terms of duration and often also in terms of protected content.[211]

An obligation, as opposed to a bare limitation on property scope, would require property holders to refrain from utilizing contractual and technological measures to extend their monopoly of a given information product in certain ways.[212] In other words, the obligation would involve an affirmative duty to return an information product to the public domain at the expiration of a statutory protection period. This would more effectively protect relevant public interests, although it would certainly involve a delicate balance between promoting property, commerce, and freedom of contract on the one hand, and protecting the public interest on the other.

It would be necessary for law and policy-makers and commentators to engage in detailed debates about how this would be done in practice. Such debates would

---

210 William W Fisher III, *Property and Contract on the Internet*, 73 CHI-KENT L REV 1203, 1203 (1998)

211 For example, non-original databases do not merit any specific intellectual property protection in the United States. However, they may effectively be commodified through the use of contractual and technological protection measures.

212 Fisher, *supra* note ___, at 1233-1234 (1998) (acknowledging certain situations in which allowing property rights-holders to increase their power through contractual and technological protection measures may be socially undesirable).

need to identify specific public interests in information that should be protected, as well as the extent to which laws protecting these interests should encroach into the private rights of information property holders. There may also be some situations in which such an approach would not be workable in practice. This model would not suit a situation where an information asset can be protected through trade secrecy, although many information products, by their very nature, cannot be so protected.[213]

v. Courts, Legislatures, Rights, and Duties

Public duties imposed on information property holders should, at the very least, cover areas that have previously been described as involving fair use defenses, privacy rights, moral rights, and cultural rights. In the past, all of these areas have created difficulties for the legal system, partly because of their content and the difficulties associated with balancing such rights in information, and partly because of the way in which these rights have been conceptualized.

However, any system for balancing private property rights in information against other rights and interests in information will encounter difficult policy choices. These choices will relate to which interests to prefer, in which contexts, and to what extent; for example, how far will a personal privacy right in information extend vis-à-vis the rights of a commercial database producer? Will the database-producer be restrained from including **any** personal information in a database without express permission from the individual(s) in question?[214] Will the database-producer

---

213 An obvious example of a digital information product that probably cannot be protected effectively through trade secrecy laws is digital databases: J H Reichman and Pamela Samuelson, *Intellectual Property Rights in Data?* 50 VAND L REV 51, 55 (1997). Computer software products also tend to be subject to reverse engineering that cannot be prevented under trade secret law if the software was accessed legally: MARHSALL LEAFFER, UNDERSTANDING COPYRIGHT LAW, 109 (3 ed, 1999); J H Reichman and Pamela Samuelson, *Intellectual Property Rights in Data?* 50 VAND L REV 51, 59-60, 137 (1997).

214 *See* Mike Hatch, *The Privatization of Big Brother: Protecting Sensitive Personal Information form Commercial Interests in the 21st Century*, 27 WM. MITCHELL L. REV. 1457, 1494-1501 (2001) (relative merits of 'opt-in' and 'opt-out' systems in relation to sensitive personal information collected by commercial entities); Allan Rubin, *Patient Rights and the Required Standardization (HIPAA) of all Medical Forms*, updated April 26, 2003, at http://www.therubins.com (last viewed on June 16, 2003) (explanation of the Department of Health and Human Services' new privacy rules, entitled the Standards for Privacy of Individually Identifiable Health Information which became effective April 14, 2003); Thelen Reid & Priest LLP, *Internet Law Update: Developments in Privacy Law – 1999*, at http://www.thelenreid.com (last viewed on June 16, 2003) (opt-out of financial institutions'

rather be restrained from including personal information that is not essential to a particular business purpose?[215] Alternatively, will the database-producer be permitted to include all personal information with a caveat that (s)he must allow access by individuals to check the accuracy of their personal information?[216]

The argument presented here in relation to conceptualizing a new model for information property rights does not resolve such questions, as they are complex policy questions that require detailed debate before being reduced to statutory language. Such debate is important and should not be overlooked as a step in the process towards a new information property system. Assuming that it is possible to achieve some consensus on the types of public interests that need to be promoted, the next question is what form those interests should take. Clearly some affirmative duties imposed on information property owners are necessary.

This is particularly important in relation to information property rights because of their non-rivalrous public goods nature.[217] The acceptance of property rights in information can be troubling, if the outcome is the acceptance of the proposition that one person might assert an exclusive right in something that could otherwise exist freely in many places at the one time. Because of the powerful consequences of accepting information property, there must be equally powerful social obligations imposed on information property holders. In the global information age, information is power, and the acceptance of property in information connotes the necessity for clear and comprehensive limitations on the exercise of that power.

If this is done properly, information property is not as problematic as it might at first seem. Information property is a particularly useful, and ultimately necessary, transactional tool in an information economy. Property is therefore not undesirable if

---

required privacy disclosures under federal law and opt-in privacy regulations regarding telephone soliciations promulgated by the Federal Trade Commission).

215 For example, E.U. Data Protection Directive, Art. 6(1)(b) (data should only be collected for 'specified, explicit, and legitimate' purposes).

216 For Example, E.U. Data Protection Directive, Art. 12 (right of access to data in relation to data subjects).

217 Damstedt, *supra* note ___, at 1188.

relevant rights are reined in through the imposition of strong, and properly enforced, public duties on information property holders.

Ultimately, information property right-holders are arguably the most effective candidates to shoulder the burdens of these duties. They are likely to have the resources to establish methods for commercializing their information assets while maintaining the ability to grant access to those who require it in the public interest. They could do this by having separate departments and/or officers to deal with individual/public interest requests for access to particular information. This is more viable and is more likely to go some way towards redressing the public/private balance in information assets than the current system of requiring people with lesser resources to either fight powerful corporate information providers for access to information, or to refrain from utilizing the information altogether.

Clearly, such a scheme will require the support of government institutions, such as the legislature and the courts, to ensure that private property holders perform their public duties appropriately. However, this has been done in the past in relation to obligations attaching to real property ownership. There is no reason to think the same model could not work in relation to information property rights.

Affirmative public duties attaching to information property ownership could be developed through the common law and/or through legislation. Unfortunately, it may be a little unrealistic to rely wholly on the common law approach in this context. Courts have no guidance as to the basis upon which they might impose public duties on information property owners. When faced with a tightly worded contractual license restricting access to, and use of, proprietary information,[218] a court has no statutory guidance or common law precedent that would necessarily suggest a public duty to be imposed on the information owner forcing him/her to permit certain uses of the information outside the scope of the contract.

It may therefore be necessary to enact implementing legislation to adopt a scheme that clarifies the public duties attaching to information property ownership

[218] For example, ProCD, *supra* note ___.

and the sanctions for failing to perform those duties. This is not an unusual or unprecedented step, as there is plenty of existing law that deals with obligations imposed on property owners as a condition of property ownership.[219]

Any new information property legislation may be more or less detailed in terms of the specific content of the interests to be protected by the property holder. It may establish a general obligation to foster public interests in relevant information, leaving it to the courts to develop the contours of the legal concept of 'fostering the public interest'.[220] Alternatively, it may be much more detailed and provide specifics of the types of interests to be protected and the extent to which they are to be protected.

The second approach is probably preferable, even if the precise boundaries of each public interest are somewhat vague. If the legislation gives insufficient guidance to courts as to the types of interests that require protection, the courts may develop relevant law in an overly narrow manner when faced with persuasive arguments from well-resourced information property owners. Furthermore, legislative guidelines are more easily tailored to general public policy considerations than judicial determinations that can only develop policy on a case by case basis.

Key to the whole model described in this paper is the notion of an 'information property right'. This is clearly something different to the specific intellectual property rights that currently exist in our jurisprudence. 'Information property rights' certainly include most intellectual property, but they are broader than that. They include all items of value with which a person seeks to trade in a market

---

219 For example, Ohio Revised Code, § 5321.04 (statutory duties of a landlord to maintain premises in good repair); Resource Conservation and Recovery Act of 1976, as amended 42 U.S.C. §§ 6901-6991 (authorizing federal regulations for handling, storage and disposal of solid and hazardous wastes); Americans With Disabilities Act, 42 U.S.C. §§ 1210 *et seq*, 49 CFR §§ 27, 37 and 38 (establishing basic non-discrimination requirements that prohibit public accommodations' exclusion, segregation, and unequal treatment of persons with disabilities); Fair Housing Amendments Act, 42 U.S.C. §§ 3601 *et seq*, 24 CFR §100 *et seq* (prohibiting housing discrimination). For a discussion of zoning laws, *see* James A Coon, Local Government Technical Series: Zoning and the Comprehensive Plan (1999), at http://www.dos.state.ny.us/lgss/pdfs/zncompplan.pdf (last viewed on June 16, 2003).

220 This is not unlike Professor Madison's suggestion that the Copyright Act should be amended to give the courts a mandate to develop a common law of fair use and the 'public domain': Madison, *supra* note ___, at 1138-1140.

and that are comprised wholly or predominantly of information. Obvious examples are computer software, regardless of whether copyrighted and/or patented, databases, and possibly trade secrets.

Any legislation enacted to implement a model legal framework to balance private property rights and public interests in information along the lines suggested here would have to define what an 'information property right' is, and how it relates to existing intellectual property rights. I would suggest that an 'information property right' be broadly defined in the manner set out in the previous paragraph as a 'meta' category that encompasses much intellectual property, as well as other valuable information assets.

The implementation of legislation dealing with the public duties attaching to such rights could easily operate alongside existing intellectual property laws. It would simply be necessary to clarify the relationship between the general 'information property law' and the specific intellectual property laws. It would also be necessary to clarify the relationship between this new law and existing jurisprudence on the enforcement of restrictive contractual licenses involving access to, and use of, information products.

The public duties attaching to 'information property' ownership should override any existing intellectual property laws and contract law jurisprudence to the extent that those existing laws provide less protection for the interests of those to whom a relevant duty is owed. This is because the point of the new law is to redress perceived inadequacies in the existing laws in appropriately balancing private rights and public interests in commercially valuable information.

An example would be a situation where a scientist seeks access to a copyrighted work for a public interest research purpose. Under the new model of information property rights, (s)he would be entitled to access the work and utilize it for that purpose regardless of whether or not it was protected by a technological encryption measure. Presumably, the scientist would not be permitted to hack

through the technological encryption measure as this would infringe the DMCA. However, the owner of the relevant information product (in this case, the copyright holder) would have an obligation to facilitate the relevant access and use by the scientist. This example shows that the operation of the DMCA *per se* is less objectionable if those seeking access to encrypted information for public interest purposes could obtain access through an obligation imposed on the property owner.

This aspect of the new system would also address the perceived problem with the DMCA that it potentially propertizes information that is not copyrighted/copyrightable if such information is encrypted along with copyright material. The obligations of information property ownership would apply to *all* proprietary information, not just copyright information. Thus, the new model allows information property holders to utilize technological measures to encrypt their assets to ensure their exclusiveness and commercial value. However, it concurrently *obliges* them to provide access to some people for public interest purposes, even if those people are restricted in what they can then do with the information; for instance, they probably would not be permitted to make *competing commercial uses* of a valuable information product without paying a fee for doing so.

In contrast to the above example, not all public duties attaching to information property ownership will relate to access and use. Those duties related to personal privacy rights, moral rights of authors, and cultural rights may impose limitations on what a property owner can do with his/her property, or at least what (s)he can do without compensating another person. Cultural groups may seek financial recompense for unauthorized use of aspects of their culture in a valuable information product. Alternatively, they may seek to enjoin commercial uses of certain cultural icons.

Any legislation ultimately drafted about public duties in information property rights could be quite simply worded after debates about the nature and scope of such duties were finalized. The legislation could list the types of duties inherent in information property ownership and the available judicial remedies that might attach to each right. This is a similar approach to existing models relating to public duties owed by real property owners. Courts would eventually develop an enforcement

jurisprudence that would balance relevant private rights and public interests in information.

vi. The Public Domain

One could argue that a downside of the model proposed here is that it involves the acceptance of fairly wide-ranging proprietary interests in information, and then effectively carves 'itemized' public interests out of that right. In other words, there is no general protection of the public domain of information and ideas under this model. The model creates specific obligations owed to individuals or groups of individuals in the public interest without creating a clear obligation mirroring the Lockean proviso to leave 'as much and as good' when appropriating property from the common.[221]

It may be that the creation of a government-mandated public domain of information and ideas would need to be separately established in conjunction with the model presented here to effectively prevent the over-commodification of information.[222] In this vein, Professor Madison has suggested the development of a 'jurisprudence' of the public domain.[223] His specific concerns relate to the way in which contractual licenses are arguably overtaking intellectual property rights, specifically copyright, in software as an effective means of controlling access to information.[224]

There are other possibilities for protecting the public domain *per se* that could be implemented alongside the model presented in this paper for *specific* public duties in information that may be enforced by one or more individuals against an information property owner. Professor Ryan, for example, has advocated a public

---

221 Benjamin G. Damstedt, *Limiting Locke: A Natural Law Justification for the Fair Use Doctrine*, 112 YALE L.J. 1179, 1214 (2003) (fair use in copyright transcends the owner's property rights in relation to specific individuals, not specific assets).

222 *id.*, at 1212-1213 (2003) (describing ways in which the government could establish a public domain of intangible goods).

223 Madison, *supra* note ___, at 1138-1141 (advocating legislation to instruct courts to develop a jurisprudence of fair use and the public domain in copyright law).

224 *id.*

trust model in relation to copyright works in particular.[225] Like Professor Madison's model, Professor Ryan's model would require courts to consider and support non-market values inherent in copyright works.[226]

Other models are also being proposed for protection of the public domain *per se*. An example is the current online petition in support of a Public Domain Enhancement Act.[227] This legislation, if enacted, would require copyright holders to pay a nominal fee fifty years after the publication of a copyright work to retain copyright in that work.[228] If the owner was unwilling to pay the fee, the work should pass into the public domain.[229] A number of other initiatives for protecting the public domain in the digital age are being examined by the recently established Center for the Study of the Public Domain at Duke Law School.[230]

In the wake of these initiatives, I must acknowledge that while the 'public duties' model advocated in this paper is an important step in tailoring the property concept to more effectively serve the overall needs of society in relation to interests in information, this model nevertheless relies on people asserting specific interests in information in order to access or use it. It does not protect the public domain generally in situations where no particular person has standing, or is willing and/or able, to assert a particular interest in information.

The model presented here might leave room for public interest groups to assert claims arguing for the release of certain information into the public domain because of its overall social importance. However, it is difficult to imagine how this would work in practice. For one thing, if one of the aims of the scheme is to promote property in information to encourage people to create information products for commerce, this

---

225 Maureen Ryan, *Cyberspace as Public Space: A Public Trust Paradigm for Copyright in a Digital World*, 79(3) OREGON LAW REVIEW 647 (2000).

226 *id*, at 718-719.

227 *See* http://www.petitiononline.com/eldred/petition.html, last viewed on June 9, 2003.

228 *id*.

229 *id*.

230 *See* http://www.law.duke.edu/cspd/index.html, last viewed on June 9, 2003.

aim would surely be chilled by the threat that a court might later order the release of such information into the public domain without any compensation.

Additionally, it is difficult to imagine exactly how a legislature could define the types of information that it would require to be released into the public domain on the grounds of overall social importance. It would be equally difficult to draft, and to enforce, legislation that prohibited the commodification of information that should be left in the public domain for public interest purposes. Again, defining the contours of such information would likely be an insurmountable problem for any legislative draftsperson.

However, the premise of this article is that commodification of information should not be regarded as an undesirable development *per se*, provided that it is not *absolute* commodification. The promotion of the creation of different types of valuable information products and commercialization of those products may well contribute to society as a whole in terms of wealth and technological development.[231] What is undesirable is the way in which the commodification is occurring in the modern digital economy. Where people are allowed to monopolize information without any significant concurrent social responsibilities, the property concept is not being utilized as effectively as it should be to promote competing public interests. Where these interests are protected through enforceable public duties, this may in practice be tantamount to what scholars generally mean when referring to protection of the public domain.

Thus, it may be the case that in practice the public domain question is adequately dealt with by promoting specific public interests in relation to information that may be enforced in favor of particular individuals or groups of individuals. If this proves to be incorrect, however, it may be necessary additionally to create new methods specifically targeted at protecting the public domain *per se*, perhaps along the lines mentioned previously. These could operate concurrently with the ideas

---

[231] This is, after all, one of the leading rationales underlying the utilitarian justification for intellectual property rights: Hettinger, *supra* note ___, at 47-48; Moore, *supra* note ___, at 65.

presented in this paper to strike an appropriate public/private interest balance in information.

III. GOVERNMENTAL OVERSIGHT

Under the model presented in this paper, the government would take on some fairly significant duties, both in terms of legislating for relevant rights and duties in information, and in monitoring and enforcing the performance of public duties by information property right-holders. This may strike some as undesirable. Many are suspicious of government regulation of any kind, particularly as it might impact on commercial markets.[232]

Professor Lessig has noted that throughout the 20th century, the commercial trend was for market regulation to trump state regulation for most of the time and for most resources.[233] There has been no reason to suppose that 21st century regulation will not follow the same model. Thus, the suggestion that the government should take a more active role in granting and monitoring information property rights may strike some as out of keeping with current trends.

There are a number of reasons why I favor greater government involvement in these issues, at least to the extent outlined below. For one thing, it is a pretence to suggest that there can ever be pure market regulation of information assets. Putting to one side the fact that the phrase 'market regulation' may well be an oxymoron, there is also the fact that the market alone has not been able to create the proprietary rights that market players routinely seek to assert without government assistance.

Although market players can obviously use technological and contractual measures to propertize information assets quite effectively,[234] they have not found

---

232 Yaron Brook and Alex Epstein, *What is Killing the Stock Market? Government Regulation*, MEDIALINK: THE AYN RAND INSTITUTE, available at http://www.aynrand.org/medialink/killingthestockmarket.html (last viewed on June 16, 2003).

233 LAWRENCE LESSIG, THE FUTURE OF IDEAS: THE FATE OF THE COMMONS IN A CONNECTED WORLD, 12 (2001).

234 Fisher, *supra* note ___.

these measures to be adequate against information pirates and hackers. If they did, they would not routinely call on legislatures to amend existing laws, and to create new laws, to protect their information property. Obvious examples are: (a) amendments to copyright legislation in many jurisdictions to clarify that computer software may be protected as a literary work;[235] (b) the enactment of *sui generis* legislation to protect proprietary interests in semiconductor chips;[236] (c) the enactment of the E.U. Database Directive to create new *sui generis* property rights in databases; (d) the insertion of the DMCA into the United States copyright act to protect technological locks employed by copyright holders,[237] and the equivalent provisions of the E.U. Copyright Directive;[238] and, (e) legislation aimed at protecting proprietary trade secrets such as the Uniform Trade Secrets Act and the federal Economic Espionage Act.[239]

If legislatures are prepared to take such measures, they should also be prepared to monitor the exploitation of the rights they have created to ensure that the public interest is not threatened by the use of the rights. If governments are not prepared to monitor rights they help to create, they should stop supporting the creation of those rights and let the market truly 'regulate itself'. Such a situation would still allow information proprietors to employ powerful technological locks and contractual measures to protect their investments, as is the case today. However, it would also allow others more leeway to legally break technological locks and access information, at least outside of contractual restrictions on doing so.

It is usually the case that when governments create any kind of powerful monopoly, they take careful steps to regulate the private interests they have created.[240]

---

235 17 U.S.C. § 117 (contemplating copyright in computer programs and limitations on copyrights in computer programs); Copyright Act, 1968 (Australia), § 10 (defines 'literary work' to include computer program or compilation of computer programs).

236 17 U.S.C. §§ 901-914 (semiconductor chip rights); Circuit Layouts Act, 1989 (Australia).

237 17 U.S.C. §§ 1201(a)(1)(A), 1201(a)(2), 1201(b).

238 European Union Copyright Directive, Art. 6.

239 18 U.S.C. 90.

240 Bruce Yandle and Andrew Morriss, *The Technologies of Property Rights: Choice Among Alternative Solutions to Tragedies of the Commons*, 28 ECOLOGY L Q 123 (2001) (discussing

Interestingly, this dynamic has not played out in relation to information property rights in the digital age. It may be that 'pure market regulation', if such a thing is possible, can be more efficient than government regulation. However, market regulation often loses sight of public interest issues. Thus, some government monitoring is necessary, particularly in relation to a resource as important to society as information.

In the absence of specific obligations imposed on information property owners to exploit their rights in a way that does not adversely impact on science, technology, education, moral rights, cultural rights, and/or personal privacy rights, there is no 'market' reason why information owners would be sensitive to those issues. Recent history has certainly shown a low tolerance by information property holders to some of these things.[241] The market cannot, and will not, be an effective guardian of relevant public interests in information without a legislative impetus to do so.

Government involvement under the model presented in this paper, although more significant than is currently the case, would nevertheless not be a major drain on government time or resources. What is contemplated here is that the government would clarify the nature of information property rights and the types of obligations imposed in relation to information property ownership. As noted previously, the

---

market versus government regulation of environmental property rights, noting the use of governmental regulation and monitoring in 'command and control' government regulatory regimes).

241 For example, the lobbying by the movie industry for the enactment of the DMCA: Recording Industry Association of America, *Law, Politics, and Policy as They Impact DRM*, available at http://www.info-mech.com/drm_policy.html (last viewed on June 16, 2003); David Passmore, *Lobby Hollywood, Not Washington*, (April 2002) BUS COMMUNICATIONS REVIEW, 16-17, available at http://www.bcr.com/bcrmag/2002/04/p.16.asp (last viewed on June 16, 2003). Other examples include the actions initiated and lobbied for by the movie industry and other digital industries in relation to the enforcement of the DMCA: Universal City Studios Inc v Shawn C Reimerdes et al, 111 F Supp 2d 294, 344-345 (2000), *aff'd* on appeal, Universal City Studios v. Reimerdes, 2001 U.S. App. LEXIS 25330; the Sklyarov/Elcomsoft litigation involving criminal sanctions for violation of the DMCA in respect of e-book products (*see* Electronic Frontier Foundation, *Intellectual Property: Digital Millennium Copyright Act (DMCA): U.S. v ElcomSoft & Sklyarov Archive*, http://www.eff.org/IP/DMCA/US_v_Elcomsoft/, last viewed on June 1, 2003); the lobbying by the United States government at the behest of the movie industry for the criminal prosecution in Norway of Jan Johansen who originally decrypted the technological protection measure used to prevent DVD copying: Electronic Frontier Foundation, *Norway v Johansen Case: Criminal Charges for Accessing Own DVD* (available at http://www.eff.org/IP/Video/DeCSS_prosecutions/Johansen_DeCSS_case/, last viewed on June 1, 2003).

government has already done this in relation to other forms of property, so there would be no reason to think that this would be a significantly major step over and above what the government has had to do in other areas of property law.

Government instrumentalities, such as courts and other law enforcement agencies, would ultimately enforce public duties attached to information property ownership, but, again, this is no different to the current situation in relation to real property. A new jurisprudence would need to develop relating to the appropriate balance of private rights and public duties, but such jurisprudence has developed in the past in the area of real property. It is not an impossible step to develop similar ideas for information property.

Ultimately, the government would have to enact legislation describing the relevant rights and corresponding public duties. It might, if it chose to do so, support the system with a public education campaign to help information businesses establish internal systems to deal with 'public interest' requests involving specific information, but there would be no need to do so. It might also help to establish and support, through funding and/or training, alternative dispute resolution centers for information property disputes. Again, there would be no need to do so, and this is one thing that the market might eventually create of its own accord. Finally, disputes over information that could not be settled any other way would be resolved before a court.

Naturally, any model requiring legislation would have to cope with the realities of constitutional limitations on legislative power. This can be particularly problematic in federal systems, such as the United States, where federal legislative powers are significantly limited by the Constitution. There is no general legislative power to create property rights. Further, there has been much debate about the constitutional limitations of federal legislative power in relation to enacting new forms of intellectual property rights in the past.[242] Perhaps the answer here would lie

---

[242] *See* Paul Heald & Suzanna Sherry, *Implied Limits on the Legislative Power: The Intellectual Property Clause as an Absolute Constraint on Congress*, 2000 ILL L REV 1119 (2000); Paul Heald, *The Extraction/Duplication Dichotomy: Constitutional Line-Drawing in the Database Debate*, 62(2) OHIO STATE LAW JOURNAL, 933(2001); Malla Pollack, *The Right to Know? Delimiting Database Protection at the Juncture of the Commerce Clause, the Intellectual Property Clause, and the First Amendment*, 17 CARDOZO ARTS & ENT. L.J. 47 (1999); Yochai

in utilizing the Commerce Clause[243] in the information property context. This would clearly delineate any new laws from intellectual property, which would also emphasize the inappropriateness of relying on doctrines like fair use from copyright law to promote the public interest in these new information property rights.

It is beyond the scope of this paper to address these constitutional issues in detail, particularly as different constitutional issues will arise in different countries in the context of a global problem such as balancing public and private interests in information. However, if a scheme such as that described in this paper were to be adopted in any country, clearly issues of legislative competence would be a significant part of the picture.

IV. SUMMARY AND CONCLUSIONS

The above discussion is intended as a first step in re-characterizing the current approach to information property rights. It introduces the idea that property rights are not necessarily to be avoided in the information economy, provided that they are developed in a manner that is consistent with more traditional property rights, particularly in terms of balancing the rights against public interests in information. Much of the previous debate about information property rights has unfortunately omitted a detailed examination of the role and nature of property in the physical world, particularly in terms of the private/public interest balance inherent in the property concept itself.

Cleary, information is a different kind of asset than real property or tangible personal property. In particular, its non-rivalrous, public goods nature makes for significant concerns about its potential overcommodification. However, even these concerns can be addressed to a significant extent by importing the idea of public

---

Benkler, *Constitutional Bounds of Database Protection: The Role of Judicial Review in the Creation and Definition of Private Rights in Information*, 15 BERKELY TECH L J 535 (2000).

243 U.S. Federal Constitution, Art I, cl. 8 (Congress has power, *inter alia*, 'To regulate commerce with foreign nations, and among the several states'; as most information commerce is at least potentially inter-state and/or international in scope, this clause may provide the basis of Constitutional power for legislative action at the federal level).

duties imposed on private right-holders in the information age. In other words, the focus should be on addressing the current trend towards absolutism in relation to information property rights, rather than avoiding commodification of information *per se*.

Property is a valuable transactional tool that can be employed usefully in relation to information assets if a system can be developed and balanced to craft rights and duties in information that meet the needs of society in general. Accepting information property brings benefits that can be controlled if appropriate limitations on property are put in place. These obligations can be modelled from traditional property law, although the specific duties attaching to information property rights will, of necessity, differ from those that have developed in relation to other forms of property.

It is possible that this model would be able to adequately protect the public domain of information and ideas, which has been a major concern of those rejecting the perceived over-commodification of information in the past. However, even if this model does not completely protect the public domain, it certainly goes a significant way towards addressing issues about which commentators have expressed concern in relation to information property rights. It may be that adopting such a system, and concurrently taking other measures to protect the public domain *per se*, would be the best way to achieve an appropriate overall public/private interest balance in information.

However the question about the public domain is ultimately resolved, it is important that information property rights be reconceived in line with more traditional notions of property rights. If we ultimately have to accept information property, as I believe we do, we should think about what 'property' means in this context. It has never before connoted an unfettered right to create a monopoly to the exclusion of all others: that is, never until now. Information property can be a useful and valuable commercial tool, but it must develop, as other property rights have developed, with the incorporation of corresponding duties, and the monitoring and enforcement of those duties by the government that has supported the creation of the rights.