INFORMATION PROPERTY: RIGHTS AND RESPONSIBILITIES

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I. INTRODUCTION: ON OWNING INFORMATION

Can you own information? If so, what is the theoretical justification for ownership, and precisely what rights does ownership confer? What is the impact of ownership of information and ideas on society and on the public domain? These questions have increasingly absorbed the attention of intellectual property commentators the world over in the global information age, largely as a result of the relatively unfettered rise of information property rights in recent years.


2. It has been suggested, for example, that information property connotes a bundle of legal rights that differs from the traditional “bundle of rights” idea of property. These new rights might involve rights to control copying, access, use, and disclosure of relevant information. See Raymond T. Nimmer & Patricia Ann Krauthaus, Information as a Commodity: New Imperatives of Commercial Law, 55 Law & Contemp. Probs. 103, 113-14 (1992).


4. See, e.g., Jacqueline Lipton, Information Wants to be Property: Legal Commodification of E-Commerce Assets, 16 Int’l Rev. L. Computers & Tech. 53 (2002) (describing moves in a number of jurisdictions towards the increasing propertization of information products); Reichman & Samuelson, supra note 3, at 52-58 (expressing concern over creating powerful property rights in databases in the United States); John R. Therien, Comment, 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) (arguing that the Digital Millenium Copyright Act will over-propertize digital information if courts do not take an adequate stance on protecting fair uses); see also Universal City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294 (S.D.N.Y. 2000), aff’d, 273 F.3d 429 (2d Cir. 2001) (holding 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) (2000)). Cf. ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1455 (7th Cir. 1996) (finding that shrinkwrap agreements can be used to limit a
This trend has come about partly as a result of legislation supporting these rights,\(^5\) 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.\(^6\) The upsurge in powerful private rights in information products creates the potential for unfair monopolies in many markets,\(^7\) and more importantly, can reduce the availability of information and ideas for the use of others.\(^8\) This reduction 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.\(^9\)

This Article focuses on the position of some of those “others” who may have legitimate interests in information, either because of a need to access and use that information, or because of an interest in preventing the use of certain information by an information property holder. These interests may

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5. See, e.g., 17 U.S.C. §§ 1201-1205 (2000) (applying technological protection measures to digital copyrighted works by prohibiting the use of, and trafficking in, devices that can circumvent such technological protection measures). Another legislative example is the European Union (E.U.) Database Directive, which creates *sui generis* intellectual property rights throughout the European Union in all paper-based and electronic databases that the creator has expended a substantial amount of time or money to create, regardless of the standard of originality in the selection or arrangement of the database’s contents. See Council Directive 96/9/EEC, 1996 O.J. (L 77) 20 [hereinafter Directive on the Protection of Databases]. An obvious example of judicial support of contractual and technological protection measures for digital information products is the court’s decision in *ProCD*, 86 F.3d at 1455, where a shrink-wrap contractual license was upheld to limit uses that could be made of a telephone directory made available on CD-ROM.\(^6\)


8. See, e.g., Madison, *supra* note 6, at 1097 (noting the importance of a public domain or intellectual commons to society).\(^8\)

be grounded in issues of personal privacy, moral rights of authorship, cultural rights, or rights relating to scientific, educational, or technological purposes. This list is not meant to be exhaustive.

In order to examine and re-work the position of these “others” vis-à-vis information property owners, it is necessary to briefly evaluate the limitations of the term “information property ownership.” I must also emphasize that I will not be arguing in this Article whether information property ownership is a good or a bad development per se, notably with respect to the protection of the public domain of information and ideas more generally. Rather, my concern is with the position of those holding legitimate competing interests in specific information who may currently be unable to effectively enforce their interests against information property holders. The public domain question is considered in other literature and is discussed briefly towards the end of this Article.

Obviously, the idea of balancing information property rights against the preservation of the public domain of information and ideas is related to balancing information property rights against competing private interests in information. However, the public domain question is arguably more


11. Moral rights are the fundamental rights of authors and artists to their works. They generally fall into two basic categories: rights of attribution and rights of integrity. The right of attribution is the right of an author of a work to have his or her work attributed to him or her, not to have the work falsely attributed to someone else, and not to have a work attribute to him or her that he or she did not create. 17 U.S.C. § 106A(a)(1)-(2) (2000); Copyright Act, 1968, §§ 193, 195AC (Austl.); Copyright, Designs and Patents Act, 1988, c. 48, § 77 (Eng.). The right of integrity is the right of the author not to have his or her work mutilated in any way or subjected to any kind of derogatory treatment. 17 U.S.C. § 106A(a)(3); Copyright Act, 1968, § 195AI (Austl.); Copyright, Designs and Patents Act, 1988, c. 48, § 80 (Eng.).

12. See generally Rosemary J. Coombe, THE CULTURAL LIFE OF INTELLECTUAL PROPERTIES (1998) (detailing the ways in which various western intellectual property rights impact cultural rights); Chander, supra note 1 (examining the impact of the Internet domain name system on various cultural rights and legal systems); David J. Stephenson, Jr., The Nexus Between Intellectual Property Piracy, International Law, the Internet, and Cultural Values, 14 ST. THOMAS L. REV. 315, 316-18 (2001) (describing the impact of a western intellectual property system on New Zealand Maori cultural rights).

13. See, e.g., 17 U.S.C. § 107 (codifying the fair use defense to copyright infringement, which protects certain educational and scientific uses of copyrighted works); Reichman & Uhlir, supra note 9, at 808-10.


15. See supra note 14 and accompanying text.

16. Balancing competing private interests in information might well be seen as part of the
closely related to the debate about the initial creation of information property rights in terms of their nature and scope;\textsuperscript{17} the concern is largely with the detrimental effect on the public domain of people appropriating too much information from the “intellectual commons”\textsuperscript{18} for restrictive private uses.\textsuperscript{19}

The related question of balancing information property rights against competing private interests in relevant information assumes that we are already one step beyond the creation of the information property rights. That is, it assumes the existence of information property. The next question, then, is how to balance those property interests against the interests of others who may have competing interests in relevant information. The competing interests may be in the nature of a need to access and use the propertized information,\textsuperscript{20} or in the nature of a desire to limit the owner’s use of relevant information on the basis of moral rights of

\textsuperscript{17} Recent scholarship has suggested that the question of preservation of the public domain and the creation of intellectual property rights is part of a “chicken and the egg” phenomenon. Concerns about the public domain arise when intellectual property is created. However, the impetus to create more intellectual property may be a result of concerns by private interests about the rise of the public domain in an age of unprecedented communications technology, like the Internet. Supporting a vibrant public domain can also support the creation of more useful private property rights. See Mark Rose, \textit{Nine-Tenths of the Law: The English Copyright Debates and the Rhetoric of the Public Domain}, 66 \textit{LAW \& CONTEMP. PROBS.} 75, 76-77 (2003) (noting that copyright and the public domain were historically born together and that this continues to be the case in more modern times); Carol M. Rose, \textit{Romans, Roads, and Romantic Creators: Traditions of Public Property in the Information Age}, 66 \textit{LAW \& CONTEMP. PROBS.} 89, 101-02 (2003) [hereinafter Rose, \textit{Romans}] (noting the intimate connection between the public domain and private property).

\textsuperscript{18} A number of commentators in the area have accepted the idea of an “intellectual commons.” See, e.g., Madison, \textit{supra} note 6, at 1097 (accepting the idea of an “intellectual commons”); see also Hughes, \textit{supra} note 1, at 315 (noting that the intellectual commons is actually more similar to the commons that Locke had in mind than the physical commons). \textit{But see} Benjamin G. Damstedt, \textit{Limiting Locke: A Natural Law Justification for the Fair Use Doctrine}, 112 \textit{YALE L.J.} 1179, 1191-93 (2003) (comparing the nature of the intangible intellectual commons with the physical commons originally contemplated by Locke, but distinguishing the intellectual common from the public domain and criticizing previous scholarship for conflating the two). \textit{On the relationship between the public domain and restrictive private uses of information, see generally Symposium, \textit{supra} note 14.}

\textsuperscript{19} Examples are the kinds of rights we currently see in fair use literature in the copyright context: largely, a need to access information for scientific, research, and educational purposes. See Ann Bartow, \textit{Educational Fair Use in Copyright: Reclaiming the Right to Photocopy Freely}, 60 \textit{U. PIT. L. REV.} 149, 150 (1998); Carol M. Silberberg, \textit{Note, Preserving Educational Fair Use in the Twenty-First Century}, 74 \textit{S. CAL. L. REV.} 617, 618 (2001).
authorship,\textsuperscript{21} personal privacy concerns,\textsuperscript{22} or cultural concerns.\textsuperscript{23} While this list is not exhaustive, these concerns have been prominent in information property literature in recent years.

To date, we have accepted a certain level of information property,\textsuperscript{24} and many would argue that we have not been particularly successful in limiting and monitoring the exercise of those rights \textit{vis-à-vis} competing interests of others in propertized information.\textsuperscript{25} In this Article, I suggest a new framework for redressing this balance by imposing legal duties on information property holders as an incident of their property ownership to protect certain competing private interests in information. In so doing, I draw on traditional property theories, especially the “bundle of rights”\textsuperscript{26} idea of property with which most of us are familiar. I argue that property theory can, in fact, help us to achieve a relevant balance of competing interests in information, and that if we are going to use property terminology, we should learn some of the lessons from traditional property theory about appropriate checks and balances on property ownership.

To briefly clarify the meaning and position of terms like “information property” and “intellectual property,” it is important to acknowledge that many of us tend to use these terms colloquially to describe certain private rights in information that connote some degree of control over relevant information.\textsuperscript{27} However, information cannot be property in the same sense

\begin{itemize}
  \item \textsuperscript{21}See supra note 11 and accompanying text.
  \item \textsuperscript{22}See supra note 10 and accompanying text.
  \item \textsuperscript{24}These include copyrights, patents, trade secret rights, contractual licences revolving around the licensing of proprietary information, and \textit{sui generis} database rights in the European Union. Jacqueline Lipton, \textit{Protecting Valuable Commercial Information in the Digital Age: Law, Policy, and Practice}, 6 J. TECH. L. & POL’y 1, 3-4 (2001) (listing the various information property assets that are not comprised in standard intellectual property regimes, and questioning why they might nevertheless be considered “property”); Raymond T. Nimmer, \textit{Revised Article 9 and Intellectual Property Asset Financing}, 53 Me. L. REV. 287, 292-95 (2001) (describing information assets as comprising at least the standard forms of statutory intellectual property law—copyright, patent, trademark—plus trade secrets, and defining “information property” as something where the value is in the “use and control” of the asset in question rather than its physical possession).
  \item \textsuperscript{25}This argument has been particularly noteworthy in the copyright context in the wake of the enactment of the Digital Millennium Copyright Act (DMCA). See, e.g., David Nimmer, \textit{A Riff on Fair Use in the Digital Millennium Copyright Act}, 148 U. PA. L. REV. 673 (2000); Pamela Samuelson, \textit{Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to be Revised}, 14 BERKELEY TECH. L.J. 519 (1999).
  \item \textsuperscript{26}See generally J.E. Penner, \textit{The “Bundle of Rights” Picture of Property}, 43 UCLAL. REV. 711 (1996).
  \item \textsuperscript{27}See Wagner, supra note 3, at 995-96, 998 (emphasizing the rhetoric of control that underlies much of the recent literature on information property).
\end{itemize}
that land and other tangible items can be property. This limitation follows because information is a “public good;” that is, “the cost of providing the good does not increase with consumption, and . . . it is generally infeasible to exclude others from consuming the good.”

The grant of property rights in information is therefore not necessary to prevent overuse of valuable resources, which is often the justification for private property interests in land and other tangible goods. There may be other reasons for granting a form of private property right in information, but it is important to acknowledge that the justification for the grant, and therefore the nature of the right(s) thereby granted, will differ significantly from tangible property rights in the “real world.”

One of the more obvious reasons we talk about “property” in information is the lack of a better word. Market players tend to use this terminology because they are familiar with it. It seems the most obvious term to describe a valuable commercial good with which people seek to transact in a market. Thus, even though information goods are not of the same nature as tangible goods, the property terminology will likely stick. In fact, some intellectual property statutes expressly use the term “property” to describe rights granted thereby. Other statutes dealing with private rights in information impliedly connote property by using associated terminology such as “misappropriation,” “ownership,” and “transferability.”

28. See id. at 1001-03 (emphasizing the differences between creating property from tangible goods like land and intangible goods like information).

29. “Public goods” are those goods “that can be shared non-rivalrously by many, and from whose use non-payors are not easily physically excluded . . . . Inventions and works of authorship are ‘public goods’ whose creation is stimulated by the limited private exclusion rights known as patent and copyright.” Wendy J. Gordon, Authors, Publishers, and Public Goods: Trading Gold for Dross, 36 Loy. L.A. L. Rev. 159, 164 (2002); see also Wendy J. Gordon, Asymmetric Market Failure and Prisoner’s Dilemma in Intellectual Property, 17 U. Dayton L. Rev. 853, 854 (1992).

30. Wagner, supra note 3, at 1001 n.20.

31. Id. at 1001.

32. See CAROL ROSE, PROPERTY AND PERSUASION 106 (1994).

33. See Jessica Litman, Information Privacy/Information Property, 52 Stan. L. Rev. 1283, 1296 (2000) (stating that intellectual property rights are created to facilitate transfer of relevant goods).


“Property” terminology need not be avoided, provided that we are clear about what is meant when the term is used in the context of information. There may, in fact, be some distinct advantages in utilizing the term. One obvious advantage is the familiarity of the concept in describing a transferable good with market value. Another advantage might come from the lessons that can be learned from traditional property law regarding appropriate balances of competing interests in property.

For the purposes of this discussion, and to emphasize some of the benefits of the property terminology in the context of information without necessarily connoting rights that are equivalent to traditional property rights, I have chosen to distinguish the two concepts by capitalizing the “P” in the term “Property” when referring to traditional real Property law and theory, while retaining a lower case “p” for “information property.” Thus, throughout the remainder of this Article, where I refer to traditional theories of Property I will describe them as “traditional Property theory” and “real Property.” Where I am referring to our colloquial use of the term in the context of rights in valuable information, I will utilize the term “information property.”

Although this may seem somewhat strained, there is method to the madness. The main reason for this use of terminology is to emphasize that, when referring to “information property,” I am drawing to some extent on notions of traditional Property law and theory, but that I am not suggesting that information should be Property in the traditional “capital P” sense. I am instead arguing that where we rely on parallels and analogies from Property theory to describe aspects of information ownership, as we consistently do, we should be aware of both the similarities and the differences between the two concepts: hence, the use of the similar, but distinct, labels, “Property” and “property.”

Information property rights, as the term is used here, can take many forms. At its most basic, the term relates to information that has commercial value, in which private market players want to transact.38 Much of


37. “Transferability” is an important aspect of ownership because one of the key rationales for a property right is alienability. See Litman, supra note 33, at 1295. There are many references to the transferability of intellectual property in statute. See, e.g., 15 U.S.C. § 1060 (assignability of registered trademark); 17 id. § 204 (transfer of copyright); id. § 205 (recordation of transfer of copyright); 35 id. § 261 (assignability of patents).

38. See Samuelson, supra note 1, at 365-75 (distinguishing between information property rights and intellectual property rights, and rationales for and against accepting broad information property rights); Jessica Litman, The Tales that Article 2B Tells, 13 BERKELEY TECH. L.J. 931, 935-36 (1998) (criticizing the breadth of the definition of “informational rights” in the then-proposed Uniform Commercial Code Article 2B); see also supra note 24 and accompanying text.
standard intellectual property law relates to what might be termed “information property rights.” Copyright and patent law, at least in the global information age, create property rights in aspects of valuable information products like computer software and Internet business methods. Trade secret law also protects valuable commercial “know how,” and trade secrets are generally described as “property” rights despite their somewhat questionable proprietary status.

There is also a significant amount of 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. Databases are not protected by copyright law in the United States unless they meet a somewhat vague originality standard for copyright protection in relation to the selection or arrangement of their contents. Nevertheless,
this type of information is often propertized, again in the small “p” sense of the word, through the use of restrictive contractual licenses and technological protection measures.

Increasingly, propertization of information, even in the small “p” sense of the word, leads to obvious concerns about appropriately balancing competing interests in valuable information. Many scholars have commented on the need for various sectors of the community (notably educators, scientists, and other researchers) to access and use certain propertized information. Scholars have also commented on cultural equities and moral rights inherent in certain information, ideas, and narratives. 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 and music, and words identifying culturally significant contents to receive copyright protection in the United States). This case may be contrasted with a recent Australian judicial determination that a white pages telephone directory is copyrightable under Australian law. Desktop Mktg. Sys. Party Ltd. v. Telstra Corp. (2002) 192 A.L.R. 433.


49. See supra note 12 and accompanying text.


51. See, e.g., Emil Chang, Copyright Infringement? (Music to a Lawyer’s Ears), at
names and geographical places. The global community has also become increasingly concerned about the rights of authors, generally, with respect to their works, particularly their rights to be acknowledged as the author of a work (the right of attribution), and to not have a work subject to derogatory treatment (the right of integrity).

Courts and legislatures have played a significant role in over-proprietaryizing information to the detriment of the competing interests identified above. Examples of legislative involvement in this trend include: (a) the creation of powerful and exclusive property rights in databases throughout the European Union (E.U.) under the E.U. Database Directive; (b) the enactment of the Digital Millennium Copyright Act (DMCA) in the United States which strengthens claims to digital copyright by preventing trafficking in, and use of, devices which might circumvent digital rights management technology; and, (c) the recent extension to the copyright protection term in the United States. Additionally, both courts and


53. 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 (2000); Copyright Act, 1968, pt. IX (Austl.); Copyright, Designs and Patents Act, 1988, c. 48, §§ 77-85 (Eng).

54. The right of attribution is the right of an author of a work to have his or her work attributed to him or her, not to have the work falsely attributed to someone else, and not to have a work attributed to him or her that he or she did not create. 17 U.S.C. § 106A(a)(1)-(2); Copyright Act, 1968, §§ 193, 195AC (Austl.); Copyright, Designs and Patents Act, 1988, c. 48, § 77 (Eng.).

55. The right of integrity is the right of the author not to have his or her work mutilated in any way or subjected to any kind of derogatory treatment. 17 U.S.C. § 106A(a)(3); Copyright Act, 1968, § 195AI (Austl.); Copyright, Designs and Patents Act, 1988, c. 48, § 80 (Eng.).

56. Directive on the Protection of Databases, supra note 5 (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).


legislatures have supported attempts at privatizing copyright law through restrictive contractual provisions.\footnote{60}

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 twentieth century when scholars started to debate the extent to which various computer software-related products were being over-propertized by the legal system. These earlier examples related to things like the validity of patents for computer software and Internet business method patents,\footnote{61} and the extent to which computer software might be protected under copyright law as a literary work.\footnote{62}

These issues are not limited to the United States. In the European Union, similar concerns about the over-propertization of information products and the ineffectiveness of fair use doctrines to provide adequate levels of access and use of information to those who need it have arisen in


recent years, particularly in the wake of the E.U. Database Directive\(^{63}\) and
the E.U. Copyright Directive.\(^{64}\)

Commentators are worried that large amounts of relatively mundane
information could be locked away from society and may only be
accessible through payment of prohibitive fees.\(^{65}\) These fears are
exacerbated by the fact that the fair use provisions in the E.U. Database
Directive are somewhat unclear,\(^{66}\) and that E.U. Member States have
significant discretion about the extent to which they adopt fair use
provisions in domestic legislation that implements the Directive.\(^{67}\)
Another worrying development in the history of the E.U. Database Directive has
been the removal of the compulsory licensing provision for sole source
information providers that had been included in an earlier draft of the
Directive.\(^{68}\) 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-propertization 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. Clearly, a significant part
of this concern relates to whether we see valuable information as
“property” or “Property.” The former term largely connotes a useful
transactional tool that can assist in the development of new markets for the
benefit of society as a whole,\(^{69}\) while the latter refers to the

\(^{63}\) See Directive on the Protection of Databases, supra note 5; see also Catherine Colston,
http://elj.warwick.ac.uk/jilt/01-3/colston.html (last visited on June 19, 2002). These concerns are
relevant in the United States and in the European Union because of moves to enact legislation in
the United States that achieve at least some of the same ends as the E.U. Database Directive. See
Mark J. Davison, Proposed U.S. Database Legislation: A Comparison with the U.K. Database
Regulations, 21 EUR. INTELL. PROP. REV. 279, 283 (1999) (comparing the E.U. database protection
model with some of the legislative initiatives in the United States); Reichman & Samuelson, supra
note 3.

\(^{64}\) Directive on Copyright, supra note 58, art. 6 (containing provisions similar to the anti-
circumvention provisions of the DMCA).

\(^{65}\) Reichman & Samuelson, supra note 3, at 71; Reichman & Uhlir, supra note 9, at 808-10.

\(^{66}\) The fair use provisions are found in Article 6 of the Directive and include, among other
things, “normal use of the contents by the lawful user,” “private purposes,” “use for the sole
purpose of illustration for teaching or scientific research,” and “use for the purposes of public
security.” Directive on the Protection of Databases, supra note 5, arts. 6(1), (2)(a), (2)(b), (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 “normal use,” “lawful user,” “private purposes,”
“illustration for teaching or scientific research,” or “public security.”

\(^{67}\) All of the fair use exceptions set out in Article 6 are discretionary and may or may not
be transposed into domestic law at the discretion of each individual E.U. Member State. See id.

\(^{68}\) See Colston, supra note 63; Reichman & Samuelson, supra note 3, at 86-87.

\(^{69}\) See VLADO DIMOVSKI ET AL., MINISTRY OF ECON. AFFAIRS, GOV’T OF REPUBLIC OF
conceptualization of an asset as a rivalrous private good that can be commodified to the exclusion of most others. One of the underlying theoretical justifications for this commodification of Property is to prevent a “tragedy of the commons” in relation to rivalrous goods. 70

Our thoughts about Property necessarily influence our thoughts about information property; that is, we would hardly have adopted the term “property” in the information context if it was not in some way informed by our ideas about traditional Property theory. However, we need to be much more careful than we have been in the past about delineating which aspects of Property we want to draw into our conception of information property. I argue that in some ways we have borrowed too much from traditional notions of Property when conceptualizing information property, while in other ways we have borrowed too little.

In the “too much” category is the idea that Property rights may well entitle the owner to a market monopoly (as is often the case with rivalrous goods such as realty). Ownership of such goods can lead to the ability to charge high prices for access and use. 71 This may well be the case with many rivalrous goods, like land, but it should not work this way with respect to non-rivalrous goods like information. 72 This is because Property rights in relation to physically scarce resources discourages waste in favor of trade, 73 while the same reasoning will not necessarily apply to a public good like information.

In the “too little” category I would argue that we have failed to notice, when borrowing from traditional Property theory in the information property context, that traditional Property rights entail significant concurrent obligations or responsibilities imposed on the proprietary owner as an incident of their Property ownership. Historically, Property rights have never been absolute. 74 They have always involved limitations, often in the form of legal duties owed to others. 75 There is certainly no

70. See ROSE, supra note 32, at 106 (citing Garrett Hardin, The Tragedy of the Commons, 162 SCIENCE 1243 (1968)); Rose, Romans, supra note 17, at 90 (explaining the “tragedy of the commons” in the real property context).

71. See ROSE, supra note 32, at 28 (noting that propertizing land increases value and encourages trade in the context of scarce resources).

72. In fact, some have argued that it is physically impossible to control information to this extent because of the nature of property. See, e.g., Wagner, supra note 3, at 1003-10 (describing how the control and commercial exploitation of specific property begets more property that enters the public domain as a result of the propertization of the original information).

73. See supra note 71 and accompanying text.

74. See Chander, supra note 1, at 778.

75. These may include the duties of landlords to maintain premises in good repair for the
reason for a trend of absolute control to start now in relation to information property rights.

Assuming the continued use of the “information property” label in the modern world, is it possible that we might learn something about legal duties that could be imposed on information property holders from examining some of the legal duties imposed on traditional Property holders? Again, this is not to equate information property with traditional Property, but rather to evaluate whether there are ways in which the traditional Property concept can help inform us in developing a better balance of interests in information property. Thus, we cannot simply identify duties attaching to traditional Property ownership and apply them mutatis mutandis to information property. However, we can apply the general concept of accompanying the grant of a property right in information with the grant of some commensurate legal duties that will temper the otherwise potentially unfettered exercise of the relevant rights.

We have already seen some examples of obligations attaching to ownership of intellectual property. Patent law, for example, requires the public disclosure of an invention in return for the grant of patent protection. 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.

However, many would argue that the type and amount of obligations currently imposed on intellectual property holders are insufficient to achieve an appropriate balance of interests in information. In particular, the obligations currently imposed on intellectual property holders, generally, relate to the protection and enhancement of the public domain of information and ideas as a whole rather than to protecting specific competing private interests in valuable information. Thus, the obligations currently imposed on intellectual property owners are very important in the sense of an overall public-interest balance of information, but may do little to protect specific individuals with competing interests in relevant intellectual property, particularly those with limited means to assert or enforce their interests.

The idea of balancing competing interests in information is not new, but the framework presented in this Article for doing so provides a new way of conceptualizing relevant issues that might ultimately benefit

benefit of tenants and duties of landholders not to waste premises for the benefit of remaindermen. See infra notes 200-01 and accompanying text.

76. See 3 DONALD S. CHISUM, CHISUM ON PATENTS § 7.01 (1997) (stating that adequate disclosure requirements imposed on a patent applicant ensure a sufficient quid pro quo for the public in respect to the limited monopoly granted to the inventor).

77. Id. (explaining that full disclosure also ensures that the relevant information will be available to the public once the statutory monopoly period expires); 1 id. § 1 (providing that patent holder can only assert patent during the statutory protection period).
society in two ways. First, it will create more powerful legal rights in those who seek to assert competing interests against an information property holder based on legal duties owed by the property holder to those competing interest holders. Second, it will provide a unified framework for balancing competing interests in information under a simple, basic doctrine, regardless of the specific nature of the information product in question. Such a framework can apply broadly across the matrix of laws relating to information property law both within the United States, and ultimately, globally. An important aspect of this framework is the way in which it addresses the question of who should bear the legal and financial burdens of balancing information property rights against other competing interests in relevant information.

I argue that those burdens should be predominantly borne by the right holders themselves as legal 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.

In making these suggestions, I am sympathetic to the notion that we must be careful about imposing additional obligations on property owners in respect to competing interests in information. The reason for the existence of laws supporting the creation of many information property rights is to provide incentives to innovate. The grant of an information property right is typically a reward for innovation. However, in the absence of definitive empirical evidence, it would appear from anecdotal commentary that the balance of competing rights in information currently tips too heavily in favor of information property holders, often to the detriment of those with competing interests in relevant information. I am assuming this to be the case. In any event, the framework I am suggesting for balancing competing interests in information should provide the flexibility to adapt to changing situations in terms of promoting innovation versus preventing monopolistic practices to the detriment of others with competing interests in relevant information.

As noted above, my suggested framework does not specifically address the public domain question, although this is an important issue that is currently being examined in the context of the initial grant and scope of


79. See, e.g., Directive on the Protection of Databases, supra note 5.


81. Id.
information property rights. I see the public domain question as distinct from, but related to, the issue of balancing competing individual interests in proprietary information as the following discussion demonstrates.

Part II explains why current approaches to balancing information property rights against competing interests in information have failed to strike an effective balance to date. Part III describes a methodology for balancing private rights against legal duties inherent in information ownership, drawing on theories of traditional Property ownership as a preferable framework for balancing competing interests in information. Part IV examines the appropriate role for governments in monitoring and enforcing any new legal duties imposed on information property owners. Part V sets out some conclusions on these issues and summarizes the new framework proposed for information property rights and responsibilities.

II. EXISTING LIMITATIONS ON INFORMATION PROPERTY RIGHTS

The current approaches most often identified as mechanisms for limiting or restricting the exploitation of 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. A similar defense is found in relation to the infringement of a sui generis database right in the European Union.

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. Debates about both the appropriate duration of property rights in databases and the duration of copyright law

82. See generally Symposium, supra note 14.
85. See Hettinger, supra note 1, at 51.
in the United States\textsuperscript{87} evidence the way in which scholars and legislatures have grappled with this issue.

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 or services.\textsuperscript{88} Copyright protection is limited to fixed expressions of original works, rather than abstract ideas.\textsuperscript{89} Patent protection is limited to novel and non-obvious inventions.\textsuperscript{90}

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 in an infringement action.\textsuperscript{91} Thus, based on the existing literature, one might assume that the best system that could be developed for balancing rights in information would be a combination of these approaches.

In contrast to the first approach involving fair use limitations, the second approach with limitations on scope focuses more on public interests and the protection of the public domain of information and ideas.\textsuperscript{92} Many of the limitations on the scope of information property are aimed at ensuring that an information property holder does not take or maintain more information property than is necessary to provide the incentive to create. The first approach is more relevant to what we are


\textsuperscript{88} When filing an application for a trademark, the applicant must identify the goods or services for which registration is sought. \textsc{United States Patent & Trademark Office, Basic Facts About Trademarks}, available at http://www.uspto.gov/web/offices tac/doc/basic/appcontent.htm#goods (last visited May 31, 2003). Some guidance in terms of the 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 id., available at http://www.uspto.gov/web/offices/tac/doc/basic/international.htm (last visited May 31, 2003).

\textsuperscript{89} 1 \textsc{Melville B. Nimmer, Nimmer on Copyright} § 2.03[D] (1978) (stating that a copyright can only be claimed in a fixed expression and not an idea); \textit{id.} § 2.03[B] (observing that copyright work must be fixed in tangible form); \textit{id.} § 2.01 (discussing the originality requirement for copyright protection).

\textsuperscript{90} 35 U.S.C. §§ 102, 103 (2000). These requirements are distinct from the initial requirements of a patentable subject matter. \textit{Id.} § 101; \textsc{Chisum, supra} note 76, § 1.01.

\textsuperscript{91} Copyrights, for example, are both limited in statutory terms and subject to fair use defenses. 17 U.S.C. § 107 (fair use); \textit{id.} §§ 301-305 (duration).

\textsuperscript{92} Symposium, \textit{supra} note 14 (providing detailed commentary on different conceptions of the public domain).
discussing here: the idea of balancing competing private interests in information products.

I argue that there is a better way of balancing competing interests in information than is inherent in the current fair use mechanism. I also examine how the limitations on the scope of information property rights are not of much help to those individuals and groups seeking to assert competing interests in information products. The inherent difficulties in relying on the current matrix of limitations on information property rights to effectively protect competing interests in information are considered in the next Part.

A. *Fair Use*

1. 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.\(^93\) The idea of fair use in the copyright context is that where a person has used a copyrighted 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.

Section 107 of title 17 contemplates that certain uses of a copyrighted work, which would otherwise infringe the copyright, are defensible in particular circumstances. The purposes contemplated in the fair use section include “criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research.”\(^94\) Section 107 also sets out four factors that a court shall consider when determining whether a particular use amounts to a fair use of a copyrighted work:

(1) the purpose and character of the use, including whether the use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and, (4) the

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93. 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*, 18 BERKELEY TECH. L.J. (forthcoming 2003).

effect of the use upon the potential market for or value of the
copyrighted work. 95

Obviously, the idea behind the fair use doctrine is to place some
limitations on the rights of a copyright holder where society generally, and
some individuals or groups in particular, 96 would benefit from restricting
the exercise of these rights.

This fair use model for balancing private rights in an information
product against competing interests in relevant information has also been
adopted in the E.U. Database Directive (through the sui generis database
right). 97 This right is distinct from copyright. It is a property right in a
database, including a non-original database, based on the effort put into
compiling the database. 98

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 adopt the fair use model for database law as one type of limitation on
database rights. 99 Also included were limitations on the duration of
database rights as an additional measure to prevent over-commodification
of such information assets. 100 However, neither measure has proved
particularly effective in practice as a meaningful limitation on a database
right. 101 The problems with the limitations on duration are addressed in
Part III.B.

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; (b) where there is use for the sole
purpose of illustration for teaching or scientific research, as

96. For example, scientists and educators.
98. Id. art. 7. In fact, the substantial effort test described is basically derived from the “sweat
of the brow” doctrine rejected in the Feist case in the copyright context. Feist Publ’ns, Inc. v. Rural
99. For a more detailed discussion of this issue in the database context, see Lipton, supra note
93.
100. Directive on the Protection of Databases, supra note 5, art. 10.
101. The reasons for this are explained later in this Part. 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. Id. art. 6. The fifteen-year
duration can be extended indefinitely if a database is continually updated, as is the case with most
online databases. Id. art. 10(3); see also Lloyd, supra note 62, at 189-90; Davison, supra note 63,
at 283.
long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved; (c) where there is use for the purposes of public security or for the purposes of an administrative or judicial procedure; (d) where other exceptions to copyright which are traditionally authorized under national law are involved . . . .

In this model, we see a reflection of the attitudes underlying the U.S. fair use defense. The public policy is to preserve specific uses of database contents that do not create unfair commercial competition with the database rights holder and which promote particular public interests like education, research, and 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. 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 purpose.” The domestic legislation in the United Kingdom further provides that to assert this defense, the user must be “a lawful user of the database,” and that the database must have been made available to the public. 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.

2. Fair Use in the Digital Age

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 revolve around the uncertain legal and

102. Directive on the Protection of Databases, supra note 5, arts. 6(2)(a)-(d).
103. Id. art. 6(2).
104. Id.
105. Copyright and Rights in Databases Regulations, 1997, c. 20(1)(b), § 3032 (Eng.); see also id. sched. 1 (providing exceptions for various government purposes, but not augmenting the exceptions for private fair uses).
106. Id. reg. 20(1)(a).
107. Id. reg. 20(1). The exception also requires the source of the database to be indicated by the person arguing “fair dealing,” the English term for fair use. Id. reg. 20(1)(c).
constitutional status of the defense and 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 rather, is 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.\textsuperscript{108} If information property right holders convince courts and legislatures that the latter view should prevail, it tips the balance in favor of the holders of those rights.

This problem is exacerbated by the fact that copyright holders, in the digital information age, can utilize encryption technologies on copyrighted works to prevent unauthorized access and copying\textsuperscript{109} and to more easily track down those who make unauthorized copies of digital works.\textsuperscript{110} At least in the physical world, it was easier as a matter of practice to make an unauthorized copy of a copyrighted 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 copyrighted 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 \textit{any} unauthorized uses of a relevant work rather than using the work and then having to argue fair use.

\textsuperscript{108} Compare W.R. Cornish, INTELLECTUAL PROPERTY: PATENTS, COPYRIGHT, TRADE MARKS AND ALLIED RIGHTS (4th ed. 1999) (stating that fair dealing rights in English copyright law have the status of constitutionally guaranteed rights to access and use a copyright work), and Eldred v. Ashcroft, 537 U.S. 186 (2003) (suggesting that the fair use doctrine might be derived from a constitutional guarantee of free speech in much the same way that the idea-expression dichotomy in copyright law has developed to protect free speech and that fair use strikes a balance between First Amendment free speech concerns and copyright law), with Nimmer, supra note 25, at 714-15 (questioning this proposition).


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 to be exhaustive, and there is no instruction on how courts should weigh any of the four factors in a given case. Although this vagueness gives the defense a certain flexibility of operation, it does sacrifice certainty.

People wanting to raise a fair use defense to digital copyrights 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. Then, they have to cope with the greater likelihood of being caught by the copyright holder and having an 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 burdens of convincing a court of their right to use the work in question. This creates an inappropriate balance of interests in the copyrighted work. Often, the person whose use should be protected will back away from using the information because of a lack of bargaining power outside the courtroom or a 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.


112. See LEHMAN, supra note 111, at 83-84 nn.263-64. Although Congress provided some fair use guidelines for libraries and educational institutions for educational uses of copyright materials, none of the four sets of guidelines were ever enacted into legislation. Id. 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. Id.

113. Under the DMCA, access to a copyrighted work is illegal even if the use for which access is sought is a fair use. See Nimmer, supra note 25, at 723. But see Samuelson, supra note 25, at 539-40

114. See LOHMANN, supra note 109 (discussing the use of digital rights management to prevent access to or copying of digital works).

115. See supra note 110 and accompanying text.

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 quasi-proprietary rights in digital information products, and many legislatures are attracted to the fair use model for protecting public interests in information, these problems are likely to be multiplied.

Another related problem with over-reliance on a fair use defense as a means of creating an appropriate balance of competing interests 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, often bolstered by restrictive contractual licenses and sometimes legislation, 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 an otherwise permissible use.

This problem has clearly manifested itself in the context of digital copyrighted works, particularly in the wake of the enactment of the DMCA. Even without this legislation, if right holders can effectively prevent access to an information product through technological and contractual measures, the debate about fair use becomes irrelevant unless fair use takes on the status of a constitutionally protected right. If it is regarded as a protected right, courts may ultimately be compelled to issue 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.

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118. See supra note 117 and accompanying text.

119. See generally Lipton, supra note 93 (examining the inappropriateness of utilizing a copyright model for protecting proprietary interests in databases).

120. See Cohen, DRM and Privacy, supra note 109; Cohen, Lochner in Cyberspace, supra note 109, at 470-71 (noting that DRM creates market failures in the digital economy); Fisher, supra note 6, at 1209-10.

121. See ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1449 (7th Cir. 1996); Fisher, supra note 6, at 1211; Madison, supra note 6, at 1052-53.


123. Samuelson, supra note 25, at 519 (discussing the overbroad reach of anti-access and anti-device provisions in the DMCA).

124. See generally Fisher, supra note 6.
However, the constitutional status of the fair use defense in copyright law remains uncertain. The potential status of the 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 interests in information products is futile. Where potential fair users cannot access an information product, the legal protection of their right to use it is irrelevant.

In the copyright context, some of these issues could be resolved by amendments to title 17. The legal status of fair use and the scope of the fair use defense might be clarified for the digital age if Congress amends the DMCA so that copyright holders are not permitted to deny access to fair users. This would certainly be a good place to start and may provide a copyright-specific example of how to approach the broader problem of finding an optimal balance for competing interests in information property more generally.

However, the problem of balancing competing interests in valuable information is greater than problems of access to, and use of, copyrighted works. Thus, examining the solution to some of the bigger problems of information ownership through a copyright lens may ultimately prove less effective than considering the problems more generically. If we can formulate some broad information property principles relating to balancing competing interests in information, then we can apply them to property rights in other types of valuable information—non-original databases and patents, for example.

The specific copyright application of the broad principles may look something like that described above: expanding and clarifying the operation of the fair use defense to copyright infringement, and building clear fair use exceptions into the DMCA’s access prohibitions. However, those developments could be informed by a broader underlying policy that balances interests in information more generally. This general policy could ultimately lead to greater harmonization of laws relating to information property in terms of their underlying public policy considerations. It might, therefore, increase certainty and predictability in disputes involving many kinds of information property rights.

127. In fact, this may well have been Congress’ intention in the first place. 17 U.S.C. § 1201(c)(1) (stating that fair use rights are not to be affected by the enactment of the DMCA). This provision suggests that Congress may not have realized the potential impact of the DMCA on fair use.
128. Id. §§ 1201(a)(1)(A), (a)(2), (b)(1).
3. Fair Use Purposes

Another problem with relying predominantly on fair use-type defenses as a balancing tool for rights in information is the fact that the fair use defense is derived from copyright law (as noted above), and thus tends to reflect copyright policy even when translated into other contexts. While fair use in the copyright context has historically been concerned with educational, research, and news-reporting uses, 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 all information products more generally will potentially create an overly narrow focus on interests that may compete with those of the information property owner.

People are becoming more concerned about their privacy in the global information age. 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, like 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, or artistic traditions from a particular group of people that ultimately becomes powerless to protect its spiritual, cultural, or financial interests once the work has been copyrighted. 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, under many copyright schemes.

We should therefore avoid larger-scale adoptions of fair use defenses within the broader information law and policy context because of their

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129. Id. § 107.
130. See Lipton, supra note 93 (discussing this issue in relation to the problems with translating copyright fair use principles to sui generis database rights).
131. 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, 634 (2000) (stating that cyberspace is a “fertile ground for the harvesting of consumer data” and there is little that can be done to preserve personal privacy).
132. See generally COOMBE, supra note 12; Chander, supra note 1; Stephenson, supra note 12.
134. See generally KU ET AL., supra note 47, at 15 (2002) (suggesting that there is a developing law and policy of information per se); RAYMOND T. NIMMER, INFORMATION LAW xii (1996) (same); Jacqueline Lipton, A Framework for Information Law and Policy, 81 OR. L. REV. (forthcoming 2004).
specificity to the copyright context and because of questions about access and use by a competing interest holder, as opposed to attempts by such an interest holder to prevent particular uses of information by an information property holder. Laws emulating this copyright model will tend to adopt only those fair use provisions historically provided in the copyright context, limited to the types of purposes and uses contemplated in copyright law. Although this approach may be suitable for traditional copyrighted works, it is less likely to meet the needs of society in relation to more generic information products like valuable online databases.

The other limitation of adapting a more generic copyright model to balance competing interests in information products is that fair use has traditionally been applied in very specific contexts. It was never intended to provide a comprehensive balance of interests in copyrighted works, to say nothing of other information products. It has only been part of the picture in limiting a right holder’s ability to exploit his or her private rights in a copyrighted work. Limiting the duration of the copyright term, limiting copyright to cover expressions and not ideas, the first sale doctrine, and the recognition of moral rights, are other examples of attempts to balance competing interests in copyrighted works.

This does not mean that fair use cannot maintain its position as a useful part of a strategy to balance competing interests in information products. It has always served this function in the past in relation to copyrighted works. However, I would caution against over-reliance on it as the answer to all the problems posed by digital information technology. Without necessarily rejecting fair use for the digital information age, we need to think more expansively about the kinds of interests that need to be balanced against private property rights in information. In so doing, we

135. For example, the fair use provisions in the E.U. Database Directive mirror copyright principles, with the addition of a “public security” provision. Directive on the Protection of Databases, supra note 5, art. 6. Privacy rights are not included as part of these provisions, although they are provided for under the E.U. Data Protection Directive. Council Directive 95/46/EEC, art. 1, 1995 O.J. (L 281) 31 [hereinafter Directive on Data Protection]. 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. See Lipton, supra note 93.

136. Lipton, supra note 93.

137. 17 U.S.C. §§ 301-305.

138. 1 NIMMER, supra note 89, § 2.03[D] (stating that a copyright can only be claimed in a fixed expression and not an idea).


140. See 17 U.S.C. § 106A.
need to identify effective ways of approaching the problem on a more global scale than has been the case in the past.

B. Limitations on Property Scope

Historically, the second mechanism for balancing competing 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 twenty year duration.\(^\text{141}\) Copyrights are limited to the author’s life plus seventy years.\(^\text{142}\) In contrast, registered trademark rights can last indefinitely provided that they are renewed in conformity with the relevant legislation.\(^\text{143}\) Trade secrets can also last indefinitely while their secrecy is maintained.\(^\text{144}\)

Unlike fair use, these limitations on information property are imposed for the benefit of society as a whole, rather than for the benefit of specific individuals or groups asserting competing interests in relevant property. The common theme is that both fair use limitations and limitations on the scope of property rights are imposed in an attempt to achieve an appropriate overall societal balance of rights in valuable information.

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.\(^\text{145}\) Applicants for trademark registration are required to identify the goods or services for which the mark will be used.\(^\text{146}\) Patents are only granted for novel and non-obvious inventions.\(^\text{147}\)

Commentators on the creation of sui generis property rights in valuable electronic databases have often talked about drafting appropriate limitations on the scope of the property rights, notably the duration.\(^\text{148}\)

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141. 35 U.S.C. § 154(a)(2) (codifying patent term, which is generally twenty years from the date of filing the patent application).
142. In most jurisdictions, copyright lasts for the author’s life plus seventy years. Fisher, supra note 6, at 1233; see also Eldred v. Ashcroft, 537 U.S. 186 (2003) (discussing the recent extensions of the copyright term).
143. Trademark registration under the federal register in the United States generally lasts for ten years. 15 U.S.C. § 1058(a). Registrants can apply for successive ten-year renewal periods for their registered mark(s). 15 id. § 1059(a).
144. See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 cmt. b (1995) (stating that trade secrets are defined by secrecy and economic value); LEHMAN, supra note 111, at 174.
145. See supra note 138 and accompanying text.
146. See supra note 88 and accompanying text.
148. 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
Unfortunately, attempts to limit the time period to less than that provided for copyrights have backfired, potentially creating an indefinite right in the case of continually updated databases. Despite the fifteen-year duration of a database right set out in the E.U. Database Directive, the provision for a new fifteen-year term of protection for an updated database creates the potential for a database right to last forever. Most electronic databases will be updated sufficiently often to attract constantly renewed terms of protection, thus effectively granting them indefinite protection.

Limiting the scope of property rights in information products is obviously one way of ensuring some kind of overall societal balance 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 on restricting the scope of information products as a means of ensuring a balance between competing interests in information is that this mechanism is not specifically tailored to the precise interests that may be implicated by a particular property right. Nevertheless, limiting the scope of a private property right will generally have some overall positive effects on the public domain of information and ideas.

If a patentee can only assert a patent for twenty years, society as a whole will presumably benefit from the development of the invention, 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 develop the invention in the first place, and that the twenty-year time period is appropriate). However, this scheme does

149. Directive on the Protection of Databases, supra note 5, arts. 10(1), 10(2).
150. Id. art. 10(3).
151. LLOYD, supra note 62, at 189-90.
152. Id.
154. It is assumed that society will ultimately benefit from patents. See supra note 76 and accompanying text.
155. In the software patenting context, see Swinson, supra note 41, at 212-14 (commenting that software is more appropriately protected by copyright than by patent). But see Cohen & Lemley, supra note 41, at 5 (noting the advantages of patenting software).
156. Swinson, supra note 41, at 157-59 (arguing that the current patent term 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).
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. 157

Additionally, limiting the scope of an information property right per se does not require the right holder to take any positive steps to fulfill specific duties in respect to relevant rights. In other words, no significant affirmative public duties are imposed on the right holders, other than the duty to disclose their invention on the patent register. 158 There may be implied negative duties—for instance, 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. 159 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 create new property rights, 160 unless expressly prohibited or restricted by law. 161 Where right holders are able to 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 in protecting competing interests in relevant information.

157. There is a compulsory licensing scheme for patents in England. Patents Act, 1977, c. 37, § 48 (Eng.).
158. See supra note 76 and accompanying text.
159. See generally Cohen, DRM and Privacy, supra note 109; Fisher, supra note 6; Madison, supra note 6.
160. For example, databases that are insufficiently original to attract copyright protection in the United States may effectively be propertized through contract and technological measures. See, e.g., ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996).
161. To date, the legal institutions in a number of jurisdictions have, in fact, supported, rather than monitored and controlled, new information property rights. E.g., Digital Millennium Copyright Act of 1998, Pub. L. No. 105-304, 112 Stat. 2860 (codified as amended in scattered sections of 17 U.S.C.); Directive on Copyright, supra note 58; UNIF. COMPUTER INFO. TRANSACTIONS ACT, supra note 78.
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 competing interests in information and protecting the public domain to some extent, their major disadvantage is that they do not impose any significant 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, or to restrict the property holder’s use of, a particular information product to convince a court of these things. Such a party may not have the time, resources, 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 information property rights should be charged with the responsibility of monitoring and enforcing the duties owed by right holders to other members of society.

III. RECONCEPTUALIZING THE ISSUES

A. Property Rights and Responsibilities

The idea of imposing affirmative legal duties on property holders is not new, although often we fail to conceive of property ownership as involving legal responsibility. We have already identified some affirmative duties attaching to intellectual property ownership, and many such duties are apparent in traditional Property law and theory. Property rights in the past have never been absolute, and there is no reason why information property rights should be any different. If information property rights are here to stay, we should consider ways in which responsibilities of property ownership can be developed and imposed on right holders as part of our legal system.

We need to start thinking about an overarching policy framework for information property rights that incorporates concurrent legal duties. These duties may take different forms in relation to different information assets

162. These include the duty of a landlord to maintain premises in good repair for the benefit of tenants, the duty of a Property holder not to waste Property to preserve the interests of remaindermen, duties imposed under restrictive covenants, and easements which restrict uses land holders may make of their Property that would interfere with access or other interests of other members of society. See infra notes 200-02 and accompanying text.

163. See Chander, supra note 1, at 778.
and may overlap with existing doctrines, like fair use in copyright law, but they will not always operate on the same basis. The hope is that these duties would go some way towards achieving a more appropriate balance of competing interests in valuable information.

Under this 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 a duty attaching to copyright ownership that the right holder ensures that certain uses of the copyrighted work are facilitated. These uses would need to be identified in relevant legislation more clearly than the current fair use provisions in copyright law. Legislation would also need to be crafted to override the operation of legislative provisions and contractual and technological measures that restrict access to the information property in question. This legislation would impose duties attaching to property ownership that would be enforceable at the behest of affected parties as strenuously as the property rights could be asserted by the right holders against “bad faith” infringers. These obligations might be extended to include duties of information property holders generally to facilitate all non-profit personal, educational and scientific uses of their information products regardless of what technological or contractual measures might be in place to protect against unauthorized competitive market uses.

165. See generally ProCD, Inc., 86 F.3d at 1447; Fisher, supra note 6; Madison, supra note 6.
166. In this context, bad-faith infringers need to be distinguished at the policy level from people who require access to and use of relevant proprietary information 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 information property holder as the idea behind bad faith. Jacqueline Lipton, Mixed Metaphors in Cyberspace: Property in Information/Information Systems, 34 Loy. U. Chi. L.J. (forthcoming 2003).
167. 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 copyrighted work 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 injuring 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, or scientific 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, rendering unimportant the need to delineate between a copyright infringer and a fair user.
168. Moore, supra note 1, at 85 (suggesting that a legal rule that allows for all non-profit personal uses of a intellectual work may be “what is needed to maximize overall social utility” in the area of valuable information).
169. For a summary of the laws that prevent unauthorized or bad-faith competitive market uses
This model would obviously require detailed debate to determine the overall nature and scope of duties to be imposed on information property owners. Presumably, some thought would also need to be given to the actual implementation of those duties and the ability to re-work them where they may be failing to strike an appropriate balance between competing interests in information. Some of these issues are canvassed in this Part.

Despite the fact that the above example draws from fair use in copyright law, the information property model suggested in this Article 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 other interests in information and ideas. These interests would likely include the kinds of things generally conceptualized under the fair use defense to copyright—scientific, educational, research, and private uses of information products. However, it could also incorporate interests—like privacy interests—to personal information, moral rights of authors to their works, and cultural rights to information products derived from the works or traditions of specific cultural groups.

Thus, as another example of how the model might operate in practice, one could impose on information property right holders an obligation of accuracy in any information maintained by the right holder in a proprietary database. Similarly, the information property right holder could be required to give individuals access to their personal information in the database or to require removal of particular information from a database. Crafting such provisions as duties attached to property ownership might avoid arguments about the necessity to create strong property or

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170. 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, Desktop Mktg. Sys. Party Ltd. v. Telstra Corp. Ltd. (2002) 192 A.L.R. 433, or a *sui generis* model found in the E.U. Database Directive. Directive on the Protection of Databases, supra note 5.

171. Models for such legislation can be found in some jurisdictions already, although not described in terms of incidents of property ownership in the information assets. See, e.g., Privacy Act, 1988, § 14 (Austl.).

personal privacy rights in personal data\textsuperscript{173} under \textit{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.\textsuperscript{174} This Directive imposes significant limitations on what a “controller”\textsuperscript{175} of data may do with personal information about individuals. There are clear limitations on unauthorized uses and transfers of personal data imposed by the Directive on controllers.\textsuperscript{176} Controllers of personal data will often be organizations that manage large databases, and that can assert \textit{sui generis} proprietary rights in their databases under the E.U. Database Directive. Thus, imposing obligations on the controllers under the Data Protection Directive is an effective counterbalance to the proprietary rights granted in the database.

This looks like an example of what I am suggesting in this Article, although obviously in a much more limited context. Here, an obligation to protect personal privacy of individuals is imposed \textit{on an information property owner} as a limitation on, and arguably as a condition of, 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 the personal privacy interests of individuals.

In a sense, this regulatory scheme shows how government policy can utilize information property rights and concurrent responsibilities to achieve a desired balance between competing interests in information: the database producer’s proprietary interest in her compilation, on the one hand, and the individual’s interest in personal privacy in relation to personal information contained within a proprietary database, on the other.

\begin{itemize}
\item \textsuperscript{173} See generally \textit{e.g.}, Litman, \textit{supra} note 33 (arguing against the need for property rights in personal data and evaluating the basis for privacy rights in such data).
\item \textsuperscript{174} Directive on Data Protection, \textit{supra} note 135.
\item \textsuperscript{175} The E.U. 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.” \textit{Id.} art. 2(d).
\item \textsuperscript{176} \textit{Id.} art. 6 (setting out basic principles of fairness and lawfulness in relation to processing data, including a provision that data should only be collected for “specified, explicit, and legitimate” uses). The E.U. Directive also includes a provision that data should be kept in a form that does not identify data subjects for longer than is necessary for the purposes for which the data was collected. \textit{Id.} 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,” subject to some limitations. \textit{Id.} art. 8(1). Article 12 provides a right of access to data in relation to data subjects. \textit{Id.} art. 12. Article 25 provides a general prohibition of data transfers by a controller to someone in a third country which does not ensure an adequate level of data protection. \textit{Id.} art. 25. Again, there are exceptions. \textit{Id.} arts. 25-26.
\end{itemize}
The burden is not on concerned individuals to convince a court that they have a privacy right in relation to a database’s contents. Rather, the legal and financial burden is on the database producer to ensure adequate legal protection of personal privacy.

Another example of the potential societal benefits of conceptualizing information property in a way that incorporates legal duties or obligations might be found in the context of moral rights. These rights have had a greater impact to date in Europe than in the United States. These are rights attached to authors of works that promote and preserve the integrity of the work in question (right of integrity) and the right of the author to be identified as the creator of the work in question (right of attribution). 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 duty attached to the ownership of the property right. In this context, some difficult policy choices would have to be made in the international arena as to the necessity for these rights, given that major trading jurisdictions have not, in the past, seen eye-to-eye on the need to recognize moral rights.

The same would be true of policy decisions about protecting cultural rights attached to information products as part of a model incorporating legal duties as an attribute of information property. Legislatures would have to decide what kinds 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 possibility is all the more reason to consider these issues on a global scale where possible—


178. See supra note 55 and accompanying text.

179. See supra note 54 and accompanying text.

180. 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 as a species of property rights in the hands of the author or artist. See Dane S. Ciolino, Moral Rights and Real Obligations: A Property-Law Framework for the Protection of Authors’ Moral Rights, 69 TUL. L. REV. 935, 943 (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 or artist, perhaps like the obligation a trustee owes to a beneficiary.

181. Although the United States has some moral rights legislation, see for example, the Visual Artists Rights Act, Pub. L. No. 101-650, 104 Stat. 5089 (1990), European jurisdictions have historically been more vigilant about protecting such rights. Liemer, supra note 177, at 42.
perhaps through the auspices of international organization, like the World Intellectual Property Organization (WIPO). 182

B. Modeling Obligations of Information Property Ownership

1. Property Ownership and Responsibility

Conceptualizing information property rights as incorporating important legal duties is to some extent a new way of looking at an old problem. Many scholars have expressed well-grounded fears about the over-commodification of information in the digital age, particularly vis-à-vis the ability of those with competing interests in information to access and use relevant information 183 or to prevent or restrict certain uses of the information by the information property holder. The framework presented here is a new way of addressing some of these concerns.

I advocate the imposition of significant legal duties on information property holders to ensure that the right holders themselves shoulder the bulk of, or at least a reasonable proportion of, the legal and financial burdens inherent in achieving a socially-appropriate balance of competing interests in information. This requirement is particularly important where a person asserting a competing interest to an information property right is at a significant disadvantage to the right holder in terms of resources to protect his or her interest.

This will clearly be a difficult outcome to achieve in practice because it is important not to lose the necessary incentives to create information property as a result of this balancing exercise. 184 The creation of information property is an important benefit to society. But balancing those rights appropriately with other rights is also important to society. Many would argue that this sense of balance is currently missing in much of our information property law.

Attempts to redress the balance have, to date, drawn from the models of intellectual property law previously discussed—the reliance on fair use exceptions to information property rights and on limiting the scope of those rights. Although both of these methods are important and should be retained, neither of them deals as directly with imbalances of bargaining power as the model suggested here, which redistributes the financial burdens of protecting competing interests in information.

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183. See sources cited supra note 48.
184. See Wagner, supra note 3, at 997 (referring to the incentive effects of intellectual property rights).
Further, neither of them contributes significantly to providing a unified general framework for thinking about the nature of information property more generally in terms of the optimal social balance between information property rights and competing interests in relevant information.

The framework I suggest for incorporating affirmative legal duties on information property holders as part of granting the privilege of the relevant rights draws to some extent from ideas already inherent in intellectual property law. Some of the more obvious examples of duties inherent in owning intellectual property have already been identified above. The framework also draws on other areas of law, notably traditional Property law.

Obviously, traditional tangible Property rights are not the same as intangible information property rights for the reasons set out in the Introduction. However, traditional Property law and theory does provide plenty of examples of a legal dynamic involving the juxtaposition of the grant of a powerful private right against an often equally powerful duty or responsibility owed to another person or group of people. We might learn something about balancing rights and duties in information by examining some of these dynamics from traditional Property law, while bearing in mind the distinct differences between information property and traditional Property as legal assets.

The familiar “bundle of rights” description of traditional tangible Property, for example, explains Property in terms of a “bundle” of sticks that make up the various rights held by its owner. Property can exist in different items with more or fewer sticks in the bundle. The typical “sticks,” or “rights,” connoting Property ownership under this model are the rights to use, exclude others from, and transfer an item. 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

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185. For an examination of the “bundle of sticks” metaphor’s pedigree, see Penner, supra note 26, at 713 n.8.


187. Samuelson, supra note 1, at 370-71. Samuelson says that a bundle of rights may be thicker or thinner but need not have a particular thickness to rise to the status of Property; thus, it is possible that information products can amount to Property under the bundle of rights description. Id.

188. JACQUELINE D. LIPTON, SECURITY OVER INTANGIBLE PROPERTY 12-14 (2000); Chander, supra note 1, at 776.
cheaply, available from other sources. Thus, Property is a useful concept for promoting efficient market transactions. 189

This idea of Property has held some attraction for those who argue in favor of justifying a conceptualization of information as Property. A number of scholars have suggested that information can be Property in the “bundle of rights” sense of the term, if one accepts a different type of “rights” making up the “bundle” than is contemplated in traditional Property theory. 190

Whether or not one accepts this description of information property rights, what is often forgotten about the “bundle of rights” notion of Property, particularly when drawing parallels with information property, is that the bundle does not only include rights. Traditionally, it has also included obligations owed by the Property holder to other members of society. 191 Examples of such obligations are: the obligation to maintain the premises in good repair; 192 the obligation to allow certain persons access to the Property for particular purposes; 193 the obligation to pay taxes when required by the government; and the obligation to cede the Property to the government if required. 194

If this idea of Property holders’ obligations were incorporated into information property theory, the kinds of obligations involved would be different from those arising in the world of physical Property. They might include things like: an obligation to facilitate scientific, technical, and educational uses of information; an obligation to ensure the accuracy and accessibility of any personal information to an individual that may have been incorporated into a proprietary database; 195 an obligation not to subject relevant parts of an information product incorporating an author’s

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189. See Rose, supra note 32, at 28.

190. See supra note 2 and accompanying text.

191. See Joan L. McGregor, Property Rights and Environmental Protection: Is This Land Made for You and Me?, 31 Ariz. St. L.J. 391, 396 (1999) (discussing that Hohfeld’s bundle of rights theory of Property includes a duty of a Property owner to prevent harm to others); Penner, supra note 26, at 761 (stating that Honoré’s concept of ownership includes the prohibition of harmful use of Property).

192. For a statutory example of this duty in the landlord and tenant context, see Ohio Rev. Code Ann. § 5321.04 (Anderson 2003) (setting out statutory duties of a landlord to maintain premises in good repair).

193. See Fisher, supra note 6, at 1203 (noting the qualifications and exceptions to Property rights in the physical world).

194. 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. J. Sackman, Nichols on Eminent Domain § 1.11 (rev. 3d ed. 1983); David B. Fawcett III, Comment, Eminent Domain, The Police Power, and the Fifth Amendment: Defining the Domain of the Takings Analysis, 47 U. Pitt. L. Rev. 491, 491 (1986).

195. This could be modeled on legal systems which include obligations of accuracy and rectification in personal information. See Privacy Act, 1988, §§ 14.7-14.8 (Austl.).
creative work to derogatory treatment or to falsely attribute the work;\(^{196}\) 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 situations where there are powerful public policy interests in favor of such a scheme.\(^{197}\)

These obligations are clearly not exact parallels to those arising under the traditional bundle of rights (and obligations) picture of Property. This is because the nature of information property is quite different to that of traditional Property, and the interests that need to be balanced against information property rights are, again, quite distinct from those arising in the traditional Property context. Thus, I am here drawing on the dynamics underlying the traditional bundle of rights idea of Property to create a new framework for balancing competing interests in information property. I am not suggesting exact parallels between the two systems in terms of rights and obligations of the property holder.

Although some of the specific ideas of information property obligations suggested above may seem far fetched or difficult to achieve politically, it is important to keep in mind that quite powerful legal duties have been imposed on Property owners throughout the ages, particularly in relation to land ownership.\(^{198}\) 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 and competing interests. Real Property ownership, like information property ownership, has powerful social consequences. The ability to own and potentially monopolize land, like the ability to own and monopolize information and ideas, is something

\(^{196}\) This supports the idea that the owner of an information product should have a legal duty to protect an author’s moral rights to a work rather than the entire legal and financial burden of protecting the moral right resting solely on the author’s shoulders.

\(^{197}\) 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. See Reichman & Samuelson, supra note 3, at 86. However, it may be necessary to seriously rethink 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 for evaluating their effectiveness in adopting compulsory licensing obligations for digital information products. See Patents Act, 1977, c. 37, § 48 (Eng.). In particular, compulsory licensing comes up repeatedly in debates about international access to patented pharmaceuticals. See Dora Kripapuri, Reasoned Compulsory Licensing: Applying U.S. Antitrust’s ‘Rule of Reason’ to TRIP’s Compulsory Licensing Provision, 36 NEW ENGL. L. REV. 669, 669-70 (2002); 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. INT’L & COMP. L. 109, 109 (2001); Joseph A. Yosick, Compulsory Patent Licensing for Efficient Use of Inventions, 2001 U. ILL. L. REV. 1275, 1276.

\(^{198}\) See infra notes 200-02 and accompanying text.
that must be carefully organized and monitored to achieve maximum benefits for society and, in particular, for those with legitimate competing interests in relevant property.

2. Land Law

To take the analysis further, we might consider some relevant aspects of traditional land law. Land law has never granted absolute rights to real Property owners. Duties to the public at large, specific individuals, or groups of people 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 the remaindermen of the relevant Property under the doctrine of waste. 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. As mentioned previously, there are also more general public obligations, like the obligation to pay property taxes. Other proprietary obligations in traditional land law are imposed by easements and restrictive covenants.

The above examples from land 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 balance of interests in the relevant land. It is not for a tenant to establish to the satisfaction of a court that she has some vague right not to be injured by the state on 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 fulfills her duties. This can be onerous for the tenant, but not as onerous as

199. Eminent domain, which is the power of a sovereign to take Property for public use without the owner’s consent, is the most obvious example of how Property rights are not absolute. SACKMAN, supra note 194, § 1.11; Fawcett, supra note 194, at 491. The sovereign can always take Property from Property owners, although it may have to pay compensation. See Fawcett, supra note 194, at 491.

200. See RESTATEMENT (FIRST) OF PROPERTY §§ 156, 197, 204 (1936) (commenting on the duties of holders of present interests in Property to preserve the rights of certain future interest holders); RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW, 83-84 (5th ed. 1998).

201. See, e.g., OHIO REV. CODE ANN. § 5321.04 (Anderson 2003) (setting forth the statutory duties of a landlord to maintain premises in good repair).


203. In some states there may also be criminal sanctions for failing to fulfill the obligation to maintain the 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 local housing 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 or building codes include substantial fines, which are compounded daily.
convincing a court that she actually has a basic right to enjoy the premises in good repair.

Contrast this with the fair use approach to information property rights, where a user will often shoulder the burden of establishing to the satisfaction of a court that she 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 others that can be enforced by those to whom a duty is owed. This dynamic can be adapted to the field of information property rights.

I am not advocating the application of land law rules *mutatis mutandis* to information property. There are significant differences between the two systems, as I have addressed above. I am merely suggesting drawing from the underlying dynamics of land law to rethink the boundaries of information property rights vis-à-vis competing interests in information.

In fact, one obvious difference between the land law obligations described above and obligations that may be attached to information property ownership, other than the specific content of the duties, lies in the nature of the rights of those to whom the duties are owed. Many land law duties are owed to individuals with a competing proprietary or contractual interest in the relevant land. Tenants and remaindermen, for example, hold competing proprietary interests in land.204 Tenants’ interests are also obviously contractual.205 Some obligations imposed on real Property owners will be more public in nature, like an obligation to allow public access to property that might be created under an easement.206 However, many easements are often originally created by contractual arrangements rather than by governmental requirement.207

Information property obligations, on the other hand, at least in the context under discussion here, would largely be owed to those who are not necessarily claiming a competing proprietary or even contractual interest in relevant information. People seeking access to proprietary information would likely be doing so for scientific, educational, and research purposes.


205. *Id.* at 253-55.
206. *Id.* at 449-51.
207. *Id.* at 442-44.
while people seeking to restrict certain proprietary uses of information may be doing so on the basis of privacy rights, moral rights, and/or cultural interests in relevant information.

Obliging information property holders to support these interests may look somewhat like imposing easements and restrictive covenants on information property holders. Requiring information property holders to allow access to certain competing interest holders may look like an information age equivalent of a government-created easement in relevant information, while requiring information property holders to refrain from making certain uses of information might resemble an information age restrictive covenant, or perhaps a zoning restriction.208

To this extent we might borrow frameworks from land law that balance competing interests in real Property in order to inform ways of balancing competing interests in information. However, we must bear in mind that we are merely borrowing the framework and basic dynamics of the land law system, and not suggesting that information is Property in the traditional sense, nor that the only way to temper the unfettered exploitation of an information property right is to assert a competing proprietary or contractual right in relevant information.

Another benefit of considering land law principles in developing a new model for balancing competing interests in information is that land 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 not be born, at the time of the creation of the life estate.209

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 identifiable at the time of creation of the information property 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 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 to the trust beneficiaries whether or not all beneficiaries are named or identifiable at the time of trust’s creation.210 Trust law is

208. Id. at 575-79.
209. Posner, supra note 200, at 83-84.
210. RESTATEMENT (SECOND) OF TRUSTS §§ 120, 122 (1959) (commenting on the rules for creating a valid trust for a class of beneficiaries). The trust rules will not apply **mutatis mutandis**
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. 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 competing interests.

Trust law is, in fact, an interesting metaphor here. 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. She argues that we could develop a public-trust model to protect the public domain of information and ideas in cyberspace. This interesting and valuable argument is taken up in more detail towards the end of this discussion.

However, it is important to distinguish Professor Ryan’s suggestions from my own. Professor Ryan is talking about using a trust model in a public domain sense to protect an intellectual commons. I am suggesting the use of a model drawn from ideas of private Property that incorporates specific duties inherent in Property ownership to achieve some balance between competing private interests in information. My model is not addressed specifically at protection of the public domain per se, although aspects of the model may indirectly enhance the public domain—for example, where a scientist or educator gains access to particular information under this framework and uses it to create new information that enriches the public domain.

3. Locke and Obligations of Property Ownership

We might also consider Lockean notions of Property to see whether any of the relevant jurisprudence contributes to the proposed framework for information property duties under discussion here. A consideration of Locke’s work is important in this context because Lockean ideas of

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211. Id. § 170(1) (noting that the trustee has a duty to administer the trust solely in the interest of the beneficiaries); JOHN GLOVER, COMMERCIAL EQUITY: FIDUCIARY RELATIONSHIPS 156-86 (1995) (commenting on the duties of the trustee not to make personal profits from the trust and not to put himself or herself in a position where his/her interests conflict with those of the beneficiary).


213. Id.

214. See id.

215. Wagner, supra note 3, at 1003-10 (describing how particular uses of information can enhance the public domain).

Property were historically used to justify the grant of Property rights in the physical world and have increasingly come to be utilized to justify the grant of intellectual property rights.

The idea of balancing private rights against certain duties attaching to Property ownership is certainly inherent in the Lockean justification for Property rights. In fact, 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 duties on property owners.

Traditional Lockean theory always contemplated that Property owners would owe particular obligations to society related to their Property ownership. However, in the information property context, these obligations have been largely overlooked. Although some commentators in the intellectual property context have tackled these obligations, there is, as yet, no consensus as to how they should play out in information property law and theory. This is perhaps not surprising as there is still no real consensus as to how these obligations are played out in the physical world.


218. See Damstedt, supra note 18, at 1179-81 (noting the importance of Lockean theory in justifying intellectual property rights); Fisher, supra note 6, at 1212-15 (recognizing the Lockean justification for intellectual property rights); Gordon, Self-Expression, supra note 1, at 1549-64 (applying Lockean theory to intellectual property); Gordon, On Owning Information, supra note 1, at 169-70 (criticizing Lockean theory in the intellectual property context); Hettinger, supra note 1, at 36-47 (applying Lockean analysis to intellectual property); Hughes, supra note 1, at 297-330 (setting forth Lockean analysis of intellectual property rights and obligations); Moore, supra note 1, at 65.

219. See Damstedt, supra note 18, at 1181; Hughes supra note 1, at 297.

220. See Hughes, supra note 1, at 315-29 (recognizing the Lockean provisos not to waste resources and to leave as much and as good to the commons, as applied to intellectual property).

221. Fisher, supra note 6, at 1212-15 (recognizing the Lockean justification for intellectual property rights); Gordon, Self-Expression, supra note 1, at 1549-64 (applying Lockean theory to intellectual property); Gordon, On Owning Information, supra note 1, 169-70 (criticizing Lockean theory in the intellectual property context); Hettinger, supra note 1, at 36-47 (applying Lockean analysis to intellectual property); Hughes, supra note 1, at 297-330 (discussing Lockean analysis of intellectual property rights and obligations); Moore, supra note 1, at 65.

222. See Adam Mossoff, 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); see also supra note 217 and accompanying text.
Traditional Lockean theory holds that one is entitled to a Property right in the “fruits of one’s labor.”223 Locke also included a proviso (that could be regarded as a duty of ownership) that as much and as good be left to the common.224 He additionally included a concern that Property not be wasted,225 and that the appropriation of Property by one person does not harm others in the society.226 These concerns can be interpreted as examples of duties imposed on a Property owner. They do, however, exemplify the differences between real Property ownership and information property ownership, as Locke’s concern was largely to explain how to avoid a tragedy of the commons227 in rivalrous resources, which might otherwise not be optimally exploited.228

The Lockean provisos on ownership make more sense in relation to tangible goods like land, crops, and livestock, than in relation to intangible goods like information.229 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,230 the Lockean theory does not neatly map on to information property in relation to obligations to leave as much and as good in the common, and not to waste goods. Thus, Lockean ideas of Property have somewhat limited relevance to the model for information property interests contemplated here. This is because the Lockean notion of Property is grounded in the realities of the physical world, where a key concern is optimizing society’s use of tangible resources.231

223. See Francis A. Citera, Vested Seniority Rights: A Conceptual Approach, 36 U. MIAMI L. REV. 751, 757 (1982); Damstedt, supra note 18, at 1181 (stating that a person is entitled to a property right in the product of his efforts under Lockean theory applied to intellectual property); id. at 1193 (acknowledging the fruits of one’s labors justification for property in Lockean theory); 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).

224. Gordon, Self-Expression, supra note 1, at 1562-63; Hughes, supra note 1, at 297-98.

225. Hughes, supra note 1, at 298. A number of other duties can be found in Locke’s treatises, including a duty 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, and a duty not to harm others. See Gordon, Self-Expression, supra note 1, at 1541-43.


227. See ROSE, supra note 32, at 106 (citing Garrett Hardin, The Tragedy of the Commons, 162 SCIENCE 1243 (1968)); Wagner, supra note 3, at 1001.

228. See ROSE, supra note 32, at 106; Wagner, supra note 3, at 1001.

229. Damstedt, supra note 18, at 1188 (stating that intangible 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).

230. 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. See supra note 153 and accompanying text.

231. ROSE, supra note 32, at 106.
Although Locke’s idea of Property again demonstrates the important
dynamic of balancing the rights of a Property holder against important
concurrent social responsibilities, the specifics of those rights and
responsibilities are too heavily grounded in the physical, tangible world to
directly inform the development of a framework for balancing competing
interests in information. In any event, the duties contemplated by Locke
are not owed to any specific individual or group of individuals, but to
society as a whole. 232 Thus, if applied to the information property context,
they fit more neatly within debates about preservation of an intellectual
commons of information and ideas as a general public-interest limitation
on the creation of information property rights, 233 than to debates about
balancing information property rights, once granted, against specific
competing interests.

One might argue that it is wrong to consider the second
problem—balancing competing interests in information—without fully
resolving the first—granting information property rights that do not
interfere in an unjustified way with the intellectual commons. However,
I assume that, for better or worse, we will always have some degree of
information property in our midst, and it is important not to lose sight of
the debate about balancing those rights against the specific competing
interests of others to relevant information.

From the above, it is clear that the more traditional ideas of real-world
Property tell us some important things about how we might think about
information property in balancing competing interests to relevant
information. Both the Lockean theory of Property and the traditional
bundle of rights description of Property emphasize the need to balance
rights and duties in relation to Property ownership. 234

The traditional Property theories remind us that along with Property
rights come important responsibilities. The responsibilities will vary with
the nature of the rights in question and with the nature of the competing
interests in those rights. Nevertheless, any kind of Property rights,
including information property rights, should be tempered by necessary
legal duties imposed on the right holder as an incident of property
ownership.

These duties are not the same as mere limitations on the scope of the
relevant rights, nor are they akin to defenses that may be asserted by
competing interest holders in infringement actions brought by property
holders. They require property owners to affirmatively shoulder key legal

232. Cf. Gordon, Self-Expression, supra note 1, at 1541 (“Since all humanity is equal in the
state of nature, the duties we owe others are also the duties they owe us, and the rights I have
against others they have against me.”).
233. See supra note 18 and accompanying text.
234. See supra notes 191 and 220 and accompanying text.
and financial burdens of balancing their rights against identified competing interests in relevant property.

This clearly connotes a distinct difference in emphasis and practice from current frameworks for limiting the exercise of information property rights. It also provides a potentially unified overarching model for information property that can inform specific developments in areas like copyright law, patent law, and contractual information licensing law, so that these areas develop a societal information balance in a more clear and harmonized manner than may have been the case in the past.

4. Obligations of Information Property Ownership

The task of imposing legal obligations on information property holders as an incident of their ownership is not as alien as it might first seem. A number of legal duties already exist in intellectual property law, even though they are not specifically described as obligations in the sense detailed in this Article. The problem in the current system, therefore, is 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 competing interests.

Additionally, the current obligations of information property ownership do not effectively deal with situations involving the use of contractual and technological protection measures by information property holders. Obligations to preserve scientific and technological advancement, education, moral rights, personal privacy rights, and cultural rights need to be more powerful than current contractual and technological measures that restrict access to, and use of, 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 (duties) to affirmatively take particular action in respect of various kinds of information property.

For example, as a pre-condition to the grant of a number of intellectual property rights, a developer will often be required to submit to registration

\[235. \textit{See infra notes 237-50 and accompanying text.}\]

\[236. \textit{See infra notes 237-50 and accompanying text.}\]
procedures that may involve disclosure of valuable information, submission to expert examination, and submission of various affidavits in respect of current and intended uses of the property in question.

In some jurisdictions, intellectual property right holders are subject to compulsory licensing regimes with respect to their rights. This is an obvious example of the imposition of a potential legal duty inherent in an information property right. Right holders under these schemes are subject to certain limitations on their property rights and are required to license their property to others when public policy interests mandate that result in a given case. Although compulsory licensing can be contentious and problematic in practice, it is a clear example of a legislative balance between private rights in an information product and competing interests in preventing unfair monopolies in the relevant information. The right holder is subject to an obligation to license the property to another when required to do so by a public authority and where there is a public-interest concern.

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.” 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.

237. An obvious example is found in patent schemes requiring inventors to disclose the full details of inventions for which a patent is claimed in return for the grant of the patent. 35 U.S.C. § 111 (2000). In the United States, applicants for copyright registration must disclose certain information about the copyright work in question. 17 id. § 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.

238. Again, patent law provides an obvious example here. 35 id. § 131. There are also examination and publication requirements in trademark law. 15 id. § 1062(a).

239. In the trademark law context, see id. § 1051 (requiring applicants for trademark registration to submit affidavits in relation to bona fide existing or intended uses of the relevant mark).

240. See Patents Act, 1977, c. 37, § 48 (Eng.).

241. Id. § 50(1)(a) (requiring public interest to be taken into account in compulsory licensing decision).

242. See supra note 197 and accompanying text.

243. See Patents Act, 1977, c. 37, §§ 48-50 (Eng.). 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. See id. § 50(1)(a) (public interest criteria); id. § 50(1)(b) (compensation to patent holder).

244. 15 U.S.C. § 1064(3); Trade Marks Act, 1995, § 24 (Austl.); Trade Marks Act, 1994, c. 26, § 46(1)(c) (Eng.).

245. Hughes, supra note 1, at 322-23 (describing this phenomenon in terms of Lockean Property theory by stating that once the private property owner has been so successful in its
In other words, when a mark becomes generic, 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. This example relates more to balancing private interests in an information product against the needs of the public domain of information and ideas. However, it is nevertheless an example of the imposition of a legal duty on an information-product owner as an incident, or at least a condition, of property ownership.

Even the built-in expiration dates of intellectual property rights—like those existing for copyrights and patents—could be regarded as examples of a right holders’ obligation to return information assets to the public domain; however, in the modern world these obligations have clearly been tempered by contractual and technological measures that right holders may employ to maintain their private property after the statutory obligation wears off.

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 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 in terms of protected content, unless possibly preempted by an intellectual property law.

marketing that it has “lull[ed] the society into a dependency on a privately owned word,” the property owner should be obliged to return the word to a permanent common).

246. See supra note 142 and accompanying text. Patent rights generally last for a thirty-four year maximum period. Hughes, supra note 1, at 323. It could be argued that even this time limit is too long given the nature of many information products involving things like digital information products and life-saving pharmaceuticals. See id. at 323-24 (describing the expiration of intellectual property rights in Lockean terms as an obligation to return appropriated assets to the commons).

247. See Fisher, supra note 6, at 1203.

248. 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.

249. ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1453-54 (7th Cir. 1996) (discussing the
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. 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.

Again, we are talking here about balancing private interests in information against the public domain of information and ideas. The fact that many of the existing obligations of information property ownership deal with the public domain balance is evidence of the need to revisit the question of how to effectively balance information property rights with specific competing private interests that may be asserted by one or more individuals.

We are obviously somewhat familiar with the idea of imposing obligations on information property owners to protect the public domain per se. However, we are less familiar with thinking globally about how to effectively balance competing private interests in information once the initial grant of an information property right has been made. There are some examples of this in intellectual property law, like the fair use and first sale doctrines in copyright law. However, I argue that we now need to pay greater attention to the overall balance of competing interests in information products generally.

5. Rights and Duties: Finding the Right Balance

Any new legal 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 information. 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 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 in question? Will the database producer be restrained from including personal information that is not essential to a particular business purpose? Alternatively, will the database producer be permitted to include all personal information with a caveat that the database producer must allow access by individuals to check the accuracy of their personal information?

Importantly, we need to remember that balancing rights and duties of information ownership must be just that—a balance. Duties should not be imposed that are so onerous that they decrease incentives to produce information goods. However, many would argue that the current balance favors information property developers to the detriment of other competing interests and to the detriment of the public domain as a whole.

Empirically proving where an appropriate balance should be struck, in terms of either information property versus competing private interests in information or information property versus the public domain, may well be an impossible task. Nevertheless, a better balance may be found in both cases by bringing new voices more prominently into the relevant debates. Both courts and legislatures should be alert to the importance of protecting the competing interests in information of individuals and groups, which may not have significant resources to lobby Congress, but which may have very valid reasons to expect the law to effectively protect their interests in


254. *E.g.*, Directive on Data Protection, supra note 135, art. 6(1)(b) (indicating that data should only be collected for “specified, explicit, and legitimate” purposes).

255. *E.g.*, id. art. 12 (noting the right of access to data by data subjects).

256. *See Samuelson, supra note 25, at 519; see also supra note 9 and accompanying text.*

257. *See Madison, supra note 6, at 1097; Ryan, supra note 212, at 694-95.*
accessing or utilizing, or restricting or preventing, particular uses of certain information.

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 protect the interests of others in that information. They could do this by having separate departments or officers to deal with individual requests involving relevant information. This is more viable and more likely to go some way towards redressing the imbalance in information assets than the current system of requiring people with lesser resources to either fight powerful, corporate information providers or to surrender their interests to those information owners.

Clearly such a scheme will require the support of government institutions to ensure that private property holders perform their legal duties effectively. However, this has been done in the past for 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 duties attaching to information property ownership could be developed through the common law 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 affirmative duties on information property owners. When faced with a tightly worded contractual license restricting access to, and use of, proprietary information, a court has little statutory guidance or common-law precedent that would necessarily suggest a duty to be imposed on the information owner forcing the owner to permit certain uses of the information outside the scope of the contract. The only current exception to this might be in situations where courts could hold a certain contractual license to be preempted by copyright law.

Therefore, it may be necessary to enact legislation to adopt a scheme that clarifies some of the duties attaching to information property ownership 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 traditional Property owners as a condition of their ownership.

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258. *E.g.*, ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996).

259. This was argued, although ultimately rejected on the facts, in *ProCD*. See *id.* at 1453-55 (holding that shrinkwrap agreements can be used to limit a user’s fair use of a product under copyright law).

Because such legislation would be about information property generally, it may not be clear where it would fit into the overall statutory and common-law framework of laws dealing with proprietary and contractual rights in information. This framework includes copyright statutes,\textsuperscript{261} patent statutes,\textsuperscript{262} sui generis database protection statutes in jurisdictions where they have been enacted,\textsuperscript{263} and statutes relating to information licensing in jurisdictions where they have been enacted.\textsuperscript{264}

This disparate framework may create some practical problems, but it might at least be worth considering legislative approaches even if they proceed on a piecemeal basis. The legislature could pass separate amendments for the different legal regimes based on the fundamental principles of imposing affirmative legal duties on information property holders to preserve competing interests in information, both in terms of access to and use of information, as well as the ability to restrict an information property holder’s ability to exploit proprietary information in a culturally or morally objectionable way.

In some ways this piecemeal approach describes the current practice of creating checks and balances on the exploitation of information property rights; examples include fair use in the copyright context\textsuperscript{265} and compulsory licensing in the patent,\textsuperscript{266} copyright,\textsuperscript{267} and database contexts.\textsuperscript{268} However, the adoption of some general principles on balancing competing interests in information products would surely help to inform these specific debates in a more clear and harmonized manner, and could underline the importance of imposing legal and financial burdens of protecting the overall information balance in society on those more able to shoulder the burden.

\begin{footnotes}
\footnotetext{261}{See generally 17 U.S.C. §§ 101-120.}
\footnotetext{262}{See generally 35 id. §§ 1-375.}
\footnotetext{263}{See generally Directive on the Protection of Databases, supra note 5.}
\footnotetext{264}{E.g., UNIF. COMPUTER INFO. TRANSACTIONS ACT, supra note 78 (enacted in Virginia and Maryland).}
\footnotetext{265}{17 U.S.C. § 107.}
\footnotetext{266}{See Patents Act, 1977, c. 37, § 48 (Eng.).}
\footnotetext{267}{17 U.S.C. § 115 (setting forth a compulsory licensing scheme for non-dramatic musical works).}
\footnotetext{268}{See Reichman & Samuelson, supra note 3, at 86 (discussing the decision of the European Union Council of Ministers to remove a compulsory licensing requirement for sole-source information providers from the final draft of the E.U. Database Directive).}
\end{footnotes}
6. The Public Domain

One could argue that a downside of the model proposed here is that it does nothing to directly protect the public domain of information and ideas. It creates specific obligations to individuals or groups of individuals without creating a clear obligation mirroring the Lockean proviso to leave as much and as good when appropriating property from the common.\footnote{269} Naturally, this is assuming the existence of an “intellectual commons” from which information property is appropriated.\footnote{270}

Regardless of how one feels about applying Lockean theory to justify or explain the creation of information property rights, there is clearly a public domain question that needs to be addressed by information property law. However, the ideas presented in this Article are not intended directly to address the public domain question \textit{per se}. That problem needs to be addressed by those considering initial questions about when and how information property rights should be created in the first place. As noted in the Introduction, I am focusing predominantly on a question arising at a later point in time after some information has been appropriated from the intellectual commons and some information property rights have been created: the question of how, at that point, to effectively balance those rights against competing interests in relevant information.

Many scholars have written about the public domain issue in the information property context, and that debate will no doubt continue as long as we have members of society wanting to assert property rights in valuable information. In this context, Professor Madison has suggested the development of a jurisprudence of the public domain in relation to proprietary software issues.\footnote{271} In a similar vein, Professor Ryan has advocated a public-trust model for copyrighted works in particular.\footnote{272}

Other models are also being proposed for protection of the public domain. An example is the current online petition in support of a Public Domain Enhancement Act.\footnote{273} This legislation, would require copyright holders to pay a nominal fee fifty years after the publication of a copyright work to retain a copyright in that work.\footnote{274} If the owner was unwilling to

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\footnote{269}{ See Damstedt, \textit{supra} note 18, at 1214 (stating that fair use in copyright transcends the owner’s property rights in relation to specific individuals, not specific assets).}

\footnote{270}{ See \textit{supra} note 18 and accompanying text.}

\footnote{271}{ Madison, \textit{supra} note 6, at 1138-41 (advocating legislation to instruct courts to develop a jurisprudence of fair use and the public domain in copyright law).}

\footnote{272}{ Ryan, \textit{supra} note 212, at 647.}


\footnote{274}{ \textit{Id.}}
pay the fee, the work would pass into the public domain.\textsuperscript{275} 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.\textsuperscript{276}

In the wake of these initiatives, I must acknowledge that while the “legal duties” model advocated in this Article is an important step in tailoring the information property concept to more effectively serve the overall needs of society in relation to interests in information, the model nevertheless relies on people asserting specific interests in information in competition with those of an information property holder. It does not protect the public domain generally.

The model presented in this Article deals with the balance of competing interests in existing information property rights. The idea is to create a more effective and harmonized theoretical basis for considering questions relating to such a balance across various different areas of information law. I am not, in this discussion, advocating any greater or lesser amount of information property overall, nor am I directly tackling questions relating to the preservation of the public domain in the context of the creation of such rights.

Some of my suggestions might indirectly impact on the public domain of information and ideas. For example, the creation of more access and use rights to information products could ultimately lead to the enhancement of the public domain, depending on what individual accessors and users do with the information in question. A scientist or educator may build on existing information to develop new information and thus enhance the public domain. On the other hand, those asserting more restrictive interests in information might ultimately restrict the public domain by removing certain personal or cultural information from an existing information product.

**IV. GOVERNMENTAL OVERSIGHT**

Under the model presented in this Article, the government would take on some significant duties, potentially in terms of legislating for relevant legal duties in information and in monitoring and enforcing the performance of those 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

\textsuperscript{275} Id.

However, we must not forget that governments also legislate to create information property rights—for example, copyrights and patents and, in the European Union, *sui generis* database rights. Courts often support similar rights created under contractual license. Asking the governments who create, support, and enforce information property to also create, support, and enforce concurrent affirmative duties imposed on relevant right holders is not too much of a stretch (other than politically!).

The evidence of market power swaying government regulation in favor of information property holders is there for all to see. Obvious examples are: (a) amendments to copyright legislation in many jurisdictions to clarify that computer software may attract copyright protection as a literary work; (b) the enactment of *sui generis* legislation to protect proprietary interests in semiconductor chips; (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 title 17 of the United States Code to protect technological locks employed by copyright holders, and the equivalent provisions of the E.U. Copyright Directive; and, (e) legislation aimed at protecting proprietary trade secrets, like the Uniform Trade Secrets Act and the federal Economic Espionage Act.

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 important competing interests in information are not threatened by the property rights.

In the absence of specific legal 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

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278. See *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1449 (7th Cir. 1996) (holding that shrinkwrap agreements can be used to limit a user’s fair use of a product under copyright law regardless of questions as to the copyrightability of the database under consideration in the case).

279. 17 U.S.C. § 117 (2000) (contemplating copyrights and limitations on copyrights in computer programs); Copyright Act, 1968, § 10 (Austl.) (defining “literary work” to include computer program or compilation of computer programs).


281. See *Directive on the Protection of Database*, supra note 5.


things. The market cannot, and will not, be an effective guardian of relevant competing interests in information without a legislative impetus to do so.

Government involvement under the model presented in this Article, although perhaps more significant than is currently the case, would not be a major drain on government time or resources. What is contemplated here is the government clarifying the nature of the legal obligations imposed on information property owners and supporting the enforcement of these obligations. As noted previously, the government has already done this for more traditional forms of Property so there is no reason to think that this would be an impossible task in the information property context.

There would be a number of ways of going about this in practice. One of the most simple would be the creation of a set of principles about competing interests in information property following detailed debate about the types of legal duties that should be imposed on information property owners as an incident of ownership. These principles could be drafted by a congressional committee or by the executive government. Even better, the principles could be drafted at the international level through the auspices of an organization like the WIPO, and could address some of these issues on a global scale. It might then be incumbent on courts and legislatures to consider these principles when implementing and enforcing legislation and interpreting commercial practices involving information property, particularly if the principles were adopted in the form of an international agreement between nations with developed information economies.

Naturally, any model requiring legislation at any level would have to cope with the realities of constitutional limitations on legislative power within various jurisdictions. This can be particularly problematic in federal


286. See supra Part III.
systems, such as the United States, where federal legislative powers are significantly limited by the Constitution. There is no general legislative power to modify information property rights, although some specific obligations could be imposed under existing copyright and patent legislation in keeping with any broader information property principles developed under a property rights versus duties model of information property.

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

V. SUMMARY AND CONCLUSIONS

We have obviously accepted an increasing notion of information property in recent years, and this has brought with it a number of practical and theoretical problems. Courts and legislatures have not seriously thought about some of the long-term impacts on society of accepting powerful property rights in information without imposing appropriate checks and balances on the exercise of those rights. Battles to strike a more appropriate balance continue to be fought in legislatures and courts around the world.287

However, the battles do not end with the acceptance or non-acceptance of certain types of information property. Once a certain amount or type of information property has been created, we should consider what we might learn from traditional Property frameworks about the necessary checks and balances in a Property system to ensure the protection of competing private interests in relevant Property. The real Property system contains many examples of situations where a Property holder is obliged to act in a manner that protects particular competing interests of others in the relevant Property—notably where those competing interests arise from a competing contractual and/or proprietary right to those of the Property owner.288

287. Some examples of this battle are in currently proposed legislation to limit the operation of the DMCA. See, e.g., Digital Choice and Freedom Act of 2002, H.R. 5522, 107th Cong. (2002) (permitting the circumvention of “content protection” technologies in order to make non-infringing uses of copyrighted works); Digital Media Consumers’ Rights Act of 2002, H.R. 107, 107th Cong. (2002) (restoring consumers’ fair use rights by amending § 1201 of the DMCA to allow circumvention of copy protection for non-infringing uses of the material). There are also calls to review the operation of the E.U. Database Directive. See, e.g., Colston, supra note 63.

288. See supra notes 200-02 and accompanying text.
Although we obviously need to convince courts and legislatures to do more to protect the public domain of information and ideas, we also need to ensure that, where information property is created, it is not exploited unfairly to the detriment of those with legitimate competing interests in relevant information. To date, our efforts to address this question have met with limited success. Part of the reason for this lack of success may derive from the ways in which we have approached these issues in the past. We have basically utilized a piecemeal, case-by-case methodology relying on arguments about fair use in the copyright and database contexts, compulsory licensing in the copyright and patent contexts, privacy rights in the face of proprietary rights in databases, and moral rights in the face of copyrighted works.

We might improve the balance between proprietary interests and other competing private interests in information if we adopted some overall principles, derived from dynamics inherent in traditional Property systems, that might better balance these interests in information. In particular, we could utilize the notion that along with the grant of a property right in information come associated legal duties owed to others with legitimate interests in that information. We could encourage national and, ultimately, international debates on this issue to derive a set of principles that could then inform the development of future limitations on information property rights. The focus should be on ensuring that information property holders shoulder a fair share of the burden of protecting important competing interests in information and that governments are prepared to help monitor and enforce these legal duties.

Although the information property concept can be a troubling development, the idea of Property can also be helpful in developing some new checks and balances within an information property system. Difficult questions about protecting general public interests in relation to information property also need to be addressed alongside the model presented here for protecting private interests in relevant information property. Maybe if we start drawing from traditional Property theory to help balance private interests in existing information property, we can think more broadly about utilizing some basic dynamics from traditional Property.
Property theory to more effectively protect general public interests in information and the public domain of information and ideas.\textsuperscript{295}

\textsuperscript{295} Some work is already taking place in this direction. See Damstedt, \textit{supra} note 18; Madison, \textit{supra} note 6; Ryan, \textit{supra} note 212.