This Article examines the changing balance between public and private rights in disputes involving information in the digital environment. Given the impact electronic-mediated information promises to make on society in the twenty-first century, it is important to identify the values we are promoting when resolving current issues regarding information as property. Recent trends in copyright policy have resulted in an increasing privatization of the information that flows through the vast system of interlinked computer networks popularly described as "cyberspace." In this Article I argue that such information is inherently public property and, as such, its management through copyright policy is subject to the same public trust principles that have operated as a check on the privatization of other types of public resources.

I begin my argument by distinguishing between the two interpretive frameworks that determine what are or should be copyright's primary objectives: copyright rhetoric, which is based upon an incentive rationale that seeks to promote access, and copyright reality, which is based on a neoclassical economic rationale that seeks to promote wealth maximization. I then argue that the tendency of Congress, the courts and, recently, the Clinton Administration to favor a neoclassical economic rationale for copyright results in an unauthorized transfer of information policy from the public realm to the private realm. I assert that this transfer is achieved through circular baseline fallacies that overwhelmingly favor the privatization of information.

In the context of a discussion of the unique features of today's information society, I argue that copyright policy should be developed and interpreted from a baseline of public rights to access rather one that consistently favors private ownership of information. I then suggest a public trust paradigm for formulating copyright principles in a digital world. I argue that the government is required to begin from a public rights baseline because information is a public trust resource subject to public trust principles. In doing so, I trace the development of the public trust doctrine from its origins as a doctrine that circumscribes the government's management of waterways and subjective lands to a doctrine that has expanded to include a number of additional types of inherently public property as public trust resources.

In identifying the criteria that qualify a particular resource as a public trust resource, I assert that recognized public trust resources tend to share two qualities: (1) their management tends to be subject to defective political and administrative processes due to the diffuse nature of the resource, and (2) they are resources that are constitutive of community and, thus, better managed from the baseline of a public commons. Finally, I argue that information, especially given the new digital environment, meets both of these criteria, and thus should be treated in law as a public trust resource. As such, its management through copyright policy is subject to public trust principles, which would require a significantly stronger public focus than copyright policy currently exhibits. Thus, it would provide the substance needed to reinvigorate copyright rhetoric and reestablish a proper balance between public and private interests in the copyright arena.

I The Justification for Copyright: Rhetoric Versus Reality

Professor Joseph Sax, the intellectual founder of modern public trust theory, observed recently that "the dominant modern idea of ownership is understood as entitlement to possess an object as an exclusively private thing, devoid of any public element." [FN1] Sax singles out copyright as an exception, however, stating that "the law is parsimonious in granting property rights. Even those who have thought up an idea, or discovered a fact, *649 frequently get no right of property in that accomplishment-despite their efforts-because the law so greatly values
open access to the basic building blocks of human achievement." [FN2] It appears that Professor Sax has joined the ranks of those bamboozled by the empty rhetoric that permeates copyright policy and jurisprudence.

Pursuant to current copyright policy, works of authorship are essentially treated as items of individual property under United States copyright law. [FN3] And while the copyright system is ultimately viewed as a means to further, and thus should be defined by, the public good, [FN4] copyright's rhetoric and copyright's reality diverge widely in defining just exactly what type of "public good" copyright doctrine seeks to achieve. The rhetoric emphasizes copyright policy on the notion that ultimate rights in creative works should be jealously reserved to the public, subject only to limited rights necessary to provide an incentive to create. Such a system preserves the "public good" by promoting public access to creative works. The reality discloses a system of private property rights that serves the "public good" by channeling existing creative works to their "highest and best use" and by signaling the desired types of future works. In this context, public interest is equated with the maximization of society's total "wealth," [FN5] without consideration of distributional effects.

A. Copyright Rhetoric: An Incentive Justification

Copyright rhetoric justifies applying property principles to creative expression through an incentive rationale that theoretically finds its foundation in the Constitution. [FN6] Article I of the United States Constitution gives Congress the exclusive power to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." [FN7] The copyright policy envisioned in the Constitution is rooted in democratic values. The framers who enacted the Copyright Clause thought it essential to the establishment of a democratic government that society be provided with new ideas and knowledge. [FN8] They viewed scientific inquiry--the search for truth without prejudice--as the prime means by which new ideas are generated. [FN9]

Pursuant to its Constitutional mandate, Congress enacted the Copyright Act, [FN10] which entitles authors to property rights in certain creative works. [FN11] According to copyright rhetoric, these property rights are not a matter of divine right. [FN12] Rather, property interests in creative expression have a limited functional role in society. Copyright rhetoric asserts that the purpose of copyright is to advance learning and knowledge by stimulating creativity that results in the widest possible production and dissemination of creative works. [FN13] Without emphasis on the "value" of those works. [FN14] This rhetoric views reward to authors as secondary to these principles. [FN15] From this rhetoric emerges the theme that copyright justification "rests solely on a utilitarian foundation." [FN16] According to this theme, copyright doctrine is animated by the notion that copyright's support for the creation and dissemination of knowledge for the benefit of the public [FN17] is the regime's paramount utilitarian purpose. [FN18]

Pursuant to incentive theory, copyright uses the economic rewards of the market to stimulate the production and dissemination of new works. [FN19] Incentive theory assumes that creative expression will likely be both under produced and under disseminated if authors are not afforded some copyright protection in their expression to ensure a financial return on the costs of creating and disseminating their original works. [FN20] This assumption rests entirely on the theory that authors will not create works and make them available to the public unless they can prevent "free riders" [FN21] from copying those works and siphoning some of the value of the copied work by selling the copies to the public at a lower cost. [FN22] Faced with such competition, the original author cannot sell copies of her work at a price that would enable her to recover the costs of creating the original work. [FN23] If she cannot recover the costs of her original work, the author may forego authorship in favor of some other line of work, thus depriving society of additional creative works. [FN24] As a result, only those authors who desire to create independent of financial return will continue to produce creative works. [FN25]

To counteract this problem, the Copyright Act grants authors certain exclusive rights with regard to their works. [FN26] This copyright protection increases the cost of, and thus decreases the incentive for, copying by allowing an author to legally prohibit a competitor from copying an original work. [FN27] Because an author can prevent free riders from copying and distributing an author's work without paying copyright royalties, [FN28] copyright protection creates an artificial scarcity [FN29] in the means of accessing a creative work, and gives the copyright owner a monopoly [FN30] in the resulting market for such access. This monopoly right enables copyright
owners to charge substantially more than the costs of creation for access to such creative works. Thus, by giving authors an enforceable property right in their works, copyright provides authors an economic incentive to produce creative works.

*654 While some copyright protection may be necessary to prevent an underproduction of creative works, the monopoly property right attendant to that protection carries serious social costs. For copyright to serve its goal of promoting learning and knowledge, the copyright induced works must be accessible to the public. Copyright protection decreases access to existing copyrighted works, however, by enabling an author to charge a higher price for such access.

Thus, the artificial scarcity created by copyright ultimately can lead to a deadweight social loss stemming from a copyright holder's monopoly on access to existing works. Those seeking access will have to pay more for the work than they would have had to pay in a naturally competitive market. Those members of the public who may have been willing to purchase access to the work at a competitive cost may be unwilling or unable to purchase access to the creative work at its monopolistic price. Those users who do purchase the work at its higher, monopolistic price must transfer "monies that would otherwise have remained in their collective pocket as consumer surplus to the author in the form of a monopoly profit or rent." At some point, copyright protection reduces the supply of new works because the number of authors deterred by the high cost of accessing source material exceeds the number encouraged to create by the economic incentives stemming from copyright protection. Ultimately, copyright's monopoly protection can strangle the creative process.

Recognizing the social costs of copyright, an incentive justification for copyright requires that authors be protected no more than necessary to induce the creation of new works. Thus, under the incentive theory, the tension in copyright law lies in determining when "exclusive rights should end and unrestrained public access should begin." Copyright's proper scope pursuant to incentive rhetoric is a matter of "balancing the benefits of broader protection, in the form of increased incentive to produce such works, against its costs, in the form of lost access to such works." Copyright protection must be broad enough to provide authors adequate incentives to produce and disseminate creative works, but not so broad that an author's ability to extract monopoly rents for access chills the production and dissemination of, and access to, creative works.

B. Copyright Reality: A Neoclassical Economic Justification

Recently, neoclassical economic theory, as opposed to incentive theory, has emerged as the principal theoretical justification for awarding expansive copyright protection for creative works. Neoclassical economic theory does not dispute that copyright provides an incentive for authors to create and disseminate works. Neoclassical economic analysis provides a conceptually distinct approach to copyright from incentive rationale, however. According to this theory, "the basic purpose of a property system, from an economic perspective, is to ensure that resources are allocated to their highest valued use." Because broad copyright protection enables the development of a market for existing creative works, it serves as a vehicle for directing investment in, and thus signaling the value of, such works. From the perspective of economic theory, copyright provides the appropriate degree of protection for a creative work when the market can channel that creative work to its most "highly valued use." Thus, while incentive rationale for copyright focuses on the precarious balance between access and incentive, the neoclassical economic approach strives to create and perfect "markets for all potential uses of creative works for which there may be willing buyers."

When viewed through this lens, copyright has vastly different objectives. Total wealth maximization requires that all commodities are channeled to their most valued use. Creative works are commodities whose value is best determined by the market. As with other commodities, the price prospective users are willing to pay for the use of a creative work reflects the value such users attach to that commodity. Collectively, consumer demand defines the social value of a work. Ultimately, the social utility and value of these works is measured by the price they can command in the market. The goal of copyright pursuant to a neoclassical economic justification is to allocate creative works according to this market assigned value. Pursuant to this theory, consumer demand will not only signal the value of existing works, but also signal the types of future works society should invest its resources in. Thus, members of the consumer public cast their "economic votes" to determine the
type of works that should be produced and distributed.

Neoclassical economic theory views a system of clearly defined property rights as a prerequisite for such market efficiency because the economic model through which the allocative goals of copyright doctrine are theoretically realized requires broad, fully exchangeable property rights. [FN51] Under a neoclassical economic justification for copyright, therefore, authors of creative expression must be afforded broad proprietary rights that extend to every conceivable valuable use. [FN52] Thus, while "the incentive approach tends to look critically at copyright's expansion, questioning whether greater protection is necessary to provide an *658 economic incentive for the production of creative works," the neoclassic economic approach "has pushed economic analysis in the opposite direction. It supports expanded intellectual property rights and a diminished public domain." [FN53]

II Copyright Reality in a Digital World

The rapid creation and expansion of the digital environment in general, and the Internet in particular, have presented new challenges to traditional legal conceptions of copyright [FN54] as well as existing copyright law. [FN55] New digital information technology has increasingly exacerbated the debates revolving around the theories that drive copyright policy.

The current architecture of the Internet, which provides access to so many different types of information, has resulted in the elimination of physical constraints on copying and distribution. [FN56] The digital format allows perfect copies to be made instantaneously. Moreover, the Internet allows these copies to be widely distributed in a short period of time. Because these capabilities have substantially diminished the physical limitations of dissemination technology, copyrighted works are much more readily accessible to the public.

Copyright has recently been perceived by strong protectionists as unstable because of the rapid advances in computer technology for creating, reproducing, and communicating authors' works. [FN57] The same capabilities that enhance access to creative works are viewed by strong protectionists as greatly undermining copyright owners' ability to enforce copyright rights. These protectionists argue that technology has lead to "widespread 'information piracy' in cyberspace." [FN58]

As a result, Congress and the courts have been asked to consider *659 the extent to which traditional limitations and exceptions to copyright holder rights should carry over into the digital environment. [FN59] Additionally, commentators are debating the question. [FN60] Consequently, issues such as whether a copyright's duration should be further extended and whether fair use is necessary in the digital environment have found their way onto the administrative and legislative agendas.

To deal with these and other important and challenging issues, we need a thoughtful copyright philosophy against which to assess the merits of various administrative, judicial, and legislative trends concerning copyright doctrine. Unfortunately all such trends point to a reckless reliance on a neoclassical economic view of copyright. As a result, the intellectual focus of the political debate surrounding access to information has changed sharply from public entitlement to private initiatives. Consequently, the principle that copyright is a private property right, entitling authors to control and be paid for any exploitation of their works, is taking on new dimensions in cyberspace. Conversely, this new venue for information exchange is increasingly bereft of public protections against the whims of private ownership.

A. Traditional Limiting Doctrines

Tailoring an incentive system of copyright protection in cyberspace to the minimum necessary for inducing creative activity would impose onerous administrative costs. Therefore, the *660 courts and Congress have created traditional limiting doctrines that, when taken at face value, seek to address the access problems that copyright monopoly creates. As a result, copyright is "punctuated with limitations and exceptions" [FN61] seen to create rights to information that "belong to the community as a whole." [FN62]
These doctrines theoretically preserve public access rights to copyrighted works by, for example, limiting the duration of the copyright, limiting an author's control over a copy of a copyrighted work after its first sale, and by limiting the right of an author to prevent certain "fair" uses of a copyrighted work. [FN63] Additionally, the scope of the copyright is limited to the author's manner of expression. Copyright protection does not extend to the ideas, processes, systems, principles, or discoveries that may be contained in a work of authorship. [FN64] Thus, when viewed through the perspective of the incentive rationale, a copyright owner's rights over creative works is inherently burdened by a number of "communitarian limitations." [FN65] These exceptions and limitations that have traditionally reserved broad access rights to the public have been viewed as "especially warranted in the area of open-access digital communication." [FN66]

B. Limiting the Limitations in Cyberspace

Copyright's exceptions and limitations detract from a copyright owner's full property rights. Accordingly, pursuant to neoclassical economic theory, these limitations should be meagerly applied because such limitations interfere with the ability of market mechanisms to allocate resources through pricing information. [FN67] Pursuant to a neoclassical economic justification, therefore, the courts and Congress must employ limitations sparingly to avoid disrupting the pricing mechanism of the market through which customers signal what works are socially valuable. [FN68]

Recent trends in copyright's traditional access-based limitations illustrate just such a neoclassical economic shift in the copyright template. A close examination of these trends, which are largely driven by new technology that has created a digital environment, discloses copyright's reality that has its basis in a broad, rather than limited, property right. Copyright policy makers have been increasingly receptive to copyright owners' claims to control all or nearly all uses of their works. [FN69] As a result, the neoclassical economic theory shaping current doctrine has consistently and drastically cut back on limitations in copyrights, while at the same time expanding an author's proprietary rights to creative works. [FN70] Increasingly, the courts and Congress view all uncompensated uses of copyrighted works as intolerable "invasions of the rights in the copyright bundle." [FN71]

Advances in computer technology promise to change, probably enlarge, the markets for creative works. [FN72] Thus, efforts to adapt copyright features to the digital environment have consistently promoted the goal of enabling copyright owners to capture a greater share of the increased value embodied in protected works. This view is strongly reflected in recent administrative musings as well as recent copyrights laws enacted to prepare copyright for the digital environment. Despite a broad rhetorical recognition of a societal claim to access to information, the application of copyright doctrine to the digital environment is unmistakably focused on the privatization of electronic-mediated information.

*662 1. The White Paper

In response to innovations in digital-information technology, the Clinton Administration began to examine the issue of property rights in the digital environment in the early 1990's. Ultimately, the Administration issued a policy statement called the "White Paper," containing an analysis of copyright issues affecting, and affected by, the "Information Infrastructure." The report outlined policies underlying proposed legislation to adapt copyright to the digital environment, discussed ways that copyright laws might be modified to be more conducive to the development of new communications technologies, and offered suggestions for copyright revision. [FN73]

Ironically, this proposal included the very incentive rhetoric that frequently serves to cloak copyright's reality. [FN74] The White Paper suggested that, in the face of technological advances, legislators should analyze copyright law to assure that it continues to maintain a balance between public access to works and the economic incentives for authors to create. [FN75] With such rhetoric, however, the White Paper masked an unmistakable neoclassical economic view of copyright.

The report actually represented an effort to expand the scope of intellectual property rights beyond any incentive justification. [FN76] Instead of making a sensitive assessment of the complexities involved in the incentive aspects
of network economics, the White Paper assumed an extension of existing copyright law principles *663 into cyberspace and called for some new ones as well.[FN77] Although the report asserted that such an extension would require only relatively minor adjustments to current copyright law, [FN78] others have argued that the White Paper's proposed adjustments were in reality major extensions of copyright law, limiting earlier patterns of free use and requiring major intrusions into existing cyberspace. [FN79]

One of the White Paper's most controversial proposals focused on digital transmissions [FN80] unique to the digital environment and on the potential reproduction rights attendant to these transmissions. [FN81] The report took the contentious position that current law gives the copyright owner control over virtually any reproduction, including the temporary, incidental storage of Internet communications in the ordinary course of network operations. [FN82] The report based this view on the notion that such a transmission falls within a copyright owner's exclusive right to produce a reproduction as a derivative work. [FN83]

*664 The Internet transmits digital units that eventually emerge as an image on a computer monitor or as audio on a computer sound system. [FN84] These digital units are temporarily and automatically stored on a series of network computers as they make their way to the end-user. [FN85] The White Paper took the position that copies of a work are made not only when the online user stores a work to a hard or floppy disk, or prints it out, but also when a temporary copy is received in the memory of a computer or appears on an end-user's monitor. [FN86] Thus, according to the White Paper, simple browsing would or should constitute copyright infringement by Internet users. [FN87] Browsing is the act of viewing on a computer screen materials accessed from other computers connected to the Internet. [FN88] Because browsing involves the making of a temporary copy of the accessed materials in the memory of user's computer, the White Paper argued that such temporary copies are reproductions that may infringe copyright. [FN89]

Although a couple of federal courts have characterized this placement of a computer image as a "reproduction" under the Copyright Act, [FN90] the White Paper took an expansive reading of precedent in asserting that copyright law already grants broad transmission rights. [FN91] While limited rights to control transmission exist in the Copyright Act, no general right to control transmission of copyrighted material now exists. [FN92]

Anticipating such a challenge, the Administration hoped that legislators might be persuaded to extend the present right of reproduction to encompass the electronic transmission of works as a natural extension of the traditional right of reproduction, [FN93] and thereby solidify the White Paper's position on transmission rights. Thus, the White Paper asked Congress to consider amending the Copyright Act to specifically provide for broad claims of ownership to transmission as opposed to just production of copies. [FN94]

Such an exclusive right to digital transmissions would greatly extend copyright's reach in the digital environment. [FN95] The proposed doctrine creates the prospect of being able to charge for every conceivable digital use of copyrighted works. [FN96] Thus, it *666 "would enhance the exclusive rights in the copyright bundle so far as to give the copyright owner the exclusive right to control reading, viewing or listening to any work in digitized form." [FN97] Digital transmissions are essential to "reading, viewing, listening to, learning from, sharing, improving, and reusing works embodied in digital media." [FN98] Under the Administration's view, a user could not access any information in a computer-mediated environment without making an infringing "reproduction" of that information. [FN99] As Jessica Litman has noted, "the suggested application of copyright law to digital media potentially affects, indeed prohibits, most common everyday ways one can use a computer or other digital device to read, view, hear or otherwise experience copyrighted works." [FN100] Each Internet communication, every e-mail, becomes a potential copyright infringement. [FN101] Add the acts of uploading and downloading and the typical user of digital technology becomes a serial copyright infringer.

The White Paper proposal clearly sought to expand copyright protection beyond that provided to works fixed in a non-digital format. Outside of the digital environment, one may purchase a copy of a copyrighted work, and then give, sell, or loan it to someone else without incurring infringement liability pursuant to copyright's "First Sale" doctrine. [FN102] Such noninfringing transfers greatly increase public access to information. Pursuant to the White Paper proposal, however, if a user received a document from an Internet site, downloaded it, and then passed it on electronically to another person, he would be liable for copyright infringement.
"Increasingly, works of all sorts are being created and disseminated in digital form. If reading or viewing these works violates the reproduction right, then we need to be concerned about preserving the free access to ideas and other unprotected material that lies at the heart of our copyright system." [FN104] Characterizing such unavoidable transmissions as infringing reproductions would seriously compromise the access benefits of cyberspace. "Once we insist . . . that the reproduction right extends not only to replication but to consumption, there is no way to guard the expression from copying while ensuring access to the ideas it expresses." [FN105]

2. Rights-Management Containers and The Digital Millennium Copyright Act

After the Clinton Administration introduced the White Paper in both the House and the Senate, the legislative proposals eventually stalled due to resistance from a variety of groups. [FN106] The Administration then transferred its efforts to the international arena. [FN107] As discussed below, the Administration was moderately successful in promoting electronic copyright protection that will technologically prevent unauthorized access to works rather than merely prohibit it. The recent advent of computer "fencing" technology, coupled with the Administration's international legislation efforts, have greatly strengthened the ability of content providers to legally and technologically protect online information and, at the same time, reduce public access to that information.

a. Rights-Management Containers

Equating digital transmission with actionable reproduction may become merely an academic issue because of the advent of extra-legal, technological efforts to protect intellectual property in cyberspace. These efforts have produced technological fences *668 known as rights-management containers. This container-based technology provides direct control of access to online information. These "fences" include technological measures such as scrambling and encrypting copyrighted works, as well as other measures designed effectively to restrict access to users holding a specific "key" given only with the copyright owner's authority. [FN108] Digital information can only be accessed through the container because, once the content is encrypted, it cannot be read outside the container. Only the container has the key to decrypt it. [FN109]

The container also manages transactions between the user and the content provider by implementing stored instructions that precisely detail "which uses to permit, which uses to deny, and how much to charge for each." [FN110] "Because these instructions are embedded in the container and must be passed through every time the content is accessed, they enable the content provider to maintain complete control over every interaction between user and content." [FN111]

By affording copyright owners absolute control over online content, rights-management containers may significantly diminish public access to information by circumventing the limitations intended to guarantee such access under copyright law. [FN112] These systems promise to restrict the public domain by, for example, evading copyright's duration limitation, nullifying the first sale doctrine, circumventing the fair use doctrine, [FN113] and foreclosing access to the ideas and facts imbedded in protected expression.

Pursuant to the Constitution and the Copyright Act, a copyright owner holds rights to creative works only for a limited term. At the end of that term, the creative works becomes freely accessible as part of the public domain. Technologically protected works effectively may be withheld from the public domain interminably, however. [FN114] As a result, "digital information that is provided only within containers-as might eventually be the case for music, video, and software-might never be released from technological protection." [FN115] Thus, the access previously provided through limiting terms of copyright protection could be seriously curtailed through unlimited technological protection.

The Copyright Act furthers public access by limiting a copyright owner's control over copies of their creative works beyond the first sale. The first sale doctrine has historically permitted the purchaser of a copy of a copyrighted work to sell, loan, lease, or display the copy without the copyright owner's permission. Purchasers of a copy can freely transfer that copy through gift, loan, or sale after the initial purchase without infringing on the copyright holders rights. [FN116] Hence, libraries, video rental stores, art galleries, and other similar entities are
able to facilitate public access to many different types of works. Rights-management technology, combined with the proposal to equate digital transmissions with infringing reproductions, effectively eliminates the first sale doctrine in the digital environment by indefinitely extending control over access to a work beyond the initial distribution. [FN117] Purchasers of a digital work can no longer facilitate public access to a work through subsequent transfer because the container technologically prevents such a transfer.

The Copyright Act reserves to the public a right of fair use of creative works in situations where copyright restrictions undermine the very exposure to information copyright is designed to promote. [FN118] Because rights-management technology controls access to online information, however, otherwise fair uses can be technologically prevented. [FN119] Any user who seeks to access information will have to pay an access fee for each use of technologically protected information, regardless of the purpose of the use. [FN120] Such containers can therefore circumvent the Copyright Act's requirement that fair uses be permitted.

Finally, the Copyright Act [FN121] and the Constitution [FN122] deem the facts and ideas imbedded in copyrighted works to be unprotectable and, therefore, part of the public domain. "Recently, the *670 basic principle that copyright protects neither ideas nor information has eroded, as copyright owners have found strategies to prevent the disclosure and dissemination of ideas and information that have become valuable commodities in the contemporary marketplace." [FN123] One of these strategies is the rights-management container, which allows a provider to prevent free access to the unprotected aspects of expression. [FN124] Contrary to the spirit of asserted copyright philosophy, such "unprotectable" attributes of creative works are left entirely to the dominion of the owner, with no duty to make them accessible to the public.

Technological "fences" promise to conflict with a user's legitimate interests under the copyright statute. Thus, "the adoption of rights-management containers to protect intellectual property represents a shift in the nature of intellectual property rights, granting copyright owners far greater control over their works than they would otherwise enjoy under existing copyright law." [FN125]

b. The Digital Millennium Copyright Act

Rights-management containers promise to extra-legally strengthen the content provider's ability to control online information. [FN126] As a result, such technology can be used to lock up information that should be freely accessible for public benefit pursuant to copyright law. [FN127] Consequently, some commentators have argued that the public should enjoy a "right to hack" into rights-management systems to access this information. [FN128] Instead, *671 Congress has recently supplemented this technological protection with legal protection that prohibits circumvention of the container.

In 1998, Congress enacted the Digital Millennium Copyright Act [FN129] (DMCA), which augments rights-management technologies by prohibiting their circumvention. [FN130] The DMCA resulted from the Clinton Administration's recast of copyright as an international concern. [FN131] Having failed to obtain Congressional enactment of the White Paper's proposed legislation to expand the copyright rights of digital content providers, the Clinton Administration reintroduced key elements of the failed legislation as treaty proposals at the December 1996 World Intellectual Property Organization (WIPO) [FN132] conference in Geneva. [FN133] At this conference, intellectual property became the focus of considerable international lawmaker efforts to create universal minimum standards of intellectual property protection. [FN134]

The Administration's strategy consisted of returning to Congress *672 with its White Paper proposals embodied in "a signed treaty as a near fait accompli." [FN135] In large part, this strategy paid off. As a result, the most important legislative developments regarding copyright and the Internet came from WIPO implementation legislation enforcing two treaties concluded at the December, 1996, conference: the World Intellectual Property Organization (WIPO) Copyright Treaty and the WIPO Performances and Phonograms Treaty. These WIPO treaties, which reiterate key elements of the expansive intellectual property agenda initially set forth in the White Paper, [FN136] set the tone for "domestic legislation designed to bring copyright law into the digital age." [FN137]

Most of the DMCA concerns copyright protection in the digital environment. The design of Title I of the DMCA,
which implements the WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty, [FN138] is to give
copyright owners broad control over access to and use of the works they control, subject to extraordinarily specific
narrow exceptions. The purpose of the legislation, like the purpose of the treaty, is to encourage private,
technological protections of copyrighted material. [FN139]

The DMCA not only makes it illegal to circumvent the technological measures that control access to copyrighted
works, but also prohibits anyone from providing the means or the service to do so. [FN140] For example, a
publisher of material available only on the Internet may control access to it by giving a password only to
subscribers. Someone who circumvents the password or who sells software intentionally designed to circumvent the
password *673 so that the work can be accessed would be liable under the DMCA. Thus, the DMCA extends
copyright protection far beyond the right of reproduction to a right to directly restrict access.

Prohibiting circumvention to obtain unauthorized access adds a bold new right to the copyright holders' bundle.
The Copyright Act does not expressly provide, and it generally has not been interpreted to imply, that a copyright
owner has the right to control all access to creative works. While the DMCA does not expressly recognize a new
right to control access, it effectively does so. Affording such "control over reproduction could potentially allow
copyright owners control over every use of digital technology in connection with their protected works." [FN141]

3. The Copyright Term Extension Act

Although traditional property ordinarily can be owned forever, copyright must be of limited duration. [FN142] After the copyright period has expired, the work falls into the public domain, where it may be freely used by anyone. [FN143] Until very recently, the duration of copyright protection lasted no longer than the life of the author plus fifty years. Before the 1976 Copyright Act, copyright duration was significantly shorter: a 14-year term that was renewable for one additional 14-year term. The 1976 Act's extended duration was "formulated in deference to the needs of the author, omitting any calculus of public benefit." [FN144] Recently, Congress again dismissed public access needs by further extending the term. Congress argued that such an extension was necessary to allow copyright owners to fully exploit extended markets created by the digital environment.

On October 27, 1998, President Clinton signed into law the "Sonny Bono Copyright Term Extension Act," which extends the copyright term by 20 years. [FN145] The Act provides that the standard term of protection for works created on or after January 1, 1978, is now the life of the author, plus 70 years. Additionally, *674 the term of protection for works made for hire is now 95 years from publication or 120 years from creation, whichever is earlier. [FN146] Works created but not published before January 1, 1978, will now remain protected until December 31, 2027, but if such a work has been published by that date, it will remain protected until December 31, 2047. [FN147]

Orrin Hatch introduced the copyright extension legislation. [FN148] Hatch's introduction of this bill was "motivated by a number of factors, all of which tie into the philosophy of a default policy protecting strong copyright protection to the extent that is does not impede creativity or the wide dissemination of works." [FN149] Hatch explained that the advent of digital media and the development of the Global Information Infrastructure "have dramatically enhanced the marketable lives of creative works." [FN150] According to Hatch, an extension was necessary to compensate for "the failure of the U.S. copyright term to keep pace with the substantially increased commercial lives of copyrighted works resulting from the rapid growth in communications media." [FN151] In his view, "the basic functions of copyright protection are best served by a policy that rewards authors with the benefits of these newly enhanced opportunities for commercial exploitation of their works." [FN152] As a result of this extension, the flow of copyrighted material into the public domain is substantially deferred.

4. Recent Trends in Fair Use Jurisprudence

The fair use doctrine purportedly serves as a mechanism for striking a balance between copyright's costs and
benefits. [FN153] The doctrine permits otherwise infringing uses of copyrighted works without the permission of
the copyright holder. [FN154] Copyright *675 rhetoric asserts that the fair use doctrine reflects a theoretical desire
among Congress and the courts to limit copyright protection in situations where such protection will not generate
incentives sufficient to warrant the social costs associated with monopoly power (or, in fact, might be counterproductive to such incentives). [FN155] Thus, at first glance, this limitation on copyright protection appears to be consistent with an incentive justification for copyright. This notion is bolstered by the fact that the 1976 Act describes fair use as a reservation in the rights granted the author. [FN156]

As a result of recent assaults on copyright's other limiting doctrines, users of copyrighted material are more dependent on the fair use doctrine for access. Unfortunately, however, fair use applications are shrinking along with other traditional limitations. While the incentive theme pervades the superficial rhetoric of the courts' fair use decisions, it does not appear to animate the courts' fair use jurisprudence.

A brief review of recent fair use cases illustrates that the courts, despite their rhetorical flourishes, appear to have thoroughly embraced copyright's expansion into a broad neoclassical economic property right. [FN157] As a result, the courts have converted *fair use from a standard that allowed for considerable access to works as part of the process of creating a new work to a standard that permits such a use only in anomalous cases. [FN158]

The United States Supreme Court inaugurated the judicial embrace of a neoclassical economic justification for copyright through a small number of fair use cases interpreting Congress's 1976 codification of the fair use doctrine. [FN159] The Court inadvertently ventured into an economic analysis of fair use in its first case interpreting the 1976 fair use codification. [FN160] In Sony Corp. of America v. Universal City Studios, Inc., [FN161] the Court employed the economic justification of fair use analysis to justify a finding that private, noncommercial home videotaping was fair use. The Sony Court stated that "every commercial use of copyrighted material is presumptively . . . unfair." [FN162] The Court then determined that the home videotaping at issue was a fair use because it was noncommercial and thus yielded social benefits while presenting no commercial detriment to the copyright holders. The Court reasoned that "a use that has no demonstrable effect upon the potential market for, or the value of, the copyrighted work need not be prohibited in order to protect the author's incentive to create." [FN163] In determining that all commercial uses are presumptively unfair and by focusing on a use's harm to all potential markets, the Court laid the groundwork for a subsequent fair use interpretation that has severely limited a traditionally expansive *doctrine. [FN164]

In Harper & Row, Publishers, Inc. v. Nation Enterprises, [FN165] the case in which the Court most clearly revealed its incorporation of market theory into the fair use arena, the Court further limited the fair use doctrine along neoclassical economic lines. In Harper & Row, editors of The Nation magazine excerpted and published key portions of the unpublished manuscript of Gerald Ford's autobiography relating to the Nixon pardon. Time magazine, which had secured the exclusive right to print prepublication excerpts from the manuscript, then refused to pay for such rights.

In the absence of a clear mandate in existing case law as to how to apply the statutory fair use factors, the Harper & Row Court turned to the writings of Professor Wendy Gordon, a leading theorist for the neoclassical economic view of copyright. In an early article, Professor Gordon had advocated that fair use be restricted to cases where the defendant proves that market failure is insurmountable, that transferring control over the use would serve the public interest, and that the copyright owner's incentives would not be substantially impaired. [FN166] Thus, according to Professor Gordon, the narrow role of fair use is to correct market failure or protect socially desirable uses that do not impact the value of the copyright.

In Harper & Row, the Court relied heavily on Professor Gordon's application of neoclassical economic analysis to fair use questions. After invoking the obligatory incentive rhetoric, [FN167] *the Court, without relying on any precedent, characterized the effect of a challenged use on the market for the original creative work as "undoubtedly the single most important element of fair use." [FN168] Thus, impact on potential licensing revenues immediately became determinative of fair use questions. Implementing Gordon's market model of fair use, as well as the restrictive conditions that flow from that model, the Court held that fair use should be available only in isolated cases of market failure and in the absence of any adverse effect on the potential market for the copyrighted work not only from the use in question, but from others like it. [FN169] Thus, the Court construed copyright to give an author a property right defined by the prerogative to extract all actual and potential economic value from a creative work unlimited to that necessary to stimulate production. This reasoning provided the Court the justification for stating that The Nation's use of the excerpts was not a fair use.
The Court next touched on fair use analysis in Stewart v. Abend. In Stewart, the Court held that a filmmaker's unauthorized use of a short story as a basis for a derivative motion picture was not a fair use because it impinged on the ability to market new versions of the story. In its brief analysis of the fair use factors, the Court restated that the effect on the potential market was the most important factor to consider.

In its most recent foray into fair use analysis, Campbell v. Acuff-Rose Music, Inc., the Court employed market failure analysis to uphold a parody as fair use. In this case, the music group 2 Live Crew released a rap version of Roy Orbison's 1964 pop hit "Oh, Pretty Woman." Acuff-Rose, a music publisher holding the copyright to the song, sued the group for copyright infringement. The Court held that 2 Live Crew's version of the song, even though commercial, was a parody of the original Orbison composition, and hence was a fair use because it could not replace the original in the market. According to the Court, the market for potential derivative uses includes only those uses that creators of original works would in general develop or license others to develop. For example, criticism would not constitute a cognizable derivative market because few, if any, copyright owners will license reviews critical of their works. Similarly, a copyright holder is unlikely to authorize a secondary user to parodize an original work. Thus, parodies such as 2 Live Crew's constitute the type of market failure that supports a finding of fair use. The Court made clear, however, that fair use analysis must recognize the copyright holder's rights to exploit cognizable markets for derivative works and that any use that occupies a derivative market within the copyright owner's entitlements is not going to be a fair use.

The Court's importation of neoclassical economic analysis into fair use analysis has rendered fair use cases much less complicated than they had been before. Instead of operating as an "equitable rule of reason," lower courts can now decide fair use cases on the basis of market harm alone. After all, the Court has declared, and lower courts have repeated, that "commercial uses are presumptively unfair" and that effect on the market is "by far the most important factor." As a result, if a use can be construed as a commercial use having an impact on any potential licensing revenues, that use is not going to be a fair use. Under this theory of fair use, once copyright owners devise a mechanism for licensing a use, there is no longer any basis upon which to excuse the use as fair.

Pursuant to this narrow view of fair use, the digital environment promises to reduce even further the application of the doctrine. The trend is to reduce fair use to narrowly defined instances of market failure, predominantly where the transaction costs are too high to effect an exchange. Transactions in the digital environment can be nearly costless, however. "The principal economic benefit of rights-management containers is the reduction in the transaction costs associated with intellectual property." Because computer technology promises to reduce transaction costs considerably, fair use applications in the context of cyberspace stand to be significantly narrowed. Instances of market failure due to transaction costs will decrease as technology lowers transaction costs by increasing the practicality of numerous and quick market transactions between market and use. This theory would suggest that fair use is an "archaic privilege with little application to the digital world." The White Paper is a proponent of this development. The report suggests that fair use should be narrowed in light of copyright management technology and further states that the burden of showing fair use should rest on the user.

Despite these problems, the DMCA avoided an express fair use privilege in favor of a narrowly constrained substitute: the new law permits would-be fair users who desire to circumvent the technological controls restricting access to protected works to participate in triennial administrative rulemakings to exempt works of the class they mean to use fairly from the newly enacted legal prohibitions on unauthorized access. In response to concerns that the DMCA's prohibition on circumventing rights-management technology would impair access to copyrighted works for noninfringing uses, Congress promulgated a two-year delay on the prohibition. During this delay, the Librarian of Congress must determine whether the circumvention prohibition is likely to adversely affect noninfringing uses of any particular class of copyright works during the succeeding three years. The legislation requires the Librarian to revisit the question during each succeeding three-year period as well. The circumvention prohibition will not apply to those classes of works for the relevant three-year period.

This relief is somewhat illusory however. The DMCA's prohibition on providing the very circumvention devices or services noninfringing users need to circumvent technological protection, as the Act permits them to do for at
least two years, is currently effective.\footnote{FN192} Thus, the Act effectively deprives the vast majority of noninfringing users of the means of circumventing technological access controls.\footnote{FN193}

\*682 C. Proposed Legislative Initiatives

A further reduction of the public domain is at issue in two contemporary initiatives. Copyright doctrine has always held that the facts and ideas contained within a copyrighted work are part of the public domain.\footnote{FN194} Free access to such ideas and facts is "the means by which copyright advances the progress of science."\footnote{FN195} However, in the proposed World Intellectual Property Organization Database Protection Treaty of 1996, the copyright, media, and information industry representatives behind the Clinton Administration's White Paper sought protection of otherwise uncopyrightable factual information within databases.\footnote{FN196} The efforts to protect databases most likely would have been successful in Congress had the legal and scientific research communities not vociferously defended public access to scientific data.\footnote{FN197} Although the proposed Database Protection Treaty was rejected, three versions of a database protection bill have surfaced in the Congressional Record, and substantial pressure still exists for adoption of a database protection measure in some form.\footnote{FN198} The constitutionality of such protection is dubious because it would grant copyright protection for collections of information that fail to meet the constitutional copyright standard of originality as required by the Court.\footnote{FN199} However, Congress appears unwilling to "take seriously the Court's restriction on its power."\footnote{FN200} Meanwhile,\*683 proponents of these initiatives "assure us that any erosion in copyright's nonprotection of ideas and information can be offset by a generous application of the fair use doctrine."\footnote{FN201} As noted above, however, fair use itself is an eroding concept.

The other initiative is a proposed model law that aspires to validate "shrink wrap licenses" as a matter of state contract law.\footnote{FN202} Shrinkwrap licenses are preprinted "licenses" contained inside of prepackaged software that consumers theoretically "consent" to upon opening the shrinkwrap on the container.\footnote{FN203} The enforceability of such "licenses" has been open to debate under existing intellectual property and contract laws.\footnote{FN204} Proponents of the model legislation seek to resolve that debate in favor of private rights, enabling licensors to dominate the rights of the public in information transactions through the mechanism of private adhesion contracting.\footnote{FN205} As a result, private contract law could replace public intellectual property law in the cyberspace setting, directly affecting the balance between private rights in, and public access to, information.

III Baseline Dilemmas: Privatization Versus Public Rights

As the above discussion illustrates, copyright policy in an increasingly digital world is framed according to a neoclassical economic paradigm that favors private rights. As a result, copyright\*684 doctrine has drifted from a baseline of public rights to a presumption in favor of privatization. This presumptive reasoning privileges property norms over access norms, thus resetting the copyright entitlement from one focusing on public access to one focusing on private rights in the private sphere of the marketplace. When information is viewed as "public," our legal system values access.\footnote{FN206} When information is viewed as "private," however, our legal system values protecting boundaries.\footnote{FN207} Thus, the bias toward privatization has changed the nature of copyright entitlement from a limited property right punctuated with access-based limitations, to a regime under which "open access is to be eschewed."\footnote{FN208} As a result, "new intellectual property rights are continually granted, and the public domain continually cut back."\footnote{FN209} The inherent privileging of privatization results in "structural tendencies in our patterns of thinking and discourse about intellectual property that lead us generally to 'over' rather than 'under' protect, and that partly as a result we are currently in the midst of an intellectual land-grab, an unprecedented privatization of the public domain."\footnote{FN210} These structural tendencies consist of baseline fallacies that "obscure the interests of the public by foregrounding the interests of copyright owners."\footnote{FN211}

Copyright has long been subject to debate as to whether the goals of copyright are "better served by treating intellectual productivity as property, or (at least to some degree) as part of a commons that is open to all comers."\footnote{FN212} In drawing the line between public and the private domains of information, we should clearly recognize what guiding principles we are prepared to follow. In doing so, we must expose the baseline fallacies that privilege the domination of conventional property ideas in copyright policy and, simultaneously, cast shadows of suspicion on...
public rights to information. These fallacies compel an inappropriate transfer of information distribution policy from the public sphere to the private sphere.

*685 A. Exposing the Fallacies of a Privatization Baseline

Neoclassical economic theory equates public interest with a maximization of total social wealth, regardless of the distribution of that wealth. A copyright system that uses wealth maximization as its touchstone "will often favor whatever initial assignment of rights is proposed." [FN213] Current copyright doctrine privileges maximum privatization and the exploitation of new information markets created by the digital environment. [FN214] Thus, it has created a bias toward "enacting legislation that transforms into piracy any un-compensated use of copyrighted works that could generate further revenue were it deemed infringement." [FN215] This policy is built upon a foundation of baseline fallacies that are so prevalent in neoclassical economic analysis.

For example, proponents of strong property rights in information have recast traditional limitations on the scope of copyright as loopholes. [FN216] The corresponding implication is that the baseline from which to begin entitlement analysis is for the copyright owner to have control over the right at issue. [FN217] Strong protectionists argue that copyright policy should not force copyright owners to support public access by requiring them to "donate" a portion of "their" works to worthwhile public purposes. In the words of the Clinton Administration's White Paper: "Users are not granted any affirmative 'rights' under the Copyright Act; rather, copyright owners' rights are limited by certain exemptions from user liability." [FN218] Copyright's access-based limitations have become characterized as forced donations [FN219] to the public, "cast in terms of good citizenship rather than entitlement." [FN220] These limitations that previously defined the scope of copyright have become a "tax" on the copyright holders [FN221] and a subsidy to *686 the public.

This baseline fallacy has spawned the protectionistic belief that the burden of persuasion on whether copyrights should be protected "should be on those who seek to diminish copyright rights." [FN222] This fallacy has been particularly prevalent in the shaping of current fair use doctrine. In fact, the fallacy has evolved into an initial assignment of rights that prejudges the outcome in any fair use case. As courts have recently begun to state: "Fair use serves as an affirmative defense to a claim of copyright infringement, and thus the party claiming that its secondary use of the original copyrighted work constitutes a fair use typically carries the burden of proof as to all issues in dispute." [FN223] Thus, current fair use analysis presumes that fair use is a defense to a copyright infringement action rather than the baseline from which to begin the inquiry. This presumption makes the initial assignment of copyright protection to the party challenging the use, rather than assuming the use is fair unless proven otherwise. While this initial assignment may appear arbitrary, it is actually the inevitable result of a system that favors private property rights over a public commons. By prejudging where the burden of proof should be located, the market paradigm constrains the likely answers. [FN224]

Another baseline fallacy that has resulted in an initial assignment of rights that prejudges the outcome in fair use cases is the neoclassical economic notion that copyright owners are entitled to exploit all existing or potential markets for their works. Proponents of strong copyright rights believe that the first principle of a contemporary copyright philosophy should be inspired by the prevailing view that private property promotes the most efficient use of property overall and that copyright is a property *687 right that ought to be respected as any other property right. [FN225] Along these lines, some believe that, as a baseline, copyright owners control all prospective markets created by users. [FN226] This neoclassical economic premise results in the view that privatization is preferable wherever a market, or potential market, for copyrighted material exists.

Current fair use analysis tends to concentrate on the potential market impact of the unauthorized copying. If such a potential market is found to exist, a use will rarely be found fair. Pursuant to this view, fair use is just a narrow exception to the "privatization" of intellectual property, applicable only in anomalous cases of market failure. [FN227] As a result, fair use is ultimately viewed as a subsidy from the copyright owner in favor of uses that benefit the public. [FN228] This view has led some commentators to argue that "it is not clear why authors and copyright owners should redistribute income to 'fair' users." [FN229]

A recurring criticism of this analysis is that it is circular. [FN230] It presumes a property right in order to establish
Copyright has the effect of "privatizing" and thereby bringing into the market goods that would otherwise be free to all. The longstanding convention that authors have a copyright in their works deflects attention from the fact that copyright is itself an intervention in the market, rather than, as it so often is made to appear, the "natural" way of things. [FN234]

Furthermore, copyright owners have never been presumptively entitled to control all uses of their works. "United States copyright was never absolute; the Constitution always limited it, both in time and in purpose." [FN235] Every copyright statute since the Statute of Anne has promoted access by according copyright owners some exclusive rights, and reserving other rights to the general public. [FN236] In fact, until 1976, public dissemination was, except in very limited circumstances, a condition of copyright. [FN237]

Intellectual property rights are limited monopolies conferred in order to produce present and future public benefit. For the purposes of achieving those goals, the "limitations" on the right are just as important as the grant of the right itself. To put it more accurately, since there is no "natural" absolute intellectual property right, the doctrines which favor consumers and other users, such as fair use, are just as much a part of the basic right as the entitlement of the author to prevent certain kinds of *689 copying. [FN238]

Because copyright is an affirmative statutory grant, the baseline entitlement of access should remain with the public. The burdens on copyright "limit the scope of the owner's proprietary rights in deference to the community's claim to access to and use of expression." [FN239] Thus, if copyright doctrine allows certain unauthorized uses, there is no reason to view that policy as taking away rights from authors. Rather, Congress has simply chosen not to extend that particular right to copyright holders in the first place. The "disadvantaged" copyright owner is yielding something which was arguably not his or hers in the first place.

If the initial scheme of copyright law simply does not give authors the right to control certain uses of their works, then it does not make sense to speak of a "donation" of these uses to the public. Instead of copyright's traditional limitations existing as a tax or a forced subsidy on the copyright holder's property, it is the copyright holder who is receiving the limited right to control and profit from what would otherwise be the public's property. Thus, "the public is not seen as illegitimately 'usurping' the prerogatives of actors in the private sphere, but instead is thought of as creating, maintaining, and indeed underwriting its very existence." [FN240]

B. Promoting a Baseline of Public Rights

The baseline fallacies employed by neoclassical economic analysis have come "to justify ever-increasing property rights in information itself—a result directly counter to understandings of early English and American copyright law, which prohibited unauthorized copying of texts precisely to promote wider circulation of the ideas, knowledge, and information contained within such literary works." [FN241] This shift in the rules is "carving out entirely new legal domains—some of them public and some of them private—on the frontiers of information." [FN242] Recent developments in copyright policy premised on these baseline fallacies described *690 above represent an extraordinary privatization of the public domain. [FN243] Pamela Samuelson has criticized proponents of such privatization as authorizing a "copyright grab" and effecting a "wholesale giveaway" of the public's rights. [FN244] The casualty is the abandonment of the late nineteenth/early twentieth century quest for a socially optimal balance of public-private interests that characterize the development of property over the last 100 years. The favored paradigms demarcating the public and private spheres of information in the digital environment promise to impact the form and content of the public "space" in that environment.
During the seventeenth and eighteenth centuries, a modern public sphere emerged from new cultural practices and venues of communication. New communications institutions such as coffeehouses, salons, literary societies and the press allowed for the creation of a "philosophy of discourse" that was central to liberal democratic practices. The literary public sphere provided an uninhibited exchange of ideas and opinions, and this cultural activity was independent from the singularly private economic interests of individuals and also from the domination of the state.

This new and independent cultural sphere decisively drew upon increased exposure to cultural commodities, especially the "published word."

The United States, however, is currently suffering a "vanishing of public space." The trend toward suburbanization has resulted in a situation where there are "no town halls, no granges, no public squares, no downtown churches or galleries or schools" within which to engage in public discourse. Public squares are being replaced by suburban spaces that have "nothing public about them." Such spaces are private property "dominated by a single pervasive activity: consumerism." Furthermore, the public sphere created on the basis of the proliferation of new communication institutions has been lost to consumerism and the mass media. As a result, civil society has diminished and its by-product, civic culture, has declined.

Cyberspace has the potential to replace a diminishing physical public space. Indeed, it has already become commonplace to describe the operation of the new digital technologies in spatial terms. Information technology is becoming known as the "electronic super highway." This highway metaphor is particularly apt given the ability of computer-based communications to cut across territorial borders. Such spatial terms imply "that the removal of spatial barriers combined with the high level of online interaction creates a feeling among those electronically connected that they are indeed in the same place even though they are physically separated by great distances." Thus, despite the absence of physical space, there is "a spatial dimension in which our communications with one another occur."

As a result, we can view cyberspace as supplanting physical space as a "tool that . . . might help revitalize the public sphere." Computer technology has advanced to a point where individuals on opposite sides of the world may instantaneously exchange information. Internet technology enables people to "meet, and talk, and live in cyberspace in ways not possible in real-space." Thus, it has the "potential to connect people in new ways as solutions to the problem of declining community in modern America."

As digital information becomes increasingly privatized, however, the question arises whether public, open spaces on the Internet are being compromised. The prevailing proprietary attitude toward cyberspace vests control in private interests that are free to exclude whomever they choose. This perspective "has taken the law in the same direction: towards more limited public access to ideas and information. . . . Extrapolated into a comprehensive information policy, the trend is frightening."

To read a book, listen to a song, scan an encyclopedia, pass along a newspaper article to a friend, exchange recipes and furniture-finishing instructions with a neighbor—these were communicational activities encouraged within liberal democracies with an Enlightenment faith in the progress of arts and sciences. The same activities may well be deemed forms of theft—illegal trespassing upon private property—in the digital environment. Despite its limitations and prejudices, the bourgeois public sphere may appear to be a very open and dialogical space to industry forces eager to impose a private police state upon cyberspace.

The conjunction of legitimate private and public interests in the copyright arena suggests that ordinary, unqualified notions of ownership are not satisfactory in this area. "Before we succumb to calls for further enhancement of the rights in the copyright bundle, we need to reexamine the intellectual property bargain from the vantage point of the public, on whose behalf, after all, the copyright deal is said to be struck in the first place." In devising a copyright policy that meets the public's needs, we might most profitably abandon copyright law's traditional reliance on privatization and start instead from a baseline of inherent public rights. We should equate public interest with access rather than wealth maximization.
copyright bargain.

A public interest equated with access is compatible with the underlying Enlightenment ideology upon which copyright is based. "[C]opyright law serves fundamentally to underwrite a democratic culture." [FN266] Access to information is of central importance to this copyright policy. [FN267] As stated by Pamela Samuelson, copyright policy is traceable to the belief of the framers of the Constitution that unfettered and widespread dissemination of information would promote technological and economic progress. The drafters of the Constitution, educated in the Enlightenment tradition, shared that era's legacy of faith in the enabling powers of knowledge for society as well as the individual. [FN268]

The framers "viewed free access to knowledge as an essential step in building the fledgling nation." [FN269] Thus, in order for copyright to achieve its "constitutive agenda" [FN270] the public must have access to copyrighted works. [FN271] "The public gains access to the ideas explicitly or implicitly from its access to the expressions." [FN272] The digital environment, therefore, should remain a model of diverse and open access and public discourse. Thus, we should be in favor of a policy "privileging substantial uses of copyrighted material in the interest of an asserted policy favoring access." [FN273]

"The modern defenders of an open Internet take the position that the free exchange of ideas is a kind of comedy of the commons, where total creativity is enhanced by open access and interaction among all entrants' ideas." [FN274] According to Martha *Woodmansee, the view of the public nature of information was once common. [FN275] In her book tracing the history of copyright, Woodmansee describes a view, prevalent until the late eighteenth century, that an author was a mere craftsman transcribing ideas already in the public domain, and, by extension, an author's work was in the public domain as well. [FN276]

"With land, the view that resources should remain open to unconstrained common entry is extremely limited; only in quite special circumstances does unrestricted public use of land seem to result in 'comedy'--that is, a happy and productive outcome--rather than 'tragedy.'" [FN277] The contest of property versus commons in copyright discourse is much more evenly divided, however. Copyright is a statutorily created grant. Instead of being viewed as a bargain between the government and a private copyright owner, copyright is said to be a bargain between the government and the public. [FN278]

Information subject to a copyright grant is inherently public property that the government privatizes in the public's interest. Without government involvement, information would exist in a publicly owned commons for all to access. Thus, "[c]opyright is a perfect candidate for the Lockean and Millian concept of stewardship property." [FN279] Pursuant to this stewardship, cyberspace technology should not be subjected to copyright's current presumption of privatization. [FN280] It is better viewed as an information commons and a public space for discourse. [FN281] Instead of presumptively favoring privatization, we should be privileging "a commons of knowledge held in trust." [FN282] We should recognize the value of open access to the public at large as a baseline from which to begin any copyright inquiry, especially given the new digital environment. A public trust paradigm would require that the government start from just such a baseline.

IV The Public Trust Doctrine

The public trust doctrine has served, in the United States, as the foundation and framework of modern legal conceptions concerning the ownership of common resources. Thus, this doctrine naturally looms behind the foregoing discussion of public and private rights in information resources. It makes sense to draw upon the public trust doctrine, with "its intimations of guardianship, responsibility, and community," [FN283] when forming information policy in a digital world. The public trust doctrine can reinvigorate incentive rhetoric by providing substance to a copyright agenda favoring public rights to access.

Margaret Chon has argued that information should be viewed "as a natural resource commons, such as air or water, which is held in a public trust." [FN284] Keith Aoki has similarly touched on this notion. [FN285] While Chon advocates that information be subject to a public trust and Aoki suggests that public trust doctrine can inform
copyright policy by analogy, neither describe the contours of the public trust doctrine or why information should be viewed as a public trust resource. In the balance of this Article, I move into territory which is suggested but not fully addressed in Chon's and Aoki's works. I will first trace the theory of the public trust doctrine and assert that information does meet the criteria of a public trust resource. I argue that, pursuant to the public trust doctrine, the public may hold some legitimate form of private property interest in information resources.

A. The Origins of the Public Trust Doctrine

The public trust doctrine is a background property principle with a hefty pedigree. As originally constituted, "the doctrine held that some resources, particularly lands beneath navigable waters or washed by the tides, are . . . inherently the property of the public at large." [FN286] The doctrine dictates that the sovereign state holds the subject lands in trust for the benefit of the public. The doctrine was based on the notion that public access to navigable waters and subjective lands is so important that it should be held in a commons for special treatment.

"The modern public trust doctrine traces its origins to Byzantine law- specifically, the Justinian Code's statement that 'By natural law, these things are common property of all: air, running water, the sea, and with it the shores of the sea.'" [FN287] Most medieval European legal systems eventually adopted this principle. [FN288] Imported from England, [FN289] the public trust principle became part of American common law. [FN290]

The American view that the government should have a proprietary interest with respect to lands that are important to the public began in the 1820's when navigational commerce was important. Significant cases expressed a fiduciary aspect of state sovereign ownership; the state had a duty to manage such resources in a way that facilitates public use. For example, the New Jersey Supreme Court in the early case of Arnold v. Mundy, [FN291] restricted a private party's ability to own oyster beds submerged in a river. The case involved an objection to the privatization of oyster beds that impaired public use of the beds. The court held that navigable waters, and the land beneath, are common to all citizens. The property is vested in the sovereign for the use of the citizen. Arnold marks the origin of the fiduciary aspect of public trust doctrine. This notion developed into the extension that the public itself might enjoy a property right to public resources.

Early public trust questions arose in the area of legislative abrogation: What happens when legislation deprives the public of the use of public trust resources? In fact, legislative abrogation led the United States Supreme Court to rely on the public trust doctrine for the first time in Illinois Central, [FN292] the seminal public trust case. That case concerned an attempt by the Illinois legislature to rescind its earlier grant to the railroad of most of the land along the Chicago waterfront. The Court ruled in favor of the State, concluding that the original grant was void because the State did not have the power to alienate property in which the public had a trust interest in purposes such as navigation and fishing. [FN293]

Illinois Central established the basic principle that the public holds rights in certain water resources that limit the power of legislative representatives to alienate such resources. [FN294] In the decades following Illinois Central, a number of courts, especially in Wisconsin and Florida, held that the public enjoyed rights in various types of waterways, which served to limit the legislature's ability to alienate those resources. [FN295]

B. The Expansion of the Public Trust Doctrine

"The public trust doctrine has enjoyed a significant renaissance over the last twenty-five years as a tool for judicial review of government decisions to alienate natural resources." [FN296] Since 1970, courts from at least twenty-five American jurisdictions have embraced some form of the public trust doctrine. [FN297] The doctrine has become viewed as "a tool for judicial supervision of resource-allocation decisions." [FN298] Thus, in recent years, "many courts have relied on the doctrine to impose limits both on the government's ability to alienate natural resources, and on the government's and private owners' ability to use such resources in ways deemed incompatible with the public trust with which the resource was found to be impressed." [FN299]

"Paralleling this widespread recognition has been a broadening of the doctrine to include resources not previously
within its scope." [FN300] As a result, the public trust doctrine has been expanded by a number of state and federal courts that hold that certain natural resources other than waterways are imbued with the public trust. In this sense, the public trust doctrine has developed into a "dynamic" doctrine that evolves with the demands of society to protect public uses of trust lands. Courts have become receptive to requests to extend the doctrine beyond its traditional water-related focus. The public trust doctrine has been invoked to support claims for the preservation of any number of property deemed public resources including wildlife, [FN301] parks, [FN302] marshlands, [FN303] historical areas, [FN304] cemeteries, [FN305] archeological sites [FN306] and remains, [FN307] and works of art. [FN308] The doctrine has also extended the concept of public trust purposes to include, for example, recreation. [FN309]

Furthermore, in addition to protecting public use rights, the public trust doctrine has also been interpreted to impose a sovereign duty of environmental stewardship for the benefit of the public. For example, the California Supreme Court has determined that the public trust doctrine serves an essential role in the integrated system of California water law by preserving the continuing *699 sovereign power of the state to protect public trust uses. [FN310] The court found this power to preclude any water user from acquiring a vested right to harm the public trust, and that it imposes a continuing duty on state officials to consider such uses when allocating water resources.

Thus, the public trust has developed into an inherent limitation on a myriad of public trust resources; a type of background principle that limits title. For example, beach property in Oregon has been presumed to be subject to an inherent limitation of public beach access. [FN311] Some now argue that resources impressed with the public trust belong to the public in such a way that the public's property claims override the acts of its own agents, even the legislature. [FN312] Thus, the doctrine authorizes courts to step in with respect to legislative impairments of public use.

C. Identifying a Public Trust Resource

The recent expansion of the public trust doctrine suggests the basis of an even more expanded role for the doctrine. [FN313] However, critics of the modern public trust doctrine argue that the scope of resources coming under its protection has expanded beyond all relation to the doctrine's historical focus on water-based resources. [FN314] Thus, the difficulty becomes determining how to distinguish "public trust" resources from those resources that are not "impressed with the public trust." [FN315] Two influential public trust scholars help identify the criteria.

1. Joseph Sax: Process Defects

In his watershed 1970 article, which marked the modern renewal of the public trust doctrine, Joseph Sax said that "public trust law is not so much a substantive set of standards for dealing with the public domain as it is a technique by which courts may mend perceived imperfections in the legislative and administrative process." [FN316] Through his analysis, Sax modernized the concept *700 of the public trust doctrine, using this vivid phrase as a vehicle for insisting that public bodies pay attention to--and adequately vindicate--the changing public interest in diffuse resources. [FN317]

Sax examined a number of cases challenging state transfers of public land to a private party on the grounds that the land was impressed with a public trust use that the proposed grantee would impair or destroy. He found in these cases a judicial concern for "low visibility decision making," which he characterizes as a situation in which important resource-allocation decisions are made without a great deal of publicity or official notice. Without such notice, the public is not alerted and thus its interests are often not heard or considered. [FN318] Sax determined that the public trust doctrine "tries to identify and correct those situations in which it is most likely that there has been an inequality of access to, and influence with, decision makers so that there is a grave danger that the democratic processes are not working effectively." [FN319] Thus, Sax viewed the public trust doctrine as a response to perceived defects in the political or administrative process that cause decision makers to systematically undervalue a particular consideration. [FN320]

Sax's view of the public trust tied into an emerging "public choice" theory, which argued that sharply focused
minority interests could often get their way in legislatures at the expense of diffuse majorities. \[FN321\] Meanwhile, in the administrative arena, "capture" theorists described the similar ways that regulated interests could take over the very public agencies that supposedly regulated them. \[FN322\] Sax asserted that the public trust doctrine provides a means to correct such "imperfections" in governmental natural resource decision making. \[FN323\]

In his article, Sax identified two sources of such "imperfect" decisions. \[FN324\] The first systemic defect is decision making at an inappropriate level of government, resulting in a lack of consideration \[*701\] of important resource-conservation interests. \[FN325\] According to Sax, this problem results in the more broadly distributed benefits of conservation being undervalued relative to the (usually economic) benefits of alienating the resource. \[FN326\] The second process defect Sax recognized is the phenomenon of allocation decisions he characterizes as "low-visibility," including those made by an administrative agency or by means of a governmental grant of land title to a private party. \[FN327\] According to Sax, the relative invisibility of such decisions means that they do not attract the notoriety necessary to inform and energize the general public, whose interests these decisions may harm. \[FN328\]

In such cases, the public trust doctrine authorizes an inquiry into whether "the government [has] granted to some private interest the authority to make resource-use decisions which may subordinate broad public resource uses to that private interest." \[FN329\] The doctrine inquires whether "there [has] been an attempt to reallocate diffuse public uses either to private uses or to public uses which have less breadth." \[FN330\] Sax's ideas regarding "diffuse interests" is backed up by empirical observations that suggest that large but diffuse interests quite often seem to be the sort systematically undervalued by the political process. \[FN331\]

Presumably, this analysis would justify judicial review in any area in which the government transfers some sort of right to a private party under circumstances raising suspicion that public rights are being sacrificed to rent-seeking interests without a countervailing increase in public welfare. This sort of situation could be expected to appear whenever the public's interest can be described as diffuse. \[FN332\]

Even Richard Epstein, a dominant proponent of private property rights, views public trust theory as preventing the government from colluding with the various "rent-seekers" who attempt to use the political process to redistribute the wealth of others to themselves. If the public trust represents property belonging to the public, inalienable by their purported agents in the legislature \([*702](or alienable only under sharp restrictions), then, Epstein argues, the doctrine's true function is to restrain legislators from giving away the store for private gain to the general detriment of the public at large. \[FN333\]

2. Carol Rose: Socialization

Carol Rose has also explored the characteristics of property that inherently belongs to the public. \[FN334\] In a 1986 article, Rose examined the fact that nineteenth century American courts embraced doctrines under which certain property was deemed owned by the public, not as government property but as held by the public at large. According to Rose, these courts used doctrines such as prescription, custom, and (especially after Illinois Central) the public trust doctrine to find roadways and rivers to be inherently public property primarily because of their commerce-enhancing functions. \[FN335\] Rose observed that the courts' willingness to embrace such doctrines, even during the nineteenth century exaltation of private property, was based on an understanding that certain property was most valuable as such inherently public property. As interpreted by Rose, those decisions reflected a conclusion that the highest use of those resources lay in public ownership, open to public use. \[FN336\] Pursuant to this analysis, the social benefits created by public ownership of or access to, a resource may justify scrutiny of government decisions to privatize such resources, or at least scrutiny of the procedure by which those decisions are reached. \[FN337\]

Pursuant to Rose's analysis, the main thrust of the public trust doctrine was "to reserve for the public those properties that the public needs for travel, communication, commerce, and to some degree public speaking-that is, uses that connect people with one another and with a wider world and allow all to interact in a social whole." \[FN338\] These types of inherently public resources generally enable people to interact with one another more \[*703\] productively and civilly. \[FN339\] For example, Rose found that property most needful for commerce is a traditional candidate for "publicness." \[FN340\] She found a similar social connection to recreation and speech as foundations
Rose's views of "publicness" tracks the "publicness" of water law, to which public trust doctrine is connected. According to Rose, water law "is a fount of doctrine for public resource management, since water is indeed a diffuse resource with a long history of community management." She observes that water rights have always had some elements of communal management. The general public is viewed as having a special interest in and claim over water resources that shapes how water can be allocated and used. Joseph Sax has used several different terms to describe and explain water's special "publicness," reflecting the multifaceted nature of the public's claim. Sax often notes that water is a "public commons," emphasizing the open access to waterways that the public has traditionally enjoyed for navigation, fishing, recreation, and aesthetic enjoyment. Open access to waterways often can increase the total social value of the waterways by maximizing common public use. Thus, the rights to such access is best retained by the public.

Furthermore, the special relationship between community and water has also resulted in water being viewed as an inherently public resource. Sax emphasizes the inescapable importance of water to the development and sustainability of society. Water is constitutive of community. Water not only sustains life itself, but is also the essential basis for the creation of community. "The quantity and quality of water available to a community thus supports and constrains the community's economy and lifestyle, and, as a corollary, the rules governing its use and protection can affect the fate of the whole community." The central importance of water to communities' development and sustainability has spawned universal rules against waste, as well as provisions in many western state constitutions asserting ultimate state ownership over water.

Rose's analysis suggests that a judicial calculation focusing on the "publicness" of resources that contribute to socialization might serve as the substantive basis for a doctrine giving special protection for and expanded category of public trust resources today. The socializing and democratizing effects that commerce was thought to have in the nineteenth century are effectuated today through many other public activities such as recreation.

V A Public Trust Paradigm for Copyright

The discussion above asserts that there are substantive values underlying the public trust doctrine. Certain resources are inherent to community socialization and thus, there is substantial worth in the public's custody of such resources. Moreover, the nature of this value as inhering in a diffuse group makes intervention necessary, given the difficulty of effectuating that interest in the political-administrative process. Both of these intertwined justifications for designating a resource as a public trust resource apply to information in a digital world. Thus, the "modern echoes" of the public trust doctrine can be heard "in discussions of public claims to use communications media freely--notably the Internet, where current debate rages over the degree to which intellectual property should lock the doors on information transfer."

A. Information as a Public Trust Resource

"The fate of most things is of interest only to its owner. Some objects, however, regardless of who owns them, are important to a larger community." Information is one of those "objects." The larger community has a legitimate stake in the privatization of the digital environment because the information flowing through that environment embodies ideas, as well as scientific and historic information. The Internet functions as a powerful new medium of distribution and communication. The "stock of trade" in cyberspace is information. Thus, the Internet, including its user-friendly interface, the World Wide Web, is now the iconic form of the information society. This heightened access to and exchange of information will transform the public and private lives of many. As the District Court said in American Civil Liberties Union v. Reno:

It is no exaggeration to conclude that the Internet has achieved, and continues to achieve, the most participatory marketplace of mass speech that this country—and indeed the world—has yet seen. The plaintiffs in these actions correctly describe the "democratizing" effects of Internet communication: individual citizens of limited means can speak to a worldwide audience on issues of concern to them. . . . [As such it] deserves the broadest possible protection.
Although the fate of information policy in this arena concerns the community as a whole, however, "we have chosen, perhaps not entirely knowledgeably, the marketplace as the most desirable mechanism for distributing information in developed economies." [FN359]

1. Process Defects of Copyright Policy

As Joseph Sax has pointed out, structural flaws in the decision making processes involving diffuse natural resources result in a government likely to make decisions that undervalue the public's interest in those resources. Copyright policy governing the assignment of rights to information suffers from the same defective processes that Sax has identified as justifying the application of public trust to certain land resources. As a result, these decisions seriously undervalue the public's interest in information resources. Furthermore, this privatization campaign is largely waged beyond the notice of the general public. Thus, it has resulted in a situation in which "what members of the public think of as ordinary use of copyrighted works [is], in fact, flagrant piracy." [FN360] As Jessica Litman, a noted copyright scholar and legislative historian has observed, "copyright owners may well have won a rhetorical battle the rest of the country never realized was being fought." [FN361]

This defective decision making is a direct result of at least two problems identified by Sax as justifying the application of the public trust doctrine. First, copyright decisions are made by sharply focused minority interests at the expense of a diffuse public interest. The operation of public choice theory--explaining how "trade" among self-interested politicians, public officials and private interest groups can produce laws which are adverse to the public interest [FN362]--is clearly evidenced in the processes affecting copyright policy. Second, the public's diffuse interests in information resources are systematically undervalued by the political process by which copyright doctrine is fashioned. As a result, *707 copyright doctrine has developed into a narrow "private property analysis" that fails to reveal its true costs to the public interest.

a. A Domination of Minority Interests

An examination of the groups that exert influence on the copyright process reveals a cartellization of the negotiations by a handful of industries with economic interests in copyright who successfully pursue their own agenda at the expense of the public. Such an examination also discloses the capture by these industries of all the key administrative intellectual property offices, which have increasingly become voices for big industry seeking to make law with little regard for the public interest. [FN363] Congress has encouraged these special interests to frame the copyright agenda, inevitably leading proposed legislation that Congress is then supposed to, and does, rubber-stamp. Congress's abdication in the copyright arena results in a "legislative process that repeatedly produces results that tend to favor powerful and wealthy constituencies." [FN364]

Jessica Litman has described at length the capture of the law-making process in the area of copyright. According to Litman, Congress "has since the turn of the century, been delegating the policy choices in copyright matters to the industries affected by copyright." [FN365] In a 1987 article, [FN366] Litman described the process by which Congress enacted the 1976 Copyright Act and stated that the statute made "a number of fundamental changes in the American copyright system, including some so profound that they may mark a shift in direction for the very philosophy of copyright itself." [FN367]

*708 After scrutinizing the legislative history behind the statute, Litman determined that the Act was not actually drafted by anyone in Congress. [FN368] Actually, "the language evolved through a process of negotiation among authors, publishers, and other parties with economic interests in the property rights the statute defines." [FN369] The entire statute was drafted before Congress was included in any legislative revision. [FN370] The congressional sponsors of the bill probably gave almost no thought to the statute. [FN371] The bill owed very little of its substance to the members of Congress that debated it. [FN372]

The resulting copyright statute represented precisely what one might have expected to evolve from negotiations among parties with economic interests in copyright. The bill granted authors expansive rights covering any
conceivable present and future uses of copyrighted works, and defined those uses very broadly. It then provided specific, detailed exemptions for those interests whose representatives had the bargaining power to negotiate. All uses not expressly exempted remained within the control of the copyright owner. The bill, therefore, solved the problem of defining the rights in uses made possible through future technology by reserving those rights to the copyright owner. [FN373]

The statute's codification of the fair use doctrine provided the sole safe harbor for an unrepresented public with interests too diffuse to coalesce into a position of bargaining power. [FN374] As described above, this harbor is hardly safe given that it has been recast as a remedy for market failure rather than a public entitlement.

Because the 1976 Act was composed by representatives of copyright-related industries to govern interactions among them, [FN375] it tends to concentrate the distribution of copyrighted materials into the hands of a few, be it the press, publishers, entertainment conglomerates, the media of broadcasting, cable and, increasingly, satellite. These copyright industries are very powerful and *709 are increasing their influence on government policy. [FN376] In laying the ground rules for the digital environment, these companies prefer that the distribution of property rights over informational resources be designed to "lock in" the power of current market leaders and enable current stakeholders to retain their dominance in the marketplace. [FN377] The success of this preference results in a high protectionist agenda that really represents the interests of only a few corporations. [FN378]

This industry capture "significantly undermines the geography of 'public' and 'private' with respect to intellectual property law." [FN379] "The regulatory capture of United States copyright law by private copyright-based industries works at cross-purposes with the interests of the public- comprised of private individual users of copyrighted works-which copyright law is theoretically supposed to advance." [FN380]

b. Diffuse Public Interests

Although government accountability over "public disposal of extremely valuable rights would seem to demand a vastly more informed politics of intellectual property in the information age," [FN381] a grass-roots revolt of copyright users seems unlikely. Until very recently, there was not a single public or private organization charged with the task of protecting and preserving the public domain. [FN382] Litman has noted that the general public's interest in copyright legislation is unfocused. The costs of the action are spread out over many people, while the benefits redound mainly to a few easily identified and well-organized groups. [FN383] The costs of privatizing information to, for example, education and public debate, are individually small. [FN384] Because there is no place in the debate for the public, the public interest disappears *710 from view. As a result, the structure of copyright discourse in the legislative arena tends to undervalue the public domain. [FN385]

The dark side to the increased access to information cyberspace provides is a decrease in grass-roots control over the use and consequences of information. [FN386] The result of this dark side is illustrated by the Clinton Administration's White Paper. It is essentially an advocacy document for copyright industries. [FN387] Therefore, it gives voice to only one side of the complicated policy debates involving public interests. [FN388] The report comes down firmly on the side of increased rights for copyright owners and it endorses the goal of enhanced copyright protection without acknowledging any countervailing public concerns. [FN389] This failure in the process explains why there is no provision in the White Paper securing the public's opportunity to read, see, hear, or download copyrighted works. [FN390]

As a result of the very process deficiencies articulated by Sax with respect to natural resource allocation, copyright policy will inevitably fail to "adjust to the importance that intellectual property has and is going to have in an information society." [FN391] Rather, private rights will continue to expand, unchecked by public scrutiny or balanced discourse. This consolidation of information rights has become self-fortifying. As Litman has observed, commercial copyright holders "are clinging to their *711 windfall protections with a tenacity that has apparently made it politically impossible to divest them." [FN392]

2. Information as a Component of Socialization
Like water and other inherently public resources, information is an important component of socialization. As Joseph Sax has noted: "Recognition that our accumulated knowledge and insight should be viewed as elements of a common heritage undergirds the basic premise of intellectual-property rules that govern patents and copyrights." [FN393] In fact, the Office of Technology Assessment ("OTA") has reported to Congress a view of information that clearly echoes the qualities Carol Rose noted in public trust resources. According to the OTA:

Although the ruling monarchs of Europe had regarded the widespread dissemination of information with considerable alarm, the opposite view prevailed in the United States. Building a nation required the establishment of communication links, the development of a unified market, the forging of a common culture, and the building of a democratic party. The widespread flow of information was essential to accomplish these tasks, and the establishment of an intellectual property system, they believed, would aid the creation and spread of information. [FN394]

This constitutive view of information is especially vital in the context of the digital environment. The Internet is now evolving into the dominant communications medium of the developed world. As a result, the Internet has rapidly become an influential social, economic, and political force of modern society. [FN395] Thus, the digital environment "may be transformed into the 'Great Community' in which information can be widely disseminated as never before." [FN396]

"Like most legal forms and processes, copyright law is a part of the making of culture." [FN397] Policymakers "should make themselves aware of the far-ranging implications that the legal rules under consideration may have on the future of virtual and real *712 community life." [FN398] As with other public trust resources, the significant socialization benefits that accrue from a public commons of information justify a public access focus for copyright. [FN399]

The digital environment promises to be an especially revolutionary influence on society due to the "reflexivity" of information, "that is, its capacity to influence human social practices, which in turn influence knowledge production." [FN400] Almost all social organization results from communication. [FN401] "The signs and symbols used by the members of a community serve as a focal point and embodiment of collective meaning and memory," [FN402] "Social and scientific facts are so embedded in such language and theory that their meaning can be understood only through discourse. For human beings, the external universe is thus determined, more than described, by expression and communication." [FN403] Communications technology promises to transform "modern society into the postmodern [FN404] information society, a society in which knowledge continually reflects back into social practices." [FN405] As a result, this new environment will dramatically influence the shared norms that will form the basis of community. Such norms are, in turn, continuously reinforced through increased social interaction. [FN406]

Consequently, the new communications climate provides a modern "environment where new relationships with people and groups are fostered, and where new relationships begin to occur between people and institutions." [FN407] Digital technology is already creating a new realm of human activity. [FN408] "By cutting across the distances of space and time, it makes possible a sense *713 of belonging, and 'of participation in a common human enterprise.'" [FN409] "A new environment not only brings about changes in specific behavior, but also changes in positions, interests, expectations, relationships and attitudes." [FN410] Thus, like the new communications institutions of the previous centuries, the digital environment is likely to spawn a new cultural sphere as a function of the medium's interactive nature, the ease with which digital information can be manipulated, and new searching and linking capabilities.

Our current legal institutions dealing with information promise to impact the form and content of this public space: Much of the information protected by intellectual property laws constitutes our polity, society and culture. Although those intellectual property laws were intended to encourage individuals to contribute to the body of information which makes up our culture, those laws create property rights which privatize the very stuff upon which our culture is based. [FN411]

Copyright policy's tendency to privilege privatization of cyberspace threatens to bring the power of commerce to bear on the open space of the digital environment. As a result, the digital environment's role as a civil domain may
give way to the creation of yet another market institution. Instead of communicating with one another "as neighbors, as friends, as collaborators, quite literally, even when they are strangers, as 'commoners,' in other words, in the broadest generic sense, as citizens," [FN412] communicants in the digital environment will interact "as producers or consumers or clients in the economic market." [FN413]

The implications of a commodified digital environment, where private ownership is pervasive, are not difficult to project. Contrary to traditional forms of mass communication, which tend to concentrate communications power in a limited number of hands, anyone with access to the Internet can interact with the rapidly expanding cyberspace audience. Privatization of this resource leads, however, to the likely prospect of an "information society" dominated by privately-owned industries as proprietary *714 rights in information become held by an increasingly concentrated number of corporate entities. [FN414] The penchant for privatization has already diminished the physical public sphere:

[T]he mass media today are the public sphere and . . . this is the reason for the degradation of public life if not its disappearance. Public life, the argument goes, has been transformed by a massive process of commodification of culture and of political culture in particular by a form of communication increasingly based on emotionally charged images rather than on rational discourse, such that political discourse has been degraded to the level of entertainment, and cultural consumerism has been substituted for democratic participation. [FN415]

Public space in the digital environment is likely to succumb to the same pressures currently diminishing public space in the physical environment.

A copyright theory for the digital environment that stresses a marketplace domain will result in a "uniformitarian commercial culture." [FN416] "In a domain in which success is measured by profit, however, neither political nor cultural expression is necessarily very secure." [FN417] The market will provide the infrastructure for the circulation of cultural commodities. The commodification of cultural products transforms the discourses of the public sphere into a form of "manipulative publicity." [FN418] Consider the "manipulation of public taste, attitude and thought to suit the profit- maximizing requirements of the commercial enterprises that provide us with expression." [FN419] When viewed through a market paradigm, expression is solely an instrument whose value is determined by its profitability. Thus, content providers in a digital environment would select and distribute information "for the purpose of profit-maximization, rather than self- expression." [FN420]

Publishers' market-imposed profit orientation requires that they pursue the largest audience. To accomplish this, they must direct their products to whatever their market researchers tell them is the lowest common denominator of consumer attitude *715 and taste. Moreover, publishers have every incentive to seek to manipulate consumer taste in order to increase market share and profits at the lowest possible cost. [FN421]

Filtering certain modes of discourse through a sieve of profitability would result in a "flat and vapid cultural life." [FN422] Thus, the privatization of the digital environment threatens to "homogenize and destroy civic space." [FN423]

Moreover, as a result of increased privatization, ownership of information is likely to become concentrated in a few transnational firms that possess a lot of market power but not necessarily creative or innovative skills. This concentration will inevitably lead to some commercial censorship. Commercial influence over the availability of information impacts us all. We already live in a culture in which it is very difficult to be genuinely different. Any differentiation allowed in a commercial culture is actually the illusion of difference as captured by the market.

The public sphere "is not an arena of market relations but rather one of discursive relations, a theater for debating and deliberating rather than for buying and selling." [FN424] As such, the public sphere should be kept conceptually distinct from the economy. [FN425]

Legal rules that treat creative expression as more than simply a commodity are a cogent statement of the importance of creative expression for individual autonomy and community. Such rules reflect and catalyze a rhetoric that recognizes the centrality of discourse for self-realization and collective identity. [FN426]

The digital environment should exist as a "shared domain of citizens, of spectators, of artists, of cultural creators,"
In other words, a civil society distinct from the market. "[T]hose who see community as a medium for deliberation argue for government intervention to preserve the Internet as a space for public access and for debate about issues of public interest." [FN428]

Furthermore, "the ownership and control of information is one of the most important forms of power in contemporary society." [FN430] Copyright laws restrict the social flow of texts, photographs, music, and most other symbolic works. All of these forms retain their cultural qualities, however, and in a world where mass media tends to monopolize the dissemination of signifying forms, the cultural resources constituting our community are increasingly the properties of others. Thus, copyright will provide "the key to the distribution of wealth, power, and access in the information society. The intellectual property regime could make or break the educational, political, scientific, and cultural promise" of cyberspace. [FN431] "Like most property regimes, our intellectual property regime will be contentious in distributional, ideological and efficiency terms. It will have effects on market power, economic concentration and social structure." [FN432] "It is the locus of the most important decisions in information policy. It profoundly affects the distribution of political and economic power in the digital environment." [FN433] Despite its importance, however, there has been little protection for the public with respect to the information society. A public trust paradigm would require such protection.

B. Application of the Paradigm

Pursuant to a public trust theory, information is inherently public property that "inheres in the first instance in an individual's freedom to use the knowledge of others rather than an individual's freedom to exclude others from the use of knowledge." [FN434] This "knowledge should be kept in a trust that is publicly accessible" and guarded against over-appropriation through unwarranted privatization. [FN435] The public trust doctrine reposit in the government a responsibility to manage public resources for the long-term public interest. [FN436] This theory would require that information policy "be managed with extreme care by Congress and the courts." Thus, Congress and the courts would be required to administer information policy in a way that both "preserves and nurtures a commons of knowledge." Thus, application of public trust principles would require Congress and the courts to promote the public interest through an access paradigm rather than a market paradigm.

1. An affirmative duty for Congress

As Jessica Litman has noted, the current structure of copyright legislation is improper in that it involves "an egregious delegation of legislative authority to the very interests the statute purports to regulate." [FN437] Instead of doing its job, [FN438] "Congress seems to lack the interest, expertise, and institutional memory to represent the public on this particular project; indeed, what Congress has done more often than not is delegate the job of coming up with legislation to interested private parties." [FN439]

The public needs some theory of representation in the process of constructing copyright policy. [FN440] Thus, we need a mechanism for exerting the influence of the public interest on the drafting process to ensure that copyright legislation does not unduly burden public access to copyrighted works. "What it would require, though, is a different sort of legislative proposal than the ones we have gotten used to seeing over the years." [FN441] One that would stress the "public's interest in the 'free flow of ideas, information, and commerce.'" [FN442] Pursuant to public trust theory, Congress would be required to legislate in the public interest. The structure and interpretation of the Copyright Clause provides a mechanism for this duty.

Congress finds its authority to fashion the copyright laws in the copyright clause of Article I, section 8 of the Constitution. This constitutional Enabling Clause contains various words of limitation. [FN443] For example, the phrase "limited times" prevents Congress from enacting a copyright statute that would grant indefinite protection for copyrighted works. [FN444] Furthermore, the Court views the words "Authors" and "Writings" as words of
limitation that require a work to embody some threshold amount of creativity before copyright protection can be granted. [FN445] As the Court emphasized in Feist Publications v. Rural Telephone Service Co.: "Originality is a constitutional requirement." [FN446] Although the Court rarely finds that grants of power imply strong substantive limits on congressional exercise of the power granted, its statement in Feist indicates that the Court may find that the copyright and patent clause provides a stronger definitional limitation on Congress's powers to privatize information.

Similarly, the Introductory Clause, "promote the Progress of Science," can be interpreted as words of limitation on Congress's authority to privatize information. [FN447] This limitation could include the requirement that copyright policy begin from the baseline of public access. As the Sony Court stated: "As the text of the Constitution makes plain, it is Congress that has been assigned the task of defining the scope of the limited monopoly that should be granted to authors or to inventors in order to give the public appropriate access to their work product." [FN448] Thus, Congress would bear the responsibility of allocating access to such resources consistently with the public trust.

2. An Affirmative Duty for the Courts

A public trust paradigm would additionally require the courts to resolve any ambiguities that might arise when legislation is applied in the context of new technology using public access as the baseline. [FN449] When interpreting various copyright doctrines, the *719 courts should have an implicit obligation to consider the public's non-market values. [FN450] For example, the 1976 Copyright Act's three general limiting principles are the fair use doctrine, the distinction between idea and expression, and the first sale doctrine. The courts should resolve questions stemming from new technology with particular attention to their functional significance to an access paradigm. Such a paradigm would require courts to interpret the statute's few limiting principles expansively in order to preserve the balance between rights and access that copyright policy theoretically seeks to achieve.

Conclusion

The advent of digital technology promises to change the way society is shaped. Thus, those shaping the legal policies surrounding this technology must consider the effects of such policies on the public. However, recent trends in copyright policy as applied to the digital environment have resulted in a trend toward an unwarranted privatization of cyberspace and the information that flows through it. Instead, policy should be shaped from public rights baseline: The notion that information is inherently public property and, as such, its management through copyright policy is subject to the same public trust principles that have operated as a check on the government's management of other types of public resources.

As the federal government pauses to reconsider and evaluate the future of copyright in the context of the information society, it is important to realize that the recognition of these proprietary rights is consistent with public trust resources generally. Moreover, the public trust doctrine, by providing for the concurrent existence of public and private interests in common resources, *720 should to a large extent dispel the condemnation of users' rights as an unqualified give-away of private property or, conversely, a condemnation of copyright as an unqualified give-away of public resources.

[FNa1]. Maureen Ryan, Associate Professor, University of Wyoming College of Law. Special thanks to the George Hopper Research Fund for its generous financial support.


[FN2]. Id.

[FN4]. Id. at 425-26.

[FN5]. A leading proponent of neoclassical economic analysis defines wealth as:
[T]he value in dollars or dollar equivalents... of everything in society. It is measured by what people are willing to pay for something or, if they already own it, what they demand in money to give it up. The only kind of preference that counts in a system of wealth maximization is thus one that is backed up by money--in other words, that is registered in a market.


[FN7]. U.S. Const. art. I, ß 8, cl. 8.

[FN8]. See Richard Delgado & David R. Millen, God, Galileo, and Government: Toward Constitutional Protection for Scientific Inquiry, 53 Wash. L. Rev. 349, 355 (1978). The Statute of Anne, England's early version of copyright, stated that copyright legislation was needed "for the Encouragement of Learned Men to Compose and write useful Books." Statute of Anne, 1710, 8 Anne, ch. 19 (Eng.). This rationale remained the impetus of the first Copyright Act enacted by Congress, which carried the title, "An Act for the encouragement of learning, by securing the copies of maps, charts and books, to the authors and proprietors of such copies, during the times therein mentioned." See 1 Copyright Act of 1790, ch. 15, 1 Stat. 124 (repealed 1831).

[FN9]. See Delgado & Millen, supra note 8, at 355.


[FN11]. Copyright is a matter of positive law. Generally, there is no common law property right to creative expression. See Pierre N. Leval, Toward a Fair Use Standard, 103 Harv. L. Rev. 1105, 1108 (1990) [hereinafter Leval, Fair Use Standard].

[FN12]. See id.

[FN13]. See Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 429 (1984) (holding property rights afforded by copyright "are neither unlimited nor primarily designed to provide a special private benefit. Rather, the limited grant is a means by which an important public purpose may be achieved. It is intended to motivate the creative activity of authors and inventors by the provision of a special reward....").

[FN14]. See Robert A. Kreiss, Accessibility and Commercialization in Copyright Theory, 43 UCLA L. Rev. 1, 7 n.26 (1995) ("The aim of copyright is to direct investment toward abundant rather than efficient expression.") (quoting Paul Goldstein, Infringement of Copyright in Computer Programs, 47 U. Pitt. L. Rev. 1119, 1123 (1986)).
[FN15]. See Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 349 (1991) ("The primary objective of copyright is not to reward the labor of authors, but 'to promote the Progress of Science and useful Arts.'") (quoting U.S. Const. art. I, § 8, cl. 8); Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975) ("Creative work is to be encouraged and rewarded, but private motivation must ultimately serve the cause of promoting broad public availability of literature, music, and the other arts."); United States v. Paramount Pictures, Inc., 334 U.S. 131, 158 (1948) ("The copyright law, like the patent statute, makes reward to the owner a secondary consideration.... It is said that reward to the author or artist serves to induce release to the public of the products of his creative genius.").

[FN16]. Sterk, supra note 6, at 1203.

[FN17]. See Fogerty v. Fantasy, Inc., 510 U.S. 517, 527 (1994) ("Copyright law ultimately serves the purpose of enriching the general public through access to creative works."); Twentieth Century Music Corp., 422 U.S. at 156 ("The immediate effect of our copyright law is to secure a fair return for an author's creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the general public good."); Mazer v. Stein, 347 U.S. 201, 219 (1954) ("The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in 'Science and useful Arts.'").

[FN18]. See Kreiss, supra note 14, at 2 ("Copyright's raison d'etre is to benefit the public by encouraging the production and dissemination of new copyrighted works."); Leval, Fair Use Standard, supra note 11, at 1108.


[FN20]. See Sterk, supra note 6, at 1207; Neil Weinstock Netanel, Copyright and a Democratic Civil Society, 106 Yale L.J. 283, 285, 292 (1996). Copyright case law typically characterizes copyright as ensuring authors a "fair return" on their work. See Harper & Row, Publs., Inc. v. Nation Enters., 471 U.S. 539, 546 (1985) ("The rights conferred by copyright are designed to assure contributors to the store of knowledge a fair return for their labors.") (quoting Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 429 (1984)); Sony, 464 U.S. at 432; Twentieth Century Music Corp., 422 U.S. at 156 (stating that the goal of copyright law is to secure a fair return for the author's labor); Mazer, 347 U.S. at 219. The case law, however, does not reflect any clear sense of what a "fair return" consists of. In economic terms, a fair return is a return of fixed costs plus a competitive rate of return on the investment. See George J. Stigler, Monopoly, in The Fortune Encyclopedia of Economics 400 (David R. Henderson ed., 1993). Thus, it appears return to costs should be the defining quantifier. Copyright creates a regime, however, whereby an author is awarded a fair return based on the value of her work rather than the cost-based return associated with competition. This return can amount to a monopoly rent potentially reaching far beyond fixed costs.

[FN21]. Such competitors are called "free riders" because they use another's work, sometimes for profit, while the author or publisher pays all the creation, production and marketing costs. See Netanel, supra note 21, at 292 n.26.

[FN22]. See Sterk, supra note 6, at 1197; Netanel, supra note 20, at 308. Because such works are extremely easy to copy, a competitor can copy the original work and thereby avoid many of the creation costs incurred by the original author. The competitor can then market a competing version of the work at a lower price than would be profitable for the original author. See Lunney, supra note 6, at 581.

[FN23]. See Lunney, supra note 6, at 581; Netanel, supra note 20, at 292 ("This free rider problem... would greatly
impair author and publisher ability to recover their fixed production costs."); William M. Landes & Richard A. Posner, An Economic Analysis of Copyright Law, 18 J. Legal Stud. 325, 328 (1989) (arguing that when the market value of a creative work is reduced to the marginal cost of copying that work, the author and publisher will not be able to recover their costs of creating the work); William W. Fisher III, Reconstructing the Fair Use Doctrine, 101 Harv. L. Rev. 1661, 1700 (1988).

[FN24]. See Lunney, supra note 6, at 492-93, 581.

[FN25]. Very little attention is paid, in cases or academic literature, to the fact that much creative expression is entirely independent of financial incentives. For many authors, the reputational rewards achieved through wide dissemination provide far more creative incentive than the financial reward connected with the licensing and sale of individual copies of works. See David R. Johnson & David Post, Law and Borders-The Rise of Law in Cyberspace, 48 Stan. L. Rev. 1367, 1384 (1996).

[FN26]. A number of acts are reserved exclusively to the copyright owner by the Copyright Act of 1976 under 17 U.S.C. § 106, subject to the limitations and exceptions found in §§ 107-120. In its entirety, § 106 reads as follows:

§ 106. Exclusive rights in copyright works. Subject to sections 107 through 120, the owner of copyright under this title has the exclusive rights to do and to authorize any of the following: (1) to reproduce the copyrighted work in copies or phonorecords; (2) to prepare derivative works based upon the copyrighted work; (3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending; (4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly; (5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly; and (6) in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.

[FN27]. See Lunney, supra note 6, at 600.

[FN28]. See id. at 493-94.

[FN29]. Enforcing copyright protection is essentially an effort to mimic scarcity where there is none. Most goods and services are resources that must be divided among a limited number of users due to scarcity--once they are used, they are consumed. Thus, one of the purposes of assigning a property right to such goods and services is to create a system for allocating such scarce resources. Creative expression is not a scarce resource whose use must necessarily be allocated, however. Once created, such expression is capable of enjoyment by millions without incurring significant extra creation costs. Thus, creative expression is a classic example of a "public good." An unlimited number of people can enjoy the product without the product being consumed. This means that once a work is produced and disseminated to the public, no one can be excluded from using the work on the basis of consumption. This also means, however, that once a work is produced, the marginal cost of disseminating it to the public approaches zero. See Netanel, supra note 20, at 292. Marginal cost is a per unit cost that represents the increase in cost necessary to produce one additional unit of output. See Mark Seidenfeld, Microeconomic Predicates to Law and Economics (1996).

[FN30]. The notion that affording an author a property right in her creative works gives that author a monopoly in that work depends upon the assumption that no creative work can serve as a complete substitute for another. See Sterk, supra note 6, at 1205 n.45. If one creative work could serve as a complete substitute for another, the market
would be characterized by competition, not monopoly. Id.

[FN31]. See Lunney, supra note 6, at 494-95.

[FN32]. Professor Lunney stated:
As copyright provides an author with an increasing degree of market power, it increases the extent to which the author can profitably raise her price above a perfectly competitive level, and simultaneously increases both the rent the author receives for her work and the deadweight loss associated with protection of her work.

[FN33]. Id. at 557.
"Defined in terms of traditional welfare economics, deadweight loss consists of two components: (1) the extent of the lost satisfaction experienced by each consumer who is unable to purchase the product because of its monopolistic price; and (2) the number of consumers who experience such loss.” Netanel, supra note 20, at 293 n.32.

[FN34]. George Stigler stated:
[M]onopoly... reduces aggregate economic welfare (as opposed to simply making some people worse off and others better off by an equal amount). When the monopolist raises prices above the competitive level in order to reap his monopoly profits, customers buy less of the product, less is produced, and society as a whole is worse off. In short, monopoly reduces society's income.
Stigler, supra note 20, at 400.

[FN35]. See Netanel, supra note 20, at 293.

[FN36]. Consumer surplus is the excess value a consumer places on a good over the price of the good. See Seidenfeld, supra note 29, at 16. "'Surplus' refers to the resources left over after a consumer purchases those items she considers more essential.” Lunney, supra note 6, at 574 n.338. But as Netanel notes, "[P]erfect price discrimination would also bring copyright owners a maximum share of consumer surplus since they could charge each consumer the full amount she would be willing to pay for access to the work.” Netanel, supra note 20, at 293 & n.31. At the same time it reduces publishers’ production costs, new computer technology will enable the copyright owner to extract all profit from a work through price discrimination based on consumer ability to pay. See id. at 293 & n.31.

[FN37]. Lunney, supra note 6, at 497-98.

[FN38]. See Sterk, supra note 6, at 1207 n.46; Lunney, supra note 6, at 485, 495.
At some point, as copyright broadens its scope of protection, the market power such protection creates will become excessive, enabling the author to charge such a high price for access to copies of her work that it imposes an undue deadweight loss and unduly limits access to, or dissemination of, the work.
Lunney, supra note 6, at 520.

[FN39]. See Leval, Fair Use Standard, supra note 11, at 1109-10; see also Landes & Posner, supra note 23, at 342-43 (stating that as the number of copyrighted works increases, the amount of material in the public domain falls, making it more expensive for authors to acquire the raw material necessary for creating new works).
[FN40]. See Sterk, supra note 6, at 1209; Landes & Posner, supra note 23, at 343-44.

[FN41]. Netanel, supra note 20, at 285; see also Kreiss, supra note 14, at 4 ("To function properly, copyright law must strike a balance between the rights given to copyright authors and the access given to copyright users.").

[FN42]. Lunney, supra note 6, at 485; see also Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. at 417, 429 (1984) (stating that the task of defining the scope of the limited monopoly that should be granted to authors "involves a difficult balance between the interests of authors and inventors in the control and exploitation of their writings and discoveries on the one hand, and society's competing interest in the free flow of ideas, information, and commerce on the other hand"); H.R. Rep. No. 94-1476, at 134 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5749 (discussing the incentives-access balance in determining copyright's appropriate term); Wildlife Express Corp. v. Carol Wright Sales, Inc., 18 F.3d 502, 507 (7th Cir. 1994) (balancing the author's rights to their original expression with the need to allow others to build freely upon the ideas conveyed by a work).

[FN43]. In Computer Associates International, Inc., the court stated:
Thus, the copyright law seeks to establish a delicate equilibrium. On the one hand, it affords protection to authors as an incentive to create, and, on the other, it must appropriately limit the extent of that protection so as to avoid the effects of monopolistic stagnation. In applying the federal act to new types of cases, courts must always keep this symmetry in mind.

Lunney, supra note 6, at 579.

[FN45]. Id. at 489.

[FN46]. Netanel, supra note 20, at 309; see also Wendy J. Gordon, Assertive Modesty: An Economics of Intangibles, 94 Colum. L. Rev. 2579, 2579 n.1 (1994) (stating that intellectual property law is fundamentally "a mode of converting mental labor into a vendible commodity"); Frank H. Easterbrook, Intellectual Property is Still Property, 13 Harv. J.L. & Pub. Pol'y 108, 118 (1990) (maintaining that "[e]xcept in the rarest case, we should treat intellectual property and physical property identically in the law").

[FN47]. As one commentator writes:
Wary of unreliable value judgments about art and incapable of predicting which of even the most successful authors' future works will capture or recapture the public's fancy, the mature copyright paradigm embraces all literary and artistic works simply by virtue of their being creations and leaves the assessment of merit entirely to the market.

[FN48]. See Lunney, supra note 6, at 490.

[FN49]. See id. at 592 n.379.

[FN51]. See Netanel, supra note 20, at 312. Cf. Edwin C. Hettinger, Justifying Intellectual Property, 18 Phil. & Pub. Aff. 31, 38 (1989) ("Markets work only after property rights have been established and enforced, and our question is what sorts of property rights an inventor, writer, or manager should have...").

[FN52]. See Netanel, supra note 20, at 286.

[FN53]. Id. at 308.


[FN58]. The Law of Cyberspace, supra note 56, at 1650.

[FN59]. See Netanel, Global Arena, supra note 57, at 226.


[FN61]. Netanel, Global Arena, supra note 57, at 222.

[FN62]. Netanel, Copyright Alienability, supra note 3, at 426.
[FN63]. See The Law of Cyberspace, supra note 56, at 1649. In addition, copyright ownership is subject to compulsory license for specified uses. The owner of a work contained in a television broadcast, for example, may not prevent others from simultaneously retransmitting the work via cable, so long as they pay the statutory fee and meet other statutory conditions. 17 U.S.C. § 111 (1994). Cover recordings of previously recorded songs are similarly allowed. Id. § 115.


[FN65]. Netanel, Copyright Alienability, supra note 3, at 425.

[FN66]. Netanel, Global Arena, supra note 57, at 313.


[FN68]. See Netanel, supra note 20, at 307 n.97.

[FN69]. See Jessica Litman, Copyright and Information Policy, 55 Law. & Contemp. Probs. 185, 205 (1992) [hereinafter Litman, Information Policy].

[FN70]. See Lunney, supra note 6, at 547-48; see also Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 451 (1984) (“[E]very [unauthorized] commercial use of copyrighted material is presumptively an unfair exploitation of the monopoly privilege that belongs to the owner of the copyright.”); Am. Geophysical Union v. Texaco, Inc., 60 F.3d 913, 922 (2d Cir. 1994) (noting that any copying of another's work that allows one to earn a profit weighs heavily against a finding of fair use); Basic Books, Inc. v. Kinko's Graphics Corp., 758 F. Supp. 1522, 1535-36 (S.D.N.Y. 1991) (finding infringement where the defendant was making a profit repackaging the plaintiff's copyrighted works).

[FN71]. Litman, Information Policy, supra note 69, at 206-07.


[FN74]. Professor Rose stated: The White Paper's normative claim deploys the standard argument that property encourages labor and trade; cyberproperty allows individuals to market the fruits of their creativity, thus permitting them to reap the gains from their creative processes; simultaneously, property makes marketing activities attractive, thus promoting even greater dissemination of information and ideas. Carol M. Rose, The Several Futures of Property: Of Cyberspace and Folk Tales, Emission Trades and Ecosystems, 83 Minn. L. Rev. 129, 146-47 (1998) (citing the White Paper, supra note 73, at 10-11) [hereinafter Rose, The Several Futures of Property].
See White Paper, supra note 73, at 7, 14 (stating that copyright law has to respond to new technologies and maintain existing balance between incentive to create and dissemination of works).


See Rose, The Several Futures of Property, supra note 74, at 146 (citing the White Paper, supra note 73, at 17).

See Barry, supra note 76, at 627 ("[O]n reflection the real story of the White Paper is that its proposals are clearly interrelated and the result of one overriding principle consistently applied: maximization of the rights of intellectual property owners.").

See Nicholas Baran, Inside the Information Superhighway 17 (1995) (defining digital information as information transmitted in digital form so that computers may be able to receive it).

See White Paper, supra note 73, at 64-69.

See Litman, Right to Read, supra note 60, at 30.

Copyright's expansion into a broad proprietary right began with the extension of protection to derivative works based on original expression. In the nineteenth century, an author's legally protected copyright interest consisted only of the exclusive right to make copies of her work in its original form. See Lunney, supra note 6, at 534. Thus, a secondary use of an author's expression would interfere with the author's copyright interest only if that use would directly compete with the author's original work in its original form. See id. at 534, 542; Netanel, supra note 20, at 301-02.

The 1976 Copyright Act extended an author's rights beyond competitive displacement of the demand for the author's original work by prohibiting most unauthorized derivative uses of a copyrighted work. Derivative works are defined broadly to include "a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted." 17 U.S.C. &sect; 101 (1994); see also 17 U.S.C. &sect; 106(2), (4), (5) (Supp. 1996). Most of these derivative uses will not displace the demand for the original work in its original form, and thus are not the type of competitive uses copyright protection was previously limited to. Lunney, supra note 6, at 628-29. Note that the user will have already paid the market price to obtain a copy of the work and thus these rights require an additional licensing fee over and above the market price for a copy. Thus, the exclusive right to prepare derivative works based upon the copyrighted work extends the author's monopoly over not only the work in its original form, but also over noncompeting works as well. See id. at 542-46. For example, the creator of a cartoon is afforded the exclusive right to create toys or other objects based on the cartoon's characters. The author of a book has the exclusive right to prepare a movie version of the book.

Because copyright now protects derivative works that do not displace the demand for the original, the courts are beginning to hold that unauthorized uses can amount to infringement based on lost potential licensing revenue. See, e.g., Am. Geophysical Union v. Texaco, Inc., 60 F.3d 913 (2d Cir. 1994); Princeton University Press v. Mich. Document Servs., Inc., 99 F.3d 1381 (6th Cir. 1996). Pursuant to this interpretation, the Copyright Act now enables
the author to control every valuable use of her work. See Lunney, supra note 6, at 545-46; see also Paul Goldstein, Copyright and Legislation, 55 Law & Contemp. Probs. 77, 85 (1992) ("Congress has given copyright owners rights to every market in which consumers derive value from their works."). Under an incentive rationale, affording such rights to authors is justified only when the return on derivative works is necessary at the outset to provide incentives for the author to create the original work. See Sterk, supra note 6, at 1215. This would be true only in those limited cases where: "(1) the projected returns from the original work are too small to justify the costs of production, and (2) the projected returns from the derivative work are so large relative to the cost of producing the derivative work that the difference will more than make up the projected deficit on the original work alone." Id. at 1215-16. Extending derivative rights beyond such limited cases expands copyright protection beyond the reach of the incentive rationale and into the domain of neoclassical economic justification. The White Paper sought to extend this trend to the digital environment by equating the incidental storage of electronic transmissions to potentially actionable reproductions.

[FN84]. See White Paper, supra note 73, at 64-66.


[FN86]. See generally White Paper, supra note 73, at 64-66.

[FN87]. See id. at 65 n.202.


[FN89]. See id. at 43.

[FN90]. See, e.g., MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511, 519 (9th Cir. 1993) (holding that copyright infringement occurred where computer serviceperson transferred a computer program from a software disk to a computer's random access memory in order to check the operating system's "error log"); Vault Corp. v. Quaid Software, Ltd., 847 F.2d 255, 260 (5th Cir. 1988) (stating that "the act of loading a program from a medium of storage into a computer's memory creates a copy of the program"); Telerate Sys., Inc. v. Caro, 689 F. Supp. 221, 231 (S.D.N.Y. 1988) (discussing unauthorized remote access to database; receipt of data in unauthorized user's computer held to create a copy).

[FN91]. See Anawalt, supra note 55, at 396 ("A shift to ownership of transmission rights would present a major shift in the concept of the substance of rights that our law intends to grant to authors.").

[FN92]. See id. at 395. The legislative history of the Copyright Act of 1976 states: "'[F]ixation' would exclude from the concept purely evanescent or transient reproductions such as those projected briefly on a screen, shown electronically on a television or other cathode ray tube, or captured momentarily in the 'memory' of a computer." H.R. Rep. No. 94-1476, at 53 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5667.

[FN94]. See Anawalt, supra note 55, at 395.


[FN96]. Litman, Right to Read, supra note 60, at 31-32.

[FN97]. Jessica Litman, Revising Copyright Law for the Information Age, 75 Or. L. Rev. 19, 37 (1996) [hereinafter Litman, Revising Copyright].

[FN98]. See Johnson & Post, supra note 25, at 1385.

[FN99]. Litman, Revising Copyright, supra note 97, at 24.

[FN100]. See Anawalt, supra note 55, at 397.

[FN101]. Uploading is the process by which a user takes files from her computer and transfers them to another computer system for access by other subscribers. Baran, supra note 80, at 18.

[FN102]. Users may download programs and files from the online services. Id. Downloading is the process of obtaining information from another computer and transferring it to one's own computer. Id.

[FN103]. See 17 U.S.C. § 109 (1994); Johnson & Post, supra note 25, at 1386 ("Application of the 'first sale' doctrine (allowing the purchaser of a copyrighted work to freely resell the copy she purchased) is problematic when the transfer of a lawfully owned copy technically involves the making of a new copy before the old one is eliminated....").


[FN105]. Id. at 605.

[FN106]. See Boyle, supra note 77, at 101. According to Boyle: "H.R. 2441, 104th Cong. (1995) and S. 1284, 104th Cong. (1995), eventually stalled because of intense resistance from a variety of groups, including internet service providers, computer companies which embrace 'open systems,' teachers, scientists, and civil libertarians." Id. at 101 n.39.

[FN107]. See id. at 101.


[FN110]. Id.

[FN111]. Id. at 1651.

[FN112]. See id. at 1652.

[FN113]. See id. at 1652-53.

[FN114]. See id.

[FN115]. Id.


[FN120]. See id.


[FN123]. Litman, Information Policy, supra note 69, at 187.

[FN124]. In addition, on-line accessibility to information is increasingly likely to be subject to contractual licenses which may bar various uses such as down-loading and reselling material. Kreiss, supra note 14, at 46 n.161. To the extent, however, that the material is factual or that barred uses are "fair," the licensing restrictions would go beyond those offered by copyright law. Id. Such license restrictions may be preempted by § 301 or § 107, respectively, of the Copyright Act.

[FN125]. The Law of Cyberspace, supra note 56, at 1652 ("[Access control] gives copyright owners the power to
prevent any unauthorized use and not just uses that are protected under copyright law." (citing Elkin-Koren, supra note 60, at 290); Litman, Right to Read, supra note 60, at 40 ("United States copyright law has always given copyright owners some form of exclusive reproduction right. It has never before now given them an exclusive reading right, and it is hard to make a plausible argument that Congress would have enacted a law giving copyright owners control of reading.") (footnote omitted).


[FN127]. See id. at 1651-52 & n.101.

[FN128]. See, e.g., Julie E. Cohen, Copyright and the Jurisprudence of Self-Help, 13 Berkeley Tech. L.J. 1089, 1141 (1998) ("If the user privileges established by copyright... are to mean anything, users must be afforded affirmative rights to protect themselves. A 'right of fair breach' is meaningless unless it includes a right to effectuate the breach-a right to hack the digital code that implements and enforces the challenged restriction."); Pamela Samuelson, The U.S. Digital Agenda at WIPO, 37 Va. J. Int’l L. 369, 410 (1997) (criticizing "the perceived need for law to regulate infringement-enabling technologies").


[FN130]. See 17 U.S.C. ß 1201(a)(1)(a) ("No person shall circumvent a technological measure that effectively controls access to a work protected under this title.").

[FN131]. A number of major multilateral copyright treaties exist to harmonize intellectual property law. These treaties include the Trade Related Aspects of Intellectual Property (TRIPs) annex to 1994 World Trade Organization treaty; The Berne Convention on the Protection of Literary and Artistic Works (incorporated in TRIPs accord, except for art. 6bis, moral rights); WIPO Copyright Treaty; WIPO Performers and Phonograms Treaty (WPPT); and the Universal Copyright Convention (UCC).

[FN132]. WIPO is a specialized agency of the United Nations that "administers intellectual property treaties, serves as a forum for treaty drafting, conclusion, and revision, and provides technical assistance for the drafting of domestic intellectual property legislation." See Netanel, Global Arena, supra note 57, at 218 n.3.

[FN133]. See Boyle, supra note 77, at 101. Between December 2 and 20, 1996, 160 nations gathered in Geneva, Switzerland to discuss copyright protection in an environment where protected works may be digitized and distributed over worldwide computer networks. As a result of the conference, two treaties were developed with general provisions encompassing the distribution of works over the Internet--the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty. See Netanel, Global Arena, supra note 57, at 219 n.4. These treaties represent the most critical changes seen in copyright law in the last 25 years.

[FN134]. See Netanel, Global Arena, supra note 57, at 221 n.12

[FN135]. Id. at 218 n.3.
[FN136]. See Boyle, supra note 77, at 102.

[FN137]. Netanel, Global Arena, supra note 57, at 218-19.


[FN140]. See DMCA ß 103, 112 Stat. at 2863-72 (adding ch. 12, ß ß 1201-05, to 17 U.S.C.). Section 1201(a)(3)(A) defines "to circumvent a technological measure" as "to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner." Id.

[FN141]. Litman, Revising Copyright, supra note 97, at 37.

[FN142]. See U.S. Const. art. I, ß 8, cl. 8.


[FN144]. Id. at 202.


[FN146]. See id. ß 102(b), 112 Stat. at 2827 (codified to amend 17 U.S.C. ß 302 (1994)).

[FN147]. See id.

[FN148]. See Hatch, supra note 139, at 728.

[FN149]. Id.

[FN150]. Id. at 729.
[FN151]. Id. at 728.

[FN152]. Id. at 734.

[FN153]. See Sterk, supra note 6, at 1205-06; Meeropol v. Nizer, 560 F.2d 1061, 1068 (2d Cir. 1977) ("The doctrine offers a means of balancing the exclusive right of a copyright holder with the public's interest in dissemination of information affecting areas of universal concern, such as art, science, history, or industry.").

[FN154]. The fair use doctrine is codified at 17 U.S.C. ß 107 (1994). The full text of the provision reads as follows: Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include--(1) the purpose and character of the use, including whether such 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 effect of the use upon the potential market for or value of the copyrighted work. The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors.

[FN155]. Id. See Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 577 (1994) (holding the fair use doctrine "permits courts to avoid rigid application of the copyright statute when, on occasion, it would stifle the very creativity which that law is designed to foster.").

[FN156]. See Meeker, supra note 143.

[FN157]. See Lunney, supra note 6, at 533-34; see, e.g., Am. Geophysical Union v. Texaco, Inc., 60 F.3d 913, 922 (2d Cir. 1994) (stating that any copying of another's work that allows one to earn a profit weighs against a finding of fair use); Twin Peaks Prods., Inc. v. Publications Intl., Ltd., 996 F.2d 1366, 1371-73 (2d Cir. 1993) (finding that a book about a television series infringed the copyrights in the audio-visual works that constituted the television series); Rogers v. Koons, 960 F.2d 301, 310 (2d Cir. 1992) (making a fine art statue using a cheap, kitschy postcard as a model constituted infringement); Horgan v. MacMillan, Inc., 789 F.2d 157, 162-63 (2d Cir. 1986) (suggesting that a book about ballet could infringe a copyright in the ballet's choreography); Basic Books, Inc. v. Kinko's Graphics Corp. , 758 F. Supp. 1522, 1535 (S.D.N.Y. 1991) (finding infringement where the defendant was making a profit repackaging the plaintiff's copyrighted works).

[FN158]. See Netanel, supra note 20, at 290; see also Lunney, supra note 6, at 552:
By defining the fair use doctrine as a means to address compelling needs for access, otherwise unaddressed, that may arise in particular cases, the Court has converted the fair use doctrine from the primary standard by which courts are to resolve the issue of infringement into a secondary standard to be applied only in exceptional cases.


[FN162]. Id. at 451.

[FN163]. Id. at 450.

[FN164]. Judge Leval stated:
Most undertakings in which we expect to find well-justified instances of fair use are commercial. These include, of course, journalism, commentary, criticism, parody, biography, and history; even the publication of scholarly analysis is often commercial. If all of these are presumptively unfair, then fair use is to be found only in sermons and classroom lectures. This would not be a very useful doctrine.


[FN166]. Professor Gordon presented this neoclassicist approach to fair use analysis in Wendy J. Gordon, Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and its Predecessors, 82 Colum. L. Rev. 1600, 1605 (1982) (discussing fair use where transactions costs or other impediments interfere with free market transactions between copyright owners and users) [hereinafter Gordon, Fair Use as Market Failure].

[FN167]. The Court explained that copyright serves "to motivate the creative activity of authors... by the provision of a special reward." 471 U.S. at 546 (quoting Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 429 (1984)).


[FN169]. See id. at 549-50.


[FN171]. Id. at 238.

[FN172]. Id.

In Campbell, the Court announced that commercial use should not be determinative because "[i]f, indeed, commerciality carried presumptive force against a finding of fairness, the presumption would swallow nearly all of the illustrative uses listed in the preamble paragraph of § 107, including news reporting, comment, criticism, teaching, scholarship, and research, since these activities 'are generally conducted for profit in this country.'" Campbell, 510 U.S. at 584 (quoting Harper & Row, 471 U.S. at 592 (Brennan, J., dissenting)) (holding no single factor should be treated as dispositive in the fair use analysis). The Court also conspicuously failed to refer to harm to potential market as the supreme consideration in fair use cases.

Campbell, 510 U.S. at 592.

Id.

Id. at 590-94.


See McJohn, supra note 67, at 64. In this view, permitting fair use of a copyrighted work is, to the extent of that use, tantamount to holding the work in common, leading to inefficient overuse of the resource and blocking pricing signals. Accordingly, fair use should be limited to situations where transaction costs impede licensing transactions.

Id.

Wendy J. Gordon & Sam Postbrief, On Commodifying Intangibles, 10 Yale J.L. & Human. 135, 157 (1998) (book review) ("From an economic perspective, one of the primary reasons for not propertizing everything has been the presence of significant transaction costs."). Both the Texaco court and the Princeton University Press court based decisions of infringement on a decrease in transaction costs (brought about by the availability of apparently practical photocopy licensing) by decreasing the scope of fair use. See Gordon & Postbrief, supra, at 156-57; Am. Geophysical Union v. Texaco, Inc., 60 F.3d 913 (2d Cir. 1994). For commentators applying several variations of the transaction cost approach to fair use, see 2 Paul Goldstein, Copyright ch. 10 (2d ed. 1996); Gordon, Fair Use as Market Failure, supra note 166; Trotter Hardy, Property (and Copyright) in Cyberspace, 1996 U. Chi. Legal F. 217 (1996); Landes & Posner, supra note 23, at 357-61 (economic analysis employing the transaction cost approach to fair use).

The Law of Cyberspace, supra note 56, at 1654.

See Gordon & Postbrief, supra note 180, at 139-40; McJohn, supra note 67, at 63. Jane Ginsburg has argued:

With respect to online access, the transaction costs justification should no longer apply, since individual billing and tracking are fully possible, and indeed have long been in place in private networks, such as LEXIS and Westlaw. Moreover, it is not clear that any private copying justification applies to unauthorized access to a work of authorship....

Ginsburg, supra note 96, at 12.
[FN183]. See Gordon & Postbrief, supra note 180, at 157; McJohn, supra note 67, at 64. Computerization also provides the ability to wall off information by a variety of means. For example, producers can deny access to certain users (databases and search engines). Boyle, supra note 77, at 104.

[FN184]. See White Paper, supra note 73, at 82 (predicting that "it may be that technological means of tracking transactions and licensing will lead to reduced application and scope of the fair use doctrine").

[FN185]. See id. at 73, 82.


[FN189]. See id. (codified in part at 17 U.S.C. ß 1201(a)(1)(C) (Supp. IV 1998)). In making this determination, the Librarian must devote particular attention to the availability of works for nonprofit archival, preservation, and educational purposes and for criticism, comment, news reporting, teaching, scholarship, and research. Id.

[FN190]. See id.


[FN192]. See id. (codified in part at 17 U.S.C. ß 1201(a)-(b) (Supp. IV 1998)).

[FN193]. Netanel, Recent Developments, supra note 108, at 333-34.


[FN195]. Id. (citing Feist, 499 U.S. at 350).


[FN197]. See id. at 23-24.

[FN199]. Feist, 499 U.S. at 350.

[FN200]. Patry, supra note 194, at 360.

[FN201]. Litman, Information Policy, supra note 69, at 205.

[FN202]. This model law was initially introduced as part of a proposed revision to the Uniform Commercial Code. See U.C.C. Art. 2B-Licenses ß 2B-111 (draft of August 1, 1998), National Conference of Commissioners on Uniform State Laws, Drafts of Uniform and Model Acts at http://www.law.upenn.edu/library/bill/ulc/ulc_frame.htm. The National Conference of Commissioners on Uniform State Laws and the American Law Institute eventually decided not to promulgate legal rules for computer transactions as Article 2B of the Uniform Commercial Code after the proposed legislation came under attack from consumer, writer, artist, and academic groups. The conference instead promulgated the proposed rules for adoption by states as the Uniform Computer Information Transactions Act.


[FN206]. Gordon & Postbrief, supra note 180, at 143.

[FN207]. Id.


[FN210]. Boyle, supra note 77, at 95.

[FN211]. Aoki, Cultural Geography, supra note 54, at 1310.

[FN212]. Rose, The Several Futures of Property, supra note 74, at 145; see also Aoki, Cultural Geography, supra note 54, at 1310-11.


[FN214]. See McJohn, supra note 67, at 66; see also Goldstein, supra note 180, at 229 (arguing for "extending copyright into every corner of economic value"); Hardy, supra note 180, at 217 (arguing that copyright should be employed to privatize intellectual property as much as possible).

[FN215]. Litman, Information Policy, supra note 69, at 206.

[FN216]. Id.

[FN217]. See id.


[FN219]. See Litman, Information Policy, supra note 69.

[FN220]. Litman, Right to Read, supra note 60, at 36.

[FN221]. See Boyle, supra note 77, at 105.
Some participants have suggested that the United States is being divided into a nation of information "haves" and "have nots" and that this could be ameliorated by ensuring that the fair use defense is broadly generous in the [National Information Infrastructure] context. The Working Group rejects the notion that copyright owners should be taxed--apart from all others--to facilitate the legitimate goal of "universal access." Id. (citing White Paper, supra note 73 at 15-17)).

[FN222]. Hatch, supra note 139, at 723.


[FN224]. See Gordon & Postbrief, supra note 180, at 145.
[FN225]. See Hatch, supra note 139, at 721.

[FN226]. See Ginsburg, supra note 95, at 18. In criticizing Sony, Ginsburg states: “The question should not have been whether the video tape recorder [VTR] harmed old markets for the works; it should have been whether the device created a new market for reproductions of the works, a new market that normally would come within the copyright owners' control.” Id.

[FN227]. See McJohn, supra note 67, at 74.

[FN228]. See Ginsburg, supra note 95, at 15 (referring to Merges' theory).

[FN229]. Id.


[FN231]. Aoki, Cultural Geography, supra note 54, at 1295 (noting that Felix Cohen made this observation about property in general over half a century ago in Felix S. Cohen, Transcendental Nonsense and the Functional Approach, 35 Colum. L. Rev. 809, 814-17 (1935)).

[FN232]. Id. at 1330-31; see also Aoki, Neocolonialism, supra note 196, at 13 (noting "that there is a deep contradiction between the definition of an 'intellectual property right,' that is, a state-backed monopoly handed out to individuals or firms, and the popular neoliberal vision that valorizes 'privatization' and free market economics.").

[FN233]. Aoki, Cultural Geography, supra note 54, at 1336.

[FN234]. Lloyd L. Weinreb, Copyright for Functional Expression, 111 Harv. L. Rev. 1149, 1240 (1998); see also Boyle, supra note77, at 111: [O]pposition to expansionist versions of stakeholders' rights can be off-puttingly portrayed as a stand against private property. This is a frequent claim in intellectual property disputes, where defenders of the public domain are portrayed as "info-commies" or enemies of the "the free market." (The latter is a nicely ironic argument to make in favor of a state-licensed monopoly).

[FN235]. Aoki, Cultural Geography, supra note 54, at 1321.

[FN236]. See Litman, Revising Copyright, supra note 97, at 31.

[FN237]. See id. at 33. The 1976 Copyright Act extended federal statutory copyright to unpublished works. Before that, copyright protection was available for published works and for works, such as lectures or paintings, that were typically publicly exploited without being reproduced in copies.
[FN238]. Boyle, supra note 77, at 105.

[FN239]. Netanel, Copyright Alienability, supra note 3, at 426.


[FN241]. Aoki, Cultural Geography, supra note 54, at 1299.


[FN243]. See Aoki, Neocolonialism, supra note 196, at 45-46.


[FN246]. Id. at 97-98.

[FN247]. Id. at 98.


[FN249]. Id.

[FN250]. Id.

[FN251]. Id.

[FN252]. See Bruce Robbins, Introduction: The Public As Phantom, in The Phantom Public Sphere, supra note 245, at viii.

[FN253]. See Barber, supra note 248, at 509-10.

[FN254]. Henry H. Perritt, Jr., The Congress, the Courts and Computer Based Communications Networks:


[FN256]. Aoki, Cultural Geography, supra note 54, at 1300.

[FN257]. See Katsh, supra note 255, at 445 (citing Michael Heim, The Erotic Ontology of Cyberspace, in Cyberspace: First Steps 73 (1991)).


[FN259]. See Morano, supra note 93, at 1374; Baran, supra note 80, at 31 (explaining scope and availability of services through one's computer); White Paper, supra note 73, at 8 (discussing benefits of new technology).

[FN260]. The Law of Cyberspace, supra note 56, at 1586 (quoting Lawrence Lessig, The Path of Cyberlaw, 104 Yale L.J. 1743, 1746 (1995)).

[FN261]. Id. at 1588; see also Robert Kline, Freedom of Speech on the Electronic Village Green: Applying the First Amendment Lessons of Cable Television to the Internet, 6 Cornell J.L. & Pub. Pol'y 23, 57-58 (1996) (describing the Internet as a public forum; "an open meeting place for all members of the public where ideas are exchanged, issues are debated, and self expression flourishes.").

[FN262]. Litman, Information Policy, supra note 69, at 206.


[FN264]. Litman, Right to Read, supra note 60, at 33-34.

[FN265]. See Litman, Revising Copyright, supra note 97, at 32.

[FN266]. Netanel, Global Arena, supra note 57, at 220.

[FN267]. See Fogerty v. Fantasy, Inc., 510 U.S. 517, 527 (1994) ("C)opyright law ultimately serves the purpose of enriching the general public through access to creative works...."); Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975) ("Creative work is to be encouraged and rewarded, but private motivation must ultimately serve the cause of promoting broad public availability of literature, music, and the other arts."); United States v. Paramount Pictures, Inc., 334 U.S. 131, 158 (1948) ("The copyright law, like the patent statutes, makes reward to the owner a secondary consideration.... It is said that reward to the author or artist serves to induce release to the public of the products of his creative genius."); see also Kreiss, supra note 14, at 10.

[FN269]. Samuelson, supra note 268, at 372.

[FN270]. Netanel, Global Arena, supra note 57, at 222.

[FN271]. See Kreiss, supra note 14, at 10.

[FN272]. Id. at 11.

[FN273]. Litman, Copyright's Image, supra note 104, at 589.


[FN276]. See id.


[FN278]. See Litman, Revising Copyright, supra note 97, at 31.

[FN279]. Netanel, Copyright Alienability, supra note 3, at 425.

[FN280]. See Rose, The Several Futures of Property, supra note 74, at 153.

[FN281]. See id.


[FN284]. Chon, supra note 282, at 102 (citing Joseph L. Sax, The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention, 68 Mich. L. Rev. 471 (1970) (arguing that the public trust doctrine vests legal right to resources in the general public, a right which the government has a duty to protect)).

[FN285]. See Aoki, Neocolonialism, supra note 196, at 37-42.

[FN286]. Rose, Joseph Sax, supra note 283, at 351.


[FN288]. See id.; see, e.g., Richard J. Lazarus, Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine, 71 Iowa L. Rev. 631, 633-34 (1986) (noting that the principle was reflected in medieval Spanish codes and the customary law of most European legal systems); see also Joseph L. Sax, Liberating the Public Trust Doctrine from Its Historical Shackles, 14 U.C. Davis L. Rev. 185, 189 (1980) (observing that the principle was reflected in medieval French customary law).

[FN289]. See Araiza, supra note 287, at 396; see, e.g., Lazarus, supra note 288, at 635 (commenting that the principle was reflected in Bracton's thirteenth-century legal commentary).

[FN290]. See Araiza, supra note 287, at 396.

[FN291]. 6 N.J.L. 1, 71-78 (1821).


[FN293]. See Araiza, supra note 287, at 396.

[FN294]. See id. at 396-97.

[FN295]. Id.

[FN296]. Id. at 386.

[FN297]. See id. at 401-02; see Lazarus, supra note 288, at 644 n.77 (listing numerous state cases involving public trust doctrine).

[FN298]. Araiza, supra note 287, at 387; see Sax, supra note 288.
[FN299]. Araiza, supra note 287, at 387.

[FN300]. Id. at 401.

[FN301]. See, e.g., State v. City of Bowling Green, 313 N.E.2d 409 (Ohio 1974).


[FN306]. See, e.g., San Diego County Archaeological Soc'y v. Compadres, 81 Cal. App. 3d 923, 146 Cal. Rptr. 786 (1978) (holding that the public trust doctrine cannot be extended to cover archeological remains located on private property).


[FN309]. Araiza, supra note 287 at 402; see, e.g., City of Grand Rapids v. Powers, 50 N.W. 661 (Mich. 1891); Lamprey v. Metcalf, 53 N.W. 1139, 1143 (Minn. 1893); Diana Shooting Club v. Husting, 145 N.W. 816 (Wis. 1914); see also Rose, Comedy of the Commons, supra note 277, at 754-58 (discussing the nineteenth century cases concerning the public trust character of hunting and fishing uses).


[FN312]. See Rose, Joseph Sax, supra note 283, at 356.


[FN314]. See Araiza, supra note 287, at 392.
[FN315]. Rose, Joseph Sax, supra note 283, at 359.

[FN316]. Sax, supra note 284, at 509.

[FN317]. See Rose, Joseph Sax, supra note 283, at 355.

[FN318]. See Araiza, supra note 287, at 398; Sax, supra note 284, at 496-98.

[FN319]. Sax, supra note 284, at 514; see also Araiza, supra note 287, at 400.

[FN320]. See Araiza, supra note 287, at 400.

[FN321]. See Rose, Joseph Sax, supra note 283, at 353-54.

[FN322]. See id.

[FN323]. See Araiza, supra note 287, at 398.

[FN324]. See id. at 390.

[FN325]. See Sax, supra note 284, at 521-23.

[FN326]. See id. at 509-23.

[FN327]. See Araiza, supra note 287, at 390.


[FN329]. Id. at 562; see also Araiza, supra note 287, at 435.

[FN330]. Sax, supra note 284, at 563; see also Araiza, supra note 287, at 435.

[FN331]. See Araiza, supra note 287, at 437.

[FN332]. Id.

[FN334]. See Rose, Comedy of the Commons, supra note 277, at 711-14.

[FN335]. Id. at 731-49.

[FN336]. See Araiza, supra note 287, at 433.

[FN337]. See id. at 434.

[FN338]. Rose, Joseph Sax, supra note 283, at 359-60; see also Rose, Comedy of the Commons, supra note 277, at 774-81.

[FN339]. See Rose, Joseph Sax, supra note 283, at 360; see also Rose, Comedy of the Commons, supra note 277, at 779-81.

[FN340]. See Rose, Comedy of the Commons, supra note 277, at 774-81.

[FN341]. See id. at 774-77.

[FN342]. See Rose, Joseph Sax, supra note 283, at 351.


[FN346]. See Thompson, supra note 344, at 367.

[FN347]. See id.

[FN348]. Id. at 368 (quoting Sax, Rights That Inhere, supra note 343, at 276).
[FN349]. See id.

[FN350]. See Araiza, supra note 287, at 394.

[FN351]. See id. at 434; Rose, Comedy of the Commons, supra note 277, at 777-81.

[FN352]. Rose, Joseph Sax, supra note 283, at 360.

[FN353]. Sax, supra note 1, at 1.

[FN354]. See Jane C. Ginsburg, Putting Cars on the Information Superhighway: Authors, Exploiters, and Copyright in Cyberspace, 95 Colum. L. Rev. 1466 (1995) (“Through computers linked to a digital network, users can access and add to vast quantities of material.”); Anawalt, supra note 55, at 395 (“The Internet's power resides in its speed of transmission coupled with the organizing capacity of computers.”).

[FN355]. See Gordon & Postbrief, supra note 180, at 139.

[FN356]. See Boyle, supra note 77, at 101 (“The Net is the anarchic, decentralized network of computers that provides the main locus of digital interchange.”).

[FN357]. See White Paper, supra note 73, at 8-9 (stating that users of new information services will better their lives through heightened access to entertainment, arts and humanities, education, and political information).


[FN361]. Litman, Right to Read, supra note 60, at 36.

[FN363]. See, e.g., Boyle, supra note 77, at 100.

[FN364]. Aoki, Cultural Geography, supra note 54, at 1309.


[FN366]. See Litman, Compromise, supra note 365, at 857.

[FN367]. Id. at 859.

[FN368]. See id. at 860-61.

[FN369]. Id. at 861.

[FN370]. See id. at 870.

[FN371]. See id.

[FN372]. See id.

[FN373]. Id. at 883.

[FN374]. Id. at 886.

[FN375]. See Litman, Revising Copyright, supra note 97, at 23.

[FN377]. See Litman, Revising Copyright, supra note 97, at 25.

[FN378]. See id.

[FN379]. Aoki, Cultural Geography, supra note 54, at 1310.

[FN380]. Id.

[FN381]. Boyle, supra note 77, at 115.

[FN382]. See id. at 112.

[FN383]. See id. at 110-11.

[FN384]. See id. at 111.

[FN385]. See id. at 111-12.

[FN386]. See Chon, supra note 282, at 129.

[FN387]. See Litman, Right to Read, supra note 60, at 32. Litman has somewhat cynically remarked that "the Draft Report issued by the Working Group headquartered in the Patent and Trademark Office indicates that the Patent Office has already managed to assume much of the job of serving the interests of industry." Id. at 54. Litman has also asserted that the Copyright Office has "history of being 'captured' by industry for most of the usual reasons (limited budgets, revolving doors, and the growing perception that copyright owners were in fact the Office's real constituency)." Id.


[FN389]. See Litman, Right to Read, supra note 60, at 31.

[FN390]. See id. at 38.
[FN391]. Boyle, supra note 77, at 115.

[FN392]. Litman, Information Policy, supra note 69, at 206.

[FN393]. Sax, supra note 1, at 3.


[FN395]. See The Law of Cyberspace, supra note 56, at 1586.

[FN396]. Carpignano et al., supra note 245, at 99-100.

[FN397]. Netanel, Global Arena, supra note 57, at 272.

[FN398]. The Law of Cyberspace, supra note 56, at 1584.


[FN400]. Chon, supra note 282, at 98.


[FN402]. Netanel, Copyright Alienability, supra note 3, at 427.

[FN403]. Id. at 426-27.

[FN404]. As Pierre Schlag puts it: "Postmodernism questions the integrity, the coherence, and the actual identity of the humanist individual self.... For postmodernism, this humanist individual subject is a construction of texts, discourses, and institutions." Pierre Schlag, Normative and Nowhere to Go, 43 Stan. L. Rev. 167, 173 (1990).


[FN406]. See Post, supra note 401, at 476.

[FN408]. See Johnson & Post, supra note 25, at 1367.

[FN409]. Netanel, Copyright Alienability, supra note 3, at 427 (quoting Merryman, supra note 399, at 349).

[FN410]. Katsh, supra note 255, at 412.


[FN412]. Barber, supra note 248, at 505-06.

[FN413]. Id. at 505.

[FN414]. "[T]hrough recent technological developments, the United States information and communication industries are on the cusp of a corporate concentration of previously unimaginable proportions." Chon, supra note 282, at 130.

[FN415]. Carpignano et al., supra note 245, at 93.

[FN416]. Barber, supra note 248, at 513.

[FN417]. Id. at 508.

[FN418]. Carpignano et al., supra note 245, at 97-98.

[FN419]. Netanel, Copyright Alienability, supra note 3, at 435.

[FN420]. Id. at 434.

[FN421]. Id. at 435.

[FN422]. Id. at 428.

[FN423]. Barber, supra note 248, at 513.

[FN424]. Nancy Fraser, Rethinking the Public Sphere: A Contribution to the Critique of Actually Existing Democracy, in The Phantom Public Sphere, supra note 245, at 2.
[FN425]. See Robbins, supra note 252, at xiii.

[FN426]. Netanel, Copyright Alienability, supra note 3, at 441.

[FN427]. Barber, supra note 248, at 508.

[FN428]. The Law of Cyberspace, supra note 56, at 1594.

[FN429]. Barber, supra note 248, at 510.

[FN430]. Boyle, supra note 77, at 87.

[FN431]. Id. at 89.

[FN432]. Id. at 88-89.

[FN433]. Id. at 90.

[FN434]. Chon, supra note 282, at 104.

[FN435]. Id. at 107.


[FN437]. Litman, Compromise, supra note 365, at 879.

[FN438]. "That is supposed to be Congress's job, of course. Congress is the public's copyright lawyer." Litman, Right to Read, supra note 60, at 53.

[FN439]. Id. at 53-54.

[FN440]. "What the public needs is a copyright lawyer of its own to represent it in the revision or replacement of the copyright law we now have, and the proposals for amending it that the National Information Infrastructure is inspiring." Id. at 53.

[FN441]. Id. at 54.

[FN443]. But see Kreiss, supra note 14, at 37-41.

[FN444]. See id. at 37.


[FN446]. Id. at 346.

[FN447]. See Patry, supra note 194, at 365.


[FN449]. “[The English] Parliament explicitly adopted the public interest as a touchstone for the Statute, entitling it 'An Act for the Encouragement of Learning'.” Yen, supra note 213, at 526. The Statute contained provisions for controlling the price paid for books. Harry Ransom, The First Copyright Statute 112 (1956). United States courts quickly recognized that the federal copyright statute was the only source of copyright protection for a published work. "Since the federal statute arose under constitutional authority to promote the useful arts, it seemed natural for courts to adopt this purpose as copyright's guiding principle." Yen, supra note 213, at 530. In fact, according to the legislative history of the 1909 Act, "[t]he enactment of copyright legislation by Congress under the terms of the Constitution is not based upon any natural right that the author has in his writings,... but upon the ground that the welfare of the public will be served and progress of science and useful arts will be promoted by securing to authors for limited periods the exclusive rights to their writings.” H.R. Rep. No. 2222, at 7 (1909).

[FN450]. See Litman, Compromise, supra note 365, at 880-82.

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