William & Mary Law Review

Volume *46 (2004-2005)*
Issue 3

Article 3

December 2004

Amateur-to-Amateur

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AMATEUR-TO-AMATEUR

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ABSTRACT

Copyright, it is commonly said, matters in society because it encourages the production of socially beneficial, culturally significant expressive content. Our focus on copyright's recent history, however, blinds us to the social information practices that have always existed. In this Article, we examine these social information practices, and query copyright's role within them. We posit a functional model of what is necessary for creative content to move from creator to user. These are the functions dealing with the creation, selection, production, dissemination, promotion, sale, and use of expressive content. We demonstrate how centralized commercial control of information content has been the driving force behind copyright's expansion. All of the functions that copyright industries once controlled, however, are undergoing revolutionary decentralization and disintermediation. Different aspects of information technology, notably the digitization of information, widespread computer ownership, the rise of the Internet, and the development of social software, threaten the viability and desirability of centralized control over every one of the content functions. These functions are increasingly being performed by individuals and disaggregated groups. This raises an issue for copyright as the main regulatory force in information practices: copyright assumes a central control requirement that no longer applies for the development of expressive content. We examine the normative implications of this shift for our information policy in this new post-copyright era. Most notably, we conclude that copyright law needs to be adjusted in order to recognize the opportunity and desirability of decentralized content, and the expanded marketplace of ideas it promises.

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INTRODUCTION

Copyright law today is like Rome at the height of its Empire.[1] Rome was once the center of the world, and the Roman Empire stretched from Syria to Britain, practically to the limits of the imagination. Over the course of centuries, Rome had expanded its borders until it influenced a vast multitude of diverse societies. Roman control lasted for centuries, but eventually Rome fell when the barbaric Visigoths stormed Rome's gates in 410 A.D. Many surely saw the sack of Rome as the end of culture and civilization, yet one could also frame it not as a fall, but as a transformation. Rome's empire became a less unified set of social groups, states, and governments.

Like the Roman Empire, copyright's legal empire has expanded aggressively in the last few centuries and it now dominates a vast terrain of social information practices. From relatively humble origins in regulating book-printing monopolies, copyright has grown to encompass a range of activities involving the production, reproduction, distribution, and use of information.[2] Yet copyright remains by and large imperial. Copyright specialists and stakeholders, not the public, have been responsible for the historic shape and enforcement of copyright laws, and these laws have grown to be largely inscrutable to the greater public. The citizenry, in the view of copyright's shareholders, are merely passive beneficiaries of copyright's regime, and are described as "readers," "viewers," and/or "consumers" of content, the product that copyright specialists create. The fact that the greater populace has had little reliable knowledge of copyright law has not been overly significant—the public has not been understood as part of content-production processes.[3]

Like the Roman Empire before it, copyright finds itself today under threat from its borders. The former subjects of copyright are increasingly aware that they are being taxed by copyright, but they have only a vague notion of how allegiance to copyright benefits

1. Roman law, we feel obliged to note, did not recognize anything like copyright. Paul Edward Geller, *Copyright History and the Future: What's Culture Got to Do with It?*, 47 J. COPYRIGHT SOC'Y 209, 213-14 (2000).

2. *See id.* at 215-35.

3. *See* Joseph P. Liu, *Copyright Law's Theory of the Consumer*, 44 B.C. L. REV. 397, 402 (2003) (identifying this as the "couch potato" understanding of the copyright consumer).

them. This change in the status quo is largely attributable to the fact that copyright's formerly passive consumer is increasingly an active participant in content-production processes. The average citizen now feels copyright law intruding on her personal information practices. Part of this friction is due to technological changes, but part of it is also attributable to copyright's extraordinary scope. The two, as we discuss below, are indeed closely related. Whatever the root of the current friction, it is true that the populace today, more than at any time previously, is a player in the copyright process. The public is creating, selecting, distributing, and recasting information, and is increasingly being policed and monitored pursuant to copyright laws.[4] Our goal in this Article is to describe how copyright's former consumers are now the creators, producers, and disseminators of content, and to puzzle out what this might mean for our system of copyright.

As an initial matter, we should explain our terms. Many copyright scholars, including the authors, have spoken of copyright "consumers" engaged in the consumption of information "content."[5] It may be more appropriate to say that information consumes us, not vice versa. Advertisements, publications, television programs, music, books, movies, websites, and radio broadcasts surround us and compete for our time and attention. Our time, not the information that assails us, is the primary expendable good in this process. The consumer is thus the consumed.

The term "consumer" is correct insofar as it points to the fact that payments are regularly made for books, movies, and music as physical products. It also tends, to some degree, however, to conflate these products with information in misleading ways.[6] Copyright is

4. *Compare* JESSICA LITMAN, DIGITAL COPYRIGHT 18-19 (2001) ("[T]raditionally, copyright owners have had control over the sorts of uses typically made by commercial and institutional actors and little control over the consumptive uses made by individuals.... Most copyright infringement suits proceeded against businesses and institutions.") *with* Liu, *supra* note 3, at 406-21 (describing the new "active consumer" model and noting that consumer relationships to copyrighted works are more complex than they had been in the past).

5. *See, e.g.*, Raymond Shih Ray Ku, *Consumers and Creative Destruction: Fair Use Beyond Market Failure*, 18 BERKELEY TECH. L.J. 539, 566 (2003); F. Gregory Lastowka, *Free Access and the Future of Copyright*, 27 RUTGERS COMPUTER & TECH. L.J. 293, 295 (2001); Liu, *supra* note 3, at 424; Tim Wu, *Copyright's Communications Policy*, 103 MICH. L. REV. (forthcoming 2005) (manuscript at 62, on file with authors).

6. *See* Liu, *supra* note 3, at 400-01. Professor Liu clearly recognizes this inherent

essentially a law regulating information practices, not a law about manufacturing tangible products. Specialists manufacture most consumer products. Expressive representation and communication, on the other hand, is something fundamental to human nature. Cars consume gasoline and people consume food, but the information that is the subject of copyright can never be consumed.[7] After a book is read, the information remains. As all concede, intellectual property is, in economic terms, a public good. We will avoid talking about the consumption of information content, therefore, because this creates a serious potential for confusion and demeans the role that the public plays in creating the universe of expressive content.[8]

Instead of a model of content that proposes manufacturers and consumers, we want to look at the creation of content as a feature of human expressive activity. The amount of copyright-protected information available to the average individual today is staggering, and, surprisingly, copyright law has little to do with this development. For instance, the majority of Americans today have a computer that gives them regular access to the information phenomenon known as the World Wide Web. The Web is largely an amateur information-sharing project. A recent Pew Internet study on the creation of online content by individuals found that more than fifty-three million American adults have uploaded works to the Internet, including writings, art, video, and audio creations.[9] We

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difficulty with the term "consumer," though he chooses to rehabilitate the term's connotations rather than abandon the term in favor of a new one.

7. *See* Jane C. Ginsburg, *From Having Copies to Experiencing Works: The Development of an Access Right in U.S. Copyright Law*, 50 J. COPYRIGHT SOC'Y 113, 115 (2003) (describing the diminishing importance of physical "copies" to copyright law); Richard A. Posner, *Misappropriation: A Dirge*, 40 HOUS. L. REV. 621, 622-24 (2003).

8. This demeaning view of the public is, perhaps, best summarized by a "new media" character in William Gibson's *Idoru* who sees content-consumers as:

> [A] vicious, lazy, profoundly ignorant, perpetually hungry organism craving the warm god-flesh of the anointed. Personally I like to imagine something the size of a baby hippo, the color of a week-old boiled potato, that lives by itself, in the dark, in a double-wide on the outskirts of Topeka. It's covered with eyes and sweats constantly. The sweat runs into those eyes and makes them sting. It has no mouth, ... no genitals, and can only express its mute extremes of murderous rage and infantile desire by changing the channels on a universal remote.

WILLIAM GIBSON, IDORU 28-29 (1996).

9. Amanda Lenhart et al., Pew Internet & American Life Project, *Content Creation Online* 2 (Feb. 29, 2004), *available at*: http://www.pewinternet.org/pdfs/PIP_Content_Creation_Report.pdf.

therefore use "amateur-to-amateur" in the title of this Article to describe the social phenomenon of popular information creation and free distribution.[10] The participants are amateurs, by our definition, because they lack financial and proprietary motives.[11] The audiences are also amateurs because they are generally not financially motivated or interested in paying for the information that other amateurs create. They often build upon, copy, select, and retransmit the original information without performing the contractual negotiations that copyright law expects.

A leading example of such amateur participation in copyright processes is the social phenomenon of weblogs, or "blogs": regularly updated and freely accessible Internet-based writings. The Pew survey indicated that between two and seven percent of U.S. Internet users had created weblogs by 2004.[12] Weblogs are clearly protected by copyright[13] and often link to other weblogs or documents available on the Internet. Millions of people write and read weblogs every day, and during the past few years, weblogs have become a regular source of popular news, information, and commentary.[14] Weblogs are thus displacing, at least to some degree, the information and communication space previously occupied by traditional media such as television, radio, and newspapers.[15] Yet those who write weblogs are clearly not acting in accord with a theory of copyright as a required incentive for content production.

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10. In suggesting the term "amateur-to-amateur" we also allude to the role that "peer-to-peer" technologies play in connecting the amateurs within the content sphere.

11. The Latin root of "amateur" is love, which perhaps captures best the motivation for amateur efforts. For other formulations describing the same general category of information producer/distributors, see Yochai Benkler, *Freedom in the Commons: Towards a Political Economy of Information*, 52 DUKE L.J. 1245, 1246 (2003) [hereinafter Benkler, *Freedom in the Commons*] ("nonmarket"); James Boyle, *The Second Enclosure Movement and the Construction of the Public Domain*, 66 LAW & CONTEMP. PROBS. 33, 45 (2003) ("volunteers"); Lastowka, *supra* note 5, at 302 ("altruists"); Eben Moglen, *Anarchism Triumphant: Free Software and the Death of Copyright*, FIRST MONDAY (describing "Anarchism as a Mode of Production"), *at* http://moglen.law.columbia.edu/ publications/anarchism.html (last visited Sept. 6, 2004).

12. Lenhart et al., *supra* note 9, at 5.

13. *See* Attiya Malik, *Are You Content with the Content? Intellectual Property Implications of Weblog Publishing*, 21 J. MARSHALL J. COMPUTER & INFO. L. 439, 477 (2003).

14. *See* Lenhart et al., *supra* note 9, at 4-5.

15. Indeed, as we discuss below, newspapers are increasingly being built using social practices that operate in tension with copyright's system. *See, e.g.*, Daniel Terdiman, *Open Arms for Open-Source News*, WIRED NEWS (July 22, 2004) (examining the growing open source movement in newspapers), *at* http://www.wired.com/news/ culture/0,1284,64285,00.html.

In this Article, we examine how the amateur-to-amateur trend in information practices calls into question copyright's claim to a central role in structuring our information environment. Part I explains the close relationship between copyright and technology. We explain how copyrighted content is essentially a subspecies of communicable information. Historically, the use of certain recording technologies, such as books, films, and sound recordings, has divided the general realms of information and communication from the realm of information protected by copyright. As we observe, however, this line is becoming blurred. Second, we explain how the centrality of fixation to copyright law has inevitably led, through technological advances, to an ever-increasing scope of copyright protections for new varieties of recorded information. Third, we describe how distributed network technologies are inherently problematic from the standpoint of theorizing and enforcing copyright law. As John Perry Barlow observed roughly a decade ago, peer-to-peer technologies, like the Internet, are a substantially different type of information technology.[16]

Part II analyzes the current impact of emerging digital and network technologies on copyright law's claim to prominence in social information practices. Historically, copyright has facilitated information distribution by way of centralized and integrated models of creation and distribution. We posit that seven processes have traditionally been chained together in this model: creation, selection, production, dissemination, promotion, purchase, and use. Until recently, all seven functions were conjoined out of necessity, and were under the control of centralized intermediaries. Only profitable works could be produced and distributed, and these works were primarily controlled by integrated business operations that took an intense interest in protecting their business models through copyright laws. Part II contrasts this past model of centralization and profit-focus with the present moment, in which the information practices affected by copyright are increasingly non-professional, socially distributed, and disintermediated.[17]

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16. John Perry Barlow, *The Economy of Ideas*, WIRED, Mar. 1994, at 84, *available at* http://www.wired.com/wired/archive/2.03/economy.ideas_pr.html.

17. Benkler, *Freedom in the Commons*, *supra* note 11, at 1250.

Part III draws some conclusions from our theoretical and descriptive accounts of amateur-to-amateur practices. It is clear that two parallel spheres of information production exist today. One is a traditional, copyright-based and profit-driven model that is struggling with technological change. The second is a newly enabled, decentralized amateur production sphere, in which individual authors or small groups freely release their work to other amateurs for experience, redistribution, and/or transformation. If, as we argue, the amateur sphere of content production is today providing the public benefits that were previously provided exclusively by the mechanisms of copyright law, we should change copyright law to better facilitate the particular benefits that amateur content production provides. At the very least, we should do our best to prevent attempts by the copyright incumbents to destroy the emergence of amateur-to-amateur content development as a viable alternative.

I. COPYRIGHT AND INFORMATION POLICY

In order to understand the effects of the amateur-to-amateur technological change on copyright, it is important to understand and review the current scope of copyright. Copyright is essentially a law that creates a property interest in communicative expression. Under the federal law of the United States, copyright interests obtain only when communications are fixed in a tangible medium.[18] In the last two centuries, fixation technologies have proliferated, resulting in an ever-increasing quantity of communications governed by copyright.[19]

Below, we explain how new information-capture technologies have led to increased copyright protections. The most significant historical change, for the purposes of copyright, has been the rise of distributed information networks. The Internet has enabled a vast environment of universally accessible captured and crafted information that is created and freely distributed largely by amateurs. By

18. 17 U.S.C. § 102(a) (2000) ("Copyright protection subsists ... in original works ... fixed in any tangible medium of expression ....").

19. *See* Jordan M. Blanke, *Vincent van Gogh, "Sweat of the Brow," and Database Protection*, 39 AM. BUS. L.J. 645, 650-51 (2002).

making the technologies of fixation and copying transparent and meaningless to the user, the Internet represents the culmination of the technological expansion of copyright. Technologically fixed copies have been removed from their privileged status and have become part of the processes of conversation.

A. Copyright's Theory of Information

"Information," broadly speaking, is data that can be subject to perception, recording, or transmission.[20] Almost all of perceptible reality can be communicable information, although communicable information need not always constitute the representation of any other pattern.[21] Copyright law regulates the transmission of a subset of information.[22] It is not the only area of law that governs information practices. For instance, securities laws, privacy laws, defamation laws, rights of publicity, and the laws of blackmail and unfair competition all regulate information practices.[23] Copyright's regulation of information practices, however, is more fundamental and considerably more expansive.

Copyright concerns itself with original works of authorship. This generally excludes information that lacks human origination.[24] For example, when William Wordsworth revisited the banks of the Wye a few miles above Tintern Abbey and experienced the sounds of waters rolling from their mountain springs, the sight of steep and lofty cliffs, and the plots of cottage ground and orchard tufts clad in

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20. *See* Robert A. Heverly, *The Information Semicommons*, 18 BERKELEY TECH. L.J. 1127, 1147-51, 1159 (2003) (discussing an appropriate definition of information in the context of property law).

21. *Id.* at 1149 ("[Information] need not be tangible, but might be a sound, a gesture, or even a momentarily existing arrangement of clouds; each of these has the potential to convey meaning.").

22. *See* Alan L. Durham, *Copyright and Information Theory: Toward an Alternative Model of "Authorship,"* 2004 BYU L. REV. 69, 93 & n.116; *cf.* Paul Edward Geller, *Toward an Overriding Norm in Copyright: Sign Wealth*, 159 REVUE INTERNATIONALE DU DROIT D'AUTEUR 3, 51-57 (1994) (discussing copyright works as "global signs").

23. *See generally* James Boyle, *A Theory of Law and Information: Copyright, Spleens, Blackmail, and Insider Trading*, 80 CAL. L. REV. 1413 (1992) (exploring law's regulation of information practices in four realms: copyright, genetic information, blackmail, and insider trading); *see also* Heverly, *supra* note 20, at 1156-57 & n.126.

24. *See* Alan L. Durham, *The Random Muse: Authorship and Indeterminacy*, 44 WM. & MARY L. REV. 569, 571 (2002).

one green hue, none of that raw sensory information input was then, or is now, within the purview of copyright law.[25] Non-communicative information patterns of human origin are also excluded from copyright protection.[26] For instance, the arrangement of cars in traffic, the shapes of piles of asphalt, the lines painted on highways, and the arrangements of discarded boxes in a trash can are all human-created and perceptible patterns that can be captured and conveyed as visual information; but generally, this information is not subject to copyright protection.[27]

Copyright law views naturally originating information patterns as "facts." Human-originating information patterns may also be regarded as "facts" to the extent they are not intended to be communicative.[28] For example, the information pattern created by discarded boxes in a trash can is generally regarded as a visual "fact" not subject to copyright protection.[29] On the other hand, if a well-known *avant garde* visual artist arranged the very same discarded boxes in an art gallery in the very same way, the arrangement of boxes would be protected by copyright.[30] As another interesting comparison, the splatter patterns on a house painter's drop cloth are facts generally not protected by copyright; yet

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25. WILLIAM WORDSWORTH & SAMUEL T. COLERIDGE, LYRICAL BALLADS 113-18 (R.L. Brett & A.R. Jones eds., Methuen & Co. 1968) (1798).

26. *See* Durham, *supra* note 24, at 635.

27. *See id.*; David Nimmer, *Copyright in the Dead Sea Scrolls: Authorship and Originality*, 38 HOUS. L. REV. 1, 20-21 (2001).

28. *See* Durham, *supra* note 24, at 635; Nimmer, *supra* note 27, at 20-21.

29. Copyright scholars have debated whether the "intent to be an author" is a primary component in copyright's conception of authorship; though it seems somewhat tautological, it does provide a rough answer for many of the major puzzles of copyright authorship. *Compare* Geller, *supra* note 22, at 59-61 (discussing the distinction between mere scriveners and authorial writers), Jane C. Ginsburg, *The Concept of Authorship in Comparative Copyright Law*, 52 DEPAUL L. REV. 1063, 1085-88 (2003) (suggesting "intent to be an author" is one of five principles of authorship), *and* Nimmer, *supra* note 27, at 204-07 (arguing that authorial intent is necessary for copyright protection) *with* Durham, *supra* note 24 at 642 & n.385 (discussing whether one might, as an act of authorship, "adopt" a pile of garbage).

30. Nimmer, *supra* note 27, at 205-07.

> Christu, the magnificent performance artist, decides to go the field of "readymades" one better: he buys a Barbie doll, smashes it with a hammer, perches it amidst banana peels and other household garbage, and displays the product at the newly refurbished Tate Gallery. Has a derivative work been created? It would seem so.

Id. at 206 (footnotes omitted).

Jackson Pollock's action paintings, which bear some resemblance to splattered drop cloths, are protected by copyright.[31] Although the pairs of paint splatters and boxes may be practically indistinguishable, copyright views the difference between them as the difference between fact and expression. No court has offered a convincing epistemological explanation of this distinction, and there probably is not one to be found.[32] Nevertheless, the Supreme Court has declared the fact/expression dichotomy to be "[t]he most fundamental axiom of copyright law."[33] Moreover, because the Supreme Court has spoken, this essentially untenable theoretical distinction is indeed the most fundamental axiom of copyright law today.

Within the field of human communicative "expression" as opposed to "fact," copyright is generally cabined to gestalt work objects segregated from the endless stream of human communicative activity by, for example, the four corners of a picture frame, the contents of a single document file, or the first and last pages of a novel.[34] Artistry, although often associated with public perceptions of copyright, is not a requirement of copyright.[35] Arguably, some amount of expressive "originality" is required for copyright

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31. *See* Durham, *supra* note 24, at 573, 596-607, 624-27. If the painter decided to "adopt" the drop cloth as a work of expression, it is likely that a copyright registration would be granted, though it is not clear how a court would rule regarding the validity of the copyright. *See, e.g.*, Toro Co. v. R & R Products Co., 787 F.2d 1208 (8th Cir. 1986) (finding that the random assignation of serial numbers to machine parts was insufficient to qualify as an instance of authorship); *see also* Durham, *supra* note 24, at 589-92 (discussing *Toro*).

32. Copyright scholars are generally skeptical of the theoretical integrity of the fact/expression dichotomy. *See, e.g.*, Boyle, *supra* note 11, at 39 (stating that "the commons of facts ... is being enclosed"); Jane Ginsburg, *Sabotaging and Reconstructing History: A Comment on the Scope of Copyright Protection in Works of History after* Hoehling v. Universal City Studios, 29 J. COPYRIGHT SOC'Y 647, 657-66 (1982); Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 996 (1990) (commenting on Ginsburg's criticism of the "Platonic fact precept"). Unless the Supreme Court arrives at some new solution to reconciling copyright with the freedom to speak about "facts," however, the fact/expression dichotomy will remain legally real and one must speak of "facts" as a category conceptually independent of expression.

33. Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 344-45 (1990).

34. Durham, *supra* note 24, at 635. Additionally, in the United States at least, copyright does not encompass the expressive designs of, for instance, clothing, automobiles, masks, and bicycle racks, because the functional nature of these objects dictates the information patterns they convey. *See id.* at 641.

35. *See* Bleistein v. Donaldson Lithographing Co., 188 U.S. 239 (1903); *see generally* Alfred C. Yen, *Copyright Opinions and Aesthetic Theory*, 71 S. CAL. L. REV. 247 (1998) (articulating how current copyright jurisprudence ignores aesthetics).

protection to subsist. Yet the concept of originality in copyright law is about as clear as the fact/expression dichotomy. In *Feist Publications, Inc. v. Rural Telephone Service Co.*,[36] the Supreme Court ruled that a set of alphabetical phonebook listings was not protected by copyright law because it lacked originality. Justice O'Connor stated that originality consists of the demonstration of a "creative spark," that could nevertheless be "crude, humble or obvious."[37] She found that the alphabetical arrangement of names in a phonebook was "entirely typical," "garden-variety," and "devoid of even the slightest trace of creativity," and therefore lacking in originality.[38]

Appellate decisions since *Feist*, however, have found the requisite "humble" and "obvious" sparks occurring in largely quotidian acts of selection and mark making.[39] In the most extreme formulation, the United States Court of Appeals for the Second Circuit famously suggested, in *Alfred Bell & Co. v. Catalda Fine Arts, Inc.*, that originality may be the result of "bad eyesight or defective musculature."[40] The *Alfred Bell* opinion is still cited by courts as authoritative with regard to copyright's originality requirement.[41]

An obvious example of copyright's solicitude for quotidian information capture is the copyright protection of photography. Since *Burrow-Giles Lithographic Co. v. Sarony*,[42] decided in 1884, courts have regularly found photographic images to meet the requirements for copyright protection despite the fact that photo-

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36. 499 U.S. 340 (1991).

37. *Id.* at 345 (quoting 1 M. NIMMER & D. NIMMER, COPYRIGHT § 1.08[C][1] (1990)).

38. *Id.* at 362-63.

39. *See, e.g.*, Ets-Hokin v. Skyy Spirits, Inc., 225 F.3d 1068 (9th Cir. 2000) (finding the requisite originality in an advertisement photograph of a blue vodka bottle); American Dental Ass'n v. Delta Dental Plans Ass'n, 126 F.3d 977 (7th Cir. 1997) (finding originality in a taxonomy of dental procedures). An outer limit does exist. *See* Bridgeman Art Library v. Corel Corp., 36 F. Supp. 2d 191 (S.D.N.Y. 1999) (holding that photographs that "slavishly" copy public domain paintings are not subject to copyright); Mitch Tuchman, *Inauthentic Works of Art: Why* Bridgeman *May Ultimately Be Irrelevant to Art Museums*, 24 COLUM.-VLA J.L. & ARTS 287, 304-05 (2001) (explaining how the *Feist* opinion generally left the legal definition of originality unclear).

40. 191 F.2d 99, 105 (2d Cir. 1951); *see also* Litman, *supra* note 32, at 1009-10 (comparing the Romantic conception of the author with the conception of the author set forth in the *Alfred Bell* opinion).

41. *See* Mattel, Inc. v. Goldberger Doll Mfg., 365 F.3d 133, 135 (2d Cir. 2004).

42. 111 U.S. 53 (1884).

graphs capture indisputably "factual" patterns of light.[43] Although the Supreme Court in *Burrow-Giles* discussed the work of the photographer in creating the scene that was photographed—posing and arranging the subject[44]—the rationale for the protection of photography today is simply that photographs demonstrate selection and personal influence through temporal and spatial framing. The photographer stands here, not there; the camera is pointed this way, not that way; the photograph is taken at one time, not another; and the photographer chooses a certain stock of film.[45]

Of course, any given photograph *must* demonstrate this kind of selection and influence, even if the intent of the photographer is simply to capture factual information, not to express an artistic vision. Selection is inherent in the technology; one cannot take a picture of everything. The result is that if a putative author today buys a random digital camera, closes her eyes, and snaps a random set of digital photographs on the banks of the River Wye, she can be reasonably assured that she owns the copyright in the photographic works she has created,[46] though perhaps she would be wise not to disclose her artistic technique.[47]

There are limits to the scope of copyright protections for photographic works. For instance, the River Wye as a "fact," will remain an available subject to be sampled or coded by a future author, just as a poem about the River Wye does not completely preclude future poems about the River Wye. A second photographer, however, might wish to be more cautious because the scope of copyright protection goes a little bit further than *exact* reproduction. The first photographer of the Wye can bring suit against the subsequent photogra-

43. EDWARD SAMUELS, THE ILLUSTRATED STORY OF COPYRIGHT 136-39 (2000).

44. *Burrow-Giles*, 111 U.S. at 60; Tuchman, *supra* note 39, at 295-99 (recounting the history of *Burrow-Giles*).

45. Time Inc. v. Bernard Geis Assocs., 293 F. Supp. 130, 141-43 (S.D.N.Y. 1968); Jewelers' Circular Publ'g Co. v. Keystone Publ'g Co., 274 F. 932, 934 (S.D.N.Y. 1921), ("[N]o photograph, however simple, can be unaffected by the personal influence of the author, and no two will be absolutely alike."), *aff'd*, 281 F. 83 (2d Cir. 1922); Tuchman, *supra* note 39, at 290-311 (discussing the evolution of legal treatment of photographic creativity).

46. *Cf.* Ginsburg, *supra* note 29, at 1074 (stating that copyright vaunts "mind over machine").

47. *See* Tuchman, *supra* note 39, at 299. Tuchman's fascinating article notes how the analysis in photographic copyright cases shifted during the twentieth century from an interest in the photographer's labors of artistic production to an analysis of the photographic image as an independent object of study. *See id.* at 301.

pher, alleging that the second attempted to replicate the first's protected expression.[48] If this were the case, the subsequent photographer may be found to have infringed upon the copyright of the first photographer. If one thinks the River Wye should be a subject completely free to all future photographers, this obviously presents some practical problems in the application of copyright to supposedly factual information patterns because there are only a limited number of ways the River Wye can be photographed.[49]

Our point in this section is simply to highlight the broad net that copyright casts over information recording and communication practices. Today, copyright can be extended to a vast field of information, including almost any recorded and aggregated pattern of marks, symbols, signals, or other representational activity.[50] Indeed, most of us infringe copyright laws as a matter of course in our information-saturated society. Our children infringe copyrights long before they are sued by the RIAA for downloading Eminem songs: they sing "Happy Birthday" at public gatherings;[51] they finger-paint pictures of Mickey Mouse;[52] they read Winnie-the-Pooh books aloud;[53] and they dress up their Barbie dolls and take pictures.[54] All of these activities entail replicating or transforming

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48. *See* SAMUELS, *supra* note 43, at 160-62.

49. *See id.* at 159-62. "[C]opyright in a photograph can be infringed not only when it is mechanically and precisely reproduced; it can also be infringed when other people reproduce substantially similar works using their own cameras." *Id.* at 162.

This was essentially the situation that led to protracted litigation in *Ets-Hokin v. Skyy Spirits, Inc.*, 323 F.3d 763 (9th Cir. 2003), where both plaintiff and defendant had photographed the same bottle. The Ninth Circuit stated, "[t]his long-running litigation is fundamentally about how many ways one can create an advertising photograph ... of a blue vodka bottle. We conclude there are not very many." *Id.* at 764. The Ninth Circuit therefore required that the plaintiff's copyright would be limited to the prohibition of only "virtually identical" photographs of the bottle. *Id.*

50. Nimmer, *supra* note 27, at 184 (noting "the innumerable notes, memoranda, doodlings, sketches, and other effluvia that flood the theoretical portholes for federal copyright protection").

51. *See* Marvin Ammori, Note, *The Uneasy Case for Copyright Extension*, 16 HARV. J.L. & TECH. 287, 293 & n.35 (2002).

52. *See id.* at 293.

53. This would infringe Disney's right to "perform" its literary works. *See* 17 U.S.C. § 106(4) (2000). The current statute was written broadly to expressly include such "not-for-profit" readings within its scope. *See* Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 448-49 & n.32 (1984) (quoting H.R. REP. NO. 94-1476, at 66 (1976)).

54. *See* Rebecca Tushnet, *Legal Fictions: Copyright, Fan Fiction, and a New Common Law*, 17 LOY. L.A. ENT. L. REV. 651 (1997) (arguing that such actions would constitute

certain information patterns in violation of copyright law. These infringing childhood activities will probably not trigger cease-and-desist letters, but as a formal legal matter, they are indeed copyright violations.[55]

As Jessica Litman noted in 1996, "more than ever before, our copyright policy is becoming our information policy."[56] Clearly seeing the breadth of copyright's putative control over social information practices is an essential step in understanding the increasing importance of amateur content. If one thinks of copyright exclusively in terms of the most popular music, the biggest paperback bestsellers, and summer blockbuster movies, one may be inclined to dismiss or deny the importance of efforts of individuals who are not copyright "professionals." If one understands that copyright protections apply to email, blogs, and digital photographs, however, it is easy to see that copyright amateurs far outnumber copyright professionals today.[57]

B. Copyright Creation and Technologies of Fixation

At a moment when changes in technology are being blamed for the weakening of copyright law, it is important to remember that changes in technology gave rise to copyright law in the first place. Information patterns and communicative activities have always been part of human culture, but copyright law has only been with us for the last few centuries. When the primary technologies of fixation were pen, ink, and parchment, copyright law did not exist.[58]

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copyright infringement under current law).

55. Equitable "fair use" defenses, partially codified at 17 U.S.C. § 107, would probably apply to all of these, but fair use is simply a defense in an infringement suit, applicable where a finding of infringement has already been reached. Young children are not categorically immune to copyright infringement charges, it should be noted. The American Society of Composers and Performers famously forced the Girl Scouts to settle a lawsuit for copyright infringement through the singing of campfire songs. *See* Glynn S. Lunney, Jr., *The Death of Copyright: Digital Technology, Private Copying, and the Digital Millennium Copyright Act*, 87 VA. L. REV. 813, 822 & n.28 (2001); Jonathan Zittrain, *The Copyright Cage*, LEGAL AFFAIRS, July/Aug. 2003, at 26, 29.

56. Jessica Litman, *Copyright Noncompliance (or Why We Can't "Just Say Yes" to Licensing)*, 29 N.Y.U. J. INT'L L. & POL. 237, 251 (1996).

57. Nimmer, *supra* note 27, at 185 (describing the animating myth of copyright as "the Reality of the Pedestrian Scribbler").

58. *See* SAMUELS, *supra* note 43, at 11-13; Geller, *supra* note 1, at 210-19 (offering an

The thing that spurred copyright into existence was a new technology: the printing press. The history of copyright is inextricably intertwined with the history of technology.[59]

Copyright began with the regulation of book printing. The invention of the printing press created tremendous social revolutions in the sixteenth century and paved the way for the Enlightenment.[60] The ruling caste's reaction to this change in information technology, however, was not delight or the immediate birth of copyright law; it was the institution of state censorship laws. In England, fear of the political effects of the unregulated press gave rise to the Stationers' Company, a state-sponsored publishing cartel.[61] Of course, even in the sixteenth century, it was difficult to maintain the status quo in light of new technologies, and the Crown's initial attempts to control peer-to-peer book printing practices gave way to intense criticism of the Stationers' Company monopoly over information distribution. The result was a new statute that granted a *relaxation* of information regulation. The Statute of Anne, enacted in 1710, is often described as the statute that gave birth to modern copyright. In context, however, the statute was actually an endorsement of a more democratic use of technology, and a repeal and abolishment of state censorship and publisher monopolies.[62]

Though technologies of fixation have changed substantially since the days of the Stationers' Company, they remain central to copyright. New technologies of fixation have steadily resulted in

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historical account of the pre-copyright era). Samuels's book contains a wealth of delightful anecdotes about copyright and various technologies. A version is currently available for free downloading on the World Wide Web at http://www.edwardsamuels.com/illustratedstory/index.htm.

59. *See* SAMUELS, *supra* note 43, at 9-124 (discussing the historical relationship between copyright and technology). For an enlightening historical account of the interplay of technologies of recording and the legalities of musical performance and ownership, see Michael W. Carroll, *Whose Music Is It Anyway?: How We Came to View Musical Expression as a Form of Property*, 72 U. CIN. L. REV. (forthcoming 2004).

60. *See* Brian A. Carlson, Comment, *Balancing the Digital Scales of Copyright Law*, 50 SMU L. REV. 825, 828 (1997).

61. *See id.*

62. *See* LAWRENCE LESSIG, FREE CULTURE: HOW BIG MEDIA USES TECHNOLOGY AND THE LAW TO LOCK DOWN CULTURE AND CONTROL CREATIVITY 85-94 (2004) (discussing the effects of the Statute of Anne), *available at* www.free.culture.cc/freeculture.pdf; *see also* Carlson, *supra* note 60, at 828; Lunney, *supra* note 55, at 817-18.

new varieties of copyright: photography, music recordings, and computer programs.[63] Today, there really is no limit to the genres of technological fixation protected by copyright.[64]

Most importantly for our purposes, technology is inextricably intertwined with the initial creation of any copyright interest. In order for a work to exist at all for the purpose of copyright law, it must be "fixed in any tangible medium of expression."[65] Fixation is thus essential to copyright. Fixation introduces technology into the equation of copyright at the very moment of creation by requiring a tangible physical substrate to carry information patterns and some method for fixing information patterns upon that substrate. For example, federal copyright law does not protect creative bedtime stories, because it does not protect the spoken, but unrecorded, word.[66] Federal copyright law does, on the other hand, protect quotidian communications, such as digital photographs as discussed above, doodles, and business memoranda, as students at Swarthmore recently discovered.[67] One might thus argue that

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63. *See* S. REP. NO. 94-473 (1975); H.R. REP. NO. 94-1476, at S1 (1976) [hereinafter 1976 Reports]:

> [S]cientific discoveries and technological developments have made possible new forms of creative expression that never existed before. In some of these cases the new expressive forms—electronic music, filmstrips, and computer programs, for example—could be regarded as an extension of copyrightable subject matter Congress had already intended to protect, and were thus considered copyrightable from the outset without the need of new legislation. In other cases, such as photographs, sound recordings, and motion pictures, statutory enactment was deemed necessary to give them full recognition as copyrightable works.

64. *See* 17 U.S.C. § 102(a) (2000).

65. *Id.* It is noteworthy that the United States is in the minority in this regard. Many countries are not as stringent with respect to fixation. *See* Paul Edward Geller, *International Copyright: An Introduction*, *in* 1 INTERNATIONAL COPYRIGHT LAW AND PRACTICE, at INT-30 to INT-31 (2003).

66. There is, however, a possibility of protection for such stories under common law copyright or misappropriation.

67. Student activists were attempting to disseminate certain "smoking gun" business memos obtained from Diebold regarding their electronic voting machines. Diebold accused the students of copyright infringement for reproducing entirely ordinary business communications and persuaded the college to shut down the students' website that hosted the documents. Although the Electronic Frontier Foundation (EFF) defended the students and asserted the publication was non-infringing fair use, it did not take issue with Diebold's assertion that the business memoranda were, as a general matter, appropriate works for copyright protection. The EFF has posted the case archives at http://www.eff.org/legal/ISP_liability/OPG_v_Diebold/ (last visited Sept. 6, 2004).

copyright is primarily about acts of *recording*, and only collaterally about artistic creativity.

Of course, the human body records information as well. Within the nervous system of every human being lies a very impressive set of sensory input mechanisms—a highly diverse set of high-bandwidth visual, auditory, tactile, gustatory, and kinesthetic sensors.[68] As Wordsworth noted in "lonely rooms," amid "the din [o]f towns and cities," when he recalled the Wye, the human mind's playback technology is equally impressive and complex.[69] Human memory may be somewhat "lossy"—it obviously lacks the verity and persistence of contemporary digital formats. Unlike a book or a compact disc, however, one usually has access to one's internal recording media, and the mind is powered by a sophisticated search engine. There is no need to go through boxes in the attic to retrieve an old memory. The average individual can "retrieve" a musical tune from years gone by, "replay" a facsimile silently in the mind, and experience some approximation of the experience of an audible broadcast. Yet, because the technologies of the human memory are so poorly understood and so inherently private, they are essentially ignored by copyright. The RIAA cannot, at this point, pursue those teenagers who engage in mental piracy with air guitars.[70]

Increasingly, however, our private mental recordings and interpersonal conversations are difficult to disentangle from the grasp of copyright law. In the past, most conversations took place in the medium of air, and many social copyright-infringing activities, especially those of children, were limited to private spaces invisible to prying eyes.[71] In the past twenty years, however, conversations have become increasingly *fixed* and *public*. Our random thoughts and comments are no longer safely removed from surveillance by physical space and an evanescent medium. Instead, what we say is increasingly fixed in public virtual spaces such as weblogs and listservs, where our random thoughts and reactions are transformed

68. *See generally* JOSEPH LEDOUX, SYNAPTIC SELF: HOW OUR BRAINS BECOME WHO WE ARE (2002).

69. WORDSWORTH & COLERIDGE, *supra* note 25, at 114.

70. *See* David Nimmer, *Brains and Other Paraphernalia of the Digital Age*, 10 HARV. J.L. & TECH. 1, 42-43 (1996).

71. *See generally* Tushnet, *supra* note 54, at 653 (noting that due to the increasing use of the Internet, "fan fiction is becoming easier to find and police").

into new works protected by copyright and subject to monitoring for purposes of ascertaining infringement.[72] Our personal histories and dossiers of conversation are increasingly archived and searchable.[73] A few keystrokes are all that it takes for anyone to unearth a typo-laden listserv debate that you participated in a decade ago.

Although copyright has not historically regulated our conversations and private lives, it is doing so today. In an era of ubiquitous email access and picture-phones, copyright law will increasingly regulate all forms of human communication. An ever-increasing number of works will be fixed and therefore protected by copyright, and an increasing number of fixations will create more opportunities for the infringement of existing copyrights.[74] Almost every recorded and transmitted image, sound, and set of keystroke data is a candidate for potential copyright protection or litigation in the hands of a creative lawyer.[75] As Paris Hilton recently demonstrated, the proliferation of cheap and widespread recording technologies has led to an increasing merger of private expression with public ownership, and increasingly flexible notions of what it means to litigate the "authorship" of a creative work.[76]

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72. *See generally* James Boyle, *Foucault in Cyberspace: Surveillance, Sovereignty, and Hardwired Censors*, 66 U. CIN. L. REV. 177 (1997). Professor Joseph Liu has pointed out, relatedly, how copies of copyrighted works themselves are increasingly utilized as part of these communicative practices. Liu, *supra* note 3, at 411-12.

73. *See generally* James M. Rosenbaum, *In Defense of the Delete Key*, 3 GREEN BAG 2D 393 (2000) (criticizing the legal implications of this trend); *see also* Margaret Chon, *New Wine Bursting from Old Bottles: Collaborative Internet Art, Joint Works, and Entrepreneurship*, 75 OR. L. REV. 257, 261 (1996).

74. The passage of the 1976 Act is also somewhat responsible for this state of affairs in the United States. Prior to the passage of the 1976 Act, works in the United States were only within the purview of federal copyright once they were registered, but the 1976 Act removed that requirement. As David Nimmer has observed, this was a radical shift, but mostly in terms of the federalization of the broad scope of copyright. Nimmer, *supra* note 27, at 188-89.

75. Nimmer, *supra* note 27, at 177-79.

76. In 2003, a widespread Internet distribution occurred of a videotape of Paris Hilton's sexual encounter with Rick Saloman. Saloman himself marketed the video and even filed a copyright registration for it. He sued a defendant in federal court for reproducing the video without his permission. The defendant claimed that Saloman's copyright registration was invalid because he failed to list Hilton as a co-author who participated in the authorship of the recording. *See Paris Hilton 'Directed' Sex Video*, CNN.com (Feb. 24, 2004), *available at* www.cnn.com/2004/SHOWBIZ/02/24/hilton.sextape.reut/.

C. Copyright and Technologies of Infringement

The current conflicts between technology and copyright are, in some ways, not very new. Because technology and copyright have always been inseparable, the struggle over new information recording and distribution technologies has always animated copyright law. Copyright holders have vilified the capabilities of practically *all* new recording and transmission technologies such as the radio, photocopying, and the VCR when these technologies emerged.[77] Twenty years ago, it was the cassette tape, not Napster, that was the bugaboo of the RIAA.[78] Responses to new information recording technologies have been varied. In some cases, such as broadcast radio, the technologies essentially escaped any severe copyright regulation.[79] The typical modern outcome to heated technology battles, however, has been technology-specific regulations.[80] Just to take one example, legislative battles ultimately led to specific statutory provisions that regulate the use of photocopy machines in libraries.[81]

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77. *See* Jane C. Ginsburg, *How Copyright Got a Bad Name for Itself*, 26 COLUM.-VLA J.L. & ARTS 61, 66 (2002) [hereinafter Ginsburg, *How Copyright Got a Bad Name*] (describing the general response of copyright holders to new technologies as "Pavlovian"); Jane C. Ginsburg, *Copyright and Control Over New Technologies of Dissemination*, 101 COLUM. L. REV. 1613, 1622-26 (2001) [hereinafter Ginsburg, *Copyright and Control*]; *see also* Richard B. Graves III, *Private Rights, Public Uses, and the Future of the Copyright Clause*, 80 NEB. L. REV. 64, 96-99 (2001) (discussing digital technologies and copyright legislation during the last twenty years); Wu, *supra* note 5, at 17-24.

78. Despite the much lamented piracy of home taping, Congress ultimately condoned the practice. Liu, *supra* note 3, at 408-09 (describing the Audio Home Recording Act).

79. Of course, this was not a simple matter, and Internet-based radio broadcasting has been treated differently. *See* Wu, *supra* note 5.

80. *See generally* Jessica Litman, *Copyright Legislation and Technological Change*, 68 OR. L. REV. 275, 277 (1989); Joseph Liu, Regulatory Copyright 7 (April 26, 2004) (unpublished manuscript), *available at* http://ssrn.com/abstract=558681; Robert P. Merges, *One Hundred Years of Solicitude: Intellectual Property Law, 1900-2000*, 88 CAL. L. REV. 2187 (2000).

81. Pursuant to 17 U.S.C. § 108 and 37 C.F.R. § 201.14, supervised library photocopiers must display the following notice "printed on heavy paper or other durable material in type at least 18 points in size, [which] shall be displayed prominently, in such manner and location as to be clearly visible, legible, and comprehensible to a casual observer within the immediate vicinity:"

> NOTICE WARNING CONCERNING COPYRIGHT RESTRICTIONS
> The copyright law of the United States (title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted material.
> Under certain conditions specified in the law, libraries and archives are

The Internet is, in some respects, just another new recording technology that the stakeholders of copyright law will attempt to tame.[82] It is, in essence, simply a technological protocol enabling the transmission of packets of data between disparate computers that are part of a larger network—a new technology of copying.[83] The crucial difference between the Internet and the photocopier, however, is not merely the Internet's ubiquity or its digital nature. Instead, the crucial aspect of the Internet is that it is a unified, distributed *network*. The early engineers of the Internet created this distributed network architecture because it was a much better means of pooling and sharing information resources.[84] When they crafted the Internet's structure, they ensured that the protocols for communication were very simple.[85] The Internet protocol does not recognize the legal distinction between facts and expressions, nor does it recognize concepts like "derivative works" or "joint authorship." The Internet's speed and vitality come from a fundamental neutrality with regard to the bits it transfers and its lack of central checkpoints where traffic might be monitored for copyright infringements. In short, the Internet's logical architecture is a fabulous way to move any digital file from any computer to any other computer on a vast network, and to do so in a way that is difficult to monitor.

> authorized to furnish a photocopy or other reproduction. One of these specific conditions is that the photocopy or reproduction is not to be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement.
>
> This institution reserves the right to refuse to accept a copying order if, in its judgment, fulfillment of the order would involve violation of copyright law.

37 C.F.R. § 201.14 (2003). For unsupervised photocopy machines, the library simply must "display[] a notice that the making of a copy may be subject to the copyright law." 17 U.S.C. § 108(f) (2000). For a fascinating account of the struggles leading to these regulations, see SAMUELS, *supra* note 43, at 17-30 (2000).

82. *See* Frank H. Easterbrook, *Cyberspace and the Law of the Horse*, 1996 U. CHI. LEGAL F. 207, 212-13.

83. *See* KATIE HAFNER & MATTHEW LYON, WHERE WIZARDS STAY UP LATE: THE ORIGINS OF THE INTERNET (1996) (describing the history of the Internet); DAVID WEINBERGER, SMALL PIECES LOOSELY JOINED : {A UNIFIED THEORY OF THE WEB} viii-ix (2002) (describing how the Web "breaks" the traditional publishing model); Boyle, *supra* note 11, at 40 (noting how networks make copying ubiquitous).

84. HAFNER & LYON, *supra* note 83, at 58-59.

85. *See* Mark A. Lemley & Lawrence Lessig, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. REV. 925, 930-34 (2001).

Over the past decade, many have argued that the network architecture of the Internet is comparable to the information revolution initiated by the Gutenberg printing press, and therefore, a serious re-evaluation of copyright law is required. One of the earliest and best-known promoters of this view is John Perry Barlow, co-founder of the Electronic Frontier Foundation. Ten years ago, Barlow wrote an influential essay entitled *The Economy of Ideas*, in which he summarized the clash between intellectual property and the prevalent ideology of the Internet community that "information wants to be free."[86] Intellectual property, said Barlow, is merely a creature of historical accident. "Digital technology," Barlow said, "is detaching information from the physical plane, where property law of all sorts has always found definition."[87] Of course, intellectual property had always been untethered from the physical plane; the Internet simply made this fact increasingly bothersome to many commentators from a theoretical standpoint.[88] As Eben Moglen observed, copyright inherently governs information patterns, and all information patterns, by definition, can be expressed as very long numbers. It is counterintuitive to say a person can own a number, even a very long one, but this is essentially the right to ownership in "expressions" long recognized by copyright law.[89]

Copyright stakeholders saw the Internet in the same way they viewed the cassette tape, the VCR, and any new technology of copying. Indeed, these stakeholders saw the Internet in the same way that the English Crown saw the printing press when it emerged. To a certain extent, Barlow's stance demonstrated a

86. Barlow, *supra* note 16. For discussions of this ideology, see STEWART BRAND, THE MEDIA LAB INVENTING THE FUTURE AT M.I.T. 202 (1987); Mark S. Nadel, *How Current Copyright Law Discourages Creative Output: The Overlooked Impact of Marketing*, 19 BERKELEY TECH. L.J. 785, 825 & n.186 (2004).

87. Barlow, *supra* note 16, at 85. Over 180 law review articles reference the work, including Neil Weinstock Netanel, *Cyberspace 2.0*, 79 TEX. L. REV. 447, 447 n.1 (2000), and C. Edwin Baker, *First Amendment Limits on Copyright*, 55 VAND. L. REV. 891, 913 n.60 (2002). Not all articles are complimentary of the thesis. *See, e.g.*, Ginsburg, *Copyright and Control*, *supra* note 77, at 1642 (rejecting thesis in favor of heightened control).

88. *See* Ginsburg, *supra* note 7, at 118-19.

89. *See* Moglen, *supra* note 11. Professor Moglen's virulent critique of copyright is offered from the perspective of a computer scientist, but is not limited to copyright's regulation of digital media.

fundamental ideological chasm between the Internet's culture of pro-sharing copy-leftists and the corporations and lawyers who police copyright interests. Ralph Oman, the United States Register of Copyright during the early 1980s, recently revealed this culture gap by opining that the Internet of the 1990s was simply a "glorified chatboard" dominated by "computer nerds ... hackers, pirates, and porno creeps."[90] "Nerds" and "hackers" were apparently epithets.

The copyright industry's special antipathy for the Internet, however, was not simply about a culture clash with the likes of Barlow, who was a lyricist for the Grateful Dead. It was more or less the same Pavlovian reaction that the established copyright industry has had to all new technologies.[91] It was eminently reasonable for the industry to be concerned about a medium where everyone could distribute information and no one could monitor all channels of communication. Releasing works on the Internet was obviously unwise because unauthorized distribution would be so easy. Although file encryption and password protection offered some security, those digital wrappers could be broken, and, in the eyes of copyright holders, the oceans of the Internet simply were not safe for sailing.[92]

Concern about piracy on the high seas of the Internet eventually resulted in passage of the new para-copyright anti-circumvention protections of the Digital Millennium Copyright Act (DMCA), which essentially forbid the unlocking of digital locks or the trafficking in software that accomplishes such unlocking.[93] Oman and other drafters and advocates of the DMCA stated that such para-copyright

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90. Ralph Oman, Address at New Jersey Intellectual Property Law Association (Feb. 8, 2001), *available at* http://www.dechert.com/library/Copyright-107th%20Congress%20ROman%202-01.PDF, at *3.

91. *See* Ginsburg, *How Copyright Got a Bad Name*, *supra* note 77, at 66.

92. *See* Graves, *supra* note 77, at 96. In his 2001 address, Ralph Oman commented that,

> [u]nless copyright owners have a measure of security for their valuable programming in the digital environment, they won't license their works for use on the Internet. And if they don't license their movies, and music, and computer programs, it will never reach its full potential as a broad avenue for mass entertainment, scholarly discourse, and electronic commerce.

Oman, *supra* note 90, at *3.

93. *See* 17 U.S.C. §§ 1201-1205 (2000); Neil A. Benchell, *The Digital Millennium Copyright Act: A Review of the Law and the Court's Interpretation*, 21 J. MARSHALL J. COMPUTER & INFO. L. 1, 3 (2002). For a scathing critique of the DMCA from the standpoint of the goals of copyright, see Lunney, *supra* note 55, at 830-44.

protections were absolutely required if corporate content owners like Disney and Time Warner were to be expected to risk transforming the Internet's information-sharing hordes into a civilized society.[94] Yet despite the passage of the DMCA, the copyright industry did not bring the world the anticipated "celestial jukebox" of on-demand content libraries.[95] Instead, Napster brought music to the masses, and the majority of news stories about copyright and the Internet today are stories of litigation, criminal prosecutions, and the need for still greater rights and harsher penalties for infringement. When one hears that a current movie or novel can be obtained on the Internet, one presumes that the copyright holders are not happy.

The copyright industries have laid out the issue in this way: how can the problem posed by the Internet as a copying machine be solved? How can we best re-tool the Internet so that Britney Spears MP3s are no longer traded on Kazaa? The industries' current answer, for the most part, seems to be a combination of press releases about the costs of piracy, sweeping litigation, and legislative attempts to prevent or significantly change the shape of new technologies.

Note, however, how posing the question this way categorically ignores the contributions of copyright amateurs. The Internet's social prominence today owes little to the illicit trade in Britney Spears's MP3s. The utility of the Internet is probably best exemplified by Google and other search engines, which provide free delivery of an abundance of copyright-protected works. From the standpoint of copyright, the most remarkable thing about the social phenomenon of Google is that Google does not charge per copy or per use, and neither do the abundance of websites, discussion lists, and information sources that Google indexes.[96] In other words, works (web

94. *See* S. REP. NO. 105-190, at 8 (1998); Jane C. Ginsburg, *Can Copyright Become User-Friendly? Review: JESSICA LITMAN, DIGITAL COPYRIGHT*, 25 COLUM.-VLA J.L. & ARTS 71, 78 & n.29 (2001); Oman, *supra* note 90; *see also* Liu, *supra* note 3, at 403-04 (noting how the DMCA was premised on the notion of an entertainment industry providing content to passive information consumers).

95. *See* PAUL GOLDSTEIN, COPYRIGHT'S HIGHWAY: THE LAW AND LORE OF COPYRIGHT FROM GUTENBERG TO THE CELESTIAL JUKEBOX 236 (1994); Raymond Shih Ray Ku, *The Creative Destruction of Copyright: Napster And the New Economics of Digital Technology*, 69 U. CHI. L. REV. 263, 264-65 (2002) (explaining Professor Goldstein's notion of the "celestial jukebox").

96. In fact, Google's search algorithm essentially discriminates against password-protected works because its search engine cannot "see" works for which payment is required,

pages) that fall within the ambit of copyright are being provided to hundreds of millions of people through Google, and the authors of these works are not doing much to limit wide public access to their information property.[97]

Barlow's fundamental insight, therefore, that costless, perfect reproduction would change copyright as a social institution was completely true. The problem is that copyright law has yet to notice this change, because copyright law is bound up in corporate intellectual property libraries, which are deployed through profit-driven industries. In the sections below, we will attempt to describe the amateur and decentralized production processes that are forming an alternative to copyright today. Our goal is perhaps ridiculously overbroad; we would like to provide a "big picture" account of the current changes in social information practices regarding content and the role new technologies are playing in the transformation. Even though our account will be, of necessity, abbreviated, anecdotal, and generalized, we think that by decomposing the functions that make up the lifecycle of content we can understand the impact of new network technologies.[98] This will lead to a better understanding of what we should do about copyright.

II. CONTENT AND COPYRIGHT

For the last ten years we have been told that copyright is finished.[99] Legal scholars began to build new theories of copyright around changes that digital technology brings. Scholars sought to

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and thus cannot index those websites. Google also prioritizes works based on perceived popularity, and, inevitably, free-access websites are more popular than websites that demand payment for access to content.

97. *See* Jessica Litman, *Electronic Commerce and Free Speech*, 1 ETHICS & INFO. TECH. 213, 213 (1999).

98. *See* Barlow, *supra* note 16. Mark Nadel has a similar interest in articulating and analyzing discrete "stages" of social activities relevant to the copyright process. *See* Nadel, *supra* note 86, at 822-37.

99. *See generally* Barlow, *supra* note 16. The essay is full of rhetorical excess and ranges over many arguments why the Internet will destroy copyright. It includes observations that jurisdictional problems will be fatal, that information is a "[v]erb [n]ot a [n]oun" and that "[i]nformation is a [r]elationship" not a thing. Much of this is amusing, though the core insight remains (and it was all the more interesting and surprising that it came from a member of The Grateful Dead): a person who would ordinarily be viewed as favoring strong copyright protection as the basis for commercial exploitation of his expression.

theorize the implications of costless dissemination via peer-to-peer networks: Ray Ku,[100] Jessica Litman,[101] Jane Ginsburg,[102] Stacey Dogan,[103] and Joseph Liu,[104] amongst many others,[105] explained how the Internet changes everything. Some of these scholars also recognized the role that cheap reproduction had upon copyright.[106] The loss of centralized control over reproduction and dissemination, however, is only part of the story. Other scholars have begun to note how the loss of centralized control penetrates into other functions of copyright. Most notably, Yochai Benkler suggested that the decentralized *production* of copyright material has important policy

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100. Ku, *supra* note 95, at 270-74, 296-305 (contrasting the cost differentials between analog and digital copying and distribution); Ku, *supra* note 5, at 564-67 (identifying peer-to-peer networks as a force of "creative destruction"—a process that revolutionizes economic structure by destroying the old structure and creating a new one).

101. Jessica Litman, *War Stories*, 20 CARDOZO ARTS & ENT. L.J. 337, 341-42 (2002) (characterizing ease of dissemination as a removal of distribution intermediaries).

102. Ginsburg, *Copyright and Control*, *supra* note 77, at 1637-39 (examining legal responses to peer-to-peer systems and noting significant controls exerted by courts in favor of copyright owners).

103. Stacey L. Dogan, *Code Versus the Common Law*, 2 J. TELECOMM. & HIGH TECH. L. 71, 90-100 (2003) (noting the development of centralized and then non-centralized peer-to-peer distribution mechanisms and the legal response to each).

104. Joseph P. Liu, *Owning Digital Copies: Copyright Law and the Incidents of Copy Ownership*, 42 WM. & MARY L. REV. 1245, 1255 (2001) ("Copies of copyrighted works can now be distributed in digital form, without the exchange of any physical object, without any title in physical property changing hands, and all indications suggest that this will only increase over time, as computer network capacities increase and compression technologies improve.").

105. *See* A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1022 (9th Cir. 2001) (holding that a centralized directory made it possible for Napster to block trading of infringing files identified by music copyright owners); Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, 259 F. Supp. 2d 1029, 1041 (C.D. Cal. 2003) (finding no contributory infringement by providers of file-sharing software that played no continuing role in facilitating exchange of files between users); *see also In re* Aimster Copyright Litig., 334 F.3d 643, 651-52 (7th Cir. 2003) (shifting the burden of production to Aimster to demonstrate that its software has substantial non-infringing uses); Eric Schlachter, *The Intellectual Property Renaissance in Cyberspace: Why Copyright Law Could Be Unimportant on the Internet*, 12 BERKELEY TECH. L.J. 15, 19-20 (1997) (noting the changes in the copyright regime brought about by costless reproduction and distribution of exact digital copies); Damien A. Riehl, Note, *Peer-to-Peer Distribution Systems: Will Napster, Gnutella, and Freenet Create a Copyright Nirvana or Gehenna?*, 27 WM. MITCHELL L. REV. 1761, 1766-86 (2001) (discussing the technologies of several peer-to-peer file sharing software systems and the legal implications of their architecture); Joseph A. Sifferd, Note, *The Peer-to-Peer Revolution: A Post-Napster Analysis of the Rapidly Developing File-Sharing Technology*, 4 VAND. J. ENT. L. & PRAC. 92, 107 (2002) (suggesting that findings against file-sharing software won't stop peer-to-peer networks).

106. *See generally* LITMAN, *supra* note 4, at 25-27; Ku, *supra* note 95, at 270-74.

implications.[107] Outside legal academia, other advocates and scholars, such as Peter Suber and participants in the "Open Access Movement" have challenged the traditional expectations of copyright and journal publishing in higher education.[108]

Something, however, is missing here. In this Part we wish to demonstrate how these changes are not really about copyright, but rather about the amateur development of content. Specifically, we suggest that the salient issue is how information content is communicated from creators to users. In this Part we want to show that, beyond the observations of other scholars, we are seeing the decentralization and consequent "amateurization" of every one of the functions that are necessary for content to move into society. In order to understand the nature and implications of this amateurization, it is necessary to understand how, until recently, copyright relied on centralized control in the context of multiple functions, and how each of those functions reinforced the others in maintaining the supremacy of copyright in commercialized information markets.

Thus, in this Part we begin by examining how content travels from creator to user. We then examine the way that these functions were originally centralized, and how they have since become decentralized. We conclude by asking what this trend means for copyright industries and the amateur producer of content.

A. The Content Functions

In the past, copyright has entailed seven discrete functions: 1) creation; 2) selection; 3) production; 4) dissemination; 5) promotion; 6) purchase; and 7) use. We can think of this as the content lifecycle, passing the content from the creator and eventually on to the user. Copyright controlled these functions in the past; however, we will

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107. *See* Yochai Benkler, *Coase's Penguin, or, Linux and* The Nature of the Firm, 112 YALE L.J. 369, 381-99 (2002) [hereinafter Benkler, *Coase's Penguin*] (examining the nature of peer production of content in various copyright-based industries including, *inter alia*, software production, data analysis, essay-writing, and commentary). Benkler is also mindful of the role decentralized dissemination plays. *See* Benkler, *Freedom in the Commons*, *supra* note 11, at 1251-52.

108. *See, e.g.*, Peter Suber, *Open Letter from 25 Nobel Laureates*, OPEN ACCESS NEWS, *at* http://www.earlham.edu/~peters/fos/fosblog.html (last visited Sept. 6, 2004).

show that with the development of digital technology, the Internet, and social software, distributed information networks are pushing content control away from commercial exploitation and toward an amateur-to-amateur model.

1. Creation

In the beginning was the word. Copyright began with the word, though today it can also begin with the mark, the sound, or, increasingly, with the motion of a mouse or the tap of a finger on a keyboard. In the instant before the word, some idea or concept presumably will precede the action that gives rise to copyright. We are only concerned, however, with how content—the pattern of information—moves from its origin to its social use. We therefore need only examine the information itself.

In textual works, such as this law review Article, words are piled on words, forming sentences, which in turn form paragraphs, and eventually the process stops. The collection of words that results is called, somewhat arbitrarily, "the final work." We call this first stage, in which a creator writes, composes, draws, paints, or otherwise creates fixed expression, "creation." Although the legal scope of the created product is curtailed by the idea-expression doctrine,[109] the merger doctrine,[110] *scènes à faire*,[111] and the

109. Copyright protects only the expression of an idea, not the idea itself, 17 U.S.C. § 102(b) (2000) ("In no case does copyright protection ... extend to any idea, ... regardless of the form in which it is described, explained, illustrated, or embodied ...."). The standard account of how one draws the line between idea and expression was given by Judge Learned Hand. *See* Peter Pan Fabrics, Inc. v. Martin Weiner Corp., 274 F.2d 487, 489 (2d Cir. 1960).

110. The merger doctrine applies where the idea and the expression of that idea have merged, making the otherwise copyrighted expression not protected. "Under the merger doctrine, copyright protection is denied to expression that is inseparable from or merged with the ideas, processes, or discoveries underlying the expression." Gates Rubber Co. v. Bando Chem. Indus., 9 F.3d 823, 838 (10th Cir. 1993). *See, e.g.*, Schoolhouse, Inc. v. Anderson, 275 F.3d 726, 730 (8th Cir. 2002) (website not infringing on magazine's local school information because there was "only one way or only a few ways of expressing [the] idea"); Computer Assoc. Int'l, v. Altai, Inc., 982 F.2d 693, 708 (2d Cir. 1992) (where computer program was "the only and essential means of accomplishing a given task" the expression and idea had merged).

111. *Scènes à faire* are otherwise copyright expressive elements that "necessarily result from the choice of a setting or situation." Walker v. Time Life Films, Inc., 784 F.2d 44, 50 (2d Cir. 1986). Because they are unprotected, unauthorized reproduction does not constitute infringement. *See, e.g.*, Hoehling v. Universal City Studios, Inc., 618 F.2d 972 (2d Cir. 1980) (holding representation of Hindenberg disaster not infringement, as similarities were

like,[112] these details are not delimited in the text, image, or sound recording itself, which is invariably understood as something new that was "created."

Creation has been in the hands of amateurs for some time, but only for a limited set of works; most notably we saw this in areas like textual production, where all one needed was a quill or pen in order to create. The nature of creation for many fields, however, has been corporate, collaborative creativity, not individual creativity.[113] Corporate creation involves creative teams: perhaps multiple collaborating script-writers; songwriters and sound engineers; law review "authors" who sketch the idea and law review "editors" who fix their problems. The salient issue here is that, except for a small group of content arenas, creation was mediated through capital. As we discuss in the next two sections, this changes with the introduction of digital technology.

a. Digital Technology and Expensive Authorship

In the eighteenth century, the original copyright law, the Statute of Anne, limited protected "works" to books and other forms of writing. The Statute of Anne signaled a radical decentralization of control. Book production moved away from state censorship and monopoly printing practices, toward individual rights of authors

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determined by portrayal of the subject matter).

112. Other issues going to the appropriate balance in the protection of expression and ideas include: the jurisprudence on works of utility; functional aspects of protected works (*see, e.g.*, Bateman v. Mnemonics, Inc., 79 F.3d 1532, 1546 n.28 (11th Cir. 1996); Sega Enterprises Ltd. v. Accolade, Inc., 977 F.2d 1510, 1524 (9th Cir. 1992); Apple Computer, Inc. v. Microsoft Corp., 799 F. Supp. 1006, 1023 (N.D. Cal. 1992), *aff'd* 35 F.3d 1435 (9th Cir. 1994)); and protection of facts (*see, e.g.*, Jacqueline Lipton, *Balancing Private Rights and Public Policies: Reconceptualizing Property in Databases*, 18 BERKELEY TECH. L.J. 773, 809-14 (2003); J.H. Reichman & Paul F. Uhlir, *A Contractually Reconstructed Research Commons for Scientific Data in a Highly Protectionist Intellectual Property Environment*, 66 LAW & CONTEMP. PROBS. 315 (2003) (discussing the protection of scientific data).

113. *See, e.g.*, JAMES BOYLE, SHAMANS, SOFTWARE, AND SPLEENS: LAW AND THE CONSTRUCTION OF THE INFORMATION SOCIETY 51-60, 159-161 (1996) (discussing the history of the concept of authorship and the construction of self-interest and romantic authorship); ROSEMARY J. COOMBE, THE CULTURAL LIFE OF INTELLECTUAL PROPERTIES: AUTHORSHIP, APPROPRIATION, AND THE LAW 211-12, 219-20 (1998) (examining problems with the concept of romantic authorship); Mark A. Lemley, *Romantic Authorship and the Rhetoric of Property*, 75 TEX. L. REV. 873 (1997) (reviewing BOYLE, *supra*).

as proprietors of their creations.[114] At the time the Statute of Anne was written, the "author" was not a person who created random or accidental fixations of original information by technological means.[115] The paradigmatic Romantic author was, as many commentators have observed, a quasi-mythological genius, inspired by a divine muse while laboring in a secluded garret.[116] Authorship in that model was governed by a particular technology. The work created by the Romantic author was usually a rather long sequential string of letters and spaces. Although one might suggest that the original works were made on paper with ink and quill pens, the relevant work was understood to be the letters and spaces in sequence, not the calligraphic aspects of the writing. This remains true today. It makes no difference whether one reads the original hand-written poems of Wordsworth, a recently printed edition of those poems bound on paper, or the same string of letters and spaces on a computer screen. In each of those cases, you can confidently assert that you have read the work of Wordsworth.

The technology of creating a long string of letters and spaces has always been the relatively cheap technology we call writing. Copyright, however, has expanded far past the technology of letters and the printing press, and the twentieth century's technologies of commercial fixation and recording were not always cheap.[117] The expense of creative technologies has historically exerted powerful influence on the practices of authorship. Indeed, in some realms of authorship, it has simply been beyond the capabilities of the amateur creator to make new works. Where creative technologies have been expensive, this has driven the process of work creation toward greater social collaboration. The technology of motion picture production, for instance, has always been heroically expensive and cumbersome. Historically, aspiring film makers were unable to produce motion pictures without the help of financial backers and technical specialists. It is not surprising then, that

114. *See* Geller, *supra* note 1, at 225; Lunney, *supra* note 55, at 814-19.

115. *See supra* text accompanying notes 58-64.

116. *See, e.g.*, BOYLE, *supra* note 113, at 51-60, 159-161 (discussing the history of the concept of authorship and the construction of self-interest and romantic authorship).

117. *See* Tom W. Bell, *Escape from Copyright: Market Success vs. Statutory Failure in the Protection of Expressive Works*, 69 U. CIN. L. REV. 741, 781-82 (2001) (describing the historic expansion of copyright to embrace new technologies).

since the inception of the motion picture, the copyright industry of film creation has emerged in a set of geographically centralized markets and has relied on large scale collaborative authorship to tie together the interests of those who invest in projects with those who create the work.[118] Motion picture creation, as any end-credit sequence will reveal, involves the efforts of numerous script writers, directors, actors, camera crews, best boys, special effects artists, and so on. Moreover, the dominant means of controlling groups of people is, of course, the firm. Hence, we saw the emergence of the motion picture industry structured around a small number of studios.

Other domains, like music, film, and television, have also employed expensive technologies of authorship, and therefore have similarly involved investors, marketers, and creative teams in the process of creating new works.[119] In popular music, for instance, the creation of a hit song will often involve a number of disparate groups of actors. The process may include the creation of the musical composition by one or more individuals, the studio performance of that composition by another individual or group, and the editing of the sound recording by another group. In television production, one finds multiple collaborating script-writers, creative directors, actors, and set crews. In animation, various teams supervise different aspects of the creative process. In the software industry, a team of programmers will create and refine the code of a major project. Generally these forms of collaboration take place under the control of employment contracts whereby the authors transfer their copyrights to the employers or an assignee.[120]

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118. *See* Rosemary J. Coombe, *Fear, Hope, and Longing for the Future of Authorship and a Revitalized Public Domain in Global Regimes of Intellectual Property*, 52 DEPAUL L. REV. 1171, 1175 (2003); F. Jay Dougherty, *Not a Spike Lee Joint? Issues in the Authorship of Motion Pictures Under U.S. Copyright Law*, 49 UCLA L. REV. 225, 282-316 (2001) (discussing the numerous collaborators in the creation process); Corey Field, *Their Master's Voice? Recording Artists, Bright Lines, and Bowie Bonds: The Debate Over Sound Recordings as Works Made for Hire*, 48 J. COPYRIGHT SOC'Y 145, 155 (2000); Geller, *supra* note 1, at 229.

119. *See* Geller, *supra* note 1, at 228-29 (describing how the expansion of copyright has, historically, allowed for greater risks to be taken in producing "more capital intensive works"); Liu, *supra* note 3, at 398.

120. *See* Karen Gulick, *Creative Control, Attribution and the Need for Disclosure: A Study of Incentives in the Motion Picture Industry*, 27 CONN. L. REV. 53, 56 (1994) ("[M]ost motion picture artists—directors, screenwriters, and cinematographers—retain no legal control over the commercial exploitation of their work.... Motion pictures ... are made through work for hire agreements which designate the financial entity supporting the film—usually a studio

Advances in technology, however, are dramatically reducing the costs of formerly expensive creative genres. Digital technology has reduced creation cost largely by, as John Perry Barlow observed, detaching information from the physical plane.[121] The reduced cost of digital information storage and processing has shifted the technologies of information capture, processing, and storage away from more cumbersome analog equipment to cheap, lightweight digital equipment and software. This shift has placed into the hands of the individual the expensive creation tools that were previously only available to professionals in the content industries.[122] For instance, in the area of musical creation, software tools today can replicate almost all the capabilities of the 1980s or 1990s recording studio. Tools like Sonic Foundry's *ACID* range, Apple's *GarageBand*, and Digidesign's *ProTools* now provide amateurs with high quality recording, looping, voice cleaning and audio effects for less than the price of a second-hand guitar.[123] Further, some of the early results of these amateur-friendly technologies have competed successfully with the results of professional producers. In late 2003, Gary Jules and Michael Andrews's cover version of *Tears for Fears'* "Mad World" went to number one on the English charts. It was produced in Andrews' basement for $50.[124]

This is true for virtually all other types of content as well—the costs of capital that once precluded amateur creation and required

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or production company—as the 'author' of the work.").

121. *See* Barlow, *supra* note 16, at 85. *See generally* CREATING DIGITAL CONTENT: VIDEO PRODUCTION FOR WEB BROADCAST AND CINEMA (John Rice & Brian McKernan eds., 2002) [hereinafter CREATING DIGITAL CONTENT].

122. *See* Graves, *supra* note 77, at 81.

123. Sonic Foundry's *ACID* range costs around $25 for the basic package, with looping and drum tracks for about another $15. *See* http://www.amazon.com/exec/obidos/search-handle-url/index%3Dsoftware%26field-manufacturer%3DSonic%2520Foundry%26search-type%3Dss/104-4828665-3631918 (last visited Sept. 6, 2004). Apple's *GarageBand* comes bundled with the *iLife* package which retails for $49, and includes other media creation products discussed below. *See* http://www.apple.com/ilife/ (last visited Sept. 6, 2004). A large number of instrument loops and effects are available. *See* http://www.apple.com/ilife/garageband/ (last visited Sept. 6, 2004). *ProTools* is more expensive, because it is an industry-standard product, and retails for thousands of dollars. DigiDesign, however, offers a free version that allows for eight audio tracks and forty-eight midi tracks. *See* http://www.digidesign.com/ ptfree/ (last visited Sept. 6, 2004).

124. BBC News, *Gary Jules Remains at Number One*, (Dec. 28, 2003), *available at* http://news.bbc.co.uk/go/pr/fr/-/1/hi/entertainment/music/3352667.stm.

large-scale capital are rapidly vanishing. In the case of movies, it was long true that cameras, film stock, editing suites, and mastering devices were prohibitively expensive for all but the highly capitalized players. Today we are seeing the costs of both information capture and editing drop dramatically. The editing tools are now purely digital. Jonathan Caouette's first movie, *Tarnation,* was shown at the Sundance Film Festival. It is probably the first feature-length film edited entirely on *iMovie,* and cost $218.32 in videotape and materials.[125] In another example, the political group MoveOn.org sponsored a competition for television advertisements attacking President Bush.[126] They received hundreds of entries, all shot and edited by individuals, and the quality was generally comparable to broadcast advertising standards.[127]

The proliferation of cheap, software-enabled authoring tools has affected all copyright industries. The impact of digitization on amateur authorship first became obvious in the 1980s and 1990s with the advent of the home personal computer. The standard-issue desktop publishing programs on new home personal computers enabled amateur writers to compose, edit, typeset, and print legible and attractive materials in ways that were previously only within the technical capabilities of the professional publishing industry.[128] Desktop publishing significantly transformed printed textual information practices in our society. Although it spelled the impending demise of many small commercial printing shops, it left the book publishing industry largely internalizing the technological shift. Distributing desktop-published paper texts was not possible on a grand scale for the average individual. Yet, as we discuss in

125. *See* Jason Silverman, *Here's the Price of Fame: $218.32,* WIRED (Jan. 20, 2004), *available at* http://www.wired.com/news/digiwood/0,1412,61970,00.html?tw=wn_tophead_2.

126. *See Bush in 30 Seconds, A Political Advertising Contest, at* http://www.bushin30seconds.org (last visited Sept. 6, 2004).

127. The advertisements had to be television broadcast quality because the winner of the competition for best ad was to be aired during the Superbowl. Though MoveOn.org received sufficient money to pay for the airtime, CBS declined to run the commercial. The winning advertisement was broadcast during the President's State of the Union address, http://www.bushin30seconds.org/rules.html (last visited Sept. 6, 2004).

128. *See generally* STEVEN LEVY, INSANELY GREAT: THE LIFE AND TIMES OF MACINTOSH, THE COMPUTER THAT CHANGED EVERYTHING 210-11 (1994) (discussing the origins of word processing); Wikipedia, *Word Processor, at* http://en.wikipedia.org/wiki/Word_processor (last visited Sept. 6, 2004).

more detail below, personal computer networks in the 1980s did begin to shift distribution potential to individuals. Email messages, USENET and BBS discussions, educational papers, and FAQs proliferated during the 1980s. Today, the Web is clearly the primary home of amateur creativity.

Weblogs, as mentioned before, are an increasing presence in the media. Most of the millions of weblogs today are decidedly amateur and personal works, recording the author's life experiences, random thoughts and observations, and romantic crises. If one does not know the blogger, this type of material may not be very interesting—yet almost every blogger has a friend or family member who will serve as an occasional reader. Some bloggers have even become the equivalent of small-town celebrities, attracting hundreds of thousands of readers per day. A growing number of legal scholars and practitioners participate in creating the blogosphere,[129] and members of the judiciary are even beginning to footnote the weblogs that they read regularly.[130]

As discussed below, weblogs are increasingly offering one-stop information and entertainment shopping by delivering, in addition to hyperlinks and textual commentary, original digital photography, music and sound files, software programs, and multimedia presentations. Google's recent purchase and funding of Blogger (a leading, free blog-hosting and creation application) makes abundant sense—weblogs are facilitating the creation of amateur authorship and Google is turning its profits and gaining cultural ascendancy by helping people sift through an expanding universe of amateur works.

b. Cheap Authorship and Prior Works

Beyond these observations about the nature of technology, it is important to consider the role that cheap authorship and prior

129. Glen Reynolds was one of the first blogging law professors, but the field is increasingly crowded these days. Jack Balkin, Paul Caron, Brian Leiter, Larry Lessig, David Post, Larry Solum, Larry Ribstein, and Eugene Volokh are just a few of the many legal bloggers.

130. For example, the United States Court of Appeals for the Ninth Circuit recently cited Howard Bashman, who writes the appellate web log, "How Appealling," now hosted by *Legal Affairs* magazine. *See* Kennedy v. Lockyer, No. 01-55246, 2004 WL 1837738, at *21 n.7 (9th Cir. Aug. 18, 2004).

works play in the content field. New information capture and distribution technologies have the obvious effect of creating conflicts between the newly empowered and established industry players. Obviously, every new way in which an amateur can faithfully reproduce existing images of Barbie or Mickey Mouse is a new way the amateur can violate Mattel or Disney's copyrights in those images. The most evident conflict created for amateur creators, however, is the copyright problem inherent in creating "new" works. As discussed briefly above, even capturing "factual" information may, in theory, place a person at risk of a copyright lawsuit.[131] Creating entirely new works, as many scholars have observed, can be equally problematic.[132]

The human environment does not generally resemble the River Wye, but instead is a media-saturated realm of copyright-protected information in the form of texts, images, and sounds, which invariably become part of our cultural vocabulary.[133] Although every new creation borrows from prior works, some genres of creative expression, such as parody, are required to do so. If there was any change in the twentieth century, it was toward increased practices of borrowing in authorship. From Duchamp's drawing of a moustache on the *Mona Lisa* to *The Simpsons*, artists increasingly engage in quotation, mark-up, commentary, pastiche, collage, and re-contextualization in order to express themselves.[134] Viewing artistic creativity as primarily about borrowing is at odds, however, with copyright, which, to an unclear extent, requires that a license be obtained whenever a prior work is borrowed and incorporated into a new one. A copyright holder's rights include the right to prohibit new works that incorporate bits and pieces of prior works

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131. *See supra* text accompanying notes 48-49.

132. As a recent student note explained, creation by copying has ancient origins:

> The Book of Genesis rewrote the Mesopotamian creation myth. The Book of Chronicles rewrote large sections of the Book of Kings. Authors of the myriad rewritings of Shakespeare probably learned from Shakespeare himself, whose plays often rewrote prior texts. Milton's *Paradise Lost*, Joyce's *Ulysses*, T.S. Eliot's *The Waste Land*—all are rewritings in their own ways. Indeed, *all* writing is, in some sense, rewriting.

Note, *Originality*, 115 HARV. L. REV. 1988, 1990 (2002) (citations omitted).

133. *See generally* Coombe, *supra* note 118.

134. *See generally* MARY SETTEGAST, MONA LISA'S MOUSTACHE: MAKING SENSE OF A DISSOLVING WORLD (2002).

as well as works that are derivative of prior works. For instance, if the DaVinci family had retained the copyright in the *Mona Lisa*, Duchamp clearly would have needed a license to reproduce his modified version.[135]

Rebecca Tushnet has previously discussed similar unauthorized creativity in works of fan fiction posted on the Internet.[136] The practice of unauthorized "sampling" of prior works is also common on the Internet. Bloggers often link to, quote from, and comment upon other written works posted online by newspapers and other bloggers. Sometimes the extent of such blog "sampling" triggers lawsuits. In the *Free Republic* case, for instance, members of a political bulletin board posted the full texts of various newspaper articles, a clear instance of copyright infringement.[137] The articles were reproduced for purposes of comment, and the subsequent discussion focused on the factual news, not the creative arrangement and selection of particular journalistic adjectives. The Los Angeles Times and a number of other newspaper proprietors brought suit, however, and the court had no hesitation in rejecting the defendant's arguments that this could be a fair use of the news stories.[138]

The court stressed that the articles were copied in their entirety, which in its opinion was not necessary for the purposes of commentary.[139] Free Republic argued that the plaintiffs were not deprived of advertising revenue, because Free Republic referrals generated hundreds of thousands of additional hits per month.[140] The court thought this irrelevant: the newspapers themselves were attempting to exploit online markets, and the Free Republic site had the potential to interfere with these markets.[141] End of case. Emboldened by this sort of approach, other news services have

135. Although the litigation would surely be interesting for copyright scholars, it seems unlikely that Duchamp's addition of a moustache (and letters) would have met the requirements for a successful fair use defense.

136. *See* Tushnet, *supra* note 54, at 663-64.

137. L.A. Times v. Free Republic, 54 U.S.P.Q.2d 1453, 1471-72 (C.D. Cal. 2000); Benkler, *Freedom in the Commons*, *supra* note 11, at 1263-64; Liu, *supra* note 3, at 414 (identifying the use of newspaper articles as "communal consumption").

138. *Free Republic*, 54 U.S.P.Q.2d at 1472.

139. *Id.* at 1463.

140. *See id.* at 1471.

141. *Id.*

recently given warning to blog proprietors that they will scan for copyright infringements, and some websites of old media moguls warn bloggers against providing hyperlinks to their story pages.[142]

In music, copyright law has also been required to address the incorporation of unauthorized portions of prior works into new recordings. Today "mash-ups," are a common form of creativity. Mash-ups are dance club remixes that typically merge a well-known vocal track with an equally well-known instrumental track: hence the classic *Smells like Booty* blends Destiny's Child with Nirvana's *Smells Like Teen Spirit*.[143] These mixes seamlessly merge multiple tracks in tension with each other. The best mash-ups merge wholly disparate styles, punk with R&B or dance with heavy metal, and are named accordingly: "Kylie Minogue vs New Order" or "The Ramones vs Abba."[144] Although mash-ups are creative and interesting to some listeners, they are generally unlicensed and thus illegal.[145]

Recently, a mash-up by an amateur called DJ Danger Mouse featured an extended remix of the Beatles' *White Album* with Jay-Z's *The Black Album* to create, inevitably, *The Grey Album*.[146] This album was made available on peer-to-peer networks, and was critically acclaimed by some reviewers;[147] but its widespread popularity generated cease-and-desist letters from the holders of the rights in the Beatles back catalog.[148] *The Grey Album* quickly became a *cause célèbre* for online activists.[149] The key point is not

142. *See, e.g., Reuters Position on Linking from Blogs* (Mar. 30, 2004), *at* http://www.paidcontent.org/ pc/arch/2004_03_30.shtml.

143. *See* Roberta Cruger, *The Mash-up Revolution*, SALON.COM (Aug. 9, 2003), *at* http://archive.salon.com/ent/music/feature/2003/08/09/mashups_cruger/print.html. For examples of hip-hop boards that allow for online mash-ups, see: http://www.urbansmarts.com/reviews/albums/lumin.htm (last visited Sept. 6, 2004); http://www.definitivejux.net/ (last visited Sept. 6, 2004); and http://sonicsum.com/cgi-bin/Ultimate.cgi (last visited Sept. 6, 2004).

144. *See* Cruger, *supra* note 143.

145. *See id.*

146. *See* Ben Greenman, *The Mouse that Remixed*, THE NEW YORKER, Feb. 9, 2004, at 24, *available at* http://www.newyorker.com/talk/content/?040209ta_talk_greenman.

147. *See* Lauren Gitlin, *Jay-Z Meets the Beatles: DJ Mixes Two Albums into One Classic*, ROLLING STONE, Feb. 19, 2004, at 18, *available at* http://www.rollingstone.com/news/story?id=5937152.

148. *See* Joseph Patel, *Producer of* The Grey Album, *Jay-Z/ Beatles Mash-Up, Gets Served*, MTV NEWS, Feb. 10, 2004, at http://www.mtv.com/news/articles/1484938/20040210/jay_z.jhtml?headlines=true.

149. A nonprofit music activist organization called Downhill Battle organized Grey Tuesday, a day of civil copyright disobedience on Feb. 24, 2004. *See Incredible Success*, Grey

that it is wrong to see *The Grey Album* as an infringement of copyright. It surely is. The question remains, however, whether society benefits by legally requiring mash-up artists to seek licenses before creating works like *The Grey Album*.[150]

Unauthorized amateur authorship poses new challenges for copyright law.[151] Images, sounds, and text are becoming increasingly easy to locate through the Internet. Cheap digital creation tools enable these works to be manipulated by amateurs lacking the financial means to obtain copyright licenses. Yet this type of amateur creativity is producing valuable new work that, while popular, is outside the scheme of copyright.[152]

Tuesday, *at* http://www.greytuesday.org/ (last visited Sept. 6, 2004); Downhill Battle, *at* http://www.downhillbattle.org (last visited Aug. 24, 2004). For a discussion of the event and its aftermath, see Bill Werde, *Defiant Downloads Rise from Underground*, N.Y. TIMES, Feb. 25, 2004, at E3, *available at* http://www.nytimes.com/2004/02/25/arts/music/25REMI.html.

150. The current system requires amateurs to bear the costs associated with finding the rights holder, negotiating, and making royalty payments. Amateurs are generally not willing to bear these costs, which may be daunting even to those in the copyright business. *See generally* LESSIG, *supra* note 62, at 95-97 (recounting Jon Else's problems in attempting to get copyright clearance for incorporating a few seconds of a *Simpsons* episode in the background of a documentary film); Litman, *supra* note 56, at 252-53 (discussing whether people would regard a legal rule allowing free use of copyrighted work for personal purposes as being fair and sensible); *see also* LESSIG, *supra* note 62, at 19 ("The technologies of publishing [in the past] were expensive; that meant the vast majority of publishing was commercial. Commercial entities could bear the burden of the law—even the burden of the Byzantine complexity that copyright law has become."); SAMUELS, *supra* note 43, at 269 ("It's cost me about twice my advance just to acquire the photos [in the book] and pay for the permissions to use them. (Now I know why no one has ever written a book like this.)").

151. *See* Litman, *supra* note 56, at 237; Tushnet, *supra* note 54, at 651.

152. Works such as *The Grey Album* are "outside the scheme of copyright" in two significant ways. First, they are outside the financial incentive and distribution schemes of copyright. *See generally* Benkler, *Coase's Penguin*, *supra* note 107, at 396-99 (noting that value-added distribution can be achieved by peer distribution on the Internet). Second, they are generally not protected by copyright because they intertwine new creative effort with the unauthorized use of preexisting material. *See* 17 U.S.C. § 103(a) (2000). Even where collaborative digital works are authorized, they create significant and difficult copyright issues. *See generally* Chon, *supra* note 73, at 270-72 (discussing the difficulty of applying print based copyright law to collaborative digitized works); Corey Field, *Copyright Co-Ownership in Cyberspace: The Digital Merger of Content and Technology in Digital Rights Management and E-commerce*, 19 ENT. & SPORTS LAWYER 3, 3-5 (2001) (discussing copyright issues associated with distributing authorized digital files that contain both proprietary entertainment content and software technology); Liu, *supra* note 3, at 418-20 (noting that courts are grappling with whether consumers can build on preexisting copyrighted works that are digitized).

In summary, we offer two primary observations about the current impact of networked technologies on creation. First, cheap digital technologies of authorship are increasingly allowing individual, poorly capitalized players to produce works that are competing for attention with the works created by corporate and highly capitalized players. Second, distributed networks are encouraging new forms of collaborative creativity. These new forms are largely amateur, highly decentralized, and are in conflict with the legal rules imposed by copyright to regulate creative practices.[153] Perhaps most importantly, these new forms threaten the business models of copyright industries and create potential infringements of existing copyrights. For these reasons, they are subject to attack.

2. Selection

The next function in the traditional chain of copyright practices is selection. By "selection" we mean the exercise of some discriminatory judgment over which creative works warrant reproduction and distribution. That is, the process whereby someone decides which works are worthy of the additional investment necessary for it to move outside the author's study, out into society. One might suggest that creation itself is a form of selection. Every process of creating new work actually involves the intentional or accidental selection of words, sounds, and images from a palette of options. As discussed above, however, this type of selection is construed by copyright law as the creation of a new work.

To understand the importance of the selection function to established copyright practices, consider how the "spec screenplay" market functions. Tens of thousands of speculative screenplays are created each year by aspiring writers, and mailed to agents, producers, actors, and others involved in the commercial movie industry.[154] Most such "spec scripts" go unread, a number are read and rejected, and a very tiny percentage of manuscripts are actually

153. *See generally* Litman, *supra* note 56.

154. *See* ROBERT W. BLY, HOW TO GET YOUR BOOK PUBLISHED: INSIDE SECRETS OF A SUCCESSFUL AUTHOR (2000) (describing a process to get a spec book published); THOM TAYLOR, THE BIG DEAL: HOLLYWOOD'S MILLION-DOLLAR SPEC SCRIPT MARKET 6-19 (1999) (describing the boom in spec scripts beginning after the 1988 strike by the Writers Guild of America).

adjudged worthy of commercial development. The decision that a script is worth producing is the epitome of the selection function. Similar selection functions exist in every copyright industry. Aspiring musicians, singers, and songwriters send demo tapes to a jaded and besieged group of music industry functionaries.[155] Visual artists compete for shows and the attention of gallery owners.[156] Every March and August, law professors inundate law review editors with cord after cord of pulverized lumber, in an effort to attract the attention of those who control access to high ranking publications.[157] Selection is absolutely necessary because investments will not be made on works that are not likely to be well received. Although copyright laws fully protect works of caterwauling, doodling, and doggerel, it is pointless to attempt to sell such works to the public. Copyright law does not distinguish information-wheat from information-chaff, but the agents of the industries benefit from finding only the most commercially promising works to produce and sell.

The significance of the selection agent's role can be seen in the premium placed on the mechanics of selection in high-risk industries like pop music and movies. These industries are based on a venture capital model of risky production:[158] no one knows what type of content is going to be successful, so a large number of bets are placed on various alternative products.[159] This is necessary because,

155. *See* M. WILLIAM KRASILOVSKY ET AL., THIS BUSINESS OF MUSIC: THE DEFINITIVE GUIDE TO THE MUSIC INDUSTRY 11 (9th ed. 2003).

156. *See generally* CAROLL MICHELS, HOW TO SURVIVE AND PROSPER AS AN ARTIST: SELLING YOURSELF WITHOUT SELLING YOUR SOUL (5th ed. 2001) (providing techniques and ideas to help artists begin a successful career).

157. *See generally* Roger C. Cramton, *"The Most Remarkable Institution": The American Law Review*, 36 J. LEGAL EDUC. 1, 7-8 (1986) (discussing student editors' preferences in selecting articles for publication in law reviews and student editors occasional failure to recognize seminal articles); Kenneth Lasson, *Scholarship Amok: Excesses in the Pursuit of Truth and Tenure*, 103 HARV. L. REV. 926, 936, 948-49 (1990) (emphasizing the importance of publication in law reviews for a professor seeking promotion, tenure, or prestige within the legal profession).

158. *See generally* Tom Weidig, Towards a Risk Model for Venture Capital Funds: Liquidity and Performance Forecasting (Working Paper, Nov. 2002), *at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=353562) (describing the venture capital process).

159. *See, e.g.*, John Seabrook, *The Money Note: Can the Record Business Survive?*, THE NEW YORKER, July 7, 2003, at 42, 45-46 (examining the music industry's business model and its betting strategy on singers and music styles), *available at* http://www.newyorker.com/fact/content/?030707fa_fact2.

even with selection agents making their best bets, the majority of films, books, and songs are commercial flops. Yet, one high-performing hit will more than cover the costs of a large number of failures.[160] Optimizing the hit-to-flop ratio is the job of the selection agent, and the high-stress and high-turnover of staff in these industries are symptoms of an environment where, as William Goldman says, "nobody knows anything" about what makes the content successful, but they have to bet anyway.[161]

Of course, some industries are less affected by these kinds of decisions than others. The ease of being selected for a given industry is generally inversely proportional to the expense and risk that the copyright intermediary will agree to bear in order to exploit the content commercially. Getting a movie made is so expensive and risky that selection in this industry is incredibly protracted, time-consuming, and cautious.[162] Music and novel publishing is slightly expensive and risky, and selection involves choosing a small number of works that appear to provide high probabilities of a high return on investment.[163] At the other end of the spectrum, law review publishing is underwritten by a combination of individual law school contributions, income from Lexis and Westlaw, and law library

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160. According to Seabrook's article in *The New Yorker*,

> I asked Flom [an Atlantic Records executive in the music industry] whether he thought hits might become less important to the record business. "That ain't gonna happen," he said. "If anything, hits can be more important than ever, because you can make stars on a global scale now.... [T]he day we stop seeing hits is the day people stop buying records."

Id. at 46.

161. WILLIAM GOLDMAN, ADVENTURES IN THE SCREEN TRADE: A PERSONAL VIEW OF HOLLYWOOD AND SCREEN WRITING 39 (1983).

162. *See* TAYLOR, *supra* note 154, at 72-75 (describing the pattern of caution undertaken by movie executives to avoid losing their jobs). Of course there is nothing to say that the expenditure of millions means a superior product to a cheaper work. As Douglas Wolk notes in his dismissive commentary on *The League of Extraordinary Gentlemen*, a movie based on an artistically and commercially successful graphic novel/comic, "[o]nce again, a cartoonist can create for the price of a sheet of paper what a filmmaker may not be able to for millions." Douglas Wolk, *The Comic Book 'League' Was Better*, N.Y. TIMES, July 13, 2003, at 18AR, *available at* http://www.nytimes.com/2003/07/13/movies/13WOLK.html?8mu.

163. Which is to say, simply, that the prospective return on investment needs to be greater than that offered by alternative forms of investment at that level (or lower) of risk. If the adjusted ROI calculated against risk is, say, less than that offered by a bank's insured investments, then the rational investor will forego the pleasure of being a movie producer or book publisher and put her money in the bank.

subscriptions.[164] Therefore, in the absence of a bottom line other than reputation, law review editors do not perform close calculations of risk and return with each article. Given the large number of law reviews in the United States, the number of articles is nearly equivalent to the number of slots for articles. Thus, most articles are essentially guaranteed to be published somewhere. This explains why law professors do not simply want to be published, but want to be published by those journals that do not want to publish their work.[165] In any event, it does not much matter how difficult it is for an author to be selected. In all of the copyright industries, it remains true that a small percentage of works that could be produced and marketed are actually produced and marketed and that someone, somewhere, is making decisions regarding whether a given work is worth exploiting.

The vast majority of copyright-protected works today never move past creation to the process of commercial selection. For instance, most authors of email, diaries, snapshots, and children's birthday videotapes do not seek out commercial exploiters of their creations.

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164. Overall, a publication's total cost of production for publishing four issues per year is approximately $45,000 per year. If the publication collects all of the subscribers' dues, it can generate about $30,000 per year in revenue. The average publication also probably generates anywhere from $5,000 to $10,000 in royalties from LEXIS and Westlaw. Bradley J. Martineau, *The Future of Law Reviews and Legal Journals from a Student Editor's Perspective*, 2 J. TECH. L. & POL'Y 1, ¶ 15-16 (2002), *at* http://www.pitt.edu/~sorc/ techjournal/ articles/Vol2,1MARTINEAU.pdf. *See generally* Bernard J. Hibbitts, *Last Writes? Reassessing the Law Review in the Age of Cyberspace*, 71 N.Y.U. L. REV. 615, 658 (1996) (noting that copyright in law review articles dampens distribution by "making [access to articles] more difficult and potentially more expensive to provide").

165. Or, as Groucho Marx put the corollary: "I don't care to belong to any club that will accept me as a member." JOHN BARTLETT, FAMILIAR QUOTATIONS 693 (Justin Koplan ed., 16th ed. 1992). *See* Hibbitts, *supra* note 164, at 175, 180 (discussing and discrediting the prestige or "halo effect" that legal scholars obtain by publishing in "elite" law reviews). Today it seems that law reviews, like everyone and everything else, need to be numerically ranked in multiple dimensions. Such rankings are now important because society believes in their importance. But what is the correct order? The *Florida State Law Review* attempted to answer this question in a 1999 symposium, which discussed the ranking of specialized law reviews. *See* Symposium, 26 FLA. ST. U. L. REV. 813 (1999), *available at* http://www.law.fsu.edu/journals/lawreview/backissues/264.html. In the lead article, the authors devised a formula to rank the reviews based on the prestige of the authors that published in them. Tracey E. George & Chris Guthrie, *An Empirical Evaluation of Specialized Law Reviews*, 26 FLA. ST. U. L. REV. 813, 826 (1999). This is a circular proposition. Obviously, ranking games are a bit silly, but are also quite serious to untenured faculty. *See* Lasson, *supra* note 157, at 936.

An equally large number of artists, composers, and authors work diligently to develop their craft in their spare time, but never actually submit their efforts to commercial exploiters. The number of amateur musicians who fail to get a recording contract is dwarfed by the number of those who never even try to get a recording contract. This is usually explained by the author's presumption that the works produced simply wouldn't pique the interests of commercial exploiters. As a result, amateur creations have rarely entered the commercial world of the copyright industries.

Selection is an investment decision. The agents who are performing the selection function—the screenplay readers and the movie executives with greenlight power, the commissioning editors for trade books and magazines, the artist and repertoire agents for the pop music industry, and so on[166]—are engaged in making *ex ante* guesses about the likely *ex post* value of the content under consideration. This structure makes perfect sense in industries where valuable assets and resources have to be deployed to exploit the content. Traditional copyright industries have finite resources that have to be marshaled to bring works to the market. It is impossible to publish all content available because only a fraction of content would cover the cost of transferring that content to the individual consumer.

Of course, the need for *ex ante* selection diminishes as the resource constraints in production and dissemination are lowered. If one can economically produce and deliver all content, then there is no need to be selective. It might be predicted, then, that cheap digital storage and transmission through distributed networks are moving the traditional physical resource constraints toward zero.[167] In an environment of zero-cost production and dissemination, it makes much less sense to have a selection agent making *ex ante* decisions about works which the general public might like to see. It would make more sense to empower the individual consumer

166. *See generally* THE PLAYER (Fine Line Features 1992) (providing insight on movie executives and the selection function); ALL THE PRESIDENT'S MEN (Warner Brothers 1976) (showing a vignette on commissioning editors and their role in selecting articles).

167. This is true for all of the functions here, which has in turn lead to the decentralization opportunities.

to choose from among a larger array of works that can be made available at lower costs.

Even though digitization and the Internet reduce physical resource constraints, there is another significant resource constraint alleviated by selection agents: the constraint of time. An infinity of mixed-quality works is much more frustrating than a set of pre-selected high-quality works. The average individual will pay someone else to screen out the worst and provide the best. The use of trusted selection agents may generally increase selection efficiency, if the aesthetic judgments of the selection agent can be calibrated closely enough with the desires of the individual deciding.

Today, distributed selection is an emerging reality. In various ways, distributed selection is replacing the past functions of the entertainment industries by sifting through and prioritizing large numbers of works. Increasingly, "social software" allows for the profiling of personal preferences, the cross-indexing of those preferences with data regarding the preferences of other similar individuals, and thereby the relatively reliable prediction of future preferences from among a field of works.

Perhaps the best known social software tool is Google, which ranks the relevance of a given website by determining the number of other sites that are linked to it.[168] As Edward Felten has explained, "Google is not a mysterious Oracle of Truth but a numerical scheme for aggregating the preferences expressed by web authors."[169] Google operates as a means of filtering out the vast panoply of irrelevant material, and it does so by collecting relevance assessments made by other users.

This concept—capturing individual behaviors and preferences, and finding algorithms to correlate preference groups and thereby rank information relevance—is generally known as collaborative

168. A slightly more comprehensive explanation is that Google crawls the web every thirty days or so, stores a cache of the pages it finds, and builds a lexicon of terms. For each term it creates a list of pages that contain that term. A query for a given term returns that list, sorted by Google "pagerank." Pagerank is computed based on the pageranks of the pages linking to a document. *See* Sergey Brin & Lawrence Page, *The Anatomy of a Large-Scale Hypertextual Web Search Engine*, ¶ 4.5.1, *at* http://www.cse.ogi.edu/~krasic/cse585/brin98anatomy.pdf (last visited Sept. 6, 2004).

169. Edward W. Felten, *Googlocracy in Action*, *at* http://www.freedom-to-tinker.com/archives/000509.html (last visited Sept. 6, 2004).

filtering.[170] Collaborative filtering is nothing new. For instance, the notion that good word of mouth drives up sales of movie tickets. *Billboard*'s listing of top singles and albums, or *The New York Times* listings of best-sellers, are processes by which, to some extent, the public casts votes to buoy the sales of information products. Well-written collaborative filtering software, however, can offer much more personalized and nuanced varieties of recommendation.

The role of collaborative filtering is perhaps best described by the name of one of the first systems, *People Helping One Another Know Stuff* or *PHOAKS*.[171] The idea is to match a person—you, for example—with people who are similar to you in meaningful ways and who have rated or reacted to content previously. If we can categorize you as belonging to a group—say a group that likes books with particular subjects and themes—then the book ratings or book-buying behaviors of other people in that group can be used to recommend the information and entertainment you will find appealing.[172] Familiar commercial examples include Tivo's suggested broadcasts, Amazon's book recommendations, and Netflix's movie recommendations.[173]

Distributed selection is increasingly a more reliable predictor of preferences than the traditional industry selection agents such as commissioning editors or movie executives. Distributed selection is real-time, individual-focused and resistant to the personal generalities, inconsistencies, and information deficits that plague traditional industry selection agents. The average selection agent makes a gut reaction decision about the interest level in a particular market or submarket. The algorithmic distributed selection agent makes individualized predictions based on the end user's interests.

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170. *See* Benkler, *Freedom in the Commons*, *supra* note 11, at 1259 (discussing Google as a form of collaborative peer review and voting).

171. *See* http://www.cs.indiana.edu/~sithakur/l542_p3/ (last visited Nov. 6, 2004).

172. *See Collaborative Filtering Workshop, Summary of Proceedings*, University of California, Berkeley (Mar. 16, 1996), *at* http://www.sims.berkeley.edu/resources/collab/collab-report.html.

173. The systems are primarily automated, collaborative systems but have human overrides. *See* Lisa Guernsey, *E.Retailers Try to Make Intelligence a Bit Less Artificial*, N.Y. TIMES, May 1, 2003, at G1, *available at* http://query.nytimes.com/gst/abstract.html?res=FB0D12F934590C728CDDAC0894DB404482.

Though Google, Amazon, Tivo, and Netflix might be the most familiar examples of this type of distributed selection agent, we are beginning to see a number of others in various content industries.[174] In the music field, for example, *AudioScrobbler* is a plug-in for various music playing applications.[175] In most MP3 playback applications, you, the user, can rate music you like and dislike on a five star scale.[176] You think Björk's "Pagan Poetry" is sheer poetry and rate it at five stars, but you think Britney Spears' "Toxic" is, well, toxic and give it one star. Based on your ratings, *AudioScrobbler* checks the playlists of other users and finds those users whose rankings are most similar to yours. It then recommends songs that these users rate highly but which are not in your playlist.[177] A variant on this, named *CommuniCast*, was recently outlined by Todd Larson.[178] The basic idea here is for a webcast; a streaming radio system that is programmed using these sorts of collaborative mechanisms. In this way listeners with similar interests, as expressed by their playlist rankings, would form a virtual radio station, streaming only the sorts of music they commonly like.[179]

In the text arena, decentralized selection is even more obvious; consider blogs.[180] Weblogs demonstrate distributed selection characteristics because each blog will usually have a "blogroll" or list of other similar blogs, and will usually link to and respond to the

174. *See, e.g.*, Clay Shirky, *The Music Business and the Big Flip* (suggesting ways distributed selection might work in the music industry and its effect on A&R), *at* http://shirky.com/ writings/music_flip.html (last visited Aug. 29, 2004).

175. *See About AudioScrobbler*, *at* http://www.audioscrobbler.com/help/ (last visited Aug. 29, 2004).

176. *See, e.g.*, *iTunes: The Best Digital Jukebox*, *at* http://www.apple.com/itunes/jukebox.html (last visited Nov. 6, 2004).

177. *See About AudioScrobbler*, *supra* note 175.

178. *See* Todd Larson, CommuniCast: Developing a Community-Programmed Webcasting Service (Working Paper, 2003), *at* http://papers.ssrn.com/paper.taf?abstract_id=490062.

179. Other examples of social software applications in the music field include MusicPlasma (http://www.musicplasma.com/), MusicMobs (http://www.musicmobs.com/), and WebJay (http://webjay.org/about). For a description of social listening practices that emerge as a consequence, see Clay Shirky, *The New Musical Functionality*, Corante blog entry, *at* http://www.corante.com/many/archives/2004/07/22/the_new_musical_functionality.php (last visited Aug. 29, 2004).

180. Indeed some blogs are helpful in distributed selection of other content types. So, for example, "Close Your Eyes" provides links and commentary on a range of sites that host music or comment on music. *See* http://musik.antville.org/stories/676094/ (last visited Aug. 29, 2004).

posts in other like-minded blogs. Thus, if you like, for instance, the right-wing musings of "Instapundit," then its blogroll will direct you to the work of other conservative bloggers. There are various mechanisms that allow this process to be performed and updated automatically.[181]

This is a form of collaborative filtering, albeit a fairly simple one.[182] There are a number of other, more sophisticated, examples. As Yochai Benkler has observed, the technology news and commentary sites of *Kuro5hin* and *Slashdot* provide for a distributed selection mechanism through their moderation process.[183] Any posting on these sites is rated by multiple users, and an average score is assigned to the posting. Other users can then set their threshold, to see only those postings which are rated above a certain level. The approach can be generalized beyond blogs and technology-related websites. For example, Threadless.com adopts this approach in the fashion industry: contributors submit t-shirt designs to Threadless.com, and users both vote and comment on the designs. Those designs which are rated above a certain level are then made available for purchase by users.[184] In the film industry, a number of sites developed by well known directors and actors allow the aspiring screenwriter to post her screenplay and have it assessed by other writers, industry players, and eventually, perhaps Kevin Spacey and Francis Ford Coppola.[185] Although broad participation in these types of opt-in voting and review mechanisms may seem surprising, the *American Idol* show demonstrates that a large base of people are actually interested in ranking and rating preferences as a form of entertainment.[186]

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181. For example, Technorati provides feedback on which blogs are linking to your blog and allows for automatic inclusion of this information in your blog. *See* http://www.technorati.com/ (last visited Aug. 29, 2004).

182. Other examples within the blogosphere include Popdex, a website popularity index (http://www.popdex.com/); Blogdex, an index of the "most contagious" blogs (http://blogdex.net/); and Daypop, a blog-based news and current events service (http://www.daypop.com/).

183. Benkler, *Coase's Penguin*, *supra* note 107, at 388-95; *see also* A. Michael Froomkin, *Toward a Critical Theory of Cyberspace*, 116 HARV. L. REV. 749, 863-66 (2003) (discussing the website Slashdot, which facilitates discourse without excluding unhelpful participation).

184. *See* http://www.threadless.com/help.php?sid= 9&aid=40 (last visited Aug. 29, 2004).

185. *See* Trigger Street Productions, *at* http://www.triggerstreet.com/gbase/Trigger/Homepage (last visited Sept. 6, 2004); *see also* America Zoetrope and Virtual Studio, *at* http://www.zoetrope.com/about.cgi (last visited Aug. 29, 2004).

186. *See American Idol*, *at* http://idolonfox.com/ (last visited Aug. 29, 2004).

This is not to say that distributed agents are necessarily better than centralized agents. Technologies of distributed selection are certainly subject to abuse by volunteers as well as capture by marketing agendas.[187] It seems inevitable, however, that the function of content selection in the future will likely be more socially distributed. Central selection agents will lose their relative power in much the same way that the proliferation of cable television channels led to the decline of the social prominence of the three major American broadcast networks. In situations where we can actually compare centralized *ex ante* and decentralized *ex post* selection directly—for example, the *ex post* distributed Google search engine as contrasted with the *ex ante* centralized, human-selected Yahoo! directory—the distributed agent seems to garner greater market share because it works better.[188] The work of the volunteer, amateur, and socially distributed Open Directory Project is more comprehensive than the Internet directory produced by Yahoo!.

As with the creation function, we see that distributed networks are transforming the selection function. The conclusion here is simple: traditional centralized *ex ante* selection increases costs and decreases the total available content. Now that distributed selection is possible, *ex post* selection among works by decentralized agents seems to be a more socially beneficial alternative.

In summary, we offer two observations. First, the role of the selection agent is becoming less important in light of the reduced costs of dissemination. Second, the selection agent is becoming less important in light of technologies of social software. It is possible that free dissemination and social software will completely do away with the need for centralized selection in the future.

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187. *See* F. Gregory Lastowka, *Search Engines Under Siege: Do Paid Placement Listings Infringe Trademarks?*, 13 INTELL. PROP. & TECH. L.J. 6 (2002); F. Gregory Lastowka, *Search Engines, HTML, and Trademarks: What's the Meta For?*, 86 VA. L. REV. 835, 835-84 (2000) (discussing strategic manipulation of search engine rankings); Evan Hanson, *FTC Wants Paid Search to Shape Up*, CNET News, *at* http://news.com.com/2100-1023-940598.html (last modified June 28, 2002) (discussing FTC concerns over the manipulation of search results listing by search engines to favor business partners and advertisers).

188. *See* Hitwise Search Engine Ratings, *at* http://searchenginewatch.com/reports/article.php/3099931 (May 17, 2004) (suggesting that as of April 2004, Google had a 50% greater market share than that of its closest competitor, Yahoo!).

3. Production

In the production function, someone invests in preparing a work for the market. In the area of original oil paintings, this might just mean finding a frame. The original copyrighted work is the relevant object of consumption. Outside of that niche market, however, production invariably entails the *re*-production of the work. Even in broadcasting, a work must be reproduced in order to be exploited commercially. So, in the case of film, a celluloid print is struck, in the case of packaged software and music, the gold master compact disk is produced and the consumer CDs are reproduced from this. In book and magazine publishing, the text and graphics are typeset and then multiple copies are made from this master version in one of many different ways. Large scale commercial reproduction in the past rewarded substantial capital investments such as the purchase of expensive machinery capable of quickly and inexpensively reproducing the original work onto other physical media. Production also entailed the purchase of physical media which bore the copies of the original work: paper, film stock, etc.[189]

As is now well understood, however, the assumptions about central control over production and reproduction of copyright content have been profoundly altered over the last twenty years. This began with the introduction of consumer reproduction technology such as Xerox reprography, audio cassettes, and VCRs. The introduction of these technologies occurred at a time when distributed creation and selection of content were not possible, and so we think of these as "reproduction" devices.[190] However, in an environment where the other functions are decentralized, and where a significant percentage of content is digitized, what we once thought of as potential *reproduction* devices can now be seen as content *production* devices.

The content production device known as the general purpose computer is now found in a huge number of homes and offices;

189. *See* Wendy J. Gordon, *Authors, Publishers and Public Goods: Trading Gold for Dross*, 36 LOY. L.A. L. REV. 159, 170 (2002); Ku, *supra* note 95, at 295 & n.221.

190. Of course from the perspective of the centralized players in the copyright industries these are "unauthorized reproduction" technologies.

it comes standard with disk drives sufficient to store untold amounts of information; it has high-quality video devices to display text, movies and images; it can be outfitted with paper printers to print text, documents and images; and it inevitably includes CD-ROM/CD-R drives to play and copy music and data, and DVD/DVD-ROM/DVD-R drives to play and copy movies. Increasingly, with lightweight laptops and versatile PDAs like Apple's *iPod*, the general purpose computer is becoming a mobile and personalized technological accessory, much like the standard eyeglasses and wristwatches of the twentieth century.[191]

This absence of intermediaries is a profound change, and one that perhaps, as Jessica Litman has recently observed, has assumed the status of a cliché.[192] The difference between the production function before and after the introduction of the personal computer is nowhere more evident than in the RIAA lawsuits. It was once the case that consumers needed intermediaries such as the recording industry for the production of music. The public needed the industry to invest in producing copies because, among other things, individual consumers could not press their own vinyl. Later, consumers could tape music, but this was time-consuming and there was some loss in the quality of the work. Today, with the advent of perfect digital copies, the public is willing to take over the production function.[193] The music industry, which in the past only had to pursue commercial operations with the means of mass-production, has found itself struggling against the production capabilities of the average home computer owner.[194]

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191. *See generally* HOWARD RHEINGOLD, SMART MOBS: THE NEXT SOCIAL REVOLUTION xiv-xviii (2002) (describing the evolution of the personal computer and potential social changes that our new-found inter-connectedness may soon bring).

192. *See* Litman, *supra* note 101, at 337; *see also* Ku, *supra* note 95, at 266-67; Liu, *supra* note 3, at 409.

193. *See* Lenhart et al., *supra* note 9.

194. According to the Recording Industry Association of America (RIAA), it

> pursues a global policy comprised of education, enforcement, developing technologies, and when necessary, litigation.... [It] works with federal, state, and local law enforcement agencies and prosecutors' offices to coordinate seizures of pirated product.... In cyberspace, the RIAA's team of Internet Specialists, with the assistance of a 24-hour automated webcrawler, helps to stop Internet sites that make illegal recordings available. Based on the Digital Millennium Copyright Act's (DMCA) expedited subpoena provision, the RIAA sends out information subpoenas as part of an effort to track and shut down repeat

As described above, the Internet itself is a technology of production. Each time a web page or blog is accessed, packets of data are transported through the network to be reassembled on the requesting system.[195] Combining the production technology of the Internet with the creative potential of the personal computer, one can see why self-publishing now abounds. We have seen a reduction in the cost of producing "vanity press" hardcopy editions of our collected works,[196] along with greater customization of the content of these editions.[197] The genius of cheaper, decentralized production, however,[198] is not just that those who otherwise would publish can do so more cheaply, but that those who never considered that they could publish are now free to do so, and are making the most of this opportunity.[199] The "blogosphere," and the Internet more generally, is simply the greatest advance in self-expression and self-publishing that we have seen since the invention of the printing press, and, based on the number of people involved, it is the most democratic advance in individual publishing since the invention of writing.[200]

> offenders and to deter ... those hiding behind the perceived anonymity of the Internet.... Every year, by assisting in criminal trials and initiating civil litigation, RIAA wins hundreds of guilty pleas from, or convictions of, music pirates, plus scores of settlements and judgments. RIAA is also pioneering copyright enforcement on the Internet.

What the RIAA Is Doing About Piracy, *at* http://www.riaa.com/issues/piracy/riaa.asp (last visited Aug. 29, 2004).

195. *See* Information Science Institute, *DARPA Internet Program, Transmission Central Protocol, Protocol Specifications* (providing a detailed overview of transmission central protocol), *at* http://www.fggs.org/rfcs/rfc793.html (last visited Sept. 6, 2004).

196. *See* Gayle Feldman, *Got a Book in You? More Companies Than Ever Are Willing to Get It Out*, N.Y. TIMES, March 1, 2004, at C6, *available at* http://query.nytimes.com/search/abstract?res=F30D13FE3D5B0C728CDDAA0894DC404482.

197. *See, e.g.*, Custombooks.com, *at* http://www.custombooks.com (last visited Sept. 15, 2004); Lulu, *at* http://www.lulu.com/ (last visited Aug. 29, 2004).

198. And, of course, decentralized creation and selection which we have already discussed, and decentralized dissemination, which we discuss in the next section.

199. *See* Lenhart et al., *supra* note 9.

200. The figures on this are notoriously hard to pin down, but at the beginning of 2004 it was estimated that there were 4.1 million hosted blogs. *See In Google We Trust*, *at* http://www.perseusdevelopment.com/blogsurvey/ (last visited Sept. 6, 2004). At the date of writing, Google had 52.6 million pages indexed with the word "blog" in them. *See* http://www.google.com/ search?hl=en&ie=UTF-8&oe=UTF-8&q=blog&btnG=Google+Search (search run Aug. 29, 2004). A 2004 survey found that between two and seven percent of U.S. Internet users were blogging. *See* Lenhart et al., *supra* note 9. Against this, there were

It is worth noting that the revolution of the blogosphere did not occur because consumers suddenly became professional authors or creators. While it is possible that more people are spending more time today writing music or making films, the primary change is that these creative activities are now being published on a daily basis. They are also increasingly being found through the technology of search engines and other collaborative filtering technologies.

Outside the change in individual production that has emerged, digital networks allow the collective actions of volunteers contributing time and effort to replace the commercially motivated models of the past.[201] The grandfather of this sort of distributed, non-creative, textual production is Project Gutenberg. It was created by Michael Hart in 1971 in order to provide a free Internet library of electronic versions of books that were in the public domain.[202] A group of amateurs began to scan and distribute these books. This spawned other, related efforts such as Gutenberg-equivalents for Hebrew[203] and Nordic texts,[204] and a version for public domain sheet music.[205] This model of distributed amateur efforts at information sharing has also been applied in other contexts. Take, for example, the canonical database of information about the contents of compact discs. Initially called CDDB, but now renamed Gracenote, this database is the source of the track listings that appear when you insert a CD into your computer.[206] It compiled its comprehensive listings from individuals who cheerfully re-typed the liner notes

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somewhere over 52,000 reporters. *See* U.S. Department of Labor, *1998 National Occupational Employment and Wage Estimates*, *at* http://www.bls.gov/oes/1998/oesnat98.htm (last visited Sept. 6, 2004).

201. *See* Benkler, *Coase's Penguin*, *supra* note 107, at 371; Boyle, *supra* note 11, at 44.

202. Wikipedia, *Project Gutenberg*, *at* http://en.wikipedia.org/wiki/Project_Gutenberg (last visited Aug. 29, 2004).

203. *See* Wikipedia, *Project Ben-Yehuda*, *at* http://en.wikipedia.org/wiki/Project_Ben-Yehuda (last visited Aug. 29, 2004).

204. *See* Wikipedia, *Project Runeberg*, *at* http://en.wikipedia.org/wiki/Project_Runeberg (last visited Aug. 29, 2004).

205. *See* Wikipedia, *Mutopia Project*, *at* http://en.wikipedia.org/wiki/Mutopia_project (last visited Aug. 29, 2004).

206. Assuming that you are connected to the Internet at the time you insert the CD, your music client reads the serial number from the CD, checks this number against the numbers stored in Gracenote, and returns the data about the album title, artist, and track names. *See Gracenote CDDB: Music Recognition Service*, *at* http://www.gracenote.com/gn_products/cddb.html (last visited Aug. 29, 2004).

for each CD they placed in the CD-ROM drive. A similar process occurred with the enormous Internet Movie Database, IMDB.com, which initially derived its directory of movies from information provided by Internet users.[207]

We can therefore see that the production function, like the creation and selection functions, can be significantly decentralized and amateurized by distributed networks. Within the sphere of social information practices, the production of works has moved from being the primary market function performed by the copyright industry into a largely transparent feature of the Internet and distributed networks.

4. Dissemination

Dissemination has historically entailed the distribution of copies of works to outlets for purchase. Physical distribution beyond one's immediate sphere invariably requires the coordination of supply chains. Bookstores and newsstands are the most obvious examples of text-publishing industry supply chains. All copyright industries in the era before the Internet required dissemination mechanisms. Film required shipment of celluloid stock, music was shipped on vinyl discs, and so on. As discussed previously, the Internet revolutionized distribution at the same time it revolutionized production. Ten years ago, when John Perry Barlow wrote his article in *Wired*, he talked about how the Internet would affect dissemination.[208] Since that time, the model of dissemination has become even more decentralized as we have witnessed the development of peer-to-peer networks like Napster, Gnutella, FastTrack, FreeNet, and, most recently, BitTorrent.[209] As others have described, these technologies might be said to mirror the information network structure of the Internet generally: they move away from centralized nodes of information production, toward distributed, variable-path models without any clear center.[210] Numerous

207. *See Encyclopedia: IMDB*, *at* http://www.nationmaster.com/encyclopedia/IMDB (last visited Aug. 29, 2004).

208. Barlow, *supra* note 16.

209. *See* John Borland, *File Swapping Shifts up a Gear*, CNET NEWS, May 27, 2003, *at* http://news.com.com/2100-1026-1009742.html.

210. *See* Riehl, *supra* note 105, at 1764-65.

scholars have documented the extraordinary increase in the ease of information dissemination as a result of these networks, and we need sketch only the most obviously relevant features of the change in dissemination.[211]

First, with the increase in the size of hard disks, the expansion of bandwidth, distributed indices and servers,[212] and encrypted transmission,[213] dissemination is becoming ever-more decentralized and ever-more incapable of central control. Originally network architectures provided for relatively decentralized dissemination at the nodes of the network but still retained the possibility of central control. We can see this in the copyright-infringement cases involving networks during the early 1990s; the networks all involved bulletin board systems (BBSs).[214] It was possible for industry actors to stop infringement simply by targeting the infringer of copyright who was the system operator of the central BBS server. In shutting down the server, the industry actor shut down the leaf nodes. The development of the Internet necessarily involved a decentralization of control, but only in the general transmission protocol of the network.[215] At the application layer it was possible, and sometimes necessary, for a significant degree of centralized control to be applied. Thus, even though Napster was billed as a peer-to-peer, that is to say, highly decentralized, file-sharing network, the system was highly centralized at the index level. In order for Napster to work as it did, it was necessary for the company to retain central control of the index of user collections. Of course, Napster's centralized index represented the hub around which all illicit MP3 dissemination took place, and it was therefore the basis of the RIAA's attack and the eventual court decisions in its favor.[216] Once Napster was destroyed, it was replaced with Kazaa,

211. *See supra* notes 100-08 and accompanying text.

212. *See* Metro-Goldwyn-Mayer, Inc. v. Grokster, 259 F. Supp. 2d 1029, 1041 (C.D. Cal. 2003).

213. *See, e.g.*, Riehl, *supra* note 105, at 1781-83 (describing FreeNet's encrypted file system and the problems it poses for copyright enforcement).

214. *See, e.g.*, Sega Enters. Ltd. v. Maphia, 857 F. Supp. 679 (N.D. Cal. 1994) (order granting preliminary injunction), *amended* 948 F. Supp. 923 (N.D. Cal. 1996) (same); Playboy Enters., Inc. v. Frena, 839 F. Supp. 1552, 1554 (M.D. Fla. 1993) (finding liability for secondary infringement by proprietors of a BBS).

215. *See* Information Science Institute, *supra* note 195.

216. *See, e.g.*, *In re* Aimster Copyright Litig., 334 F.3d 643 (7th Cir. 2003); A&M Records

Gnutella, and other FastTrack based file-sharing systems, all of which are decentralized as to indexing as well as distribution,[217] making them much harder to control centrally.[218] The most recent step has been the development of BitTorrent,[219] which goes one step further in the decentralization of file-sharing by connecting any file request to multiple users who have the file.[220] This distributes the load across multiple hosts on the network.[221] Thus, decentralization continues to creep deeper into the network level of the file-sharing protocols.

In addition to the evolution in the structure of distributed networks, the applications that use distributed dissemination are proliferating all the time. At one point we were only concerned about the transfer of packets from one computer to another. Then came the sharing of files, at which time the major protocol was file transfer protocol or FTP.[222] Not long after, we saw widespread adoption of the protocols for electronic mail and web pages.[223] More recently, the distributed dissemination of information has been posted in blog pages. The protocol for this, RSS,[224] allows

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v. Napster, 239 F.3d 1004 (9th Cir. 2001).

217. *See* Tyler T. Ochoa, *1984 and Beyond: Two Decades of Copyright Law*, 20 SANTA CLARA COMPUTER & HIGH TECH. L.J. 167, 177 (2003) (examining the different network architectures of the various systems).

218. *See, e.g.*, Metro-Goldwyn-Mayer, Inc. v. Grokster, 259 F. Supp. 2d 1009, 1041 (C.D. Cal. 2003) (finding no contributory infringement by providers of file-sharing software that played no continuing role in facilitating exchange of files between users).

219. BitTorrent software is available at http://bitconjurer.org/BitTorrent/ (last modified Apr. 4, 2004), and the mechanism by which it works is explained at http://bitconjurer.org/BitTorrent/introduction.html (last visited Sept. 6, 2004).

220. *See, e.g.*, Borland, *supra* note 209; Paul Boutin, *Caveat MPAA*, SLATE (Feb. 27, 2004), *at* http://slate.msn.com/id/2096316/.

221. Of course, though the emphasis has been on illicit filesharing, BitTorrent is agnostic as to type of data transferred and it is increasingly being used for sharing of legally-reproducible content, business material, and so forth. *See* John Borland, *Legal P2P Networks Gaining Ground*, CNET NEWS (Mar. 11, 2004), *at* http://news.com.com/2100-1027-5172564.html.

222. *See generally* D.J. Bernstein, *FTP: File Transfer Protocol* (describing how FTP works), *at* http://cr.yp.to/ftp.html (last visited Aug. 28, 2004).

223. *See* TIM BERNERS-LEE, WEAVING THE WEB: THE ORIGINAL DESIGN AND ULTIMATE DESTINY OF THE WORLD WIDE WEB BY ITS INVENTOR (1999) (discussing the advent of E-mail).

224. The acronym RSS is said to stand for "Really Simple Syndication" or sometimes "RDF Site Summary." *See, e.g.*, *RSS 2.0 Specifications*, Technology at Harvard Law, *at* http://blogs.law.harvard.edu/tech/rss (last visited June 19, 2004); *What Does RSS Stand For?*, Answerbag, *at* http://www.answerbag.com/q_view.php/772 (last visited Aug. 28, 2004).

"newsfeeds" to be established for all blogs, thereby providing for decentralized dissemination of news and other current information.

Ten years ago, a revolution in decentralized dissemination of content was forecast.[225] This prediction is now coming true. The irony, of course, is that the widespread development of such systems is driven by the litigation strategy of the RIAA. Whatever the reason for the development of these systems, though, it is clear that decentralized dissemination of content is the distribution mechanism of the present and the future. The dissemination function, however, only deals with getting the content out to the consumers. The consumers still have to be made aware of the content and be convinced that they need it. This is the role of the promotion function.

5. Promotion

Although the creation, selection, production, and dissemination of content were all necessary functions in the commercial industry of copyright, they were not sufficient. Arguably, the most important factor in the business of copyright has always been promotion. For a work to succeed, individual consumers need somehow to be made aware of the work's existence. More importantly, they need to decide that their lives would be better if the work, or access to the work, were purchased.

In the past, the process of selection and the process of promotion were separate processes, both temporally and strategically. The work of a selection agent was to find the diamonds in the rough, while the promoter was a specialist in selling diamonds, cubic zirconium, or whatever else was on hand. The genius of the entertainment industry has not been in selecting Britney Spears over a million wannabes. Britney Spears *qua* musician is little different from those who competed with her on *Star Search* so many years ago. What is responsible for Britney Spears' current place in society is a well-oiled celebrity promotion apparatus. It is often sophisticated promotion, not the qualities of the artist or the work, that generates the revenues in commercial copyright markets.

225. *See* Barlow, *supra* note 16.

The importance of the promotion function to copyright industries is hard to overstate, but it is ignored in almost all accounts of copyright.[226] The greatest works of art, music, and writing are not socially significant if the public is unaware of their existence. Indeed, the marriage of marketing to copyright has fueled the explosion of value in copyright today. Witness how Disney has wed a diversified copyright portfolio with synchronized marketing efforts, transforming works into brands used to sell action figures, fast food, sleepwear, and vacations, which in turn re-popularize the copyright work. "Brand licensing" is one of the success stories of the entertainment industry during the latter half of the twentieth century.[227]

The promotion function is not simply about generating hype by flashing the product before eyeballs at every conceivable opportunity. There is certainly some of that, but the promotion function is more interesting than the story told by simple left-leaning critiques of Madison Avenue and Hollywood. The promotion function must overcome real limits on consumer time and interest that challenge the commercial success of most content. In order to do this, promoters have to leverage reputational capitals and cultural associations in complex ways. As discussed above in relation to collaborative filtering, works are often associated with particular sets of preferences and interests. Subtle trademarks and partnerships can therefore have significant persuasive effects on consumers.

Some promotional activities go unrecognized by consumers. For instance, publishing companies maintain separate imprints for different varieties of content. These imprints accrue brand recogni-

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226. Nadel does mention it as one of the costs of copyright, though he terms it "marketing" and its scope is correspondingly narrower than that presented here. *See* Nadel, *supra* note 86.

227. Of course, brand licensing incorporates aspects of both trademark and copyright, and the relationship between them is an interesting one. *See* Gideon Parchomovsky & Peter Siegelman, *Towards an Integrated Theory of Intellectual Property*, 88 VA. L. REV. 1455, 1497-1500 (2002) (examining the synergies created between disparate intellectual property regimes, including trademark and copyright); F. Gregory Lastowka, *The Trademark Function of Authorship* (unpublished manuscript, on file with the authors) (discussing the trademark function of authorial attribution). For a criticism of the extent of brand protection and the creation of properties in the brand itself, see, for example, Mark A. Lemley, *The Modern Lanham Act and the Death of Common Sense*, 108 YALE L.J. 1687, 1705-09 (1999); Jessica Litman, *Breakfast with Batman: The Public Interest in the Advertising Age*, 108 YALE L.J. 1717, 1731-35 (1999).

tion for the type and quality of the works published there. The imprints "Prentice-Hall," "The Financial Times," and "Penguin" are well-known imprimaturs of style and quality in, respectively, college textbooks, business news, and trade paperback books. Yet they are actually all just brands of one company, Pearson.[228] Publication of any work within these imprints, or within any other imprint owned by another company, provides a promotion signal that the new work is of a nature that consumers of previous content in that imprint like.[229]

Likewise, many types of serial works, such as magazines or journals, carry a strong promotional signal: if you liked the June issue of *Cat Fancy*, you will probably like the July issue of *Cat Fancy*. A similar mechanism is at work in small record labels, where particular labels such as Def Jam Records or Rhino Records, for example, become associated with particular styles of music.[230] As in text publishing imprints, these are often brands of larger music labels. For instance, Vivendi's Universal Music Group owns MCA Nashville, Polydor, Island Def Jam, Decca, Geffen Records, Interscope A&M Records, and Dreamworks Records, whereas Bertelsmann owns Arista Records, BMG, RCA, Jive Records, Epic Records, and Windham Hill.[231] Obviously, Jive and Windham Hill benefit from not being synonymous with Arista Records, and instead

228. *See* Pearson PLC, *at* http://www.pearson.com/about/glance.htm (last visited Aug. 28, 2004).

229. This can be seen in the branding of the producers of copyright content. Penguin has a particular brand, as has Miramax films, and so on. The brands are recognizable by the consuming public as a result of the signals sent by previous copyright content, as well as by marketing, advertising, and so forth. *See* Barton Beebe, *The Semiotic Analysis of Trademark Law*, 51 UCLA L. REV. 621, 642-45 (2004) (examining trademarks and branding from a semiotic perspective).

230. Def Jam is a well-known hip-hop label. *See* Def Jam Records, *at* http://www.defjam.com/ (last visited Aug. 28, 2004). Rhino specializes in re-releases of music that other labels consider unprofitable. *See* Rhino Records, *at* http://www. rhino.com/ (last visited Aug. 28, 2004).

231. *See* Universal Music Group, *at* http://www.vivendiuniversal.com/vu/en/subsidiaries/u_music. cfm (last visited Nov. 6, 2004); Sony BMG Music Entertainment, *at* http://www.bertelsmann.com/divisions/bmg/labels/labels.cfm (last visited Nov. 6, 2004); PBS, *Media Giants*, *at* http://www.pbs.org/wgbh/pages/frontline/shows/cool/giants/ (last modified Feb. 2001).

benefit by sending divergent signals to consumers about the content that bears their respective imprints.[232]

Beyond this intra-company brand differentiation, various copyright industries engage in other types of activities as part of their promotion function. In the popular music business, the singer, promoter, and music label promote the content with music videos, concert tours, live radio appearances, and magazine interviews. The promotion function is primarily about finding a mechanism with which to connect potential consumers to content they are interested in using. In the development of copyright, promotion is probably the most important function when it comes to distinguishing the successful exploitation of commercial copyright content from the unsuccessful. One would think that this would not have changed with the advent of the personal computer and the Internet. Centralized copyright-based firms like Pearson or Sony still rely on television, radio, billboards, direct mailings, and other types of expensive marketing in order to convince consumers that the owner's content matches the consumers' interests. Thus, one might predict that the amateur content available in free digital formats will never manage to compete for social prominence with the musical works of Britney Spears.

However, we have begun to see the decentralization and consequent amateurization of the promotion function. In fact, decentralization leads to the merging of the selection and promotion functions. Consider the above discussion about how selection no longer need be performed by centralized agents, but can occur through distributed recommendation techniques such as collaborative filtering and social software mechanisms.[233] These personalized recommendations actually may take the place of promotional activities. Consider a starting position where content is posted to a vast, undifferentiated abstract space. Assuming resource constraints as to time, how can a user discover which content she wants, short of looking at everything? In a centralized content regime, the two functions, selection and promotion, separate out the content that she does not need, or cannot have under the resource constraints of centralization. Under centralization, the selection of

232. *See* Beebe, *supra* note 229, at 642-45.

233. *See supra* Part II.A.2.

valuable content occurs by the editorial department and the promotion occurs by the marketing department. The two functions are, however, conceptually identical because they involve determining *ex ante* what the consumer will want; despite appearing separate by virtue of their temporal separation.

Under the conditions of decentralization that distributed networks are beginning to create, all content can be posted, and no centralized selection or promotion is necessary. Amateur actors will take the role of promoters of content in the time honored way: they will recommend it to their friends. Just as we saw for the selection function, social software can take the place of advertising, specialized imprints, and even critics. The rating of a particular movie, book, or article by people who are just like you is a much better mechanism of promotion than any of the tools that centralized actors have at their disposal.

Thus, all of the examples given above for the amateur selection function apply to promotion. Of course, truly decentralized promotion is not yet possible, but some interesting examples are already apparent. The review function in Amazon is one instance where individuals are, essentially, promoting content in a decentralized manner.[234] Generalizing this process outside books, we can see the emergence of virtual communities who recommend content to each other. These communites started with Usenet and list servers, expanded through Yahoo! Clubs, and are now becoming the blogosphere. Distributed recommendation systems—like Ryze[235] or

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234. *See* Amazon.com, *at* http://www.amazon.com. The importance of these reviews as examples of decentralized promotion can be seen in the importance that authors place on them, even to the point that they will post fake reviews.

> Close observers of Amazon.com noticed something peculiar this week: the company's Canadian site had suddenly revealed the identities of thousands of people who had anonymously posted book reviews on the United States site under signatures like "a reader from New York." The weeklong glitch, which Amazon fixed after outed reviewers complained, provided a rare glimpse at how writers and readers are wielding the online reviews as a tool to promote or pan a book—when they think no one is watching.

Amy Harmon, *Amazon Glitch Unmasks War of Reviewers*, N.Y. TIMES, Feb. 14, 2004, at A1, *available at* http://query.nytimes.com/gst/abstract.html?res=F30D11FD345E0C778DDDAB0894DC404482.

235. *See* Ryze (offering online business and social networking), *at* www.ryze.com (last visited Aug. 28, 2004).

Epinions[236]—have been built to express opinions on all manner of content. This means that one can find interactive communities of specialists who are devoted to any topic and provide expert opinions on all manner of content. This may seem something less than a paradigm shift, but to understand it in centralized copyright terms, consider how it might feel to have fifty people in each section of the bookstore, record shop, or movie theater who do nothing but assess the content and offer advice to others. Connected to collaborative filtering, this type of approach would mean that consumers can adopt the opinions of the experts or aficionados who share their interests exactly.

We can therefore see that the promotion function will be significantly affected by distributed networks. A distributed, amateur selection function can fulfill the same social purpose that was previously performed by the centralized selection and promotion functions. While this hardly means that works will no longer be promoted, it means that social software may become a new promotional instrument which will be more diversified and less susceptible to commercial capture.

6. Purchase and Use

The act of purchase, in the traditional theory of copyright, provides the incentive for creation and also manages to subsidize the former five processes. It consists of a standard sale to the end user. In exchange for cash,[237] a consumer acquires the right to access a work. Generally this takes the form of the physical acquisition of some medium containing the content, such as a CD, DVD, or book. Purchase can, however, in some instances, be unrelated to the acquisition of physical media. In the case of movies, museums, and concert performances, it is clear that all the con-

236. *See* Epinions (offering online user reviews of products, services, and entertainment), *at* www.epinions.com (last visited Aug. 28, 2004).

237. This is not to say that cash is strictly necessary for the purchase process. What we are speaking about is the process by which the content is passed to the person who will ultimately experience it by reading, listening, or viewing. In some cases the copyright-protected work is delivered to the consumer without any requirement of payment. The most obvious examples of this type of "purchase" would be advertising and propaganda. *See* Lastowka, *supra* note 5, at 294-96.

sumer is getting for her cash is a right to experience the content (albeit in air conditioned comfort, perhaps with a bag of popcorn the size of her head bought from a concession stand).

With the proliferation of peer-to-peer systems, many commentators have weighed in on methods by which people within the copyright industry might be paid. These methods include levies on computer systems,[238] online tip jars,[239] electronic equivalents of busking,[240] a return to the system of artistic patronage,[241] and earning money through public performance with the online content acting as promotional material.[242]

These approaches are innovative and interesting, and they provide evidence that a decentralized purchase function will not necessarily look like a typical retail transaction for a CD or DVD. In fact we do not even need to go as far as any of these examples to see that the purchase function is possible, and easy, for decentralized actors. Purchase involves payment and delivery. Online payment has been a standard practice for five years. The dot com explosion and the rise of electronic commerce demonstrates how simple it is for purchases to be made via the Internet,[243] and there are now numerous providers of electronic commerce services for

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238. *See generally* Neil Weinstock Netanel, *Impose a Noncommercial Use Levy to Allow Free Peer-to-Peer File Sharing*, 17 HARV. J.L. & TECH. 1 (2003).

239. *See, e.g.*, Amazon.com, *What is the Amazon Honor System?* (discussing Amazon's implementation), *at* http://s1.amazon.com/exec/varzea/subst/fx/help/payor-faq.html/ (last visited Aug. 28, 2004); *The GPF Tip Jar* (providing users with a method of supporting a site's online comic strips), *at* http://www.gpf-comics.com/tips.html (last visited Aug. 28, 2004). *But see* The Future of Music Coalition, *The Online Tip Jar Experiment*, (criticising the use of those tipjars for music), *at* http://www.futureofmusic.org/articles/tipjarcritique.cfm. (Oct. 15, 2000).

240. *See* John Kelsey & Bruce Schneier, *The Street Performer Protocol and Digital Copyright*, FIRST MONDAY, *at* http://www.firstmonday.dk/issues/issue4_6/kelsey/ (June 1999).

241. *See, e.g.*, William Gibson, "Digital Day", Address to Directors Guild of America, Los Angeles (May 17, 2003), *available at* http://www.williamgibsonbooks.com/archive/2003_05_01_archive.asp#200322370.

242. The experience of The Grateful Dead is always invoked here. *See, e.g.*, Barlow, *supra* note 16. A more recent example is the band Phish, which adopts a similar ethos. *See, e.g.*, Seth Schiesel, *Seeing Payday, Not Piracy, Musicians Put Concerts on the Web*, N.Y. TIMES, Jan. 22, 2004, at G1, G7, *available at* http://www.nytimes.com/2004/01/22/technology/circuits/22band.html.

243. *See generally* WILLIAM S. DAVIS & JOHN BENAMATI, E-COMMERCE BASICS: TECHNOLOGY FOUNDATIONS AND BUSINESS APPLICATIONS (2003) (discussing basic E-commerce business strategy).

individuals.[244] We can therefore say with confidence that the payment component of the purchase function is available to decentralized players. As the delivery function for online content already occurs via the network, it presents no problem. As a result, these days purchase is an activity which can occur in a completely decentralized manner.

The final function in the content chain is use, the experience and/or manipulation of the content by the purchaser. It might appear strange to include this function at all, as the commercial exploitation of a copyright product would seem to begin with creation and end with purchase. Use is, however, an integral aspect of the commercial life-cycle of copyright content.

If one sees use as merely a passive reception of the content, nothing has changed. However, if one sees use as adapting, re-transmitting, modifying, or otherwise building upon the content, much has changed. In essence, whereas the "use" stage of copyright in the past was when a proclamation reached the public, the "use" stage in a decentralized amateur-to-amateur model is merely the beginning of a conversation. The amateur end user may become the amateur re-creator or re-distributor.[245]

B. Decentralization and Revolution

As we have demonstrated above, the functions that are fundamental to central control over copyright have migrated to the edges of the system, to the amateurs who create the content and the amateurs who use the content. In the sections that follow we examine two issues that emerge from this movement towards amateurization: why some industries are disproportionately affected by the move towards the amateur-to-amateur environment; and whether this is inevitably a destructive force for these industries.

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244. A search on Google for "E-commerce shopping cart" returns 2,540,000 hits for numerous providers of online shopping systems. *See* http://www.google.com/search?q=e-commerce+shopping+cart (last visited Sept. 15, 2004).

245. *See supra* Part II.A.1; *see also* Liu, *supra* note 3, at 406-20 (discussing more active approaches to the theory of consumer "use").

1. Dead Industries

With all the attention paid to copyright and music on the Internet, it is easy to forget that, in terms of net transfers of material protected by copyright, the peer-to-peer infringing transfer of music files is really an exceedingly small fraction of Internet traffic today. By far the most prevalent copyright exchanges are copies of texts, images, and computer programs. The World Wide Web is constructed out of these components. Practically all web pages, however, are provided by the copyright holder with the express intention that the material be copied by others on the network. Since 1995, copyright-related activity on the Internet has mainly been a trade in text, images, and software protected by copyrights that are not usually registered or enforced.

The problem with Napster was not that original and creative material protected by copyright law was being exchanged on a massive scale: this is essentially the definition of the World Wide Web in practice. Nor was the problem with Napster that Sean Fanning and the legions of Napster users had less respect for musical copyrights than, say, motion picture copyrights.[246] The real problem was that the centrifugal pressures leading to decentralization disproportionately affected music because of the way it was disseminated and consumed.

Twenty years ago, one might have surmised that the market for texts, not the market for sounds, would be the copyright market most vulnerable to erosion by unauthorized digital distribution. Even in the 1980s, a 200-page popular paperback novel could have easily fit on one of the floppy diskettes that were widely available. It didn't happen then, and even today peer-to-peer markets for Harry Potter books are almost non-existent,[247] whereas the piracy of digital music is so widespread that some commentators suggest

246. This argument is the favored theory of so-called copynorm scholars. *See* Wikipedia, *Copynorms*, *at* http://en.wikipedia.org/wiki/Copynorm (last visited Sept. 6, 2004). The argument is that certain norms of copying exist that differ depending on which type of content is being reproduced, and that the social approbation against, say, copying music is lower than it is against copying visual art.

247. We are not suggesting that scanning a Harry Potter book is impossible—indeed it has apparently been done, and Harry Potter books are being traded via peer-to-peer systems. We simply suggest that it happens less frequently than one might believe from first principles.

that the music industry is dead. Why is it that some content industries are so affected by decentralization and others are not?

There are some obvious differences between various content industries that lead to differences in the effects of the trend towards decentralization and amateurization. Contrast musical recordings and books. Even though the text of a work of fiction could have fit on a floppy disk in the 1980s, books have never been widely distributed in digital versions that a personal computer could interpret. The sale of music on compact discs, beginning in the mid-1980s, combined with the widespread inclusion of compact disc drives on computers, beginning in the mid-1990s, effectively sealed the fate of the music industry. Today's file-sharing programs like Kazaa and Morpheus are essentially just dissemination artifacts from CD sales. While compression and file-sharing software certainly play a part in these markets, they are really the last tiny link in a long chain. The aftermarkets in MP3 files could have never been effective if file-sharing via MP3s had not been remarkably easy, especially given that those fueling the market receive no remuneration and bear the risk of lawsuits. The answer to "why music?" is that the decentralized functions for the exploitation of music were already integrated into personal computers by the 1990s, and the native format of music distribution (i.e. compact discs) provided the casual user with all she needed to distribute widely.

In general, technological advances will certainly increase decentralized activity, such as file-sharing, over the long term. For instance, perhaps at some point the chore of creating a digital copy of a Harry Potter book will be substantially lessened through advances in scanning devices and optical character recognition. And perhaps new compression schemes, faster broadband connections, and decryption software will make the often-reported incidents of peer-to-peer movie-sharing something more than a boogeyman that appears primarily in the press. Certainly the increasingly widespread use of more powerful digital cameras, scanners, and camera phones will increase unauthorized copyright aftermarkets for images.

As for movies, it is clear that their path follows that mapped out by the music industry. Movies are released in digital format on

DVDs. Once network bandwidth and disk storage capacity catches up with them, the movie industry will follow the music industry into a death-spiral of copyright infringement actions, finger-pointing, and recriminations.

Which brings us neatly to the issue of whether decentralization is necessarily a destructive force for content.

2. The Big Shift

The discussion above draws attention to two seemingly inconsistent concepts. Decentralization seems to provide opportunities for individual creativity. This will lead to more content and is a wholly good thing. Against this, we have the specter of the music industry and seemingly the wholesale evisceration of the industry as a consequence of a number of these decentralized functions applying to music. Surely this will lead to significantly less content. Thus, at first blush, these two observations don't seem to be reconcilable.

For the most part, however, it is clear that they are. At least where content is created by one or two individual creators, it is evident that decentralization of all content functions leads to a much greater proliferation of expressive content. It is often joked that everyone has a book in them. With decentralized content functions, not only does everyone have a book in them, everyone can write that book, produce it, distribute it, and have it selected and used by that tiny subset of the population who would really love it.

The story is somewhat more complicated when it comes to large-scale creative endeavors. The music industry is one example that has already been hard hit by decentralization, but movies are even more troubling. With the average cost of a studio movie now in the tens of millions, if not hundreds of millions, of dollars, it seems that decentralization will spell the end of Hollywood-variety movie-making, since file-sharing will destroy the movie industry's revenue model.

Surprisingly, this doesn't follow at all. Though today's movie industry may falter, we now have significant evidence that firms and industries are no longer necessary for the creation of extraordinarily complicated and otherwise expensive creative objects. Open source software, like Linux, Apache, or MySQL, provides the model

for distributed production of complex creative objects.[248] It costs Microsoft untold hundreds of millions of dollars to produce an operating system; yet the use of open source methods means that a superior operating system can be built by amateurs collaborating around the world using the network.[249] There are, by now, a sufficient number of examples of this type of open source creativity, in areas including software, newspapers,[250] and commentary,[251] for us to conclude that this type of organization can supplant the firm in the production of complex creative objects.[252] This is not to say that the firm is necessarily dead, but rather, we have witnessed the emergence of a new form of social and community organization which can produce objects that once were the province solely of the centralized, heavily-capitalized industries.

This leads us to question the primacy of firms and industries which rely on copyright. Copyright industry firms are not self-evident axioms, nor do they come from God. They exist because of historically contingent facts that meant that centralization of content functions was the only way that creative material could move from creator to user. William Gibson charted this historical contingency in discussing the rise and fall of musicians and the music industry:

> Prior to the technology of audio recording, there was relatively little one could do to make serious money with music. Musicians could perform for money, and the printing press had given rise to an industry in sheet music, but great fame, and wealth, tended to be a matter of patronage. The medium of the commercial audio recording changed that, and created industry predi-

248. *See* Benkler, *Coase's Penguin*, *supra* note 107, at 371-74.

249. The following quote is printed on a T-shirt available on the Think Geek website: "Linux: Il y a moins bien, mais c'est plus cher." Think Geek, *at* http://thinkgeek.com/oreilly/tshirts/5bc4/ (last visited Sept. 6, 2004).

250. *See* Daniel Cooney, *Influential South Korean Internet Site Uses "Citizen Reporters" to Cover News*, SFGATE.COM, May 13, 2003, *available at* http://www.sfgate.com/cgi-bin/article.cgi?f=/news/archive/2003/05/13/international 0144EDT0417.DTL; Leander Kahney, *Citizen Reporters Make the News*, WIRED, May 17, 2003, *available at* http://www.wired.com/news/culture/0,1284,58856,00.html; Terdiman, *supra* note 15; Clive Thompson, *Blogs & News = Citizen Reporters*, Collision Detection, May 15, 2003, *available at* http://www.collisiondetection.net/mt/archives/000365.html#000365.

251. *See* Benkler, *Coase's Penguin*, *supra* note 107, at 393-95.

252. *See id.* at 426.

> cated on an inherent technological monopoly of the means of production. Ordinary citizens could neither make nor manufacture audio recordings. That monopoly has now ended .... The window, then, in which one could become the Beatles, occupy that sort of market position, is seen to have been technologically determined.[253]

We need to remember that, from the perspective of society at large, the content industries don't matter in and of themselves. What matters is the social benefit in having creative content within our society. The destruction of copyright industries would be a terrible thing if, and only if, they represented the sole means that creative content could be generated. As we have seen, however, amateur-to-amateur functions now provide individuals with the opportunity to express themselves, and society has already benefited greatly from this expanded content generation. The next few years promise to provide even greater opportunities for this sort of content. As a result, society as a whole is likely to be better off if we allow for widespread decentralization of all content functions.

Of course, copyright industries won't see it this way and will likely seek to use copyright law to forestall decentralization. The question that remains, then, is what should be our normative response to the descriptive challenge laid down by decentralization? Copyright's exclusive solicitude for centralized and commercial players is an increasingly astigmatic approach toward the regulation of social information practices. In Part III below, we therefore examine the implications of this change for the incentive story of copyright and the structural features of copyright law.

III. THE PROBLEM WITH COPYRIGHT

The amateur-to-amateur trend in content information practices calls into question copyright's claim to the central role in structuring the information environment. Due to the increasing ease of content creation, selection, and distribution through distributed networks, we can see the emergence of a separate amateur sphere of content production, providing public benefits that were previously

253. Gibson, *supra* note 241.

provided only by profit-driven enterprises. Yet copyright law has essentially disregarded the contributions of amateurs and concentrated instead on creating incentives for the profit-driven information production practices of the traditional content industries.

A variety of reasons explain the current dismissal of amateur creativity. Part of it might simply be ignorance on the part of legislators who are unfamiliar with the rise of the opportunities of decentralized networks and amateur production. Part of it might be due to conservatism regarding the role of copyright law. It may well be due to legislative capture by lobbyists and campaign fund raisers. It may be partly explained by the cognitive dissonance that would inevitably result from recognizing the value of subsidizing the practices of amateur creation and redistribution while simultaneously holding the view that copyright's proprietary incentives are essential for the production of valuable new works.

Despite our pessimism about legislative and administrative solicitude for amateur practices, we are certain that decentralized amateur-to-amateur information practices are ascendant and will continue to grow in importance. At some juncture, Congress and the Copyright Office will need to pay attention to the reality of amateur copyright production. If, instead, the goals of amateurs are ignored and copyright increasingly acts as a barrier to their efforts, copyright will succeed in disabling the public access to information that it was originally designed to encourage.

It is therefore worthwhile to consider here the normative implications of amateurization for copyright law. The most important lesson, we think, is that the incentives story of copyright is in need of adjustment. To explain how this is so, we will need to briefly explain the theoretical problem that required the solution of "copyright as incentive" and then explain how this solution is problematic.

A copyright grant is the grant of a property-like interest, conferring state protection against the use of information. Property's traditional subjects have been spatial zones, in the case of real property, or physical objects, in the case of personalty.[254] Property

254. The owner and the market set the ostensible price, but the state, of course, sets the ground rules that determine what price the market and owner can set. Consider two property systems governing exactly the same property, the first system granting the owner exclusive property rights forever and the second system granting the same rights for a week. Holding

rules essentially require that those who fail to negotiate effectively with owners of these spaces and things refrain from entering or using them. It is generally believed that the existence of legal property interests require some explanation because society does not generally restrict personal freedoms for the sake of private benefit of individuals without some justification.[255] In order to subsidize the creation and enforcement of private legal rights, we imagine, society should guarantee that we are all better off by respecting individual private property rights.

In the case of intellectual property, the need for some animating justification is more evident because the owner of a copyright is not physically or financially harmed when a pattern of information is replicated.[256] If a child occupies and barricades Disney's corporate boardrooms or shoplifts a Mickey Mouse doll from the Disney store, Disney obviously loses some rights to access the physical and tangible things in which it has rights of ownership. If a child willfully draws Mickey Mouse, however, the statutory damages resulting from this act cannot be linked to some real loss suffered by Disney.[257] Copyright, as Tom Bell has noted, could constructively be cast as a form of state-sponsored welfare, in which the public is taxed for the benefit of copyright owners.[258]

People don't like to be taxed without explanation, and two normative justifications are generally offered for the imposition of the social tax that is copyright.[259] First, Locke's labor/dessert theory

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all other variables equal, we can expect the price for the transfer of the property under the second system to be less than under the first.

255. If we begin with the liberal base assumption that people should be free to do anything that is consistent with every other person's freedom, then grants of property interests generate constraints on freedoms and require justification. *See* Jeremy Waldron, *Property Law*, *in* A COMPANION TO PHILOSOPHY OF LAW AND LEGAL THEORY 3, 8-10 (Dennis Patterson ed., 2000).

256. Tom Bell, *Authors' Welfare: Copyright as a Statutory Mechanism for Redistributing Rights*, 69 BROOK. L. REV. 229, 238-39 (2003); Boyle, *supra* note 11, at 37, 42; Gordon, *supra* note 189, at 159; Heverly, *supra* note 20, at 1151-52 (noting that everyone agrees that information is a public good, but the debate is over the implications of this fact for law); Ku, *supra* note 95, at 263-64 (arguing that digital technology could destroy the balance of public goods and private interest).

257. In other words, the harm suffered by copyright holders in this case is to a statutory entitlement interest. *See generally* Wendy J. Gordon, *Of Harms and Benefits: Torts, Restitution, and Intellectual Property*, 34 MCGEORGE L. REV. 541 (2003).

258. Bell, *supra* note 256, at 273-75.

259. A third justification exists, based on Hegel's conception of property as an extension

provides a fundamental justification for all property systems, not just copyright, by suggesting that one should be granted a property interest in anything which results as the consequence of one's own labor.[260] Though this justification is commonly invoked by copyright holders—"it's unfair to deny us the fruits of our labors"[261]—and even suffuses the rhetoric of many court opinions, the consensus is that according to the Constitution and the theory of copyright in the United States, this is not the main normative justification of copyright.

Instead, the dominant theory in this country is that copyright serves an instrumental or utilitarian purpose.[262] This is the incentive story of copyright. Copyright, it tells us, is an incentive for the production of new works. Jane Ginsburg has recently blamed the current "bad name" of copyright on the greed of copyright holders and consumers.[263] Greed is surely the root of all evil, however, it is a major player in the incentive story of copyright. If copyright is indeed an incentive to new productions, then the law of copyright is essentially a law that says that greed is good.[264] Society

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of personality. *See* HEGEL'S PHILOSOPHY OF RIGHT (T.M. Knox trans., Oxford Univ. Press 1967) (1821); Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 330-54 (1988); Margaret Jane Radin, *Property and Personhood*, 34 STAN. L. REV. 957 (1982). This justification seems to be rarely invoked, however, perhaps because it is somewhat controversial within property law generally, and hard to reconcile with large-scale corporate ownership of intellectual property. For an account of the differing justifications of intellectual property, see generally Hughes, *supra*.

260. "Whatsoever [man] removes out of the state that Nature hath provided and left it in, he hath mixed his labour with it, and joined to it something that is his own, and thereby makes it his property." JOHN LOCKE, TWO TREATISES OF GOVERNMENT § 26 (Rod Hay ed., 1988) (1690).

261. *See id.* § 27; PAUL GOLDSTEIN, COPYRIGHT'S HIGHWAY 11 (1994) ("Bubbling beneath all [intellectual property] ... is the intuition that people should be able to hold on to the value of what they create, to reap where they have sown."); STEPHEN R. MUNZER, A THEORY OF PROPERTY 38 (1990); F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 CAL. L. REV. 1, 46 (briefly summarizing Lockean property theory); Nimmer, *supra* note 27, at 135.

262. *See* Ku, *supra* note 95, at 293; Liu, *supra* note 3, at 397 (stating the animating theory of copyright is that "[t]he author of a copyrighted work is an individual who is motivated to create primarily by the hope or anticipation of economic gain"); Nimmer, *supra* note 27, at 136, 138-39.

263. *See* Ginsburg, *How Copyright Got a Bad Name*, *supra* note 77.

264. Of course, sharing is arguably *better* than being greedy, but to argue this in a legal setting one must counter strong presumptions that sharing is both economically foolish and rare. *See* Yochai Benkler, *"Sharing Nicely": On Shareable Goods and the Emergence of Sharing as a Modality of Economic Production*, 114 YALE L.J. (forthcoming 2004); Michael J.

grants the greedy artist-entrepreneur legal rights in new information in order to benefit society.[265] It should be no surprise, therefore, that to those outside the copyright industry, the industries seem to have an unseemly and single-minded interest in "biggering" their revenues.[266] Such biggering, in the realm of information properties, is generally developed by periodically obtaining stronger and longer-lasting state entitlements. This has clearly been the history of copyright law's scope since the seventeenth century. The duration of copyright protection has steadily expanded, with little explanation of why this expansion was needed. In the United States in 1790, a 28-year term was the originally enacted duration (14 years plus a 14-year renewal term).[267] This was extended to 42 years in 1831 (28-year initial term plus a 14-year extension).[268] Then in 1909, a 56-year term was enacted (28 years plus a 28-year extension).[269] In 1976, the term became the life of the author plus 50 years.[270] Most recently, the Copyright Term Extension Act added another 20 years to the term.[271] The most recent extension of copyright protection must have played *some* part in promoting new fixations of information. Yet the social need for an abundance of works is rarely pitted against *any* countervailing consideration. The public

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Madison, *A Pattern-Oriented Approach to Fair Use*, 45 WM. & MARY L. REV. 1525, 1529 (2004) (noting that sharing is "an empty concept when considered in isolation").

265. *See* William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 326 (1989); Liu, *supra* note 3, at 397.

266. DR. SUESS, THE LORAX (1971) (using the term "biggering" describing factory growth that eventually damaged the environment); *see also* James Boyle, *Cruel, Mean or Lavish? Economic Analysis, Price Discrimination and Digital Intellectual Property*, 53 VAND. L. REV. 2007, 2019 (2000). The results of copyright's biggering have, somewhat oddly, led to demands for greater biggering. Typical press releases from the copyright industries state how many billions of dollars are generated by copyright entitlements or reportedly "lost" to copyright infringement. Using such entitlement-based figures in support of arguments for greater entitlements is strange, if one analogizes copyright to social welfare for authors. Tom W. Bell, *Indelicate Imbalancing in Copyright and Patent Law*, *in* COPY FIGHTS: THE FUTURE OF INTELLECTUAL PROPERTY IN THE INFORMATION AGE 1 (Adam Thierer & Wayne Crews eds., 2002).

267. Copyright Act of 1790, ch. 15, § 1; LESSIG, *supra* note 62, at 133-35; Victoria A. Grzelak, *Mickey Mouse & Sonny Bono Go to Court: The Copyright Term Extension Act and Its Effect on Current and Future Rights*, 2 J. MARSHALL REV. INTELL. PROP. L. 95, 99-101 (2002).

268. Act of Feb. 3, 1831, ch. 16, §§ 1-2, 4 Stat. 436 (1831).

269. Act of Mar. 4, 1909, ch. 320, 35 Stat. 1075 (1909).

270. 17 U.S.C. § 302(a) (1998).

271. Sonny Bono Copyright Term Extension Act, Pub. L. No. 105-298, 112 Stat. 2827 (1998) (codified as amended 17 U.S.C. §§ 108, 203, 301-04) [hereinafter CTEA].

domain does not have the instinctive public appeal possessed by Barbaloots and Truffala Trees.[272]

Yet while the incentive story may be somewhat true, it is equally true that in the case of many works, authors write, paint, and perform without much thought of financial reward. Indeed, if one were to consider the general animating goals of average artists and authors, they probably do not seek to become rich by preventing others from gaining access to their creative products. Instead, they probably seek an opposite goal—attaining fame through the maximal social access to their work. The fantasy that motivates most authorship is just as likely a fantasy of reputation as it is one of lucre. Playing Carnegie Hall, illustrating the cover of a great magazine, or winning a prestigious literary prize or award all primarily entail the author's creative work being seen and heard by a great number of people, but these results do not necessarily entail riches.[273] Copyright's main social function is actually to *prevent* works from being widely and freely distributed, and thus it entails a trade-off of lesser distribution (and the associated decrease in reputation), for financial reward.

It is not always certain that creative artists will benefit from copyright entitlements even when their works are extremely popular. Many artists ultimately lack possession of the legal rights that copyright ownership grants. This is due to the fact that our system assumes that copyright interests are economic interests, and correspondingly freely transferable.[274] When alienable property

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272. Litman, *supra* note 97, at 344. Litman doesn't mention THE LORAX, but we use it by way of tribute to James Boyle's suggestion of borrowing environmental themes in scholarship advocating the importance of a vital public domain. *See, e.g.*, James Boyle, *A Politics of Intellectual Property: Environmentalism for the Net?*, 47 DUKE L.J. 87, 108-12 (1997); *see also* Boyle, *supra* note 11, at 70-74. "What is true for the environment is ... true for the public domain and the commons." *Id.* at 73.

273. *See* Steve Calandrillo, *An Economic Analysis of Intellectual Property Rights*, 9 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 301, 316, 323 (1998) (exploring alternative incentive models); Geller, *supra* note 1, at 238 (noting the "different stakes for different players"); Gordon, *supra* note 189, at 191 (questioning whether financial incentives, in some cases, may be counter-productive); Ku, *supra* note 95, at 308-09; Litman, *supra* note 56, at 248 (describing a situation in which Litman suggested to a second-year law student that he publish, for money, some scholarship in the area of copyright law—he decided against it, and that scholarship is now made available for free to Litman's students); Nadel, *supra* note 86, at 811-17.

274. The Continental system of *droit moral* is slightly different and serves two policy ends, protecting the artist's personality and preserving art for posterity. *See* JOHN HENRY

interests are thrown to markets, they inevitably end up being managed by specialists in biggering. Professional exploiters have traditionally gathered and marketed the most popular works. Original creators, as many have observed, are comparatively naïve and relatively disempowered and often feel ultimately cheated by the industry players. A number of high profile cases over the last ten years such as George Michael's battle with Sony,[275] Courtney Love's searing attack on her record label,[276] and Prince Roger Nelson's renuciation of his Warner Brother's-controlled name to become "The Artist Formerly Known As Prince,"[277] all recount the story of successful artists who, as a step to obtaining fame, contractually alienated their creative work to corporate appropriators and promoters only later to renounce their Faustian bargains.

None of this is to argue that copyright does not motivate the creation and dissemination of new works. It clearly motivates the collective efforts of vertically integrated industries which own vast content libraries and are prominent proponents of copyright legislation before Congress.[278] Yet the financial rewards of copyright over the past century have primarily inured to these publishers and distributors, while individual authors have had mixed experiences.[279] Despite this, myths of copyright persist as courts repeat-

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MERRYMAN & ALBERT E. ELSEN, LAW, ETHICS, AND THE VISUAL ARTS 307-10 (4th ed. 2002). There is often a conception that this approach embodies human rights as a consequence of the first policy aim. Though economic rights are the central pillar of the United States copyright system, some importation of the *droit moral* occurred by virtue of the U.S. ratification of the Berne Convention, which demands recognition of the *droit moral*. The U.S. response is largely confined to the Visual Artists Rights Act of 1990, Pub. L. No. 101-650, 104 Stat. 5128 (codified in scattered sections of 17 U.S.C.).

275. *See* BBC News, *George Michael Goes Back to Sony* (Nov. 17, 2003), *at* http://news.bbc.co.uk/1/hi/entertainment/music/3278909.stm.

276. Courtney Love, *Courtney Love Does the Math*, SALON.COM (accusing the music labels of "piracy" and worse), *at* http://dir.salon.com/tech/ feature/2000/06/14/love/index.html (June 14, 2000).

277. Wikipedia, *Prince (artist)*, *at* http://en.wikipedia.org/wiki/Prince_(artist) (last visited on Aug. 30, 2004). For an account of the relationship between artists and the music industry in light of the Internet, see Christina Saraceno, *RIAA Faces Bigger Battles Ahead*, ROLLING STONE, Aug. 4, 2000, *available at* http://www.rollingstone.com/news/newsarticle.asp?nid=11434.

278. *See* Gordon, *supra* note 189, at 192 (stating that copyright's financial incentives primarily motivate those who do not create).

279. *See* Ginsburg, *How Copyright Got a Bad Name*, *supra* note 77, at 61-62 (acknowledging that copyright owners are not perceived the same as copyright authors).

edly assert a simple story about copyright as an incentive to authorial creativity.[280]

Obviously, amateur production further complicates the story of incentives. By definition, amateurs operate outside the commercial production chains of the copyright industry. They create and distribute works for a variety of reasons beyond traditional economic incentives.[281] Amateur creation has always been the rule in scholarly publishing, where most publication is unpaid and scholars care most about ensuring that someone reads their work. It turns out that this type of motivation arises in fiction, music, art, programming, and in every creative endeavor. There has always been a majority of unpublished and unrecognized artists, but until recently it has simply been too expensive for these artists to make the wider world aware of their creativity. Authors may now bypass the traditional copyright chains of the entertainment industry. The Creative Commons has recently made this obvious by procuring permissive distribution licenses for over a million pieces of copyright content.[282]

This increasing profusion of amateur content suggests that while copyright clearly plays a role in the balance sheets of the MPAA and the RIAA, people will continue to create content in the absence of copyright, and the Internet will continue to provide a means to distribute these works. As Eben Moglen declared several years ago in his corollary to Faraday's Law: "If you wrap the Internet around every brain on the planet, knowledge flows in the network."[283] One can predict that the importance of copyright as an incentive will

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280. *See* Jessica Litman, *Copyright as Myth*, 53 U. PITT. L. REV. 235, 237-42 (1991) (describing the "prevailing public myth of copyright" and contrasting it with the practical realities of authorship).

281. *See* Boyle, *supra* note 11, at 46 (noting that this type of creation occurs and stating "[i]t just does not matter why they do it"); Geller, *supra* note 1, at 258 ("It is hard to imagine that the prospects of copyright-secured gain motivated Emily Dickinson to write her poetry or Van Gogh to paint.").

282. *See* Creative Commons Catalog (noting the "one million objects" figure), *at* http://commoncontent.org/. The figures in the catalog clearly under-report the actual numbers of Creative Commons licensed content, since many works are released under a Creative Commons license but are not reported to the Creative Commons catalog.

283. *See* Professor Eben Moglen, Remarks at AALS Mini-Workshop on the Internet and Legal Scholarship (Jan. 5, 1995), *at* http://emoglen.law.columbia.edu/my_pubs/nospeech.html. Moglen continued: "Resistance, according to Moglen's Corollary to Ohm's Law, is directly proportional to the field strength of the intellectual property system." *Id.*

become increasingly irrelevant as amateur creation proliferates due to cheap recording tools, high bandwidth connections, and distributed networks.

The normative conclusion here is fairly obvious. Copyright's processes are relevant primarily to centralized copyright industries and to some small professional subset of those who create new works. For amateurs, however, it isn't clear that copyright law is very important at all. Based on this shift, one might argue that the balance of incentives and access needs to be recalculated because more can be produced with lesser incentives. This suggestion has been made before, however, and no one in Congress seems to see any basis for *lessening* copyright incentives.[284] Legal scholars may be in almost uniform agreement that copyright law today is overbroad, overcomplicated, and insufficiently solicitous of public interests.[285] Yet the pronouncements of legal scholars have generally not set the course of Congress or the Copyright Office. Instead, copyleft scholars have been required to man the barricades of legislation and litigation.[286]

The downside of fighting wars against organized copyright holders is that one must begin to envision copyright as exclusively a matter of struggles between copyright owners and a public full of consumers. The battles of fair use are vitally important, but they take place against a great epochal shift in information practices that should also be tremendously important in how we think about copyright law. Yochai Benkler has suggested that the new economics of amateur and distributed production provide us with the opportunity to realize political liberty and cultural autonomy.[287] There are, by now, numerous examples of popular amateur creativity that allow us to conclude that decentralized organizations can compete with traditional firms in the production of complex creative objects.

In essence, our social policy with regard to information and expressive content is dividing into two spheres: the obvious and the hidden. The obvious sphere is a traditional, copyright-driven sphere

284. *See* Litman, *supra* note 280, at 344.

285. *See generally* JESSICA LITMAN, DIGITAL COPYRIGHT (2001); LESSIG, *supra* note 62; Boyle, *supra* note 272.

286. *See, e.g.*, Litman, *supra* note 101.

287. Benkler, *Freedom in the Commons*, *supra* note 11, at 1249.

of professional information practices. This is the field almost exclusively affected by litigation and legislation, and the one we hear about each time the RIAA sues another file-sharer. The second sphere, which creates essentially the same type of content, is a distributed, amateur-to-amateur sphere of information practices not committed to copyright's social structures.

The two spheres, unfortunately, cannot co-exist peacefully. Participants in the first sphere have financial incentives to ensure that the second-sphere amateurs do not threaten their profits. Copyright professionals are experiencing real difficulties in competing with amateur production.[288] Microsoft clearly does not want Linux to succeed. The music industries would clearly not like the competition provided by amateur peer-to-peer music networks even if their copyrights were not at risk. The major broadcast news media have yet to proclaim that weblogs can constitute a form of journalism. The amateur sphere, by definition decentralized and underfunded, is not well organized to respond to the conspiracy of professionals. Even when amateur superstars emerge, they are always free to cash out and become professionals.

Neither sphere, therefore, can win the struggle. The professionals will clearly continue to dominate the production and exploitation of copyright stars. Another Britney Spears will emerge from corporate investments of time, money, payola, and pandering. Disney will fight for the Mouse. At the margins, however, the influence of copyright will slip as blogs, digitally-edited movies, music, cartoons, and so on, continue to be produced and distributed by amateurs who are not motivated by copyright or impeded by copyright's market system in their efforts to reach a broader public. The core conflict between the two spheres will not rest on any particular issue of copyright law but instead upon the matter of copyright law's relevance to the big shift in content practices.[289]

Indeed, there will be an increasing blurring of the two spheres, as aspiring amateurs see copyright as a tool that might be used or discarded. Some authors are finding practical ways to combine the new benefits of amateur-to-amateur distribution with the standard

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288. *See, e.g.*, Jonathan Zittrain, *Normative Principles for Evaluating Free and Proprietary Software*, 71 U. CHI. L. REV. 265, 268-73 (2004).

289. *See generally* Schlachter, *supra* note 105, at 17 (claiming that when it is all said and done, "copyright law may be unimportant to the Internet").

benefits granted by traditional copyright. For instance, blogger and science-fiction writer Cory Doctorow recently published his first book, *Down and Out in the Magic Kingdom*, in the usual way, first in hardcover and then a year later in paperback.[290] Concurrently, however, he convinced the publisher to allow him to release the book onto the Internet in a freely-available PDF form, and he encouraged the free and widespread dissemination of the book.[291] Various readers made all sorts of creative uses of the text, cutting it up into chunks and emailing them to friends—one chunk per day, or replacing all words beginning with "S" and "M" with "sausage" and "mash," respectively.[292] Doctorow's experiment fared well. Not only did he make money from royalties on the published version, but he also garnered a great deal of public exposure through the process. His experiment also convinced others, most notably Larry Lessig and his publisher, Penguin Books, to release books in the same way.[293] At the time of writing, Lessig's book is in its third hardcopy printing, even though the free version has been downloaded 180,000 times.[294]

The lesson we draw from this is both modest and outlandish. It is possible that centralized intermediaries can operate side-by-side with amateurs, and both can profit from the experience. Of course, this is not the way that copyright incumbents have generally reacted over the last twenty years. There is a chance, however, that they might recognize the opportunities presented to them by the amateur-to-amateur movement.

There is a great temptation now to make grand normative pronouncements about how we should balance the two spheres. It is too early, however, to say how the spheres will intersect, and how

290. Cory Doctorow, blog entry, *at* http://www.craphound.com/down/archives/2003_11.php#000111 (Nov. 26, 2003).

291. Cory Doctorow, blog entry, *at* http://www.craphound.com/down/archives/2003_01.php#000018 (Jan. 9, 2003).

292. *See* http://www.craphound.com/down/archives/2004_03.php#000121. A similar process is happening with Larry Lessig's FREE CULTURE (2004), released under a similar license. Within a few days of its release, plans emerged to have bloggers record and release audio readings of the book in MP3 format. *See* Akma, blog entry, *at* http://akma.disseminary.org/archives/001253.html.

293. *See* LESSIG, *supra* note 62.

294. *See Give It Away and They'll Buy It*, STAN. MAG., July/August 2004, *available at* http://www.stanfordalumni.org/news/magazine/2004/julaug/farm/news/lessig.html (last visited Sept. 6, 2004).

content industries will react to the new opportunities of the amateur-to-amateur world. We will therefore resist the temptation and conclude with our fundamental point, but played in a minor key. The big shift to amateurisation in content promises vast potential in people's ability to express themselves and in the social benefits that flow from a vast new corpus of amateur content. It would be a tremendous shame if we failed to recognize the opportunity of amateur content and continued to assume that the protection of copyright industries was the only way to guarantee the production of valuable cultural expression.

IV. AMATEUR-TO-AMATEUR

"Rome did not 'fall,' it was transformed."[295]

Rome was once the center of the world. What we think of as the fall of its empire was, Peter Brown reminds us, just the transfer of its influence into a different world, one that in time we have come to think of as Europe. It is meaningless to ask whether the unitary might of imperial Rome was preferable to the distributed, messy agglomeration of tribes and states that eventually emerged after Rome fell. It was not better, just different.

It is not surprising that those within the copyright industries see the death of their existing business models as the end of culture. Imperial Romans saw the disappearance of empire as the end of all civilization. They could not conceive that another, more interesting order might rise in its place. However, instead of Empire we saw empires; instead of Rome we saw the emergence of many different cultures, peoples, and states.

A similar process is happening in the world of creative content. Instead of a unitary system called copyright governing our information practices, we are witnessing the emergence of a distributed, messy agglomeration of opportunities in content creation, production, distribution, and so on. The movement which we characterize as "amateur-to-amateur" will inevitably mean that copyright's

295. George L. Gorse, *City Ritual as a Key to Interpreting Renaissance Genoa* (citing PETER BROWN, THE CULT OF THE SAINTS: ITS RISE AND FUNCTION IN LATIN CHRISTIANITY (1981)), *at* http://www.icomos.org/usicomos/symposium/SYMP98/genoa.html (last visited Sept. 6, 2004).

empire—the central, all-encompassing structure for the development of content—will decline and fall. New tribes of amateurs will emerge and become significant forces in cultural content. This does not, however, signal the end of copyright altogether. Just as the Roman Empire became modern-day Italy, copyright will transform into something else. Just as Italy reflects ancient Rome, copyright will reflect its imperial heritage.

But it will no longer be Rome: all-encompassing, all-powerful, all-important.