COMMENT

THE FUTURE OF INFORMATION COMMERCE UNDER CONTEMPORARY CONTRACT AND COPYRIGHT PRINCIPLES

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In 1993, the Clinton Administration announced plans to develop the National Information Infrastructure ("NII"), a technological measure that would expand public access to information. This proposed "information highway" has given rise to questions regarding how traditional legal and commercial principles should be adapted to regulate emerging electronic information commerce. The government has not yet established what constitutes a traffic violation on this
The future of information commerce

Cyber-thoroughfare, but we may anticipate portions of a future code of conduct by examining the current state of information commerce and how it is regulated.³

The information industry presently constitutes over two percent of the gross national product of the United States⁴ and promises continued growth as information technology continues to develop.⁵ If digital information commerce is to thrive, however, the law must protect the integrity of contracts and contracting methods used on the information superhighway.⁶ In particular, restricting the right of purchasers to disclose commercially valuable information is one of the most important needs of information merchants.⁷ Several courts, aware that the ability to secure sensitive information from electronic dissemination may serve the general public as well as commercial providers,⁸ have addressed this concern by enforcing contracts that limit the uses to which a buyer may employ information obtained commercially.⁹ One court summarized the consequences of inadequate legal protections for commercially valuable information:

3. In particular, this Comment will examine recent trends in the law's treatment of software licenses and the protection afforded works of information such as factual compilations.


5. See Raymond T. Nimmer, Intangibles Contracts: Thoughts of Hubs, Spokes, and Reinvigorating Article 2, 35 WM. & MARY L. REV. 1387, 1389 (1994) (observing that virtually every company uses one or more software products and that technology contracts underlie most modern sectors of economy).

6. See David R. Johnson & Kevin A. Marks, Mapping Electronic Data Communications onto Existing Legal Metaphors: Should We Let Our Conscience (and Our Contracts) Be Our Guide?, 38 VILL. L. REV. 487, 490-91 (1993) (discussing necessity of rules and obligations in law of electronic data communications); see also Nimmer, supra note 5, at 1370-71 (describing rise of information industry in today's economy and subsequent need for contract rules that are accessible to legal experts and laypersons).

7. See Raymond T. Nimmer & Patricia Ann Krauthaus, Information as a Commodity: New Imperatives of Commercial Law, 55 LAW & CONTEMP. PROBS. 103, 123 (1992) (explaining that right to restrict disclosure and use is imperative to commercial sellers of electronic information who seek to maintain property rights after sale); see also CRAIG JOYCE ET AL., COPYRIGHT LAW §§ 1.05[C][2], at 19-20 (3d ed. 1995) (“A company spending millions to develop a computer operating system program or motion picture will have the greatest difficulty competing with an imitator which has no development costs, can copy the program quickly and cheaply, and enters the market immediately thereafter.”).


9. See Eden Hannon & Co. v. Sumitomo Trust & Banking Co., 914 F.2d 556, 557 (4th Cir. 1990) (enforcing “Non-circumvention and Nondisclosure Agreement” by granting injunction to prevent improper and unfair use and dissemination of economic information obtained in confidence); see also ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1447-48 (7th Cir. 1996) (holding that software shrinkwrap license bound purchaser under Uniform Commercial Code and that federal Copyright Act did not preempt enforcement).
Often, the value of a firm is its special knowledge, and this knowledge may not be an idea protectable by patent or copyright. If that firm cannot protect that knowledge from immediate dissemination to competitors, it may not be able to reap the benefits from the time and money invested in building that knowledge. If firms are not permitted to construct a reasonable legal mechanism to protect that knowledge, then the incentive to engage in the building of such knowledge will be greatly reduced. Free riders will capture this information at little or no cost and produce a [cheaper] product . . . because [they] will not have to carry the costs of creating that knowledge in [their] pricing. Faced with this free rider problem, this information may not be created, and thus everybody loses.\textsuperscript{10}

In the new age of cyberspace, contemporary contract and copyright law offer inadequate protection for commercially valuable information.\textsuperscript{11} The proliferation of new technologies, such as the Internet and commercial electronic databases, and the increasing importance of information commerce challenge fundamental conceptions concerning the nature of contract and the scope of copyright.

This Comment suggests how the laws of contract and copyright might better protect the commercial exchange of information. Specifically, this Comment argues that the law of contract, more so than copyright law, could be modified to better facilitate information commerce by providing a legal framework that more closely reflects the nature of information products and their exchange. Modifying the law of contract would more readily encourage information merchants to invest their energies into producing these works because, as discussed below, copyright law may not soon welcome low authorship works into its fold. A uniform corpus of law that closely reflects the commercial practices and expectations of all parties involved in information transactions would provide the proper incentive.\textsuperscript{12}

This Comment further contends that copyright law inappropriately requires all works to exhibit authorial personality, even those works whose object is not to exhibit creativity, but utility. The prevailing

\begin{enumerate}
\item Eden Hannon, 914 F.2d at 561. For further commentary advocating contract law regulation of electronic data communications, see Johnson & Marks, supra note 6, at 519-15.
\item See infra notes 75-108 and accompanying text (describing reasoning behind Seventh Circuit's recent decision in ProCD that upheld software license's restrictions on use of uncopyrightable portions of telephone number compilation).
\item See infra notes 107-74 and accompanying text (suggesting that transactions of information are more appropriately labeled licenses than sales, and concluding that codification of commercial licensing law under U.C.C. Article 2B is advantageous to continued common law development).
\end{enumerate}
judicial interpretation of modern U.S. copyright law fails to guarantee protection to works of information and other utilitarian works of high labor but low creative authorship. The law would be more true to its historical origins if it recognized a binary approach to copyright protection that: (1) protects the author's expression in high authorship works, and (2) protects the author's commercial investment in low authorship or utilitarian works.13

Part I of this Comment discusses contemporary developments highlighting the increasing importance of information commerce. Part II examines how contract and copyright law currently treat information transactions. Part III analyzes how existing contract law may present obstacles to the development of information commerce. Part IV turns to the sphere of copyright law and proposes a copyright theory for the protection of utilitarian works, which most recently have been largely neglected. Finally, Part V proposes changes to copyright and contract law that might best foster information commerce.

I. THE CHALLENGE PRESENTED BY GROWTH IN INFORMATION COMMERCE

A. Background

When fully implemented, the NII will offer the public many commercial, educational, cultural, and technological opportunities.14 As information commerce grows over this digital medium, lawmakers will need to balance the rights and liabilities of its users.15 The NII's success will rest on the protection of information suppliers' rights16

13. See infra notes 175-204 and accompanying text (examining copyright law's historical treatment of utilitarian works of low authorship).

14. See WHITE PAPER, supra note 1, at 7-9 (describing range of potential resources NII may incorporate that will enhance lives of consumers); see also Eugene Volokh, Cheap Speech and What It Will Do, 104 YALE L.J. 1805, 1807 (1995) (forecasting that “[c]ontrol over what is said and heard will shift from intermediaries ... to speakers and listeners themselves” because of electronic technology). Some commentators have speculated that direct communications over electronic media will completely supplant certain types of publishing. See, e.g., Andrew M. Odlyzko, Tragic Loss or Good Riddance? The Impending Demise of Traditional Scholarly Journals, NOTICES OF AM. MATHEMATICAL SOC'Y, Jan. 1995, at 49, 52 (predicting that traditional scholarly journals will eventually be replaced by on-line versions).


16. See U.S. CONST. art. I, § 8, cl. 8 (granting Congress authority “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors ... the exclusive Right to
as much as the participation of consumers. Modern consumers possess unprecedented power to disseminate information via computers and other technological devices. Without the proper tools to protect suppliers' products from unauthorized uses, however, authors, publishers, and other information providers will be discouraged from participating in the electronic marketplace. Lawmakers must ensure that suppliers retain the power to condition and enforce the terms by which they make their products available.

Technological advances that make information more readily available than ever before call current copyright and contract principles into question. The challenge confronting lawmakers today lies in determining how to alter and adapt contract and

their respective Writings and Discoveries") (emphasis added); see also Harper & Row, Publishers v. Nation Enters., 471 U.S. 539, 559 (1985) ("If every volume that was in the public interest could be pirated away by a competing publisher, . . . the public would [eventually] have nothing worth reading."); Lionel S. Sobel, Copyright and the First Amendment: A Gathering Storm?, in 19 COPYRIGHT L. SYMP. 43, 78 (American Society of Composers, Authors and Publishers eds., 1971)); cf. WHITE PAPER, supra note 1, at 6 ("[W]hat will drive the NII is the content moving through it."); Jane C. Ginsburg, Putting Cars on the "Information Superhighway": Authors, Explorers, and Copyright in Cyberspace, 95 COLUM. L. REV. 1466, 1468 (1995) (agreeing that rights of users should remain secondary to those of producers in cyberspace because fostering authorship remains primary goal of copyright regardless of medium employed).

17. See WHITE PAPER, supra note 1, at 9 (stating that public will not take full advantage of NII unless it guarantees integrity and useful selection of products and services under reasonable terms and conditions).

18. See id. (explaining that technological developments enable single individuals to reproduce and distribute literary works with new found ease and speed); see also JOYCE ET AL., supra note 7, at 21 (pointing out that reproductive technologies become better and cheaper every year, but creating copyrighted works remains as difficult as ever).

19. See Ginsburg, supra note 16, at 1467-88 (suggesting that authors will not use digital media as means of distribution unless electronic information suppliers assure them that their works will be secure). Explaining that the entrepreneurs of cyberspace ultimately depend on the participation of authors to provide content, leading literary agent Martin L. Janklow of Janklow, Nesbit, & Associates states, "[the entrepreneurs of cyberspace] got the highway, but I've got the cars." Id. at 1467.

20. See WHITE PAPER, supra note 1, at 9 (noting that authors may refrain from exposing works electronically because of piracy fears); see also Ginsburg, supra note 16, at 1467, 1499 (stating that authors will not travel information superhighway unless they have some assurance that their journey will not turn into hijacking); cf. JOYCE ET AL., supra note 7, at 21 ("[T]he art of creation has no fast-forward button. Today's author would expend no less time and no lesser expense to produce War and Peace than Tolstoy did a century ago.").

21. Technological advances in particular may alter the effectiveness of copyright law. See WHITE PAPER, supra note 1, at 7 (suggesting that changes in technology, generating new industries and methods for reproduction and dissemination of works, will present new opportunities but create additional challenges).

22. See Maureen A. O'Rourke, Proprietary Rights in Digital Data: The Future of Copyright and Contract Law in a Networked World, 41 FED. B. NEWS & J. 511, 512 (1994) (noting that case law suggests that copyrights attach to most data on Internet and predicting that on-line data suppliers will continue to supplement copyright protection with contract, especially to protect unauthorized use of digital fact-based databases and to countermand technological advances, such as hypertext, that simplify copying).
copyright laws that create obstacles on the surging highway of information commerce.23

B. The Internet

The NII's evolution will be closely tied to that of the Internet.24 Originally developed by the National Science Foundation and the U.S. Department of Defense to facilitate electronic mail and bulletin board exchanges within the scientific research community,25 the Internet today connects a vast number of computers that can share information among millions of users.26 Characterized as a "network of networks," the Internet has rapidly expanded with the growth of open on-line services and new media markets.27 Commercial use of the Internet continues to accelerate as well.28

As a forerunner to the NII, the Internet is a valuable testing ground for emerging legal issues concerning digital commerce.29 Although the on-line community has employed relatively informal methods of

23. See O'Rourke, supra note 22, at 512 (forecasting that Congress will be faced with difficult questions, such as validity of contracts that effectively nullify fair use provisions of Copyright Act); cf. ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1447-48 (7th Cir. 1996) (addressing enforceability of shrinkwrap license attached to sale of uncopyrightable software database).

24. See High-Performance Computing Act of 1991, 15 U.S.C. § 5511 (1994) (establishing National Research and Education Network ("NREN") and authorizing it to build upon Internet model); see also O'Rourke, supra note 22, at 511 (predicting that some vestiges of Internet model will be retained by NII).

25. See O'Rourke, supra note 22, at 511 (providing brief history of Internet).

26. See Computer Networks: Webbed Fingers, THE ECONOMIST, Feb., 5, 1994, at 86 (reporting that there are 15 million users connected by Internet worldwide); see also Priscilla A. Walter & Eric H. Sussman, Protecting Commercially Developed Information on the NREN, COMPUTER LAW., Apr. 1993, at 1, 2 (estimating that more than 25 million individuals have used the Internet, including 15 million in the United States alone).

27. See Kent D. Stuckey, Market Without Bounds—So Far: Could Old Laws Put a Crimp on Cyberspace?, BUS. L. TODAY, Mar.-Apr. 1996, at 52, 54; see also O'Rourke, supra note 22, at 511 (explaining that Internet now facilitates publication of electronic journals and allows users to access wide variety of information in physically remote databases); National Writers Union, Freelance Writers and Online Commerce: A Position Paper of the National Writers Union (visited July 29, 1996) <http://www.nlightning.com/e-money.html> (stating that new technologies make it possible for on-line readers to make direct digital purchases); cf. Stuckey, supra, at 55 (observing that increasing numbers of commercial transactions for traditional goods and services, as well as electronic information products, represent new sources of revenue).


29. See SOFTWARE PUBLISHERS ASSOCIATION, ONLINE LAW: THE SPA'S LEGAL GUIDE TO DOING BUSINESS ON THE INTERNET 19 (Thomas J. Smedinghoff ed., 1996). Issues confronting those interested in setting up a website include: Who owns the information on the website? Does advertising or promotional use of a website conflict with applicable state and federal regulations? How should current contract law develop in order to accommodate the increasing use of the Internet for the buying and selling of goods and services? See id.
dispute resolution to date, those may not suffice in the commercial sphere of on-line communication. As commercial entities invest more resources in promoting digital commerce, the demand for clearer rules, remedies, and relationships will increase.

II. CONTEMPORARY CONTRACT AND COPYRIGHT PRINCIPLES APPLICABLE TO INFORMATION COMMERCE

A. Contract Law under Article 2 of the Uniform Commercial Code

For nearly fifty years the Uniform Commercial Code ("U.C.C.") has served as the backbone of commercial contract law. Originally promulgated in 1951, every state but Louisiana adopted the U.C.C. by 1968. The U.C.C. sought to establish greater uniformity among the commercial laws of the states in order to accommodate the burgeoning number of interstate transactions, a need that the United States first felt in the nineteenth century as commerce between states created a national market economy.

Commercial priorities at the time of the U.C.C.'s inception prompted its drafters to address the tender and delivery of a tangible item in Article 2. Although historical reasons supported this

30. See Samuelson & Glushko, supra note 28, at 244 (discussing informal social code governing behavior among on-line actors, known as "netiquette"); see also O'Rourke, supra note 22, at 511-12 (hypothesizing that informal methods of dispute resolution present on Internet devolved from conduct of original actors, members of community who utilized network as means of circulating and evoking response to scholarly literature).

31. See O'Rourke, supra note 22, at 512 (predicting demise of informal dispute resolution as more lucrative commercial, royalty-bearing data appears on-line).

32. This trend will only be magnified by the NII's economic objectives. See INFORMATION INFRASTRUCTURE TASK FORCE, NAT'L TELECOMM. AND INFO. ADMIN., NAT'L INFO. INFRASTRUCTURE: AGENDA FOR ACTION 3-4 (1993) (forecasting enhanced American ability to compete in global economy upon realization of NII's objectives). For an interesting discussion identifying which conditions lend themselves to the use of social norms in resolving disputes, see ROBERT C. ELICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES (1991) (proposing that laws become preferable over social norms when social distance between disputants increases, magnitude of interests rise, and legal system provides opportunity for disputants to externalize costs to third parties).


34. See id. at 1 (explaining that number of business transactions across state boundaries increased dramatically in nineteenth century).

35. See id. at 1-2 (describing motive of U.C.C. drafters to foster greater uniformity among states on commercial subjects).


37. See Nimmer, supra note 5, at 1341 (explaining that this format presents a goods bias and a focus on sales). Goods are "things (including specially manufactured goods) which are moveable at the time of identification to the contract...." U.C.C. § 2-105(1) (1995). "A 'sale' consists in the passing of title from the seller to the buyer for a price...." Id. § 2-106(1) (1995); see infra note 109 (providing full U.C.C. definition of 'goods').
choice, "the emphasis on goods as the centerpiece of contract law and economic exchange reflects an industrial economy that no longer exists." Manufacturing industries increasingly have moved offshore; in their stead, services, information, and technology markets have taken center stage in modern commerce. Despite this trend, the law has been slow to abandon Article 2's preference for conceptualizing commercial transactions as sales of goods.

1. Licensing and the shrinkwrap license

Information suppliers, aware that conventional laws regarding the sale of goods poorly address the new issues raised by the commercial exchange of information, have used licensing as their primary contractual framework. The software industry, in particular, has embraced the use of licenses in the commercial exchange of software programs. Such licenses have taken two forms: negotiated agreements for customized software, and standardized "shrinkwrap licenses" for mass-marketed software.

The term "shrinkwrap licenses" refers to the fact that these licenses begin when the purchaser reads their terms and tears open the transparent plastic wrapping, or "shrinkwrap," that encloses the software product. Although early shrinkwrap licenses often were visible prior to purchase, and could be read before the purchaser tore open the software's wrapping, more recent variants place the license within the software's packaging or on the disk itself. Such a license

38. See Gilmore, supra note 36, at 1342-47 (discussing historical roots of English commercial law and practices).
40. See id. at 1342.
41. See infra notes 130-57 and accompanying text (describing tendency of law to analyze transactions under sale of goods model); cf. Donald A. Marchand & Forest W. Horton Jr., Infotrends: Profiting from Your Information Resources 19 (1986) (explaining that United States business and commerce "have been living with the consequences of an information economy for many years," yet refuse to abandon traditional views of economic change).
42. See Nimmer, supra note 5, at 1339 (stating that information transactions require separate treatment under U.C.C. because of commercially significant differences between intangibles and goods, as well as licenses and sales).
43. See Raymond T. Nimmer, Article 2B Issues: Meeting the Information Age (visited June 8, 1997) <http://www.law.uh.edu/ucc2b/0503nat issu.html> (stating that licensing is primary contract framework in many information industries).
44. See Mark A. Lemley, Intellectual Property and Shrinkwrap Licenses, 68 S. Cal. L. Rev. 1239, 1239 (1995) ("Software vendors are attempting en masse to 'opt out' of intellectual property law by drafting license provisions that compel their customers to adhere to more restrictive provisions than copyright...law would require.").
45. See id. (pointing out that shrinkwrap licenses have predominated because most software is mass-marketed).
46. See id. at 1241 (discussing different types of shrinkwrap licenses).
47. See ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1447, 1450 (7th Cir. 1996).
purports to take effect when the purchaser retains the software after having an opportunity to inspect the license.\(^4\)

Whether shrinkwrap licenses are enforceable as part of a valid contract remains unclear.\(^4\) Like many other licenses, shrinkwrap licenses often claim to grant the consumer not ownership but possession of a copy of the program, subject to certain restrictions on copying and distribution.\(^5\) Approximately two-thirds of the respondents polled in a recent survey of computer law professionals agreed that shrinkwrap licenses accompanying mass-marketed products should be enforceable.\(^5\) The courts have reached no consensus on the question, however, offering varying rationales for enforcement and non-enforcement of shrinkwrap licenses.\(^5\)

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48. See id.
49. See infra notes 51-52 and accompanying text (discussing controversy surrounding validity of shrinkwrap licenses).
50. See Ginsburg, supra note 16, at 1472 n.23 (outlining legal aspects surrounding validity of shrinkwrap licenses); see also Lemley, supra note 44, at 1241-48 (describing typical terms and rights granted by shrinkwrap licenses).
51. See Mary Jo Howard Dively, Transactions in Information, 454 PLI/Pat 211, 273 n.1 (citing Michael Rustad et al., An Empirical Analysis of Software Licensing Law and Practice, 10 COMPUTER L. ASS'N BULL. 8 (1995)).
52. Compare ProCD, 86 F.3d at 1452-53 (analyzing acceptance of shrinkwrap license under U.C.C. § 2-204 and § 2-606 and allowing seller to include terms of license merely by referring to them at time of sale), with Step-Saver Data Sys., Inc. v. Wyse Tech., Inc., 939 F.2d 91, 98 (3d Cir. 1991) (treating shrinkwrap license as either written confirmation under U.C.C. § 2-207 or attempted modification under U.C.C. § 2-209 of parties' contract and denying enforcement because both provisions require that both parties intend to adopt any additional terms). See Arizona Retail Sys., Inc. v. Software Link, Inc., 831 F. Supp. 759, 763-66 (D. Ariz. 1993) (enforcing terms of shrinkwrap license that purchaser knew about at time of contract formation but refusing to enforce same license when injected after formation of contract because both parties did not intend to adopt it).


An interesting question is whether information transmitted directly to a consumer's computer by electronic means will face the same licensing problems encountered by physical exchanges of software over a retail counter. See Priscilla A. Walter and Gail J. Berritt, The Electronic Contract: A Primer on Making it Enforceable, BUS. L. TODAY, Mar.-Apr. 1996, at 33, 27 (noting that electronic delivery imposes no obligation on purchasers to pay before they have accepted all terms, and inflicts no inconvenience in returning source of data if they refuse to accept the terms). Information exchanged electronically may escape some of the problems associated with the shrinkwrap license. See id. First, an information provider may display all the terms of a contract on the consumer's computer screen before any purchase is made. See id. Second, delivery of the product may be withheld until the offeree manifests his assent to the terms. See id.
2. Revisions considered to Article 2 of the Uniform Commercial Code

The Article 2 Drafting Committee is currently working to reconstruct Article 2 of the U.C.C. in order to promulgate a new article encompassing transactions involving licenses of information and software in recognition of the special problems raised by commerce in information works and related commodities.\(^5\) In 1993, the Drafting Committee concluded that it would revise Article 2 following a "hub and spoke" model. This model would consist of a central "hub" chapter that would discuss general contract principles, and separate "spoke" chapters, which would treat individual differences between conventional goods and information transactions.\(^4\) This hub and spoke model acknowledges that, although distinctions may be drawn between the licensing of information and the sale of goods, they share common ground.\(^5\)

B. Copyright Law and the Implications of "Low Authorship" in Works of Information\(^56\)

The U.S. Constitution states that the primary purpose of copyright law is "[t]o promote the Progress of Science and useful Arts."\(^57\) The law strives to achieve this objective by striking a balance between society's interest in the creation of new works and authors' needs to secure a return for their efforts.\(^58\) To this end, copyright law endows

\(^{53}\) See Nimmer, supra note 43 (explaining evolution of Article 2 Drafting Committee and stating that scope of Article 2B will be limited to transactions involving licenses of information and software).

\(^{54}\) See id. One spoke of this wheel has already been completed and designated Article 2A, Leases. See id. The spoke encompassing licenses is known as Article 2B. See NATIONAL CONFERENCE OF COMM'RS ON UNIFORM STATE LAWS, Uniform Commercial Code Article 2B, Licenses (Draft) (May 5, 1997) <http://www.law.uh.edu/ucc2b/050597/0505_26.html> (visited June 18, 1997) [hereinafter U.C.C.-Licenses].

\(^{55}\) See Nimmer, supra note 5, at 1339-40 (emphasizing that any codification must address both commonalities and differences between transactions in goods and Intangibles). For further elaboration on the "hub and spoke" configuration, see Nimmer, supra note 4, at 293 (discussing differences between transactions of ordinary goods and software transactions that may or may not include transfer of tangible items); Raymond T. Nimmer, Services Contracts: The Forgotten Sector of Commercial Law, 26 LOY. L.A. L. REV. 725, 726-27 (1993) (arguing for a code that covers licensing of intangibles as well as sale of goods, and discussing appropriateness of hub-and-spoke approach to achieve this goal).


\(^{57}\) U.S. CONST. art. I, § 8, cl. 8; cf. Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975) (noting that ultimate purpose of copyright law is "to stimulate artistic creativity for the general public good").

\(^{58}\) See Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 429 (1984) (stating that scope of copyright "involves a difficult balance between the interests of authors . . . in the control and exploitation of their writings . . . on the one hand, and society's competing interest
the creators of qualifying works with a bundle of exclusive rights that permit them to prohibit others' use of their creations for a limited period of time.

Works of information do not easily qualify for copyright protection as "original works of authorship." Although originality is a well-established prerequisite to protection, current copyright law considers a work sufficiently original only when it manifests traits of "high authorship," subjective or creative elements that reveal the author's own personal influence. Works of information, though commercially valuable, generally are deemed works of "low authorship" containing little personal expression. Their value lies in the fact that they are accurate and useful, rather than fanciful or creative.

in the free flow of ideas, information, and commerce on the other"; see also 1 PAUL GOLDSTEIN, COPYRIGHT: PRINCIPLES, LAW AND PRACTICE § 1.1, at 4-9 (1989) (stating that Copyright Act seeks to achieve its objective by inducing creators to produce and disseminate literary works while allowing others to utilize these works in their own endeavors).

59. Among these rights are: (1) the right to reproduce copies of the work; (2) the right to distribute those copies; (3) the right to publicly perform or display the work; and (4) the right to prepare derivative works based on the copyrighted work. See 17 U.S.C. § 106 (1994). The Copyright Act defines "copies" as "material objects ... in which a work is fixed by any method ... and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device." Id. § 101. For a discussion of how these rights apply to copyright in cyberspace, see Ginsburg, supra note 16, at 1475-88.

60. See Stewart v. Abend, 495 U.S. 207, 220 (1990) (noting that if creator dies before renewal of copyright, his rights terminate); see also Twentieth Century Music Corp., 422 U.S. at 156 ("The immediate effect of our copyright law is to secure a fair return for an 'author's' creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the public good."); cf. H.R. REP. No. 94-1476, at 61 (1976).

61. 17 U.S.C. § 102(a) ("Copyright protection subsists ... in original works of authorship fixed in any tangible medium of expression.").

62. See Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 345 (1991) ("The sine qua non of copyright is originality."); Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 58 (1884) (authorizing copyright of photographs because they were "representatives of original intellectual conceptions of the author"); Miller v. Universal City Studios, Inc., 650 F.2d 1365, 1368 (5th Cir. 1981) (stating that originality is "premise of copyright law"); 1 MELVILLE B. NIMMER & DAVID NIMMER, COPYRIGHT § 1.06[A] (1996) [hereinafter COPYRIGHT] (describing originality as statutory and constitutional prerequisite to infringement action). To be considered original, a work must be an independent creation of an author that demonstrates some degree of creativity. See 17 U.S.C. § 101 (describing collective works such as encyclopedias as "a number of contributions, constituting separate and independent works in themselves ... assembled into a collected whole"); Feist, 499 U.S. at 345 ("Original ... means only that the work was independently created by the author ... and that it possesses at least some minimal degree of creativity."); COPYRIGHT, supra, at § 2.01[A],[B] ("originality necessary to support a copyright merely calls for independent creation").

63. See Ginsburg, supra note 56, at 1866 (describing scope of copyright as extending comfortably only to works evincing "personal authorial presence" or "authorial personality").

64. See id. (characterizing directories, indices and databases as personality-deprived information compilations). "[L]ow authorship works offer little to protect beyond the information." Id. at 1915.

65. Works of information are often collections of factual material or lists of data. See National Bus. Lists, Inc. v. Dun & Bradstreet, Inc., 552 F. Supp. 89, 92, 97 (N.D. Ill. 1982). Such information is considered preexisting material discovered, not created by the finder. See id. at 92. As a result, judicial officers most likely would not find such works original as presently
Admittedly, an author may not copyright the individual facts or ideas recited in his work, but the Copyright Act of 1976 does protect compilations of information if the author has contributed to the preexisting uncopyrightable material within the compilation. In *Feist Publications, Inc. v. Rural Telephone Service Co.*, the Supreme Court declared that a sufficient contribution is present when the work evinces originality either by the presence of creative expression within the work or by the selection or arrangement of the preexisting material. The Court clearly endorsed conditioning copyright conceptualized. See id. at 92-97 (observing that value of compilation resides in its “collection of information, not its arrangement. If [its] protection is limited solely to the form of expression, the economic incentives underlying the copyright laws are largely swept away... [Given the nature of] electronic compilations... an emphasis upon arrangement and form... becomes even more meaningless than in the past.”); see also J.H. Reichman, *Computer Programs as Applied Scientific Know-How: Implications of Copyright Protection for Commercialized University Research*, 42 VAND. L. REV. 699, 684 (1989) (“[S]ubjective personalization in the utilitarian milieu tends to produce white elephants that are either dysfunctional or readily undersold by products built around more streamlined or standardized solutions.”).

66. See, e.g., *Feist*, 499 U.S. at 347 (stating that fact does not owe its creation to act of original authorship by the person who first discovers it); Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 559, 566 (1985) ("No author may copyright... the facts he narrates"); *Burrow-Giles Lithographic Co.*, 111 U.S. at 58 (deciding that one who discovers fact is not its "maker" or "originator"); *COPYRIGHT*, supra note 62, at §§ 2.11[A], 2-172.16 ("No one may claim originality as to facts."); cf. Robert C. Denicola, *Copyright in Collections of Facts: A Theory for the Protection of Nonfiction Literary Works*, 81 COLUM. L. REV. 516, 525 (1981) (arguing that some collections of data represent original authorship).

67. See 17 U.S.C. § 102(b) ("In no case does copyright protection... extend to any idea").

68. The idea/expression and fact/expression dichotomy of copyright law compounds the information suppliers' problems. Copyright law allows 'second-comers' to extract and manipulate facts and ideas any work, even if the original author first discovered or articulated them: "[N]o matter how much original authorship the work displays, the facts and ideas it exposes are free for the taking; the copyright may cover only the facts and ideas as they are presented by the author." Ginsburg, * supra note 56, at 1868. This is precisely why the defendant in *ProCD, Inc. v. Zeidenberg* could extract ProCD's information database from its CD-Rom program and use it independently without infringing the software copyright. See ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1455 (7th Cir. 1996). Federal copyright law offered ProCD no protection whatsoever against this activity. For more discussion of this case, see infra notes 75-106 and accompanying text.

69. See 17 U.S.C. § 101 (1994) (defining compilation as "a work... of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship"); see also id. § 103(b) ("The copyright... extends only to the material contributed by the author... and does not imply any exclusive right in the preexisting material.").


71. See *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 361 (1991) (holding that names, towns, and telephone numbers of utility's subscribers were uncopyrightable facts, not having been selected, coordinated, or arranged in minimally original way to qualify for copyright protection); see also *COPYRIGHT*, supra note 62, at §§ 2.11[D], 2-172.24. But cf. Denicola, * supra note 66, at 531 (stating that if database "is to be afforded copyright protection, it must of necessity attach to the assemblage of information itself").

Under *Harper & Row*, a compilation containing no protectible written expression will meet the minimal degree of originality for copyright protection if it features an original selection or arrangement. See *Harper & Row*, 471 U.S. at 547. Because a compilation's copyright protects only against unauthorized uses of the work as a whole, however, it does not extend to individual facts. See *Feist*, 499 U.S. at 350.
protection on the presence of subjective input by the author. Moreover, the Court explicitly rejected the notion that copyright law rewards the industriousness of authors. Its holding endorsed a unitary, high authorship interpretation of the scope of copyright.

C. ProCD, Inc. v. Zeidenberg

ProCD, Inc. v. Zeidenberg, a case recently decided by the U.S. Court of Appeals for the Seventh Circuit, illustrates the difficulties commercial information suppliers presently face in securing legal protection for their fact-based products. The court in ProCD dealt with two issues: (1) whether a "shrinkwrap" license, purporting to restrict the uses a purchaser could make of a mass-marketed software program, created a contract binding the purchaser to its terms, and (2) whether, even if the license created a valid contract, the federal Copyright Act preempted state enforcement of its terms. Reversing the trial court on both questions, the Seventh Circuit held that the licensing agreement bound the purchaser, and that federal copyright law did not preempt enforcement of the contract under state law.

The plaintiff, ProCD, had spent more than $10 million to compile information from more than 3,000 telephone directories into a computer database, which it offered to potential consumers on CD-ROM under the name SelectPhone. In order to reach multiple elements of the market, ProCD offered its product at a lower price to the general public than it did to commercial purchasers. ProCD

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72. See Feist, 499 U.S. at 363, 347 (declaring that "copyright protects only those constituent elements of a work that possess more than a de minimis quantum of creativity" and stating that facts do not possess sufficient originality because they are merely discovered, not created). In addition, the Court claimed its decision rested on Constitutional grounds, interpreting the words "writings" and "authors" to require a degree of "independent creation plus a modicum of creativity." Id. at 346.

73. See id. at 364 (stating "copyright rewards originality, not effort" and holding that telephone database arranged alphabetically not sufficiently original to qualify for copyright protection).

74. A high authorship theory of copyright protection is one that requires the presence of the author's own personal taste or style in the work created. See Ginsburg, supra note 56, at 1866.

75. 86 F.3d 1447 (7th Cir. 1996).

76. See ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1449 (7th Cir. 1996).

77. See id. at 1454.

78. See id. at 1449.

79. Although manufacturers and retailers could benefit commercially from the type of specialized information that SelectPhone offered, the value to those having nothing to sell would lie exclusively in their own personal use. See id. As the court indicated, consumers in the general public might purchase the database as an electronic substitute for the local phone book or for calling long distance information, but not at the same price commercial purchasers would pay. See id.
turned to licensing as a method of preventing commercial purchasers from purchasing SelectPhone™ at the cheaper price.  

On every box sold to consumers, ProCD advertised that the purchase and use of SelectPhone™ was subject to restrictions enumerated on an enclosed license. Inside the box, the consumer could find the license printed in the product manual. SelectPhone™ also encoded the terms of its license on the CD-ROM; computer screens reminded the user of its provisions before allowing him or her to proceed. The license informed the buyer that SelectPhone™’s software was copyrighted and purported to restrict the ways in which its information could be used. These restrictions included a prohibition on copying and distributing the software program and telephone database.

After purchasing SelectPhone™, defendant Zeidenberg copied its listings to a computer’s hard drive and developed his own program for accessing the listings, which he resold at a lower price over the Internet through a corporation founded for this purpose, Silken Mountain Web Services. Zeidenberg later purchased two updated versions of the database and made the revised information available over the Internet as well.

ProCD sued Zeidenberg, claiming that his actions constituted copyright infringement and breached the SelectPhone™ software license. Zeidenberg countered that copyright law does not protect facts such as the phone numbers arranged in SelectPhone™ and, therefore, did not condemn his actions. Zeidenberg further contended that the license agreement did not bind him, and that even if it did, federal copyright law preempted the enforcement of ProCD’s state law contract claim.

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80. See id. at 1450. ProCD was faced with the difficult choice of either setting a high price to compensate for resales of its database, which would restrict its market among private users, or setting a low price more attractive to the general public that would incur a greater risk of uncompensated resales. See id. at 1449. For a general discussion of the problems of information suppliers in the absence of copyright protection, see Ginsburg, supra note 56, at 1918-22 (discussing how copyright law would work in absence of copyright liability).
81. See ProCD, 86 F.3d at 1450.
82. See id.
83. See ProCD, Inc. v. Zeidenberg, 908 F. Supp. 640, 644 (W.D. Wis.), rev’d, 86 F.3d 1447 (7th Cir. 1996).
84. See id. at 644-45.
85. See id. at 645.
86. See ProCD, 86 F.3d at 1450.
87. See id.
88. See ProCD, 908 F. Supp. at 644.
89. See id.
90. See id.
The district court ruled in favor of Zeidenberg, rejecting the contract claim on the ground that the license's terms were unavailable to the defendant at the time of purchase. The court held that the terms of the license would be incorporated into the parties' agreement only if the party to be bound could "read and consider the terms in their entirety" before purchasing the software. According to the court, merely referring to the terms at the time of contract formation did not provide ample opportunity to consider whether they were acceptable.

The Seventh Circuit reversed the District Court, supporting ProCD's right to condition use of SelectPhone™ upon acceptance of the license, as well as its right to invite Zeidenberg's acceptance by conduct. The court considered such conditional offers, coupled with the buyer's opportunity to reject the goods after inspection of their quality and limitations, to be valuable to sellers and purchasers alike. This method of contracting, the court noted, already finds frequent application in a number of industries today.

Turning to the second issue, the Seventh Circuit agreed with the district court that SelectPhone™'s database fell within the subject matter of copyright law, but lacked sufficient originality, either in

91. See id. at 654.
92. See id. The court reached this decision by considering previous case law dealing with similar transactions. See Step-Saver Data Sys., Inc. v. Wyse Tech., 939 F.2d 91, 104-05, n.45 (3d Cir. 1991) (acknowledging "distinction between conspicuous disclaimers made available before the contract is formed and disclaimers made available only after the contract is formed"); see also Arizona Retail Sys., Inc. v. Software Link, Inc., 831 F. Supp. 759, 763-66 (D. Ariz. 1993) (invalidating license because contract commenced before purchaser became aware of vendor's insistence on incorporation of its terms); McCrimmon v. Tandy Corp., 414 S.E.2d 15, 18 (Ga. Ct. App. 1991) (enforcing warranty disclaimer when purchaser had opportunity to read it before entering into contract).
93. See ProCD, 908 F. Supp. at 654. The court also held that, having failed to become part of the original agreement, the license could not modify the parties' contract under U.C.C. § 2-207(2) (proposals for addition to a contract) or § 2-209 (proposed modifications of a contract), because these provisions require the express assent of the party to be bound. See id. at 655.
94. See ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1452 (7th Cir.) (stating that Zeidenberg could have prevented formation of contract by returning package after reading license), rev'd 908 F. Supp. 640 (1996); cf. U.C.C. § 2-204(1) ("A contract for sale of goods may be made in any manner sufficient to show agreement, including conduct by both parties which recognizes the existence of such a contract.").
95. See ProCD, 86 F.3d at 1453 (asserting that opportunity to return goods can be important); U.C.C. § 2-606 (stating that purchaser accepts goods after having opportunity to inspect them and failing to make effective rejection).
96. See ProCD, 86 F.3d at 1453 (suggesting that presentation of all terms at time of contract formation, including warranties and license restrictions, would result in buyer forgoing more useful information about product, like its capabilities and compatibility with purchaser's needs).
97. See id. at 1457 (citing examples of contracts being formed before communication of every term in insurance, airline, concert, consumer product, drug, and software industries).
98. See id. at 1453; ProCD, 908 F. Supp. at 647.
content or arrangement, to qualify for its protection. Both courts then considered whether federal copyright law preempted enforcement of the license under state contract law. The circuit court overruled the district court on this historically controversial preemption issue, holding that the federal copyright statute did not preempt ProCD's enforcement of their state contract.

The Seventh Circuit's defense of ProCD's right to contract around federal copyright law is limited insofar as the court applied Feist's mandate that copyright only protects works exhibiting personal authorship. In the absence of a valid contract, the personality concept of copyright-worthy material will continue to exclude works of information such as ProCD's database from the aegis of copyright law. For such works, copyright still fails "to secure the commer-

99. See ProCD, 86 F.3d at 1453; ProCD, 908 F. Supp. at 650.
100. See 17 U.S.C. § 301(a) (1994) (placing all legal and equitable rights that are equivalent to any right within general scope of copyright under exclusive governance of Copyright Act and preempting entitlement to those rights under common law or statute of any state); ProCD, 86 F.3d at 1453; ProCD, 908 F. Supp. at 656.
101. Section 301 of the Copyright Act articulates Congress' intent to make federal law the exclusive source of protection for all works within the subject matter of copyright:

all . . . rights that are equivalent to any of the exclusive rights within the general scope of copyright . . . and come within the subject matter of copyright . . . are exclusively governed by this title . . . [and] no person is entitled to any such right or equivalent right in any such work under the common law or statutes of any State.


It is not clear whether section 301 would allow a contract to extend state protection over such material. Despite the statute's plain language, its legislative history indicates that private contracts should not be preempted. See H.R. REP. No. 94-1476, at 132 (1976) (revealing Congressional intent behind § 301 of Copyright Act not to "derogate from the rights of parties to contract with each other and to sue for breaches of contract").


102. See ProCD, 86 F.3d at 1454-55.
103. See id. at 1455.
105. See id. (assuming ProCD's database is uncopyrightable even though "it is more complex, contains more information . . . is organized differently, and therefore is more original than the single alphabetical directory at issue" in Feist).
cial value of these kinds of endeavors, even though the demand for productions such as directories and databases is ever increasing.

III. INFORMATION CONTRACTS: A SITE STILL UNDER CONSTRUCTION

In some ways, information agreements are analogous to newly-opened World Wide Web sites present on the Internet that flash, "This Site Still Under Construction!" Visitors cannot predict what the Web site will look like, but with the increasing popularity of the medium we can be reasonably certain that it will come to completion someday. Similarly, it is unclear how the law will shape the formation of information contracts, but as private actors exchange an increasing amount of information in new ways, legislators and courts will surely continue to refine this legal tool.

A. Information Commerce: Exchanging Intangibles

Information commerce differs in two fundamental, legally significant ways from traditional commerce. First, information products do not neatly fit into the contemporary concept of a "good" under Article 2 of U.C.C., even though they are often treated as such. Unlike goods, information is an intangible commodity. Though it may be recorded in tangible form, the information's physical embodiment may not limit the extent to which it can be possessed. Indeed, a single piece of information may be possessed or used by thousands at a time, regardless of the number of tangible copies in existence.

Second, information commerce differs from traditional commerce in the nature of property rights that attach upon transfer.

106. Ginsburg, supra note 56, at 1869.
107. See generally Johnson & Marks, supra note 6, at 487, 488-89 nn.5-6 (advocating application of basic principles of fairness and justice, rather existing legal metaphors, to determine rights and duties of participants in electronic networking communities).
108. See id. (stating that cyberspace is "relatively undeveloped and many of its possibilities remain unexplored").
109. Under the current U.C.C. definition, "goods" are defined as "all things ... which are movable at the time of identification to the contract for sale other than the money in which the price is to be paid ..." U.C.C. § 2-105 (1995); see Nimmer, supra note 5, at 1389 (stating that there are numerous problems with Article 2 governing information licenses because the body of law was drafted for sales of goods).
110. See infra notes 130-57 and accompanying text (describing tendency of courts to treat information transactions as conventional sales of goods).
111. See Nimmer & Krauthaus, supra note 7, at 105.
112. See id.
113. See id.
114. See id.
Information may be delivered without loss of possession or control, for as one commentator wrote, "information can be used without being used up and can be sold without being given up." Thus, a purchaser who seeks an exclusive right to control certain information must exact from the seller an obligation to neither use nor transfer it in the future. Even with these assurances, however, the buyer's exclusive right is not guaranteed. The seller may breach his agreement, or others may discover the information from a separate source. Such restraints create difficulties unknown in the sale of goods, as the parties must determine whether they bargained for the right to exclusive use of the information, or merely the right to share in its use with others.

B. Characterizations of Information Exchange

1. No sale! The licensing of software and related information products

Today the formation and authentication of electronic information agreements is closely associated with software licensing. Consequently, it is useful to discuss the software industry's attempts to safeguard its intellectual property from unauthorized use. As ProCD demonstrates, one such technique has been to characterize information transactions as licenses rather than sales.

Licensing owes its origin, in large part, to the "first sale" doctrine in federal copyright law. The Copyright Act of 1976 originally allowed the purchaser of a copy of any copyrighted work to "sell or otherwise dispose of the possession of that copy" without the copyright holder's consent. Software producers were concerned that under this doctrine, rental companies would purchase a program and lease copies to consumers who would then make their own copy rather than purchase the program themselves. Software producers faced

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115. See id.

116. Id.

117. See id.

118. See id.

119. See id.

120. See id.

121. See Nimmer, supra note 5, at 1342-43 (including information and software within scope of licensing contract's subject matter and analyzing U.C.C. Article 2 applicability to "software or other intangibles").

122. See ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1450 (7th Cir. 1996).


124. See Step-Saver Data Sys., Inc. v. Wyse Tech., 939 F.2d 91, 96 n.7 (3d Cir. 1991) (noting that under first sale doctrine one could buy copy of computer program and lease or lend it to another without infringing copyright on program).
the specter of pursuing expensive action against individual consumers because the first sale doctrine barred suits against the rental companies.\textsuperscript{125}

In order to avoid the first sale doctrine and establish a basis in state contract law for preventing unauthorized uses, producers began characterizing software transactions as transfers of licenses rather than sales.\textsuperscript{126} Although Congress removed the necessity for this measure in 1990 by prohibiting the rental, loan, or lease of software for profit,\textsuperscript{127} licensing has remained the predominant conceptual form for software transactions.\textsuperscript{128} Moreover, as ProCD demonstrates, producers continue to rely on licenses as a means of restricting the commercial uses purchasers may make of information that federal law would not otherwise prohibit.\textsuperscript{129}

2. Judicial construction of licensing agreements

Most courts have treated licensing transactions of software and related information products in the manner employed by the Seventh Circuit in \textit{ProCD}.\textsuperscript{130} In that case, the court briefly acknowledged that there may be legally significant distinctions between licenses and conventional contracts,\textsuperscript{131} but followed the district court by analyzing the license as an ordinary contract accompanying the sale of goods under the provisions of the U.C.C.\textsuperscript{132} Despite some decisions to the contrary,\textsuperscript{133} the dominant judicial trend is to analyze licenses

\begin{itemize}
  \item \textsuperscript{125} See id.
  \item \textsuperscript{126} See id.
  \item \textsuperscript{127} See Computer Software Rental Act of 1980, § 802(2), 17 U.S.C. § 109(b)(1)(A) (1994) (amending first sale doctrine to permit only non-profit libraries and educational institutions to lend or lease copies of software).
  \item \textsuperscript{128} See Nimmer, \textit{supra} note 5, at 1341-45 (discussing distinctions between sales of tangible goods and licenses of intangible software under U.C.C. Article 2); Raymond Nimmer & Richard Speidel, \textit{Hub and Spoke Concepts in Article 2: Discussion Memorandum 1} (presented to the Article 2 Revision Drafting Committee on Sept. 5, 1993) (on file with \textit{The American University Law Review}) (concluding that software and similar intangibles transactions should not be simply incorporated into Article 2 without modification to its sale of goods model).
  \item \textsuperscript{129} See ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1449 (7th Cir. 1996) (establishing that plaintiff sold uncopyrightable database with shrinkwrap license in order to restrict unauthorized copying of its contents).
  \item \textsuperscript{130} See Nimmer, \textit{supra} note 5, at 1345-46 (stating that most courts treat software licenses under Article 2 provisions for sales of goods).
  \item \textsuperscript{131} See \textit{ProCD}, 86 F.3d at 1450 (observing that "[w]ether there are legal differences between 'contracts' and 'licenses' . . . is a subject for another day").
  \item \textsuperscript{132} See id.
of software and related information products as conventional sales of goods. For the most part, this phenomenon can be explained by two factors: fear and familiarity.

The judiciary's reluctance to distinguish between sales and licenses may be explained as a fear of leaving the familiar conceptual structure of the U.C.C.'s sale of goods provisions. Some courts have justified applying Article 2 to licensing agreements for the sole reason that these contracts would otherwise be subject to uncodified common law rules. Other courts have suggested that a sales model fits poorly, but have nevertheless applied the U.C.C., further underlining the judiciary's fear of leaving an established body of law.


See infra notes 136-42 and accompanying text (describing courts' reluctance to examine licenses independent of U.C.C. provisions due to familiarity with statutory framework and antipathy toward common law).

See Nimmer, supra note 5, at 1346 (noting that common law provides minimal guidance and is inappropriate basis for analysis).

See Step-Saver Data Sys., 939 F.2d at 99 (recognizing that common law mirror image rule would apply to contracts outside the U.C.C.); Caspary v. Louisiana Land & Exploration Co., 707 F.2d 785, 791-92 (4th Cir. 1983) (stating that law becomes cluttered without abrogation by codification); see also Dixie Bonded Warehouse & Grain Co. v. Allstate Fin. Corp., 755 F. Supp. 1543, 1552 (M.D. Ga. 1991), aff'd sub nom. Graniteville Co. v. Bleckley Lumber Co., 944 F.2d 319 (11th Cir. 1991); Nimmer, supra note 5, at 1346 (suggesting that U.C.C. rules provide more guidance to parties than do common law alternatives).

See ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1449 (7th Cir. 1996) ("[N]o one argues that the terms of the license at issue here are troublesome . . . ."); see also Microsoft Corp. v. Harmony Computers & Elecs., Inc., 846 F. Supp. 208 (E.D.N.Y. 1994) (admitting that sale of copyrighted work by authorized copyright holder may constitute first sale but placing burden
examine licenses of software and other intangibles under the Article 2 microscope can be attributed to a "goods bias" that leads courts to focus on the tangible embodiment of the commodity being exchanged. This bias has permeated contract law, extending into analysis of contracts that involve neither tangible goods nor sales as well as policy discussions not involving goods at all. The judiciary's emphasis on sales reflects its inclination to view transactions under familiar terms.

3. Intangibles contracts seen through Article 2 glasses: A distinction blurred

Courts that have analyzed commerce in software and related intangibles under Article 2 of the U.C.C. may not have considered fully the relationship of these information transactions to conventional transactions in goods. Software is licensed, not sold, as a good; its value resides in the noncorporeal right to access and use its contents, not in its tangible embodiment.

Transactions of information and other intangible products are thus more appropriately labeled as licenses than sales for two reasons. First, the value of the transaction to the buyer lies in the right to use the intangible information conveyed, not in the physical items of the conveyance itself. Today's computer technology often renders the tangible embodiment of an information product nearly valueless as soon as the purchaser places its contents into his computer's

139. See Nimmer, supra note 5, at 1341 (describing legal impact of Article 2's inherent focus on sales of goods).

140. As one court noted:

Computer programs are the product of an intellectual process, but once implanted in a medium are widely distributed to computer owners . . . . That a computer program may be Copyrightable . . . does not alter the fact that once in the form of a floppy disc or other medium, the program is tangible, moveable and available in the marketplace. Advent Sys. Ltd. v. Unisys Corp., 925 F.2d 670, 675 (3d Cir. 1991). Many other courts have reviewed information commerce and seen, most clearly, a transfer of goods. See supra note 134 (identifying opinions that analyze software under U.C.C. Article 2).

141. See supra notes 130-40 and accompanying text (explaining how licenses of intangibles have been inappropriately analyzed under goods framework).

142. See KARL P. SAUVANT, INTERNATIONAL TRANSACTIONS IN SERVICES: THE POLITICS OF TRANSBORDER DATA FLOWS 18-22 (1986) (explaining how goods bias has permeated economic planning and international trade discussions).

143. See supra note 194 and accompanying text (recognizing tendency of courts to treat information transactions as conventional sales of goods); see also Nimmer, supra note 5, at 1943 (stating that litigation frequently places intangible transactions in framework meant for sale of goods).

144. See Nimmer, supra note 5, at 1345-46.

145. See id. at 1342-43 (observing that a license conveys to the licensee the ongoing right to use, access, or modify intangibles without interfering with the licensor's similar right).

146. See id. at 1374.
Soon, information transactions will occur commonly without any physical exchange other than the passage of digital ones and zeroes between computers. In short, the value of the transaction is increasingly less tied to its medium as information commerce develops. Second, information transactions establish a relationship between the parties that continues beyond the exchange of a product for consideration. Licenses grant one party a permit to use property over which another has control or other proprietary rights. Thus, unlike a sale in which the parties' commercial relationship ends upon delivery of the goods, licenses impose perpetual obligations.

4. Sight for sore eyes: A new prescription for the Uniform Commercial Code

In May 1996, the U.C.C. Article 2 Drafting Committee promulgated Draft Article 2B, a proposal that distinguishes licenses from sales and establishes an independent article for licensing. Although Article 2B surely will be revised, it represents a significant step toward better protection of information commerce. The following discussion explains the advantages that this proposed code...
of commercial licensing law holds over its alternative, continued common law development.

C. Why Revise? The Preference for Codified Rules of Information Commerce

The judiciary’s extension of Article 2 of the U.C.C. to software licensing evidences its preference toward codification159 as an alternative to common law development of contract principles.160 Information owners turned to licensing because they faced great difficulty in retaining exclusive control over intangible works.161 Codification would benefit the development of information commerce162 because the process is more likely to preserve the sanctity of a contract’s terms and result in rules that reflect the commercial realities and understandings of all parties.163

First, codification produces a uniform system of law upon which contracting parties may rely before disputes arise.164 The common law, conversely, produces a set of hazy lines and contradictory rules after the need for guidance has already emerged.165

Common law development is best suited to a slower pace and to developing law in reference to transactions that have local flavor and are characterized by shared expertise among the contracting parties. This was the commercial world of the 1700’s and 1800’s. Today, local transactions among limited groups of knowledgeable experts still occur, but modern technology and modern commerce have created a far less homogenous environment. In this setting, a premium exists on accessible, commercially relevant, and understandable principles that guide the transaction.166

159. See Nimmer, supra note 5, at 1345-46 (stating that most courts consider software licenses to fall within Article 2 despite fact that software is not sold, and that its value consists of right to use software itself and not any tangible embodiment).
160. See id. at 1351 (stating that modern trend favors codification).
161. See supra notes 110-20 and accompanying text (characterizing information as intangible good that can be widely disseminated despite existence of few tangible embodiments).
162. See Nimmer, supra note 5, at 1364-68 (advocating codification of contract principles as superior alternative to common law development).
163. See generally id. at 1356-67 (explaining superiority of codification process in achieving goals of commercial contract law).
164. See id. at 1343 (observing that litigation disputing whether U.C.C. Article 2 properly applies to transactions of intangibles has produced no clear answer).
166. Nimmer, supra note 5, at 1351.
Second, the ability of courts to make rules salient to commercial practice hinges on the ability of individual judges to understand commercial realities as presented through the eyes of adversarial expert witnesses. 167 The codification process, in contrast, takes place in an open environment where a wide variety of views can be evaluated outside the context of particular disputes. 168

Finally, the courts have modified contractual terms as often as they have supported their integrity. 169 "The idea that a court (or jury) should 'do justice' often conflicts with the idea that contracting parties are entitled to enforce [their agreements] to the letter." 170

Courts are not in the best position to apply consistent default rules because they work within a system of "isolated litigation and resolution of specific disputes." 171 Although codes do not always guide parties toward the most efficient behavior, 172 they are superior to the common law in optimizing party behavior. 173 The longevity of codified provisions may help parties cope with unforeseen events that affect the ongoing licensing relationship. 174

IV. COPYRIGHT AND INFORMATION COMMERCE

As the ProCD case illustrated, securing profitable returns remains a primary concern of information suppliers. 175 The growth of new

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167. See id. at 1365.
168. See id. at 1352 (stating that open dialogue attracts diverse viewpoints, enabling broader more informed resolution).
169. See id. at 1364 (suggesting that courts fail to consistently support contractual freedom because of focus on fairness of specific disputes' outcomes). Compare K.M.C. Co. v. Irving Trust Co., 757 F.2d 752, 759-60 (6th Cir. 1985) (implying additional terms in commercial contract so as to avoid unreasonable enforcement), and Reid v. Key Bank of S. Me., Inc., 821 F.2d 9, 13 (1st Cir. 1987) (refusing to alter good faith requirement based on determination that contractual relationship was adversarial), with Kham & Nate's Shoes No. 2, Inc. v. First Bank of Whiting, 908 F.2d 1351, 1357 (7th Cir. 1990) (construing terms of contract strictly: "[f]irms that have negotiated contracts are entitled to enforce them to the letter").
171. Id. at 1365.
172. See Ian Ayres & Robert Gertner, Strategic Contractual Inefficiency and the Optimal Choice of Legal Rules, 101 YALE L.J. 729, 733 (1992) (noting that certain default rules are "theoretically efficient," but "there is small hope that lawmakers will be able to divine the [most] efficient rule in practice").
173. See Nimmer, supra note 5, at 1339 (arguing that law should encourage flexibility in contract formation by "allowing parties to define their own relationship and adopt background or default rules that draw on the shared expertise of actual commercial contracting as a gauge for what rules are appropriate," and advancing codification as optimal process for achieving such goals).
174. See Randy E. Barnett, The Sound of Silence: Default Rules and Contractual Consent, 78 VA. L. REV. 821, 822 (1992) (stating that parties cannot foresee every future contingency at time of contract formation and that "the knowledge problem . . . is likely to increase and the completeness of their agreement to decrease" as contract duration is extended).
technologies such as the Internet hinders information providers' ability to control unauthorized uses of valuable information and to enforce copyrights against infringing end-users. The copyright system, which only protects works demonstrating a subjective authorial presence, or high amounts of creative authorship, neither consistently serves copyright's original purposes nor adequately protects many utilitarian works that facilitate the dissemination of valuable information. Rather than continuing to require utilitarian works to evidence authorial personality, copyright law would better fulfill its purposes with the adoption of a binary system of protection.

A. A Historical Perspective of Copyright-Worthy Works

The advancement of knowledge has always been a central purpose of copyright law in English and American jurisprudence. The first copyright statute in the United States, in fact, considered the protection of such low authorship works as maps and charts to promote this purpose. Labor-intensive works of information were primary goal of software developers is earning profits through sale of their products to consumers).

176. See MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511, 519 (9th Cir. 1983) (holding that downloading software program into computer's memory constitutes making of new copy which will infringe copyright if not licensed).

177. See Stern, supra note 52, at 57 (stating that detection of software piracy in individual end user contexts is extremely difficult and rarely occurs); see also Kaufman, supra note 175, at 225 (explaining that copyright suits, although effective against producers and distributors of unauthorized software copies, are normally not cost-effective means of protecting intellectual property rights against numerous individuals).

178. See An Act for the Encouragement of Learning by Vesting the Copies of Printed Books in the Authors or Purchasers of Such Copies, 1710, 8 Anne, ch. 19, preamble (Eng.) (stating purpose of act as "the Encouragement of Learned Men to Compose and Write useful Books"); see also U.S. CONST. art. I, § 8, cl. 8 (granting Congress power "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."). As used in the Constitution, "Science" meant "knowledge." See, e.g., WILLIAM COWPER, CONVERSATION 14 (1781) ("As alphabets in ivory employ/Hours after hour the yet unletter'd boy/Sorting and puzzling with a deal of glee/Those seeds of science call'd his ABC"), quoted in 14 OXFORD ENGLISH DICTIONARY 648 (2d ed. 1989).

The other justification for copyright presented in these enactments—the incentive justification—received surprisingly little attention from early commentators. See GEORGE T. CURTIS, TREATISE ON THE LAW OF COPYRIGHT 20-21 (1847) ("[G]lory may be the reward of genius in solitary and irregular cases; but no man ever wrote a spelling-book or compiled an almanac for that unsubstantial and thankless commodity"); see also EATON S. DRONE, A TREATISE ON THE LAW OF PROPERTY IN INTELLECTUAL PRODUCTIONS IN GREAT BRITAIN AND THE UNITED STATES 44-45 (1879) (explaining that copyright should protect fruit of author's labor).

179. See Act of May 31, 1790, ch. 15, 1 Stat. 124 (current version in scattered sections of 17 U.S.C.) ("An Act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned."). These works are "informational and labor-intensive, ... valued ... for the information they impart, not for fanciful drafting or personal pictorial peculiarities." Ginsburg, supra note 56, at 1876.
the subject of much early copyright litigation as well, with courts protecting useful works because of the author's efforts, rather than his creative or literary contributions. Contemporary commentators echo this theme, linking authorship to industriousness.

Although present in early court decisions as well, the high authorship rationale for copyright did not prevent protection of low authorship works. The presence of commercial value in utilitarian works coexisted with high authorship as a justification for securing the privileges of copyright even into this century. It is within copyright's traditional prerogative, therefore, to protect both the subjective expressions of an author's personality and the objective elements of commercially valuable works that manifest authorial industriousness. Once copyright law acknowledges that it should

180. See AUGUSTINE BIRRELL, SEVEN LECTURES ON THE LAW AND HISTORY OF COPYRIGHT IN BOOKS 170-71 (1899) (noting that such works as maps, encyclopedias, and legal texts were frequent subjects of early litigation). See generally Jane C. Ginsburg, A Tale of Two Copyrights: Literary Property in Revolutionary France and America, 64 TUL. L. REV. 991, 998-1005 (1990) (discussing political and social reasons for disproportionate presence of informational works in early United States copyright).

181. See, e.g., Longman v. Winchester, 33 Eng. Rep. 987, 987-88 (Ch. 1809) (protecting court calendar on basis of author's industriousness); Mathewson v. Stockdale, 33 Eng. Rep. 103, 105-06 (Ch. 1806) (upholding protection for calendar because of industriousness and expense undertaken by author); see also Ginsburg, supra note 56, at 1874 (noting that author's original work is always copyrightable regardless of importance of subject matter).

182. See CURTIS, supra note 178, at 171 (stating that, to claim exclusive privileges of copyright, author "must show [something] to have been produced by himself; whether it be a purely original thought or principal, . . . or a collection, the result of his industry and skill."); see also DRONE, supra note 178, at 208 (asserting that works are original when they result from independent labor rather than copying).

183. See Bleistein v. Donaldson Lithographing Co., 188 U.S. 239, 250 (1903) ("Personality always contains something unique. It expresses its singularity even in handwriting, and a very modest grade of art has in it something irreducible, which is one man's alone. That something he may copyright unless there is a restriction in the words of the act."); see also Mark Rose, The Author as Proprietor: Donaldson v. Becket and the Genealogy of Modern Authorship, 23 REPRESENTATIONS 51, 73 (1988) (explaining view that "[i]ke two human faces . . . two compositions may resemble each other in various ways, but they will always have some distinguishing characteristics, some mark of individuality"); Samuel D. Warren & Louis D. Brandeis, The Right to Privacy, 4 HARV. L. REV. 193, 207 (1890) (examining English courts' protection of letters against unauthorized publication and concluding that copyright and privacy both represent "a part of the more general right to the immunity of the person—the right to one's personality.").

184. See, e.g., Sampson & Murdock Co. v. Seaver-Radford Co., 140 F. 539 (1st Cir. 1905); Trow Directory, Printing & Bookbinding Co. v. Boyd, 97 F. 586 (C.C.S.D.N.Y. 1899); RICHARD R. BOWKER, COPYRIGHT: ITS HISTORY AND ITS LAW 69 (1912) (noting that courts have interpreted copyright laws broadly to include "useful books").

185. See Bleistein, 188 U.S. at 252 ("[w]ork[es] command the interest of any public, they have a commercial value . . . and the taste of any public is not to be treated with contempt."); DRONE, supra note 178, at 209-10 (criticizing circuit court's finding that daily price quotations were unworthy of copyright and arguing that commercial world recognizes the value of such information, thereby placing it within scope of copyright); see also Ginsburg, supra note 56, at 1890 (arguing that Justice Holmes' fusion of high and low authorship reasoning in Bleistein "demonstrated the receptivity of copyright to both creativity and commercial value.").
protect works of low authorship, it must delineate the rights this protection should accord information providers.

**B. The Limitations of Copyright in Low Authorship Works**

If history is any lesson, the rights information providers deserve from their copyrights should not be identical to those given to individuals whose work manifests a subjective authorial presence. Copyright law's interest in leaving the facts and ideas that lie at the foundation of all works unguarded precludes equal protection of works of high authorship and works of information.

The traditional scope of copyright protection for utilitarian works was always quite limited. A copyright holder could prohibit others from copying his work, but he could not stop them from making

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186. See generally Ginsburg, supra note 56, at 1885-88 (stating that courts traditionally have distinguished works of authorial presence from derivative works, giving derivative works lower degree of protection).

187. See 17 U.S.C. § 102(b) (1994) ("In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery . . . ."); see also DRONE, supra note 178, at 93 (recognizing no property rights in thoughts, conceptions, ideas, or sentiments).

The close relationship between an idea and its expression has often resulted in functional works receiving relatively "thin" copyright protection. See, e.g., Affiliated Hosp. Prod., Inc. v. Merdel Game Mfg. Co., 513 F.2d 1183, 1189 (2d Cir. 1975) (stating that access and use of rulebook by competitor in formulating its own rulebook does not constitute copyright infringement); Continental Casualty Co. v. Beardsley, 259 F.2d 702, 706 (2d Cir. 1958) (explaining that use of specific language in business form in certain fields is essential and therefore higher threshold for copyright infringement must be met); Chamberlain v. Uris Sales Corp., 150 F.2d 512, 513 (2d Cir. 1945) (holding that copyright of rules to game was not infringed by competitor's statement of rules where similarities between two sets of rules derived from fact that they were necessarily drawn from same source); Kepner-Tregoe, Inc. v. Carabio, 203 U.S.P.Q. (BNA) 124, 130-31 (E.D. Mich. 1979) (finding that if only original aspect of work is literal expression, only nearly identical copy will infringe); LaST Frontier Conference on Copyright Protection of Computer Software, 30 JURIMETRICS J. 15, 18 (1989) (noting that predominantly functional works have received limited copyright protection due to lack of expressive elements).

For more discussion of the idea-expression distinction and its underlying public domain policies, see, e.g., Ralph S. Brown, Eligibility for Copyright Protection: A Search for Principled Standards, 70 MICH. L. REV. 579, 601-05 (1981) (speculating that idea-expression distinction may allow process-oriented computer program to receive copyright protection that other non-process-oriented programs may not receive); Jessica Litman, The Public Domain, 39 EMORY L.J. 965, 995-99 (1989) (explaining difficulty in distinguishing ideas from expression in order to show why copyright is acceptable in certain situations but not in others); Melville B. Nimmer, A Comment on the Douglas Dissent in Lee v. Runge, 19 BULL. COPYRIGHT SOCY 68, 68-69 (1971) (maintaining that only protectible aspect of work may lie in literal expression).

188. As the court in Kiernan v. Manhattan Quotation Telegraph Co. stated:

It would be an atrocious doctrine to hold that dispatches, the result of the diligence and expenditure of one man, could with impunity be pilfered and published by another.

The mere fact that a certain class of information is open to all that seek it, is no answer to a claim to a right of property in such information made by a person who, at his own expense and by his own labor, has collected it.

competing works that exhibited only a modicum of independent effort.\textsuperscript{189} Professor Ginsburg accurately characterized early copyright guarantees in low authorship works as recognizing a right to bar reproduction, not establishing a right to monopolize information and preclude the creation of derivative works.\textsuperscript{190} Modern copyright law should seek this balance.

The Supreme Court drew a distinction between the "use" and "explanation" of utilitarian works in \textit{Baker v. Selden},\textsuperscript{191} recognizing the need to protect authors' investments while avoiding monopolies over information.\textsuperscript{192} In \textit{Baker}, the Court recognized that protecting the author's original explanation from unauthorized copying, while allowing second-comers (i.e. consumers or subsequent authors) to still use the information within that publication, extended an appropriate level of protection over utilitarian works. The Court stated:

The very object of publishing a book on science or the useful arts is to communicate to the world the useful knowledge which it contains. But this object would be frustrated if the knowledge

\textsuperscript{189} See Cary v. Kearsley, 170 Eng. Rep. 679, 680 (K.B. 1802) ("[W]hen, in the defendant's book there are additional observations... while I shall think myself bound to secure every man in the enjoyment of his copyright, one must not put manacles upon science."); see also Cary v. Lougman, 102 Eng. Rep. 138, 139 n.(b) (K.B. 1785) (finding no copyright violation in navigational charts when defendant made improvements upon plaintiff's original work); DRONE, supra note 178, at 396 ("[A] fundamental principle of the law of copyright [is]... that a work, to be free from piracy, must be the result of the author's own labor, skill, and use of common materials and common sources of knowledge open to all men." (quoting Emerson v. Davies, 8 F. Cas. 615, 624 (C.C.D. Mass. 1845) (No. 4436))).

According to these authorities, exercising "new toil and talent" over another's work gives rise to "new property and rights in the last compiler." Webb v. Powers, 29 F. Cas. 511, 517 (C.C.D. Mass. 1847) (No. 17,323). Copyright protection of utilitarian works, including those containing information that society preferred to leave in the public domain, neither placed the entire burden of producing updated versions on the first author nor hindered others from making improvements upon preexisting works. See Ginsburg, supra note 56, at 1878 (describing deleterious effects of extensive rights in labor-intensive works).

The same policies favoring the advancement of knowledge and the rewarding of labor that endowed informational works with copyright exculpated a second comer's reliance on the copyrighted work when he added considerable personal effort to what he copied. Copyright would protect the first author against thieves, but not against those whose investment of their borrowings from the initial source produced a higher net yield. Id. at 1877.

\textsuperscript{190} See Ginsburg, supra note 56, at 1890 ("When the work manifested an authorial presence, its scope of protection extended beyond reproduction to encompass at least some derivative works exploitations. But, if the derivative works right flows from the personality concept, the rationale for the right would not seem to apply to low authorship works."). A derivative work is "a work based upon one or more preexisting works." 17 U.S.C. § 101 (1994).

\textsuperscript{191} 101 U.S. 99 (1880)

could not be used without incurring the guilt of piracy of the book. And where the art it teaches cannot be used without employing the methods and diagrams used to illustrate the book . . . such methods and diagrams are to be considered as necessary incidents to the art, and given therewith to the public . . . .

. . . [w]hilst no one has a right to print or publish [another author's] book or any material part thereof, . . . any person may practice and use the art [explained and illustrated within the book]. The use of the art is a totally different thing from a publication of the book explaining it. 193

The Court reasoned in Baker that where an idea and its expression are inextricably linked, courts must limit the exclusive rights guaranteed by copyright. 194 The Court therefore denied Selden any exclusive right over the forms and methods necessary to employ his bookkeeping system, 195 protecting only his exclusive right to "print or publish" the instructive work. 196

In the same fashion, copyright law could respond to the needs of modern information commerce and secure an author's investment in the original and independent collection of information by prohibiting only the copying of substantial portions of the work's useful aspects for direct reproduction in a competing work. The law could permit other reproductions of these aspects, such as those by consumers in the course of their use of the information, or those by subsequent

193. Id. at 103-04.
194. This doctrine is called the "merger doctrine." See Kern River Gas Transmission Co. v. Coastal Corp., 899 F.2d 1458, 1463 (5th Cir. 1990). It dictates that when an idea and its expression cannot be bifurcated (or the idea can only be expressed in a "mere handful" of ways), the two merge and the law will deny both protection in order to avoid granting a monopoly over the idea. See id.; Morrissey v. Procter & Gamble Co., 379 F.2d 675, 678-79 (1st Cir. 1967).
196. See id. at 103. Baker is perhaps best known for the proposition that even an author's right to control reproduction of parts of a utilitarian work can be limited. As one author explains:

[T]he historical role of Baker v. Selden was to override the exclusive reproduction rights as applied to utilitarian works in a very particular set of circumstances. These were cases in which the standard defenses (including idea-expression) appeared insufficient to guarantee a third party's right to use functional features embodied in the work because that use seemed to entail an unauthorized reproduction of the protected work.

compilers engaged in recompiling the information within an originally arranged or collected compilation. Such limited protection would require copyright to recognize "original authorship" as encompassing the industriousness of an author. As stated earlier, modern copyright analysis has discarded the "laborious authorship" justification of copyright protection in exchange for a unitary, personality-based concept of original authorship. Nevertheless, the fundamental unfairness early courts identified in allowing a second-comer to appropriate another's labor as his own has persisted. Modern courts still often protect low authorship works by either scrambling to find indicia of high authorship within low authorship works, or by turning to alterna-

197. See supra notes 42-55 and accompanying text.

198. See, e.g., Financial Info., Inc. v. Moody's Investors Serv., Inc., 808 F.2d 204, 205 (2d Cir. 1986) (denying protection to index cards based on lack of sufficient subjective authorship); Southern Bell Tel. & Tel. Co. v. Associated Tel. Directory Publishers, 756 F.2d 801, 809 (11th Cir. 1985) (recognizing that industriousness is no longer relevant criterion for copyright under Copyright Act of 1976); Miller v. Universal City Studios, Inc., 650 F.2d 1365, 1369-70 (5th Cir. 1981) (conditioning copyright protection for directories on novel selection and arrangement facts rather than industrious compilation of information); see also William F. Patry, Latman's THE COPYRIGHT LAW 63-64 (6th ed. 1986) (applying same standard of originality to compilations as to other literary works and rejecting recognition of copyright based on labor expended by author); L. Ray Patterson & Craig Joyce, Monopolizing the Law: The Scope of Copyright Protection for Law Reports and Statutory Compilations, 36 UCLA L. Rev. 719, 759-64 (1989). But see Beryl R. Jones, Copyright: Factual Compilations and the Second Circuit, 52 Brooklyn L. Rev. 679, 700-03 (1986); cf. Dale P. Olson, Copyright Originality, 48 Mo. L. Rev. 29, 45 (1983).

199. See supra notes 178-85 and accompanying text (describing reluctance of 19th century courts to exonerate those who produced competing works merely by copying original works without additional contribution); see also, e.g., Radji v. Khakbaz, 607 F. Supp. 1296, 1300 (D.D.C. 1985) (stating that expression of newsworthy items is protected from wholesale copying under Copyright Act); Trow Directory, Printing & Bookbinding Co. v. Boyd, 97 F. 586, 587 (C.C.S.D.N.Y. 1899) (granting preliminary injunction where plaintiff made strong showing of copyright infringement and defendant failed to demonstrate own original work); Blunt v. Patten, 3 F. Cas. 763, 764-65 (C.C.S.D.N.Y. 1828) (no. 1580) (observing that party infringes copyright by directly copying the work of another, thus taking first author's "labor and skill"); see also Rockford Map Publishers, Inc. v. Directory Serv. Co. of Colo., 768 F.2d 145, 148 (7th Cir. 1985) (emphasizing that copyright covers only incremental contribution and not underlying information); National Bus. Lists, Inc. v. Dun & Bradstreet, Inc., 552 F. Supp. 89, 92 (N.D. Ill. 1982) (noting that courts historically have granted protection against "appropriation of the fruits of the compiler's industry"); Ginsburg, supra note 56, at 1905 ("Courts nevertheless have stretched copyright protection to prohibit remanipulation of information when the information has been stripped of any trappings of authorial presence." In essence, courts that condemn this kind of copying seek to secure the first compiler's investment and reprimand free riders).

200. See, e.g., West Publ'g Co. v. Mead Data Cent., Inc., 799 F.2d 1219, 1220-27 (8th Cir. 1985) (finding that arrangements of legal decisions were entitled to copyright protection); Southern Bell Tel. & Tel. Co. v. Associated Tel. Directory Publishers, 756 F.2d 801, 809-10 & n.9 (11th Cir. 1985) (ruling that telephone directory satisfied originality requirement); Hutchinson Tel. Co. v. Frontier Directory Co. of Minn., 770 F.2d 128, 132 (8th Cir. 1985) (declaring that alphabetical telephone directory was original work of authorship); cf. Robert C. Denicola, Copyright in Collections of Facts: A Theory for the Protection of Nonfiction Literary Works, 81 COLUM. L. Rev. 516, 530 (1981) (characterizing particular collection of data as original authorship).
tive justifications like unfair competition, misappropriation, or breach of contract. Thus, the judiciary continues to recognize that even in the absence of high authorship, there is something wrong with reaping where one did not sow.

V. RECOMMENDATIONS FOR IMPROVING LEGAL FACILITATION OF INFORMATION COMMERCE

A. Distinguish Licenses from Sales by Codification

Contract law would best protect information commerce if it abandoned its traditional analysis of information agreements and distinguished the licensing of intangibles from the sale of goods. The peculiarities of intangibles licensing deserve a commercial code separate from U.C.C. Article 2. The Drafting Committee’s proposal to reform Article 2 represents a significant step toward developing a discrete set of uniform principles that accurately characterize the contemporary commercial practices of information commerce.

201. See, e.g., Rockford Map Publishers, Inc., 768 F.2d at 149-50 (deciding that second compiler, who copied first compiler’s plot map engaged in unfair competition because work was not “independent production”); Schroeder v. William Morrow & Co., 566 F.2d 3, 6 (7th Cir. 1977) (declaring that wholesale copying of directory without independent verification constituted unfair competition).


203. See ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1454 (7th Cir. 1996) (condemning defendant’s unauthorized copying of commercially valuable database for purpose of reselling it over Internet by enforcement of licensing agreement).

204. See Ginsburg, supra note 56, at 1904 (explaining that judiciary still views copyright as means to reward investment while penalizing those who take shortcuts).

205. “[T]he dominant method of thinking about political, social, and legal issues continues to focus on criteria and issues relevant to trade in, and manufacture of, goods.” Nimmer & Krauthaus, supra note 7, at 104 n.2 (describing continued “goods bias” in American economy despite increasing predominance of commerce in services and information products); see Sauvant, supra note 142, at 2 (“Like generals who blindly prepare for the last war, our economic policymakers spend too much . . . time thinking about the last economy.”).

206. See Nimmer, supra note 5, at 1979-81 (distinguishing licenses from tangible goods by describing various ways in which value of license can be transferred).

207. See id. at 1350 (“Software and related intangibles licensing constitute a major commercial enterprise whose contracts should be brought within relevant, tailored commercial law. Codification, both as a process and in the product it yields, offers advantages that cannot be replicated through ‘common law’ development of contract principles.”).

208. See supra notes 53-55 and accompanying text (describing “hub and spoke” framework of U.C.C. revisions, which would place common contract principles in hub chapter while addressing special characteristics of leasing and licensing in spoke chapters).
B. Expand the Scope of Copyright Protection to Include Low Authorship Works of Commercial Value

The rising prominence of information commerce in today's economy, in connection with the development of the NII and other electronic media, calls for the law to once again acknowledge a binary system of copyright. Protecting the commercial value of information works gathered at the expense and investment of the compiler is faithful to copyright's early interpretations of original authorship and an effective means of securing a just award. Extending the privileges of copyright protection to low authorship information compilations would reward authors for the usefulness of their works rather than the presence of subjective expression.

The Copyright Act of 1976 would require amendment to restore the investment or "sweat" concept of original authorship that Feist rejected. Specifically, the definition of compilation in Section 101 of the Act might be revised to read in one of the two following ways:

Option 1: A "compilation" is a work composed of pre-existing material or data. A "compilation" constitutes an original work of authorship by virtue of the compiler's own original collection, coordination, selection or arrangement of that preexisting material or data.

Option 2: A "compilation" is a collection of pre-existing material or data that constitutes an original work of authorship when its content is collected, coordinated, selected or arranged by the compiler's original, independent efforts.

So modified, federal copyright law would establish information compilations as original works of authorship by virtue of their unique

209. Even before the Supreme Court's decision in Feist Publications, Inc. v. Rural Telephone Service Co., 499 U.S. 340 (1991), Professor Ginsburg recognized the inappropriateness of adopting a unitary, personality-based approach to copyright in the context of printed factual compilations:

The error of our modern doctrine lies in its implicit ... claim that a personality-based approach to copyright law has completely displaced the sweat/investment model. Recognition of our dual bases for copyright not only would be more faithful to our copyright history, but also would squarely confront the interests at issue in a rapidly growing sector of publishing activity.

Ginsburg, supra note 56, at 1870.

210. See supra notes 175-85 and accompanying text (describing early form of copyright protection based on author's original industriousness and investment of labor).

211. See Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 429 (1984) (noting that copyright balances society's interest in free flow of ideas and commerce with "the interests of authors ... in the control and exploitation of their writings").

212. See supra notes 186-204 and accompanying text (proposing limited copyright protection for works of information based on their usefulness, rather than mere creativity).

213. See Feist, 499 U.S. at 364 (holding that copying names, towns, and telephone numbers did not infringe copyright because listings resulted from effort and not originality).
arrangement or because of the compiler's independent collection of commercially valuable information.

C. Narrowly Define the Rights of Copyright in Low Authorship Works

While copyright protection secures an author's investment in his work, it should not further endow him with a monopoly over the raw ideas and facts included in that work. The following proposed amendment to section 103 of the Copyright Act suggests that protection of low authorship works should include only those rights that are necessary to secure a fair return:

Proposed § 103(b): The copyright in a derivative work extends only to the material contributed by the author of such work, as distinguished from the pre-existing material employed in the work, and does not imply an exclusive right in the pre-existing material. The copyright in such work is independent of, and does not affect or enlarge the scope, duration, ownership, or subsistence of, any copyright protection in the pre-existing material.

Proposed § 103(c): The copyright in a compilation extends: (i) to the material contributed by the author of such work, as distinguished from the pre-existing material employed in the work, and (ii) to any data independently collected by the author, subject to the restrictions of this section.

(1) The copyright in material contributed by the author and independently collected data is independent of, and does not affect or enlarge the scope, duration, ownership, or subsistence of, any copyright protection in the pre-existing material employed in the work.

(2) The copyright in independently collected data shall endow an exclusive right only insofar as its direct reproduction into a competing work is concerned. The copyright in the collected data shall neither extend to intermediate reproductions necessary to the creation of subsequent compilations or derivative works nor proscribe reproductions that may be considered fair use under § 107 or archival under § 117. The copyright in such data does not imply any other exclusive rights in that data.

This proposed amendment institutes a copyright regime in low authorship informational works that adheres to the historical function of copyright. First, it protects the low authorship aspects of independently collected information compilations from reproduction only insofar as direct copying for competitive resale or distribution is concerned. This right would not proscribe copying that fell within
the category of "fair use" or interfere with the right to make back-up copies. Second, denying the original compiler any other exclusive right in the information, including the right to make derivative works, ensures that second-comers may reshuffle, add to, or update the work's contents in the creation of a new compilation, and ensures that consumers may also use the information without infringing a copyright. This framework would give information suppliers the exclusive right to disseminate their commodity while it is commercially valuable and simultaneously would allow the general public to use and recompile its contents.

CONCLUSION

As the United States moves closer to realizing a National Information Infrastructure it is appropriate for law makers to reevaluate the rules governing the exchange of information. Making a legal distinction between the licensing of intangibles and the sale of goods will become more important as technology continues to facilitate the exchange of information. First, the law of contract should treat licenses of intangible goods in a separate codification, establishing rules that better reflect and support the commercial practices of parties. Second, as to copyright law, an alternative justification for protecting works of information, one currently ignored by contemporary interpretations of copyright's scope, must be recognized. Adopting a second justification for copyright protection that includes low authorship elements of a work independently and originally collected would protect the investment of information suppliers, would provide greater incentive to create and disseminate information to society at large, and would ensure that the general public may fully employ the information contained within.

214. "Fair use" is a limitation to the exclusive rights of copyright that allows reproduction of otherwise copyrightable work for the purposes of "criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research . . . ." See 17 U.S.C. § 107 (1994).

215. See id. § 117 (permitting owner of computer program to modify and make back-up copies of program, but prohibiting owner to further reproduce, sell, or transfer copies without also transferring original program).

216. Before Feist, Professor Ginsburg proposed to grant low authorship works a similar set of rights. One of her recommendations included extending copyright protection to the independently collected elements of information compilations, but limiting that copyright by compelling the owner to license the work for certain purposes like the creation of derivative works. See Ginsburg, supra note 56, at 1924-36.