

COPYRIGHT AND THE JURISPRUDENCE OF SELF-HELP

By Julie E. Cohen[†]

ABSTRACT

The proposed draft of Article 2B grants broad rights to enforce electronically contract provisions governing access to and use of digital works. Purveyors of digital works may engage in electronic self-help following breach of contract, and may also elect to foreclose unauthorized uses *ex ante*, via electronic "regulation of performance." This Article examines these provisions in light of existing law authorizing self-help repossession of tangible chattels, leading academic justifications for self-help repossession, and federal copyright law and policy. It concludes that the provisions authorize an unprecedented degree of intrusion into private homes and offices, that they lack a sound theoretical basis, and that their adoption would threaten constitutionally-mandated limits on copyright protection. It concludes, further, that the law should afford users of digital works rights of electronic self-help where necessary to preserve the copyright balance.

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I. INTRODUCTION

A new wind is blowing in copyright law. For centuries, authors and their assignees have relied primarily on federal copyright law to define and protect their legal rights. Suddenly, that may be about to change. New developments in digital technology offer copyright owners the tantalizing possibility of near-absolute control of their creative and informational content, even after its delivery to end users, via self-enforcing digital contracts. Copyright owners, along with purveyors of other (noncopyrightable) informational content, envision using these contracts to secure—and redefine—their “informational rights.”¹ Within this vision of private ordering and technological self-help, contract law rather than copyright law is paramount. Limits on information ownership set by the public law of copyright are conceived as optional restrictions that can be avoided using appropriate contractual language.

Proposed Article 2B of the Uniform Commercial Code (U.C.C.) is designed to play a central role in the restructuring of information law along contract-based lines. Information providers hope that Article 2B will establish, as background principles of commercial law, rules that will enable them to implement their vision of self-enforcing private ordering.² The

1. See U.C.C. § 2B-102(a)(27) (Aug. 1, 1998 Draft). As defined in Article 2B, “informational rights” encompass “all rights in information created under laws governing patents, copyrights, mask works, trade secrets, trademarks, publicity rights, or any other law that permits a person, independently of contract, to control or preclude another person’s use of the information on the basis of the rights holder’s interest in the information.” *Id.*

Unless otherwise noted, all citations to ‘Article 2B’ or ‘proposed Article 2B’ in this article refer to the July 24-31, 1998 Proposed Draft. Current and previous drafts of proposed Article 2B, together with other official documents from the drafting process, are available online via the National Council of Commissioners on Uniform State Laws’ Web page collection of draft uniform laws, maintained by the Biddle Law Library at the University of Pennsylvania Law School. See National Council of Commissioners on Uniform State Laws, *Drafts of Uniform and Model Acts*, (last modified Oct. 21, 1998) <<http://www.law.upenn.edu/library/ulc/ulc.htm#ucc2b>>. Correspondence and other documents submitted by interested parties during the drafting process are also available on the Web. See Carol A. Kunze, *The 2B Guide* (last modified Nov. 1, 1998) <<http://www.2BGuide.com/>>.

2. See U.C.C. § 2B-208 (July 24-31, 1998 Draft) (validating mass market standard-form license terms); *id.* § 2B-310 (authorizing licensors to implement electronic regulation of performance); *id.* § 2B-715 (authorizing licensor self-help following cancellation of a covered agreement).

drafters of Article 2B characterize these rules as broadly consistent with the existing framework of commercial law.³ They suggest, further, that the private agreements reached under such a regime can coexist with federal copyright law without disrupting the balance it seeks to establish.⁴ Information providers agree, and argue that, in any case, such agreements lie beyond copyright's preemptive reach.⁵ This article examines those assertions. It concludes that the provisions of Article 2B threaten a substantial departure from the existing law of self-help, and that this departure cannot be justified by reference either to doctrine or to theory.⁶ Moreover, copyright law and policy point the other way, toward affording self-help rights to users of copyrighted works.

Part II of this article describes the emerging digital "rights management" technologies and traces the history of the provisions of Article 2B that are designed to authorize or facilitate their implementation. Although the most recent draft of Article 2B appears to moderate one of these provisions, issues that earlier drafts had resolved in favor of electronic private ordering will now confront courts. Parts III and IV explore, respectively,

3. See *id.* §§ 2B-208, Reporter's Notes 3-4, 2B-310, Reporter's Note 1, 2B-715, Reporter's Note 3; see also U.C.C. Article 2B, Preface at 9 (July 24-31, 1998 Draft) ("Article 2B does not *create* contract law here—it merely provides a more coherent base for contracting."); Raymond T. Nimmer, *The Relation Between Contract and Intellectual Property Law*, 13 BERKELEY TECH. L.J. 827, 829 (1998).

4. See U.C.C. § 2B-105, Reporter's Notes 2-3; see also *id.* § 2B-105, Reporter's Notes 7-8; Nimmer, *supra* note 3, at 844. For a different characterization of Article 2B's approach to the relationship between contract and copyright, see David F. McGowan, *Free Contracting, Fair Competition, and Article 2B: Some Reflections on Federal Competition Policy, Information Transactions, and "Aggressive Neutrality,"* 13 BERKELEY TECH. L.J. 1173 (1998).

5. See, e.g., *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1454 (7th Cir. 1996); Brief of Amicus Curiae Software Publishers Association in Support of Plaintiff-Appellant, *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447 (7th Cir. 1996) (No. 96-1139); Information Indus. Ass'n, *Comments of the Information Industry Association on Article 2B and Prof. Charles McManis' Proposed Amendment to Section 2B-308* (July 18, 1997) <<http://www.infoindustry.org/ppgrc/doclib/grdoc010.htm>>; Copyright Comm., Ass'n of Am. Publishers, *Contractual Licensing, Technological Measures and Copyright Law* (visited Nov. 11, 1998) <<http://www.publishers.org/home/abouta/copy/licensing.htm>>; see also Robert W. Gomulkiewicz & Mary L. Williamson, *A Brief Defense of Mass Market Software License Agreements*, 22 RUTGERS COMPUTER & TECH. L.J. 335 (1996); Holly K. Towle, *Electronic Transactions and Contracting*, in *SECOND ANNUAL INTERNET LAW INSTITUTE* 515 (PLI, 1998).

6. Currently, self-help repossession is authorized in certain circumstances by U.C.C. Articles 2A and 9, which govern leases and secured transactions respectively. See U.C.C. § 2A-525 (1990), U.C.C. § 9-503 (1972). The standards that govern self-help repossession under Articles 2A and 9 are derived from the pre-U.C.C. common law. See *infra* text accompanying notes 45-54.

the doctrinal foundations of self-help under the U.C.C. and more theoretical models advanced by legal scholars, and conclude that none of the common justifications for commercial private ordering supports according information providers the broad powers of self-help that they claim as a matter of right. To the contrary, Article 2B's self-help provisions raise important problems that the drafters have failed to address. In Parts V and VI, I evaluate the proposed law and emerging practice of electronic self-help against the backdrop of copyright law and policy. Part V examines the role of the public-private distinction in mediating between copyright and contract, and argues that Article 2B is not merely a neutral background for private bilateral agreements, but a public act of social ordering that is flatly inconsistent with copyright and First Amendment principles. Part VI argues that licensees, not licensors, should be accorded rights of electronic self-help when necessary to preserve the balance that the Copyright Act is intended to establish.

II. ELECTRONIC FENCING AND SELF-HELP UNDER ARTICLE 2B

For information providers, digital networks represent both a promise and a threat. Computer networks eliminate or minimize many of the costs associated with product distribution, and make it possible for small businesses to serve national or even global markets. However, digitized information is easily copied, and networks also minimize the costs of distributing unauthorized copies. Information providers have expressed fears that by making their products available in digital form, they may destroy their own markets. Scholars and industry commentators dispute these predictions of total disaster, and argue that the economic principles that determine profitability in markets in tangible commodities do not necessarily apply to markets in intangibles.⁷ Nonetheless, information providers have stated a reluctance to experiment with digital distribution without additional legal and technological protection against unauthorized copying.⁸

7. See, e.g., John Perry Barlow, *The Economy of Ideas: A Framework for Rethinking Patents and Copyrights in the Digital Age*, WIRED, Mar. 1994, at 85; JAMES BOYLE, SHAMANS, SOFTWARE, AND SPLEENS: LAW AND THE CONSTRUCTION OF THE INFORMATION SOCIETY 35-41 (1995); Julie E. Cohen, *Lochner in Cyberspace: The New Economic Orthodoxy of "Rights Management,"* 97 MICH. L. REV. 301, 381-90 (1998); J. Bradford DeLong & A. Michael Froomkin, *The Next Economy?*, in INTERNET PUBLISHING AND BEYOND: THE ECONOMICS OF DIGITAL INFORMATION AND INTELLECTUAL PROPERTY (Deborah Hurley et al. eds., forthcoming 1998); Esther Dyson, *Intellectual Value*, WIRED, July 1995, at 136.

8. See, e.g., *WIPO Copyright Treaties Implementation Act: Hearing on H.R. 2281 Before the Subcomm. on Telecommunications Trade & Consumer Protection of the House*

Happily for information providers, digital technologies also offer a solution to their perceived problem. The same technologies that can be used to propagate information can also build fences around it. Together with technology experts, information providers are developing secure packaging and delivery software designed to prevent purchasers and third parties from making unauthorized uses of digital content.⁹ As envisioned by the copyright and information industries, these "rights management systems" will be "capable of detecting, preventing, and counting" almost

Comm. on Com., 105th Cong. (1998) [hereinafter *H.R. 2281 Commerce Hearing*] (statement of Robert W. Holleyman, II, President, The Business Software Alliance); *Copyright Legislation: Hearings on H.R. 2281 Before the Subcomm. on Cts. and Intell. Prop. of the House Comm. on the Judiciary*, 105th Cong. (1997) [hereinafter *H.R. 2281 Judiciary Hearings*] (statements of Robert W. Holleyman, II, President, The Business Software Alliance; Allee Willis, on behalf of Broadcast Music, Inc.; Tom Ryan, CEO, SciTech Software, Inc., on behalf of the Software Publishers' Ass'n; Gail Markels, General Counsel and Senior Vice President, Interactive Digital Software Ass'n; and Allen R. Adler, Vice President for Legal and Governmental Affairs, Association of Am. Publishers); *National Information Infrastructure: Hearing on S. 1284 Before the Senate Comm. on the Judiciary*, 104th Cong. (1996) [hereinafter *S. 1284 Hearing*] (testimony of Kenneth R. Kay, Executive Director, Creative Incentive Coalition); *Copyright Protection on the Internet: Hearings on H.R. 2441 Before the Subcomm. on Cts. and Intell. Prop. of the House Comm. on the Judiciary*, 104th Cong. (1996) [hereinafter *H.R. 2441 Hearing*] (statements of Barbara A. Munder, Senior Vice President, The McGraw-Hill Companies, Inc.; Frances W. Preston, President and CEO, Broadcast Music, Inc.; Jack Valenti, Chairman and CEO, Motion Picture Ass'n of Am., Inc.; and the Association of Am. Publishers); see also WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS, U.S. DEP'T OF COMMERCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 10-12 (1995) [hereinafter NII WHITE PAPER].

9. See Jon Bing, *The Contribution of Technology to the Identification of Rights, Especially in Sound and Audio-Visual Works: An Overview*, 4 INT'L J.L. & INFO. TECH. 234 (1996); CHRISTOPHER BURNS, INC., COPYRIGHT MANAGEMENT AND THE NII: REPORT TO THE ENABLING TECHNOLOGIES COMMITTEE OF THE ASSOCIATION OF AMERICAN PUBLISHERS (1996); Charles Clark, *The Publisher in the Digital World*, in INTELLECTUAL PROPERTY RIGHTS AND NEW TECHNOLOGIES: PROCEEDINGS OF THE KNOWRIGHT '95 CONFERENCE 85 (Klaus Brunnstein & Peter Paul Sint eds., 1995); Daniel J. Gervais, *Electronic Rights Management Systems (ERMS): The Next Logical Step in the Evolution of Rights Management* (visited Nov. 13, 1998) <<http://www.copyright.com/>>; Daniel J. Gervais, *Electronic Copyright Management Systems (ECMS): From Rights Trading to Electronic Publishing* (visited Nov. 13, 1998) <<http://www.copyright.com/>>; Mark Stefik, *Shifting the Possible: How Digital Property Rights Challenge Us to Rethink Digital Publishing*, 12 BERKELEY TECH. L.J. 138 (1997); MARK STEFIK, *Letting Loose the Light: Igniting Commerce in Electronic Publication*, in INTERNET DREAMS: ARCHETYPES, MYTHS, AND METAPHORS 219 (1996); PETER WAYNER, *DIGITAL COPYRIGHT PROTECTION* (1997); Robert Weber, *Digital Rights Management Technologies*, <http://www.ncri.com/articles/rights_management/ifiro95.html>. See generally Julie E. Cohen, *A Right to Read Anonymously: A Closer Look at "Copyright Management" in Cyberspace*, 28 CONN. L. REV. 981, 983-87 (1996) (describing capabilities of digital rights management systems).

every conceivable use of a digital work.¹⁰ In addition, these industries lobbied heavily for nearly three years for legislation that would prohibit tampering with or circumventing these systems.¹¹

Unhappily for consumers, however, digital rights management regimes will enable information providers to appropriate far more protection against copying and distribution than intellectual property law now provides. Copyright law allows some reuse of protected expression under a variety of exceptions designed to serve the public interest, and allows any reuse after the term of copyright protection has expired.¹² Copyright also does not attach to facts, ideas, or functional principles; instead, it treats these materials as public domain "building blocks" for future works.¹³ Many compilations of information consist largely of such public domain material and are protected only minimally, if at all, by copyright.¹⁴ The common law tort of data misappropriation provides some protection for uncopyrightable facts, but cannot protect against all copying, since the Copyright Act expressly preempts state-created rights that are "equivalent" to the rights afforded under copyright law.¹⁵ Trade secrecy law pro-

10. See Weber, *supra* note 9, § 3.1.1; see also CHRISTOPHER BURNS, INC., *supra* note 9, at 17-21, 31-35; Stefik, *Shifting the Possible*, *supra* note 9, at 140-44; STEFIK, *Letting Loose the Light*, *supra* note 9, at 228-38.

11. For information provider testimony in support of legislation, see *H.R. 2281 Commerce Hearing*, *supra* note 8; *H.R. 2281 Judiciary Hearings*, *supra* note 8; *S. 1284 Hearing*, *supra* note 8; *H.R. 2441 Hearing*, *supra* note 8; see also NII WHITE PAPER, *supra* note 8. Legislation designed to protect digital rights management systems was enacted this year. See Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998). For discussion of its provisions, see *infra* note 201.

12. See, e.g., 17 U.S.C. §§ 107 (1994) (fair use doctrine, which allows, *inter alia*, reuse of protected expression for purposes of criticism, classroom or research use, and parody), 108 (1994) (library copying privileges), 109(a) (1994) (limitation of exclusive distribution right to first sale of copy for most works), 110 (1994) (public performance and display exemptions for nonprofit activities and organizations), 302 (1994) (duration of copyright protection).

13. See 17 U.S.C. § 102(b) (1994); *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 349-50 (1991); Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 993 (1990).

14. See *Feist*, 499 U.S. at 349-50. Even for those compilations that incorporate original expression in the selection or arrangement of the underlying data, copyright protection extends only to those aspects and not to the data itself. 17 U.S.C. § 103(b) (1994). See generally 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 3.04[B][2] (46th rel. 1998).

15. See *infra* Part V.A. Compare *International News Serv. v. Associated Press*, 248 U.S. 215 (1918) (recognizing a common law cause of action for misappropriation of uncopyrightable news content), with 17 U.S.C. § 301(a) (1994) (preempting "equivalent" state-created rights in subject matter of copyright). On the appropriate role of data misappropriation law within the interstices of federal copyright law, see National Basketball

fects only information that is not generally known or readily ascertainable, and allows discovery of protected information by reverse engineering and other "proper means."¹⁶ In short, legal protection against unauthorized copying and distribution is incomplete, and is so by design.

Information providers conceive digital rights management systems as self-enforcing contracts, and argue that copyright law does not displace private bargains that alter the distribution of rights and privileges as between the parties.¹⁷ However, courts have differed on the validity, as a

Ass'n v. Motorola, Inc., 105 F.3d 841, 852-54 (2d Cir. 1997); *see also* *United States Golf Ass'n v. St. Andrews Sys.*, 749 F.2d 1028, 1037-38 (3d Cir. 1984) (articulating a narrow basis for the misappropriation tort).

There may soon exist federal protection for uncopyrightable databases and their contents. Database protection bills were introduced in both houses of Congress in 1998. *See* Collections of Information Antipiracy Act, H.R. 2652, 105th Cong. (1997); Collections of Information Antipiracy Act, S. 2291, 105th Cong. (1998). The House bill was incorporated into the Digital Millenium Copyright Act, which passed the House on July 29, 1998. *See* Digital Millenium Copyright Act, H.R. 2281, 105th Cong., Title V. However, the Senate-approved version of the Digital Millenium Copyright Act did not include database protection. *See* Digital Millenium Copyright Act, S. 2037, 105th Cong. Because the Senate has yet to hold hearings on database protection, the database provisions were removed from the final version of the bill. *See* Digital Millenium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998). Whether and to what extent such protection would be inconsistent with the constitutional origins of and limits to federal copyright protection are unresolved questions. *Cf. infra* Part V.A (discussing constitutional preemption of state laws that confer property-like protection on uncopyrightable material).

16. *See* UNIF. TRADE SECRETS ACT § 1 (1985); RESTATEMENT (THIRD) OF UNFAIR COMPETITION §§ 39, 43 (1995); *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 157 (1989); *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 476 (1974).

17. *See, e.g., ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1454 (7th Cir. 1996); Brief of Amicus Curiae Software Publishers Association in Support of Plaintiff-Appellant, *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447 (7th Cir. 1996) (No. 96-1139); *Information Indus. Ass'n*, *supra* note 5; Copyright Comm., Ass'n of Am. Publishers, *supra* note 5; *see also* Tom W. Bell, *Fair Use vs. Fared Use: The Impact of Automated Rights Management on Copyright's Fair Use Doctrine*, 76 N.C. L. REV. 557, 609-11 (1998). Many other commentators disagree, and argue that copyright does and should displace at least some types of contract restrictions. *See, e.g.,* Cohen, *supra* note 7, at 322-28; Julie E. Cohen, *Some Reflections on Copyright Management Systems and Laws Designed to Protect Them*, 12 BERKELEY TECH. L.J. 161, 181-82 (1997); Niva Elkin-Koren, *Copyright Policy and the Limits of Freedom of Contract*, 12 BERKELEY TECH. L.J. 93, 107-10 (1997); Dennis S. Karjala, *Federal Preemption of Shrinkwrap and On-Line Licenses*, 22 U. DAYTON L. REV. 512, 525-33 (1997); Robert A. Kreiss, *Accessibility and Commercialization in Copyright Theory*, 43 U.C.L.A. L. REV. 1, (1995); Mark A. Lemley, *Beyond Preemption: The Federal Law and Policy of Intellectual Property Licensing*, 87 CALIF. L. REV. 111 (forthcoming 1999); Mark A. Lemley, *Intellectual Property and Shrinkwrap Licenses*, 68 S. CAL. L. REV. 1239 (1995); 1 NIMMER & NIMMER, *supra* note 14, § 3.04[B][3]; David A. Rice, *Public Goods, Private Contract, and Public Policy: Federal Preemption of Software License Provisions Against Reverse Engineering*, 53 U. PITT. L. REV. 543 (1992); *see also infra* Part V.

matter of contract law, of "shrinkwrap" licenses that purport to restrict the uses of information products based on terms packaged with the product and revealed to the customer after purchase.¹⁸ Accordingly, many information providers have supported efforts to draft a new Article 2B of the Uniform Commercial Code to establish different ground rules for transactions in software, information, and other intangible intellectual products.¹⁹ Among other things, proposed Article 2B is intended to validate self-enforcing shrinkwrap (or "clickwrap") licenses—including mass market standard forms—implemented via digital rights management regimes.²⁰

Proposed Article 2B implements this regime of electronic private ordering primarily through two provisions. Section 2B-310, which applies to performance of the contract, allows "electronic regulation of performance" by either party in specified circumstances.²¹ First, section 2B-310 permits

18. Compare, e.g., *ProCD*, 86 F.3d at 1451-53 (holding shrinkwrap license valid and enforceable because consumer could have returned the product before using it if he did not wish to accept the terms), with, e.g., *Step-Saver Data Sys., Inc. v. Wyse Tech.*, 939 F.2d 91 (3d Cir. 1991) (holding that shrinkwrap license terms disclosed after product had been exchanged for payment did not become part of the bargain between the parties). It is worth noting that despite the enormous amount of attention and discussion devoted to the *ProCD* decision, far more courts have held later-disclosed license terms unenforceable. See Lemley, *Beyond Preemption*, *supra* note 17, at 120, n.20 (collecting cases).

19. See, e.g., Business Software Alliance, Software Publishers Ass'n & Info. Indus. Ass'n, *Article 2B* (July 15, 1998) <<http://www.2BGuide.com/docs/amemo981.html>>; Information Indus. Ass'n, *supra* note 5; Business Software Alliance, Information Indus. Ass'n & Silicon Valley Software Indus. Coalition, *Article 2B* (July 14, 1998) <<http://www.2BGuide.com/docs/amtng98.html>>; see also Business Software Alliance, *Policy Issues: Response to Comments on Draft of UCC Article 2B by Consumers Union* (July 17, 1997) <<http://www.2BGuide.com/docs/bsacun.html>>; Software Publishers Ass'n, *Article 2B, Uniform Commercial Code: Exploding the Myth that the Draft is Unbalanced* (July 15, 1997) <<http://www.2BGuide.com/docs/span.html>>. See generally Cem Kaner, *Restricting Competition in the Software Industry: Impact of the Pending Revisions to the Uniform Commercial Code* (last modified Nov. 11, 1998) <<http://www.badsoftware.com/nader.htm>> (describing information provider involvement in Article 2B drafting process). Although the more "traditional" copyright industries have supported digital rights management vociferously in other contexts, see *supra* notes 8, 11, they have not all been as enthusiastic about Article 2B as a whole. See, e.g., Letter from Simon Barsky, Senior Vice President and General Counsel, Motion Picture Ass'n, to Carlyle Ring, Jr., Chair, Article 2B Drafting Committee (Apr. 29, 1998) <<http://www.2BGuide.com/docs/conn0429.html>> (expressing reservations about Article 2B and suggesting that the scope of the project be narrowed to include only computer software and electronic information products). But see Association of Am. Publishers, *supra* note 5 (expressing support for the Article 2B project).

20. See U.C.C. §§ 2B-208, 2B-310 (July 24-31, 1998 Draft). On the significance of the "license" characterization, see David A. Rice, *Digital Information as Property and Product: U.C.C. Article 2B*, 22 U. DAYTON L. REV. 621, 624-26, 632-34 (1997).

21. Section 2B-310 provides:

Section 2B-310. Electronic Regulation of Performance.

electronic regulation if expressly authorized by a term in the license agreement.²² However, section 2B-310 goes on to create a list of exceptions that virtually swallows this express disclosure rule. The license need not disclose electronic regulation that merely implements a stated temporal or quantitative restriction on use, or enforces "informational rights which were not granted to the licensee."²³ Nor must it disclose electronic regulation that "prevents uses of the information which are inconsistent

(a) In this section, "restraint" means a program, code, device, or similar electronic or physical limitation that restricts the use of information.

(b) A party entitled to enforce a limitation on use of information which does not depend on a breach of contract by the other party may include a restraint in the information or a copy of the information and use that restraint if:

(1) a term of the agreement authorizes use of the restraint;

(2) the restraint prevents uses of the information which are inconsistent with the agreement or with informational rights which were not granted to the licensee;

(3) the restraint prevents uses of the information after expiration of the stated duration of the contract or a stated number of uses; or

(4) the restraint prevents use when the contract terminates, other than on expiration of a stated duration or number of uses, and the licensor gives reasonable notice to the licensee before further use is prevented.

(c) Unless authorized by a term of the agreement, this section does not permit a restraint that affirmatively prevents or makes impracticable a licensee's access to its own information in the licensee's possession by means other than by use of the licensor's information or informational rights.

(d) A party that includes or uses a restraint pursuant to subsection (b) or (c) is not liable for any loss caused by its authorized use of the restraint.

(e) This section does not preclude electronic replacement or disabling of an earlier copy of information by the licensor in connection with delivery of a new copy or version under an agreement to electronically replace or disable the earlier copy with an upgrade or other new information.

U.C.C. § 2B-310 (July 24-31, 1998 Draft).

22. *Id.* § 2B-310(b)(1). On its face, this provision is unremarkable. However, when read in conjunction with section 2B-208, which validates standard-form terms that consumers have had the opportunity to review (whether or not they actually did so), it raises troubling questions. Whether mass market licensees should be deemed to have consented to provisions for automatic, self-enforcing electronic regulation is discussed *infra* Part IV.

23. U.C.C. § 2B-310(b)(2)-(3) & Reporter's Note 5 (July 24-31, 1998 Draft).

with the agreement"—apparently, even if copyright law or other applicable "informational rights" law would allow such uses.²⁴

Effectively, section 2B-310 would allow information providers to contract around copyright law without disclosing that fact to users. The Reporter's Notes to section 2B-310 make only oblique mention of copyright preemption. They assert that the provision simply represents "[t]he basic principle ... that a contract can be enforced."²⁵ Proposed Article 2B does contain another provision, section 2B-105, that acknowledges the possibility of copyright preemption of particular contract terms; in the accompanying Reporter's Notes, the drafters disclaim jurisdiction to make specific recommendations about preemption.²⁶ Nonetheless, both the Reporter's Notes and the prefatory memorandum accompanying Article 2B make clear their belief that even mass market contracts that are inconsistent with copyright are not necessarily invalid for that reason.²⁷ The drafters describe Article 2B's approach to the question of federal preemption as one of "neutrality"; under this vision, it appears, contract may extend wherever it is not expressly prohibited by Congress or the federal courts.²⁸

Section 2B-715, which applies in the event of a breach by the licensee justifying cancellation of the agreement, governs "self-help repossession" by the licensor.²⁹ Unlike section 2B-310, which has no analogue in the

24. *Id.* § 2B-310(b)(2).

25. *Id.* § 2B-310, Reporter's Note 2.

26. *Id.* § 2B-105(a) ("A provision of this article which is preempted by federal law is unenforceable to the extent of that provision."); *Id.* § 2B-105, Reporter's Note 1 ("When or whether federal law controls is not an issue of state law. State law, including the U.C.C., cannot alter federal policy and the balance it may entail. Article 2B does not intend to do so.").

27. *Id.* at 10-12; *id.* § 2B-105, Reporter's Notes 3-4. It is difficult to imagine that the drafters would have included detailed provisions authorizing electronic private ordering if they believed that such agreements would be preempted. *See also* Nimmer, *supra* note 3, at 845-51.

28. *See* U.C.C. § 2B-105, Reporter's Note 3 (July 24-31, 1998 Draft); McGowan, *supra* note 4, at 1195-1214 (explicating the drafters' vision of "neutrality"); David Nimmer et al., *The Metamorphosis of Contract into Expand*, 87 CALIF. L. REV. 17, 41-42 (forthcoming 1999) (analyzing Article 2B's "neutrality myth").

29. Section 2B-715 provides:

Section 2B-715. Right to Possession and to Prevent Use.

(a) Upon cancellation of a license, the licensor has the right:

(1) to possession of all copies of the licensed information in the possession or control of the licensee and any other materials pertaining to that information which by contract were to be returned or delivered by the licensee to the licensor; and

(2) to prevent the continued exercise of contractual and informational rights in the licensed information.

current U.C.C., section 2B-715 is expressly modeled after section 2A-525, which authorizes self-help repossession of leased property by the lessor, and section 9-503, which authorizes self-help repossession of secured collateral by the holder of the security interest.³⁰ Like sections 2A-525 and 9-503, section 2B-715 allows self-help repossession following cancellation if possible "without a breach of the peace."³¹ Cancellation, in turn, requires a material breach or express contractual authorization.³² In addition, section 2B-715 adds the express requirement that the repossession not create "a foreseeable risk of personal injury or significant damage to information or property other than the licensed information."³³

The most recent draft of Article 2B is silent on the question of *electronic* self-help repossession—or, more precisely, since nothing physical

(b) Except as otherwise provided in Section 2B-714, a licensor may exercise its rights under subsection (a) without judicial process only if this can be done:

(1) without a breach of the peace; and

(2) without a foreseeable risk of personal injury or significant damage to information or property other than the licensed information.

(c) In a judicial proceeding, a court may enjoin a licensee in breach of contract from continued use of the information and the informational rights and may order that the licensor or an officer of the court take the steps described in Section 2B-627.

(d) A party has the right to an expedited judicial hearing on pre-judgment relief to enforce or protect its rights under this section.

(e) The right to possession under this section is not available to the extent that the information, before breach of the license and in the ordinary course of performance under the license, was so altered or commingled that the information is no longer identifiable or separable.

(f) A licensee that provides information to a licensor subject to contractual use restrictions has the rights and is subject to the limitations of a licensor under this section with respect to the information it provides.

U.C.C. § 2B-715 (July 24-31, 1998 Draft). Section 2B-714 permits an access contract provider to discontinue access in the event of a material breach. *Id.* § 2B-714.

30. U.C.C. § 2A-525 (1990); U.C.C. § 9-503 (1972). For discussion of the legal standards governing self-help repossession, as developed in the contexts of Articles 2A and 9, see *infra* Part III.A-B.

31. U.C.C. § 2B-715(b)(1) (July 24-31, 1998 Draft).

32. See *id.* § 2B-702(a).

33. *Id.* § 2B-715(b)(2). Because the "breach of the peace" standard has been applied to prohibit injury to persons or property, the Reporter's Notes to previous drafts correctly characterized these additional restrictions as a mere "clarifying step." See, e.g., U.C.C. § 2B-716, Reporter's Note 1 (Apr. 15, 1998 Draft). The most recent version of the Reporter's Notes represents, instead, that this language places "more restrictions" on self-help than under sections 2A-525 and 9-503. U.C.C. § 2B-715, Reporter's Note 3 (July 24-31, 1998 Draft).

need be reclaimed, electronic self-help deactivation or *depossession*—of licensed information products. This was not always so. In previous drafts, Article 2B contained a special provision expressly authorizing electronic self-help repossession.³⁴ Section 2B-716 (now omitted) established additional procedural requirements for electronic self-help in cases involving licensed software “material to the licensee’s business.”³⁵ Such material could be repossessed or “depossessioned” electronically only if the licensor first gained physical possession of a copy (subject to the “breach of the peace” limitation) or if the license authorized the repossession and the licensor gave at least ten business days’ notice.³⁶ By implication, licensed information consisting of “informational content,” or used for personal rather than business purposes, was subject to electronic repossession without physical possession and without notice of any kind, as long as no “breach of the peace” occurred.³⁷

During its short life, proposed section 2B-716 was enormously controversial. The drafting committee itself was deeply divided on the question of electronic self-help, so much so that for a time section 2B-716 existed in two versions, a majority version allowing electronic self-help and a minority version prohibiting it except to the extent expressly authorized by other law.³⁸ The new section 2B-715 simply steers clear of the entire controversy without resolving any of the issues that former section 2B-716 raised. The Reporter’s Notes state that the draft “takes no position on whether self-help can be pursued through electronic means.”³⁹ This abrupt retrenchment leaves to the courts the task of interpreting the “breach of the peace” and “material breach” limitations in the context of digitally-mediated transactions in creative and informational works.

Together with other provisions of Article 2B that validate mass market “licenses,”⁴⁰ sections 2B-310 and 2B-715 would give information provid-

34. See, e.g., U.C.C. § 2B-716 (Apr. 1, 1998 Draft).

35. *Id.* § 2B-716(a).

36. *Id.*

37. *Id.* §§ 2B-715(b), 2B-716(a). On the question whether the “breach of the peace” standard that limits physical repossession is an appropriate measure of the harms threatened by electronic regulation and repossession, see *infra* Part III.

38. See, e.g., U.C.C. § 2B-716 (Feb. 1998 Draft).

39. U.C.C. § 2B-715, Reporter’s Note 3 (Aug. 1, 1998 Draft).

40. See *id.* § 2B-208. Under section 2B-208, the terms of a mass market license are valid and enforceable if the license manifests assent to the license prior to use of the licensed information, whether or not the licensee actually reviewed the license terms. *Id.* § 2B-208(a). If the first opportunity to review the terms occurs after payment and the licensee does not wish to manifest assent, the licensee is entitled to rescission and a refund. *Id.* § 2B-208(b).

ers enormous power to alter the balance of creator rights and user privileges established by the Copyright Act.⁴¹ This is true even though section 2B-715 now leaves unanswered the question of electronic self-help following cancellation. As Professor Friedman correctly recognizes, the most effective electronic self-help is the kind covered by section 2B-310—so-called “electronic regulation of performance” that simply forecloses potential breach at the outset.⁴² As the technologies of electronic regulation become more sophisticated, a separate right of electronic “repossession” is of less moment. As I have noted, the drafters of Article 2B nonetheless characterize sections 2B-310 and 2B-715 as entirely consistent with the existing framework of commercial law, and indicate their belief that the regimes of private ordering authorized by Article 2B would not violate copyright law or other law or policy.⁴³ The remainder of this article evaluates those contentions.

III. DOCTRINE: SELF-HELP, TRESPASS, AND THE RIGHTS OF PERSONS

Both the common law and the U.C.C. have traditionally afforded rights of self-help to vendors and creditors. However, both bodies of law limit the right to enter private property to repossess goods, allowing such entry only when the circumstances indicate consent, or at least acquiescence. Judged against these limits, Article 2B sanctions a degree of intrusion into private homes and offices that is unprecedented. It also authorizes self-help in a much broader range of circumstances, including those in which licensee conduct, although defined as breach, is privileged by the public law of copyright. To a far greater extent than existing law, Article 2B elevates the rights of mass market vendors over those of consumers and rights in “informational property” over the rights of persons to secu-

41. At the same time, the drafters have eliminated defenses that might have been raised by licensees, such as section 2-403's provision for the unenforceability of property rights against a bona fide purchaser for value, on the ground that they are inconsistent with licensors' federal intellectual property rights. *Id.* at 15.

42. See David D. Friedman, *In Defense of Private Orderings*, 13 BERKELEY TECH. L.J. 1151, 1153-54 (1998). For example, the license for a work might allow only one user at a time, and the software in which the work is encoded might enforce this restriction by preventing a second user from opening the work if it detects that the work is already in use. As long as the second user cannot defeat the restriction by tampering with the encoding software—a possibility discussed further in Part VI—the circumstances that would constitute a breach cannot occur.

43. See U.C.C. Article 2B, Preface at 10-12 (July 24-31, 1998 Draft); *id.* § 2B-105, Reporter's Notes 3-4; Nimmer, *supra* note 3, at 840-50, 858-70, 877-84.

rity and autonomy within private spaces.⁴⁴ Whether and to what extent this approach is warranted depends on how "intrusion" is conceived and on the purposes that self-help and the legal standards governing it are thought to serve.

Before digital technologies made remote or prospective self-help possible, self-help repossession necessarily entailed physical recovery of disputed goods following an alleged breach of contract. The law of self-help thus has been, until now, the law of physical, *ex post* repossession of chattels, which in turn has focused heavily on the likelihood of physical violence. Courts considering these cases have not explained, because they have not needed to, whether the judicially-developed "breach of the peace" standard is *only* designed to minimize the likelihood of physical violence and harm to persons and property, or is (or should be) more broadly concerned with preventing nonconsensual intrusion—and if so, what kinds of nonconsensual intrusion count. Because the universe of possible transgressions with respect to leased and secured chattels is relatively narrow, they also have not explored whether in other circumstances the law might or should impose substantive limits on the sorts of dereliction that justify self-help behavior. Finally, they have not considered whether standards developed to govern self-help following cancellation should apply to self-enforcing "regulation of performance" *ex ante*. Article 2B's proposed extension of self-help privileges to encompass electronic repossession and prospective self-help requires answers to all three sets of questions.

A. Self-Help and Private Spaces

The physical self-help tactics employed at the dawn of the consumer credit era created risks of physical violence and raised questions about

44. As used in this essay, "consumers" includes both individuals and other entities that purchase (or "license") creative and informational works through the retail mass market. Although Article 2B defines "consumers" to include individuals only, this broader definition is consistent with Article 2B's distinction between mass market and non-mass market transactions:

In the retail mass market, and in many non-retail transactions, most modern transactions are standardized. An information provider defines the terms under which its information products are made available to the retail marketplace and end users in that marketplace elect to either acquire or not acquire [sic] the information on these terms. The transactions are anonymous in that the information provider does not restrict those to whom the information is given except based on the licensee's willingness to agree to terms and to pay the applicable license fee.

U.C.C. § 2B-208, Reporter's Note 2 (July 24-31, 1998 Draft).

debtors' rights to security against trespass and other intrusions. To minimize these concerns, courts developed rules that allowed self-help repossession only if it could be accomplished without a breach of the peace.⁴⁵ Although courts created exceptions to the law of trespass to accommodate a perceived need for self-help repossession of chattels kept on private property, they used the "breach of the peace" standard and the concept of noncoerced consent to cabin these exceptions. Thus, creditors could enter private property to recover chattels sitting in plain view in a yard or driveway, if the debtor offered no resistance.⁴⁶ They could not, however, break into a debtor's home or business premises, or use or threaten force to gain entry if permission to enter was refused.⁴⁷ Only the state could enter a private home or office against the owner's will, and then only within the limits established by due process principles.⁴⁸

The rules governing self-help repossession under Articles 9 and 2A of the U.C.C., which expressly incorporate the "breach of the peace" standard, mirror those developed under the common law.⁴⁹ Creditors may en-

45. See JAMES J. WHITE & ROBERT S. SUMMERS, UNIFORM COMMERCIAL CODE 912-13 (4th ed. 1995) (characterizing "breach of the peace" standard as based on whether the creditor sought to enter peaceably or threatened force, and whether the debtor consented to entry or opposed it).

46. See *id.* at 913 & n.5.

47. See *id.* at 913 & n.4.

48. See U.S. CONST. amends. IV, XIV; *Wolf v. Colorado*, 338 U.S. 25, 28 (1949) (characterizing Fourth Amendment guarantee of privacy as "implicit in 'the concept of ordered liberty'" established by Fourteenth Amendment's due process clause, but holding that exclusionary rule is not constitutionally-mandated as to states) (quoting *Palko v. Connecticut*, 302 U.S. 319, 325 (1937)), *overruled by* *Mapp v. Ohio*, 367 U.S. 643, 654-57 (1961) (expanding due process-based guarantee to include exclusionary rule).

49. U.C.C. § 2A-525 (1990); U.C.C. § 9-503 (1972); see WHITE & SUMMERS, *supra* note 45, at 912 ("The drafters knowingly chose this well-worn phrase, and did not define it anew. Accordingly the numerous pre-Code cases are still good law."); see also BARKLEY CLARK, THE LAW OF SECURED TRANSACTIONS UNDER THE UNIFORM COMMERCIAL CODE ¶ 4.05[2][b][i] (3d ed. 1993 & Supp. 1998). Compare, e.g., *Chrysler Credit Corp. v. Koontz*, 661 N.E.2d 1171, 1173-74 (Ill. App. Ct. 1996) (upholding repossession of car parked in debtor's front yard), and *Wade v. Ford Motor Credit Co.*, 668 P.2d 183, 187 (Kan. Ct. App. 1983) (upholding repossession of car parked in debtor's driveway), with *Laurel Coal Co. v. Walter E. Heller & Co.*, 539 F. Supp. 1006, 1007 (W.D. Pa. 1982) (holding repossession unlawful where repossessors cut chain used to lock debtor's premises), and *Morris v. First Nat'l Bank & Trust Co.*, 254 N.E.2d 683, 686 (Ohio 1970) (holding repossession unlawful where debtor's son confronted repossessors and stopped protesting only when he was physically surrounded).

Similar balancing principles exist in landlord-tenant law, another area in which both parties may be said to have "property"-like interests in the subject matter of the dispute. Cf. Margaret Jane Radin, *Property and Personhood*, 34 STAN. L. REV. 957, 993 (1982) (delineating a theory of property rights based on "personhood" interests and arguing that rental

ter upon private property, but their ability to do so is severely restricted. "The two primary factors considered in making th[e] determination are the potential for immediate violence and the nature of the premises intruded upon."⁵⁰ Although many contracts expressly authorize creditors to enter private premises to effectuate repossession, courts have read the breach of the peace limitation into these clauses, as well.⁵¹ In the eleven states that have adopted the Uniform Consumer Credit Code ("U3C") as a modification to Article 9, moreover, the creditor may not enter a *dwelling* "unless the consumer voluntarily surrenders possession of the collateral to the creditor."⁵² Courts in non-U3C jurisdictions have not specified what

tenants should be recognized as having property interests in their homes); MARGARET JANE RADIN, *CONTESTED COMMODITIES* 108-12 (1996) (incorporating housing-related interests into a broader theory of "human flourishing"). Early English common and statutory law accorded landlords broad rights to eject tenants and distrain their personal property to satisfy unpaid rent obligations. *See* Special Project, *Self-Help: Extrajudicial Rights, Privileges and Remedies in Contemporary American Society*, 37 VAND. L. REV. 845, 938-41, 946-49 (1984). However, later courts and legislators gradually restricted the permissible scope of landlord self-help. *See id.* at 940-41, 947-49. Contemporary American landlord-tenant law is increasingly hostile to self-help eviction of any kind. Many states prohibit self-help repossession outright, and most that allow it impose a strict "breach of the peace" standard. *See id.* at 950-53; ROGER A. CUNNINGHAM ET AL., *THE LAW OF PROPERTY* § 6.80, at 403-04 (2d ed. 1993). Instead, all states have created summary eviction procedures designed to afford tenants notice and an opportunity to appear before a judge. *See* RESTATEMENT (SECOND) OF PROPERTY: LANDLORD AND TENANT §§ 14.1-.3 (1977); CUNNINGHAM ET AL., *supra*, § 6.79, at 400-01; *see, e.g.*, *Berg v. Wiley*, 264 N.W.2d 145, 150-51 (Minn. 1978). In addition, recognizing that tenants who fail to make rent payments may have justification, most states allow tenants to raise defenses, such as the implied warranty of habitability, for consideration by the court. *See* CUNNINGHAM ET AL., *supra*, § 6.79, at 401.

50. *Salisbury Livestock Co. v. Colorado Cent. Credit Union*, 793 P.2d 470, 474 (Wyo. 1990) (quoting *Cottam v. Heppner*, 777 P.2d 468, 472 (Utah 1989)); *cf.* *Stone Mach. Co. v. Kessler*, 463 P.2d 651, 654 (Wash. Ct. App. 1970) ("To constitute a 'breach of the peace' it is not necessary that the peace be actually broken ... nor is actual personal violence an essential element of the offense."). *See generally* Jean Braucher, *The Repo Code: A Study of Adjustment to Uncertainty in Commercial Law*, 75 WASH. U. L.Q. 549, 572-91 (1997) (summarizing case law on self-help repossession); CLARK, *supra* note 49, ¶ 4.05[2][b][i] (same).

51. *See* CLARK, *supra* note 49, ¶ 4.05[2][b][i], at 4-82 ("A security agreement that purports to waive breach of the peace in advance is not worth the paper it is written on."). As Clark explains, courts have implied this limitation even though Article 9 does not forbid waiver of the right against breach of the peace. *See id.* Arguably, this restricts the parties' freedom to contract for terms of their own choosing. For discussion of the theoretical and practical difficulty of applying notions of "consent" to mass market, standard-form contract terms, *see infra* Part IV.

52. UNIF. CONSUMER CREDIT CODE art. 5, § 5-112 & cmt. 1 (1974) ("It is necessary ... to make it clear that dwellings cannot be entered absent the consent of the occupants

constitutes permissible entry, and why, in situations not involving overt force or threats of force.⁵³ Generally speaking, courts in non-trespassory repossession cases have allowed some forms of deceit and trickery and prohibited others, and have justified both kinds of results by reference to the relationship between force, consent, and the likelihood of harm.⁵⁴

How should the ancient "breach of the peace" standard and its associated concern with protecting private spaces be understood in connection with virtual, nonrepossessory self-help? Is the touchstone nonconsensual intrusion, or is the objection to nonconsensual intrusion simply that it threatens violence? Plainly, the nonviolent nature of electronic self-help—not to mention electronic "regulation" of performance—does not negate its invasiveness from the consumer's perspective. The widespread outrage that greeted rumors of a "registration wizard" in Microsoft's Windows software, which purportedly reported back to Microsoft via the Internet on

except under the supervision of the court."); see AM. JUR. 2D *Desk Book* Item No. 282 (1992) (summarizing adoption of uniform laws by jurisdiction).

The U3C is not an isolated instance of pro-consumer liberalization. In particular, a number of states have exempted, completely or partially, consumer sales from Article 2's provisions allowing disclaimers of warranty. See, e.g., CONN. GEN. STAT. ANN. § 42a-2-316 (West 1990 & Supp. 1998); MASS. GEN. LAWS ANN. ch. 106, § 2-316(a) (West 1990); MINN. STAT. ANN. § 325.954 (West 1966 & Supp. 1998); WASH. REV. CODE ANN. § 62A-2-316 (West 1995); see also Magnuson-Moss Warranty Act, 15 U.S.C. §§ 2301-2310 (1994) (establishing federal minimum standards for warranty protection of tangible consumer products).

53. In a U3C jurisdiction, this question would exist as to private property other than dwellings.

54. Compare, e.g., *K.B. Oil Co. v. Ford Motor Credit Co.*, 811 F.2d 310, 315 (6th Cir. 1987) (upholding repossession of truck being serviced by used truck dealer after misrepresenting to dealer that debtor had consented), *Thompson v. Ford Motor Credit Co.*, 550 F.2d 256, 258 (5th Cir. 1977) (upholding repossession from garage after misrepresenting to garage employees that debtor had consented), and *Cox v. Galigher Motor Sales Co.*, 213 S.E.2d 475, 479 (W. Va. 1975) (upholding repossession made after telling the debtor that truck was being taken to have repairs performed), with, e.g., *Chrysler Credit Corp. v. McKinney*, 38 U.C.C. Rep. Serv. (CBC) 1409 (Ala. 1984) (invalidating repossession made after luring debtor to leave car with dealership for repairs), *rev'd on reh'g and remanded on other grounds*, 456 So. 2d 1069 (Ala. 1984) and *Ford Motor Credit Corp. v. Byrd*, 351 So. 2d 557 (Ala. 1977) (invalidating repossession made by luring debtor to a meeting to continue good-faith settlement discussions). See generally Braucher, *supra* note 50, at 587-91 (discussing cases and concluding that they "leave confusion about what sorts of tricks are impermissible"); CLARK, *supra* note 49, ¶ 4.05[2][b], at 4-85 to 4-86, 4-88 to 4-89 (observing that "a little stealth is all in the game of repossession," but describing some cases finding impermissible "chicanery"); ALPHONSE M. SOUILLANTE & JOHN R. FONSECA, *THE MODERN LAW OF COMMERCIAL PRACTICES* 1368-69 (Supp. 1997) (observing that consent gained by trickery is not meaningful, but that "[t]he majority of cases liberally interpret what 'breach of the peace' means in favor of the creditor").

the contents of users' hard drives, suggests that individuals also assess intrusion in other ways.⁵⁵ (Imagine, for example, that a team of high-tech repo men had just used a transporter device to "beam" your sofa out of your living room and back to the furniture store. It would be difficult for the creditor to convince you that no intrusion had occurred.) The law of privacy agrees that intrusion need not be violent to be actionable; nonconsensual "intrusion upon seclusion" is actionable without regard to the intruder's use of force.⁵⁶ Assessing the degree of intrusion allowable as a matter of commercial law, therefore, requires us to do more than simply weigh the risk of physical injury to persons or property against the licensor's countervailing proprietary rights.

The fact that section 2B-715 also prohibits self-help repossession in situations presenting a risk of injury to information, independent of any injury to persons or tangible property, indicates some recognition that physical harm is not the only kind of harm threatened by unilateral acts of private enforcement.⁵⁷ Article 2B makes clear, however, that the drafters are far more concerned with intangible harms to commercial interests than with intangible harms to individuals. Thus, section 2B-715 includes special protections for the licensee whose trade secrets become entangled with information "belonging to" the licensor, but includes no such protections for the licensee whose diary or great American novel meets a similar fate.⁵⁸ The Reporter's Notes to sections 2B-310 and 2B-715 do not even

55. See Peter H. Lewis, *Conspiracy Buffs See Things to Worry About in Microsoft's Electronic Software Registry*, N.Y. TIMES, June 19, 1995, at D3.

56. See RESTATEMENT (SECOND) OF TORTS, § 652B (1977); *id.* § 652B (listing decisions recognizing this tort theory from 31 states and the District of Columbia). See generally ANITA L. ALLEN, UNEASY ACCESS: PRIVACY FOR WOMEN IN A FREE SOCIETY 57-61 (1988) (discussing the sources and rationales for the concept of privacy rights in one's home). Similarly, the U3C represents a judgment that nonconsensual intrusion into a private home, whether or not violent, is objectionable in its own right. See *supra* note 52 and accompanying text.

57. See U.C.C. § 2B-715(b)(2) (July 24-31, 1998 Draft).

58. See *id.* §§ 2B-715(e) (prohibiting repossession if licensor's information is so commingled with licensee's information that separation is infeasible), 2B-715(f) (according repossession rights to licensee who provides information to licensor subject to use restrictions). Neither restriction would appear to apply to word processing files containing documents created by licensees. Cf. U.C.C. § 2B-310(c) (July 24-31, 1998 Draft) (excluding from the definition of authorized "electronic regulation of performance" restrictions that interfere with a licensee's access to his or her own information "by means other than by use of the licensor's information or informational rights"). By contrast, a creditor who takes personal property of the debtor during a repossession—such as tools or other belongings left in the trunk of a car—must return the property quickly or pay conversion damages for loss of use. See CLARK, *supra* note 49, ¶ 12.05[3][b].

acknowledge that the law of privacy exists, or that "privacy" is a state or characteristic that has independent value for individuals and for society.

Determining whether and how privacy concerns should influence the law of electronic self-help requires defining the interests that "privacy" protects and the senses in which it is subject to invasion. Volumes have been written on this subject, and the exact provenance of privacy is still unsettled. For purposes of this article, however, it is sufficient to note that privacy is broadly acknowledged as having decisional, informational, and spatial dimensions.⁵⁹ Plainly, the self-help rights provided by Article 2B do not directly implicate privacy concerns related to intimate personal decision-making.⁶⁰ Self-help might entail collection and revelation of information about an individual licensee's activities. The privacy implications of such monitoring are clear, and are thoroughly treated elsewhere; I will not repeat that analysis here.⁶¹ My concern here is with the new kind of self-help that digital technologies allow—self-help that consists solely of "dumb," hard-wired prevention of unauthorized conduct. Although this kind of self-help does not appear to raise informational privacy concerns, that does not end the inquiry.⁶² Whether such self-help implicates privacy in the spatial sense remains to be considered.

The common law of privacy protects only those expectations of privacy that are "reasonable."⁶³ One possible understanding of "reasonableness" in the context of assertedly private spaces is that the state of the art of self-help technology determines (and limits) the expectations of privacy that consumers can reasonably have. This is not entirely far-fetched; technology plays an important role in shaping privacy-related rules and norms.⁶⁴ Yet if reasonable expectations are defined solely by the limits of

59. See, e.g., Sheldon W. Halpern, *Rethinking the Right of Privacy: Dignity, Decency, and the Law's Limitations*, 43 RUTGERS L. REV. 539, 541 n.12 (1991); JULIE C. INNESS, *PRIVACY, INTIMACY, AND ISOLATION* 56-69 (1992); Jerry Kang, *Information Privacy in Cyberspace Transactions*, 50 STAN. L. REV. 1193, 1202-03 (1998).

60. They might do so indirectly—if, for example, a licensor attempted to prevent use of its products to inform or facilitate such decisions. However, this type of privacy violation probably could not be accomplished without a concurrent invasion of informational or spatial privacy interests.

61. For discussion of the privacy concerns and other concerns raised by monitoring intellectual activities, see Cohen, *supra* note 9, at 994-1019. For more general discussion of informational privacy issues, see Kang, *supra* note 59; see also Friedman, *supra* note 42 at 1153, 1163-64.

62. See Friedman, *supra* note 42, at 1153, 1163-64.

63. See RESTATEMENT (SECOND) OF TORTS § 652B cmts. c-d (1977).

64. Cf. Jeffrey Reiman, *Driving to the Panopticon*, 11 SANTA CLARA COMPUTER & HIGH TECH. L.J. 27, 32 (describing the level of privacy enjoyed by individuals as a function of both formal (legal) and material (physical) conditions).

technological possibility, privacy has a bleak future. Individuals' legal entitlement to privacy will simply recede as the technologies of intrusion advance. This approach also rests on an important, and misguided, assumption concerning the unidirectional nature of technological progress. Technology can evolve in privacy-destroying or privacy-protecting ways. The actual path of technological evolution will depend on many factors, including the priorities of stakeholders and the processes by which stakeholders are identified and consulted.⁶⁵ To say that electronic self-help is legitimate because it is possible ignores the degree to which both "privacy" and "technology" are normative as well as positive constructs—functions of the laws and mores of society as well as the laws of physics.

Another possible interpretation of "reasonableness," suggested by cases involving alleged intrusion upon seclusion via remote listening and viewing devices, is that an intrusion into private space is actionable only if it renders the space accessible, or potentially so, to a human observer.⁶⁶ This answer also is unsatisfactory, however, because it depends, ultimately, on informational privacy concerns. Privacy protects certain spaces not only to shield personal behaviors from observation by others, but also to preserve a zone of autonomy from interference by others.⁶⁷ Freedom

65. Cf. Cohen, *supra* note 7, at 398-402 (arguing that technology both constitutes and is constituted by social values and institutions); Lawrence Lessig, *Governance* 5-9 (Aug. 23, 1998 Draft) (arguing that choices about the technical architectures of cyberspace are, inevitably, also choices about the regularity of cyberspace behavior) <http://cyber.law.harvard.edu/works/lessig/NY_q_d2.pdf>.

66. Compare, e.g., *Marks v. Bell Tel. Co.*, 331 A.2d 424, 431 (Pa. 1975) (holding that secret taping of conversations in police station holding room not actionable as invasion of privacy because recordings were not actually replayed and were routinely erased several weeks after being made), with, e.g., *Amati v. City of Woodstock*, 829 F. Supp. 998, 1010-11 (N.D. Ill. 1993) (holding that secret taping of conversations actionable as invasion of privacy whether or not anyone actually listened to the recordings, because "[o]ne would never obtain the full benefits accorded to a private place if he or she reasonably believed someone would or could be listening"), *Harkey v. Abate*, 346 N.W.2d 74, 76 (Mich. Ct. App. 1983) (holding that see-through panels above stalls in women's bathroom at roller skating rink constituted invasion of privacy whether or not panels actually were used to view plaintiffs), and *Hamberger v. Eastman*, 206 A.2d 239, 243 (N.H. 1965) (holding that listening device installed by landlord in tenants' bedroom constituted invasion of privacy whether or not landlord ever used it).

67. See, e.g., *Marks*, 331 A.2d at 433 (Pomeroy, J., concurring in the result) ("The tort of intrusion is designed to protect an individual, not against what other human beings think of him, but rather against the very act of interference with his seclusion."); Edward J. Bloustein, *Privacy as an Aspect of Human Dignity: An Answer to Dean Prosser*, in *PHILOSOPHICAL DIMENSIONS OF PRIVACY: AN ANTHOLOGY* 156, 165 (Ferdinand David Schoeman, ed. 1984) ("The fundamental fact is that our Western culture defines individuality as including the right to be free from certain types of intrusions. This measure of per-

from observation means little without freedom from outside control. Because autonomy interests may be violated even if informational interests are not, whether a human observer gleans any *direct* information from an autonomy-destroying intrusion is irrelevant. It is worth noting, too, that "dumb" intrusions are not divorced from human agency, but only separated from it in time. In a sense, the intrusion (or at least its but-for cause) occurred much earlier, when the licensor determined that consumers in their private homes and offices would be allowed to take certain actions but not others.⁶⁸

It is true that "dumb" self-help is a *different* kind of intrusion than that caused by human perception. Yet to characterize it as "merely" a communication surely would go too far. A dinnertime telemarketing phone call may annoy, but a spurned telemarketer cannot turn off software that happens to be running on a personal computer in one's study, or deny access to copies of digital works stored there. Electronic self-help is a communication that suspends or restricts preexisting access to stored digital information; as such, it is qualitatively different than an unwanted telephone call that has no further effect.⁶⁹

sonal isolation and personal control over the conditions of its abandonment is of the very essence of personal freedom and dignity"); Thomas Scanlon, *Thomson on Privacy*, 4 PHIL. & PUB. AFF. 315, 317 (1975) ("The interests to which an account of privacy must refer thus include, in addition to specific interests in not being seen, overheard, etc., broader interests in having a zone of privacy in which we can carry out our activities without the necessity of being continually alert for possible observers, listeners, etc."); cf. Stanley v. Georgia, 394 U.S. 557, 565-66 (1969) (holding that the First Amendment protects "the right to satisfy [one's] intellectual and emotional needs in the privacy of [one's] own home"); MARGARET JANE RADIN, REINTERPRETING PROPERTY 56-63 (1982) (arguing that property rights in the home are a necessary constituent of individual personhood); Claudia W. Tuchman, Note, *Does Privacy Have Four Walls? Salvaging Stanley v. Georgia*, 94 COLUM. L. REV. 2267, 2283-84 (1994) (characterizing constitutionally-protected privacy as "the right of an individual to conduct a private life free from state interference").

Fourth Amendment protection against unreasonable searches and seizures serves similar values. See, e.g., *Boyd v. United States*, 116 U.S. 616, 630 (1885) ("It is not the breaking of his doors, and the rummaging of his drawers, that constitutes the essence of the offence; but it is the invasion of his indefeasible right of personal security, personal liberty, and private property"); see also Michael Adler, *Cyberspace General Searches, and Digital Contraband: The Fourth Amendment and the Net-Wide Search*, 105 YALE L.J. 1093, 1108-13 (1996) (emphasizing importance of the home as a zone of autonomy).

68. Technically, of course, the licensor and the consumer "agreed" to the restrictions; for discussion of whether it makes sense to treat these restrictions as the subject of genuine mutual consent, and why it might not, see *infra* Part IV.

69. According to the Restatement view, even telephone calls may constitute intrusion upon seclusion, depending on the circumstances. See RESTATEMENT (SECOND) OF TORTS, § 652B cmt. b, illus. 5 (1977).

Telephone, electric, and gas companies supply a somewhat closer parallel. These entities have the undisputed power to disconnect service to private homes and offices. However, they do not have the power to reach inside the home or office and disable lawfully acquired products, such as lamps, stoves, and telephones, merely because they require electricity, gas, or telephone wire to function. In addition, public utilities' power to exercise self-help is limited in other ways. The telephone company may not disconnect a consumer for making fun of the company, nor for taking apart the telephone to try to build a better one; it may do so only for non-payment, and only after providing notice and a grace period.⁷⁰ In contrast, section 2B-310 and (depending on judicial interpretation) possibly section 2B-715 authorize intrusion into private individuals' homes, offices and computer systems for a wide variety of misconduct, without prior notice, as a matter of routine business practice. Thus, to decide whether the intrusions-by-communication authorized by Article 2B are reasonable based on a public utility analogy, we also must consider whether their subject matter justifies their scope.

B. Self-Help, Notice and "Materiality"

Self-help historically has been understood, and rightly so, as a drastic remedy. For this reason, existing commercial law requires that the range of conduct that will trigger self-help behavior be clearly defined. For leases, the language of Article 2A sets these initial limits. A lessor of tangible property may engage in self-help only if the lessee "wrongfully rejects or revokes acceptance of goods or fails to make a payment when due or repudiates" all or part of the contract, or otherwise "*substantially* impairs" its value.⁷¹ The language of Article 9, in contrast, is relatively open-ended; it allows self-help repossession by the holder of a security interest upon the debtor's "default."⁷² Because Article 9 does not define "default," courts have required that the events alleged as default be defined as such in the security agreement.⁷³ Moreover, courts in a number of states have

70. See, e.g., CAL. PUB. UTIL. CODE §§ 779, 779.1 (West Supp. 1998); CONN. GEN. STAT. ANN. § 16-262d (West 1988 & Supp. 1998); N.H. REV. STAT. ANN. § 363-B:1 (1995); N.Y. PUB. SERV. LAW § 47-32 (McKinney 1989). Public utilities in general are heavily regulated. Thus, taking seriously an argument that information providers are "like" public utilities is unlikely to lead us to a model law that emphasizes "freedom of contract."

71. U.C.C. §§ 2A-523(1), (3)(a) (emphasis added), 2A-525(2), (3) (1990).

72. U.C.C. § 9-503 (1972).

73. See CLARK, *supra* note 49, ¶ 4.02[1]; 9 WILLIAM D. HAWKLAND ET AL., UNIFORM COMMERCIAL CODE SERIES § 9-503:1, at 667-69 (1997); WHITE & SUMMERS, *supra* note 45, § 25-2, at 902. When events of default are not specifically defined, courts will require failure of payment or other clearly "material" breach to justify repossession. See, e.g.,

cabined contractual events of default by imposing objective limits on "catchall" belief-in-insecurity clauses;⁷⁴ by restricting the use of insecurity-acceleration clauses and requiring clear notice of acceleration in all relevant documents;⁷⁵ by limiting the use of demand clauses if the contract also contains enumerated events of default;⁷⁶ and by applying principles of estoppel to bar repossession or acceleration by creditors in some circumstances notwithstanding the contract language.⁷⁷ In U3C jurisdictions, these restrictions are codified; a creditor may not accelerate the debt, but instead must afford both notice and an opportunity to cure the deficient installment(s), and may proceed with self-help repossession only upon objective evidence of "significant impairment of the prospect for payment or realization on the collateral."⁷⁸ These restrictions are designed to mitigate the severity of the self-help remedy by ensuring that self-help will not follow minor or debatable infractions, and by alerting consumers to the kinds of conduct that create risk.

Measured against existing law and practice, the self-help provisions of proposed Article 2B require much less advance notice, and authorize self-help in an even broader range of circumstances. Section 2B-310, in particular, allows electronic regulation of any behavior considered inconsistent with the contract, without contractual notice in many cases.⁷⁹ In contrast, although the Article 2B drafting committee had previously approved post-cancellation self-help provisions without any materiality restriction, the new version of section 2B-715 requires either that the breach be "material" or that the license expressly define it as grounds to cancel.⁸⁰ Even

Bankwest, N.A. v. Groseclose, 535 N.W.2d 86 (S.D. 1995); Stillwell Welding Co. v. Colt Trucking, 741 P.2d 598 (Wyo. 1987); CLARK, *supra* note 49, ¶ 4.02[1].

74. See CLARK, *supra* note 49, ¶ 4.02[2][a], at 4-9.

75. See *id.* at 4-8 to 4-9, 4-13.

76. See *id.* ¶ 4.02[2][a], at 4-12.

77. See *id.* ¶¶ 4.02[3], 12.05[1][b]-[c]. Each of the above judicially-developed limitations is informed by the general duty of good faith required by U.C.C. section 1-203. In general, however, "§ 1-203 does not support a cause of action where no other basis exists under the U.C.C." CLARK, *supra* note 49, ¶ 4.02[4], at S4-18; see also *id.* ¶ 4.02[2][b], at 4-11 (citing U.C.C. § 1-208 (1995)) (noting that § 1-203 does not limit the use of demand notes, which by definition may be called for any reason or no reason). Article 2B appears to follow the same approach.

78. UNIF. CONSUMER CREDIT CODE art. 5, §§ 5-109, -110, -111(a) (1974); see CLARK, *supra* note 49, ¶ 12.05[1][a].

79. See U.C.C. § 2B-310 & Reporter's Note 3 (July 24-31, 1998 Draft). Arguably, Article 2B's provision for the unenforceability of unconscionable terms offers a way out of this difficulty. See *id.* § 2B-110. It is unlikely, however, that this is the result the drafters intended.

80. See U.C.C. §§ 2B-702, 2B-715 (July 24-31, 1998 Draft).

these restrictions, however, do very little to bring Article 2B in line with the existing law of self-help repossession.

First, as described above, existing law requires written notice of the possibility of electronic self-help in all cases, not just some. This is true for electronic self-help as well. Every court that has considered a challenge to electronic self-help repossession of licensed software has indicated that in view of its drastic nature, electronic self-help requires prior contractual authorization.⁸¹ The Reporter's Notes to sections 2B-310 and 2B-715 do not mention these decisions at all.⁸² The omission is hard to fathom. Given the severity of the consequences and the inability of most consumers to evade them, lack of written notice of the possibility of electronic self-help is simply unfair. (If a creditor considered itself entitled to "beam" your sofa out of your living room, or to prevent you from installing new cushion covers, you almost certainly would prefer to know this up front.) It is worth noting, too, that none of the cases concerning electronic self-help has involved a non-negotiated, mass market contract; thus, no court was required to consider whether the "notice" afforded consumers by standard-form provisions is enough to validate electronic self-help. It is

81. See *American Computer Trust Leasing v. Jack Farrell Implement Co.*, 763 F. Supp. 1473 (D. Minn. 1991) (rejecting tort claims for electronic deactivation because plaintiff's contract with software vendor gave vendor the right to deactivate software if plaintiff failed to make payments), *aff'd on other grounds sub nom. American Computer Trust Leasing v. Boerboom Int'l, Inc.*, 967 F.2d 1208 (8th Cir. 1992); *Clayton X-Ray Co. v. Professional Sys. Corp.*, 812 S.W.2d 565 (Mo. Ct. App. 1991) (affirming award of punitive damages against software vendor that deactivated software, even though plaintiff was liable to vendor for failing to pay vendor's bill, because vendor had no "legal right" to deactivate software); *Franks & Son, Inc. v. Information Solutions*, No. 88-C-1474E (N.D. Okla. Dec. 23, 1989), 1989 Cptr. Indus. Litig. Rep. (Andrews) 8927-35 (Jan. 23, 1989) (rejecting software vendor's argument that U.C.C. Article 9 authorized deactivation of software because, *inter alia*, contract did not disclose deactivation code's existence); see also *Werner, Zaroff, Slotnick, Stern & Askenazy v. Lewis*, 588 N.Y.S.2d 960 (N.Y. Civ. Ct. 1992) (affirming punitive damages award against software consultant who secretly included code that caused plaintiff's software to shut down, in the hope that plaintiff would offer him a service contract to fix the problem, and noting that consultant had "no right" to include the deactivation code); *Art Stone Theatrical Corp. v. Technical Programming & Sys. Support, Inc.*, 549 N.Y.S.2d 789 (N.Y. App. Div. 1990) (holding that vendor that removed essential software code from plaintiff's system pending resolution of contract dispute could not claim benefit of general release agreement negotiated while code was being withheld if plaintiff could prove duress). Perhaps the most well-known case involving electronic self-help repossession, *Revlon v. Logisticon, Inc.*, No. 70533 (Cal. App. Dep't Super. Ct. filed Oct. 22, 1990), settled before the court could rule on plaintiff's contract and tort claims. See Gary J. Edwards, *Self-Help Repossession of Software: Should Repossession Be Available Under Article 2B of the U.C.C.?*, 58 U. PITT. L. REV. 763, 778-79 (1997).

82. U.C.C. § 2B-310, Reporter's Notes; *id.* § 2B-715, Reporter's Notes.

at least an open question whether the severity of the remedy justifies heightened notice requirements.⁸³

Second, even apart from the issue of notice, the self-help rights afforded by Article 2B are extremely broad. In part, this is the result of specific drafting decisions; even section 2B-715's materiality restriction is virtually meaningless because Article 2B's definition of "material" breach is so broad that it encompasses almost any breach.⁸⁴ In part, however, it is a consequence of the open-ended nature of "informational rights" as conceived by licensors and the Article 2B drafting committee. Both Article 2A and Article 9 inherently concern a narrower range of potential transgressions than Article 2B. The typical Article 2A lease or Article 9 security agreement is concerned only with behaviors that bear on the debtor's financial soundness or on the availability of the collateral to satisfy the debt.⁸⁵ In practice, a default most often will consist of failure to make required payments. Article 2B, in contrast, contemplates a seemingly limitless range of restrictions on the uses that licensors may make of creative and informational works, and appears to contemplate electronic enforcement of most such restrictions—which, in turn, exacerbates the notice problem still further. An expansive conception of breach need not, however, automatically translate into an expanded scope for self-help. At minimum, before adopting this robust conception of private ordering, we should weigh its merits and demerits and consider other possible approaches.

Affording licensors such broad powers of self-help is enormously problematic, for several reasons. First, the determination of breach (or, as in section 2B-310, behavior "inconsistent with" the license) is not always as clear-cut as sections 2B-310 and 2B-715 imply. Deciding whether a consumer has failed to pay is relatively easy; for other license provisions, however, the determination of breach may require resolution of difficult questions of fact or law.⁸⁶ Appointing the licensor judge, jury, and execu-

83. See *supra* note 40. As discussed *infra* Part V.C., the Supreme Court has held that private self-help repossession activity does not implicate constitutional due process protection. Even if that rule holds for the self-help authorized by Article 2B, a threshold level of notice to the consumer might be required as a matter of sound commercial policy.

84. See U.C.C. § 2B-109(b)-(c) (July 24-31, 1998 Draft) (defining "material" breach to include any conduct likely to cause substantial harm; any conduct substantially likely to cause substantial deprivation of an expected benefit; failure to perform an "essential element" of the contract; the cumulative effect of nonmaterial breaches; and anything else defined in the contract as material).

85. See U.C.C. § 9-102 (1972).

86. Consider, for example, a license authorizing the customer to adapt and debug, but not materially alter, a copyrighted software program.

tioner on these questions seems singularly unwise. Second, the alleged inconsistency or breach may consist of conduct that copyright law permits. A licensee might trigger digital policing mechanisms while trying to fix bugs in licensed software, or using the licensed information to create a classroom handout or critical commentary.⁸⁷ In such a case, the licensee has a defense—copyright preemption—that is unavailable to the person who simply has failed to pay for goods received, and the outcome may turn—as the drafters themselves note—on the resolution of difficult questions of federal law.⁸⁸

One obvious solution to the overbreadth problems in sections 2B-310 and 2B-715 is to authorize self-help only for the same kinds of misconduct that have traditionally warranted it: failure to pay and other conduct that substantially impairs the value of the covered property based on an objective standard.⁸⁹ In the case of section 2B-715, courts could simply interpret “materiality” this way. Neither approach appears to have occurred to the drafters, for reasons that also are self-evident: such restrictions would diminish Article 2B’s utility as a vehicle for private ordering of rights in information. Yet at the same time, the drafters’ decision to impose some sort of materiality restriction, however vague, on self-help under section 2B-715 suggests a recognition, however murky, that wholly unrestrained private ordering might be bad policy. A narrow understanding of “materiality” makes the most sense, both in terms of fairness to consumers and in terms of broader societal concerns about the rule of law. Section 2B-310, however, contains no express materiality restriction, and as we have seen, there are other significant differences between the self-help powers conferred by section 2B-310 and those conferred by 2B-715. Thus, to finish the project undertaken in this Part, we must consider the drafters’ implicit assumption that “regulation of performance” *ex ante* is fundamentally different than “self-help” *ex post*.

87. See 17 U.S.C. §§ 107, 117 (1994); *Acuff-Rose Music, Inc. v. Campbell*, 510 U.S. 569 (1994).

88. The licensee may have a First Amendment defense as well. See *infra* Part V.B.

89. Thus, for example, self-help might be reasonable in the case of a licensee who makes and distributes multiple copies of a covered work outside an academic or research setting, but unreasonable in the case of a licensee who makes one or two copies, or who distributes multiple copies within an academic or research setting. Cf. 17 U.S.C. § 107 (1994) (listing education and research among uses of copyrighted works that are likely to be fair); *Sony Corp. of Am. v. Universal City Studios*, 464 U.S. 417 (1985) (holding home videotaping of broadcast programming for personal viewing purposes to be a fair use).

C. Self-Help in Time

Sections 2B-715 and 2B-310 diverge markedly with regard to materiality and notice; this suggests that the drafters see an important difference between the two types of self-help. This difference follows fairly straightforwardly from the libertarian notion of freedom of contract. From this perspective, it is conceivable that wholly unfettered rights of "repossession," or post-breach self-help, might unacceptably blur the line between the rule of law and the state of nature. A central purpose of the social contract, after all, is to eliminate the chaos and uncertainty that would arise in a society without formal systems of dispute resolution. Electronic regulation, however (or so the argument goes), invokes the law of the market, not the law of the jungle. "Regulation of performance" is simply a high-tech way of describing the licensor's right to determine the features of its product. The restrictions become part of the product, which consumers can take or leave.⁹⁰

The freedom of contract argument for unfettered electronic regulation of performance is simple and elegant—and breathtakingly sophomoric. First, it conflates choice with submission and product capabilities with control of behavior. Your vacuum cleaner cannot fly, or clean your oven, and you have no particular right to one that can. However, except in special cases governed by the patent laws, within private spaces you may use or modify a lawfully-acquired vacuum cleaner in any way you see fit. There might be questions about liability for injuries arising from unintended uses, but that is a separate matter well within the scope of existing contract and tort law concerning warranties, warnings, and disclaimers. Second, the freedom-of-contract argument conflates digital code with "contract," and calls the result a purely private form of ordering exempt from public policy limits—although "contract" is not and never has been exempt from such limits.⁹¹ Section 2B-310 sanctions the control of people, not products; it negates agency, and calls the result freedom.

Theory aside, consider (again) your living room sofa. Suppose, first, that the purchase agreement states that no more than three people may sit

90. See *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1453 (7th Cir. 1996) ("Terms of use are no less a part of 'the product' than are the size of the database and the speed with which the software compiles listings. Competition among vendors, not judicial revision of a package's contents, is how consumers are protected in a market economy."); Friedman, *supra* note 42, at 1163-64; Nimmer, *supra* note 3, at 838-54.

91. See Lawrence Lessig, *The Law of the Horse: What Cyberlaw Might Teach* (Sept. 20, 1998 Draft) <http://cyber.harvard.edu/works/lessig/LNC_Q_D2.PDF>. On the remedial significance of this distinction, see *infra* Part VI. As the existence of tort law demonstrates, product design also has never been exempt from public policy limits.

on the sofa at a time. When a fourth person (say, perhaps, the small child of an adult sofa-sitter) attempts to join the others, the sofa vanishes, dumping its erstwhile occupants onto the floor. This is repossession, swift and (largely) bloodless.⁹² Now suppose, instead, that the child's approach activates an invisible force field, such that the child may not sit while all three adults remain. There is no repossession (the sofa remains) and no loss of "use" (as defined by the licensor), but only regulation of use. There is little risk of physical injury, and little need for invasion of privacy in the informational sense. Yet I suspect most readers will feel that from the standpoint of personal autonomy within a space hitherto conceived as private, there is not much difference between the two scenarios.⁹³ Article 2B stands for the proposition that intellectual property is different enough from sofas that licensors can, with straight faces, propound and demand acceptance of precisely the latter sort of regime.⁹⁴

Is there any consideration that might justify broader rights of private ordering and self-help repossession, and a correspondingly restricted sense of individual autonomy, as to information products than as to tangible articles of commerce? The answer, according to the drafters of Article 2B, seems to be that unauthorized use is reconceived as an invasion of the information provider's "property" interests in the work, as distinct from the particular copy the licensee happens to possess.⁹⁵ It is true that intellectual property and sofas are not entirely the same—sofas are not public goods, and cannot be costlessly copied—but the need to prevent market-destroying appropriation is a very different sort of argument, and it is far from clear that it justifies the full range of autonomy-destroying practices that section 2B-310 would allow.⁹⁶ Moreover, the fact that the licensor may have "informational rights" in the licensed subject matter also cuts the other way, because "informational rights" are limited by law in ways that rights in chattels are not. A copyrighted work is not "property" in the same sense as land or consumer goods, because the public has protectable

92. Section 2B-715 would authorize suit for any personal injury that might result. See U.C.C. § 2B-715 (July 24-31, 1998 Draft).

93. I am indebted to James Davis of the Xerox Palo Alto Research Center for inspiring this train of thought.

94. Or, still more frighteningly, that electronic regulation of sofa use would be wholly legitimate.

95. Cf. Trotter Hardy, *The Ancient Doctrine of Trespass to Web Sites*, 1996 J. ONLINE L. art. 7 (1996); Trotter Hardy, *Property (and Copyright) in Cyberspace*, 1996 U. CHI. LEGAL F. 217 (1996).

96. This argument is considered further *infra* Part IV.

interests in certain public-domain aspects of copyrighted works at the outset.⁹⁷

Even the common law of property historically has recognized certain public rights of access to or across the property of another.⁹⁸ Most closely analogous is the public trust doctrine, which preserves a right of access across privately-owned land when necessary to reach beaches and other areas that the law considers to be commonly-owned.⁹⁹ Similarly, the exceptions and exclusions in copyright law preserve public access to the linguistic, cultural, and scientific commons. The common law of property also recognizes public rights of privacy while on the property of another; for example, landlords may not use listening devices or trick mirrors to spy on their tenants, or install viewing devices in public restroom stalls.¹⁰⁰ In short, the fact that something is "property" does not, without more, confer on its owner rights of absolute, unqualified control.¹⁰¹ The scope of permissible private ordering of others' behavior within private spaces should be a subject of conversation for society generally, not a unilateral decision for information providers.

In sum, Article 2B proposes to arrogate to private information providers the power to reach into customers' homes and offices and literally shape their behavior—in many cases without even the courtesy of express

97. See *supra* text accompanying notes 13-14 (discussing public-domain status of facts, ideas, and functional principles). "Informational rights" in noncopyrightable works are even narrower. See *supra* text accompanying notes 14-16 (discussing data misappropriation law and copyright preemption).

98. Common law rights against trespassers are not and never have been absolute. One may not, for example, use deadly force against a trespasser unless one's own life is threatened. See, e.g., *Katko v. Briney*, 183 N.W.2d 657 (Iowa 1971). And one may trespass on another's property to save one's own life. See, e.g., *Vincent v. Lake Erie Transp. Co.*, 124 N.W. 221 (Minn. 1910). (A trespasser under these circumstances will be held responsible for damages, if any, but that is a separate question. See *id.* at 222.)

99. See *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469 (1988); JACK H. ARCHER ET AL., *THE PUBLIC TRUST DOCTRINE AND THE MANAGEMENT OF AMERICA'S COASTS* (1994); Kathryn R. Heidt, *Cleaning Up Your Act: Efficiency Considerations in the Battle for the Debtor's Assets in Toxic Waste Bankruptcies*, 40 *RUTGERS L. REV.* 819, 860 (1988) ("The concept here is that there are certain rights in the public that cannot be conveyed by the state."); cf. Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 *U. CHI. L. REV.* 711 (1986) (describing the origins of and justifications for common law doctrines that vest collective property rights in the "unorganized" public). I am indebted to Dan Burk for suggesting this analogy.

100. See, e.g., *Mas v. Perry*, 489 F.2d 1396 (5th Cir. 1974); *Hamberger v. Eastman*, 206 A.2d 239 (N.H. 1965); *Harkey v. Abate*, 346 N.W.2d 74 (Mich. Ct. App. 1983).

101. For further discussion of the origins and errors of this "control theory" of property, see Cohen, *supra* note 7, at 343-53.

contractual notice. Even if self-enforcing digital contracts did not implicate federal copyright law, these new technological methods for regulating the use of information products and effectuating self-help repossession would raise important questions about the permissible scope of private enforcement activity. Ultimately, Article 2B requires us to decide whether "self-help" as a legal construct exists solely for the narrow purpose of protecting vendors and consumers from avoidable financial harm, or also for the broader purpose of allowing vendors to shape the behavior, even within private spaces, of those with whom they deal. That such self-help concerns intellectual property makes it more, not less, troubling, because private ownership of intellectual property traditionally has been conceived as less complete than private ownership of chattels. These questions deserve far more careful consideration than they appear to have received. Platitudes about the need for enforcement of contracts are simply inadequate to justify such a radical reallocation of authority to monitor and control individual conduct.

IV. THEORY: CONSENT, EFFICIENCY, AND NORMS

The electronic regulation and self-help provisions of Article 2B also cannot be justified under any of the prevailing scholarly accounts of self-help and its role in the fabric of commercial exchange. Although these theories run the gamut from freedom of contract to economic efficiency, they share a common failing. All of the theories ignore or assume away the structural peculiarities of the consumer mass market, and thus fail to recognize that neither consent nor efficiency can be judged in the abstract. In addition, theoretical approaches that privilege allocative efficiency to the exclusion of all other considerations are inappropriate given the public good nature of creative and informational works. When mass market transactions in information products are considered in context, theoretical justifications for unfettered private electronic ordering become difficult to sustain.

Several legal scholars and at least one court have sought to justify enforcing contract terms governing use of creative and informational works by reference to individual freedom of contract. Consumers, the theory posits, are free to accept or reject the terms offered in the market. If they consent to license agreements that abrogate the user privileges established by copyright law, it must be because they find such agreements desirable.¹⁰²

102. See *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1454 (7th Cir. 1996); Bell, *supra* note 17, at 588-89 n.142; Friedman, *supra* note 42, at 1155-57; Maureen O'Rourke, *Copy-*

In the mass market context, however, the argument from consent is far too simple. The market system established by the U.C.C. bears little resemblance to the atomistic market of the neoclassical, libertarian paradigm, which presumes perfect information and fully-informed consent as to every term of the deal.¹⁰³ The U.C.C. was designed to allow commercial transactions to proceed without exact specification of every term, and in particular to obviate the need for bargaining over the allocation of product-related risks.¹⁰⁴ Article 2B's mass market license provisions continue this approach; they are designed (among other things) to facilitate market exchange in the absence of complete information. Particularly for complex products (or "ordinary" products that have been subjected to complex contract terms) the argument that the structure of the typical mass market transaction enables voluntary, informed exchanges with respect to most terms other than price is sheer fantasy.¹⁰⁵ This is especially true for implicit contract terms, such as the electronic "regulation" of behavior "inconsistent with the agreement" authorized by section 2B-310.¹⁰⁶ This is not to say (yet) anything about the legitimacy of particular mass market terms expressly or implicitly authorizing self-help, but only that a meaningful justification for broad powers of self-help must proceed without reliance on a hypothetical state of affairs that bears no resemblance to reality.

right Preemption After the ProCD Case: A Market-Based Approach, 12 BERKELEY TECH. L.J. 53, 83-87 (1997).

103. See ROBERT COOTER & THOMAS ULEN, LAW AND ECONOMICS 186-93 (2d ed. 1997) (describing requirements for a perfectly-functioning market); cf. DeLong & Froomkin, *supra* note 7 ("[T]oday's purchaser of, say, a suite of software programs is faced with needs and constraints that a metric designed to explain the market for pins may leave us poorly prepared to understand.").

104. See Cohen, *supra* note 7 at 322-28; Rice, *supra* note 17, at 564-65.

105. See Cohen, *supra* note 7 at 322-28; Victor P. Goldberg, *Institutional Change and the Quasi-Invisible Hand*, 17 J.L. & ECON. 461, 483-85 (1974); William T. Vukowich, *Lawyers and the Standard Form Contract System: A Model Rule That Should Have Been*, 6 GEO. J. LEGAL ETHICS 799, 800-11 (1993); cf. Goldberg, *supra* note 15, at 484-91 (characterizing the legal institution of the standard form as a societal decision to delegate most commercial rulemaking to private firms). To the contrary, as Vukowich notes, purveyors of standard forms often simply refuse to allow consumers to review the fine print before concluding the transaction. Vukowich, *supra*, at 806-07. Article 2B would validate this practice, creating obvious practical difficulties for even the most determined comparison shoppers. See U.C.C. §§ 2B-111, 2B-112(b)-(c) & Reporter's Notes 2, 5 (July 24-31, 1998 Draft) (allowing disclosure of terms after purchase but prior to use of the product).

106. See *supra* text accompanying notes 21-24.

At the other end of the epistemological spectrum lie efficiency-based arguments of varying degrees of sophistication.¹⁰⁷ The simplest economic rationale for allowing self-help repossession turns on the seller's opportunity cost. Creditors seeking expanded self-help powers typically have argued that requiring them to incur litigation costs, or to charge off as losses items of collateral too small to justify litigation, will raise the price of credit for other, law-abiding consumers.¹⁰⁸

This "lost-value" justification for self-help does not apply as neatly to intangible intellectual property, however, both because of the public good nature of creative and informational works and because of the broad scope of self-help contemplated under Article 2B. First, the "lost value" attributable to a product whose value lies chiefly in its public good aspect is inherently speculative. Failure to recover a car after the buyer defaults precludes the secured creditor from recovering a portion of its investment; failure to recover a copy of a creative or informational work does not preclude the information provider from realizing a profit on the work.¹⁰⁹ Particularly in the case of digital works, the supply of copies is infinite and virtually costless, and there is no necessary or inevitable relationship between the price charged to consumers and the value invested in each copy. The point is not that information providers have no claim to remuneration

107. In a sense, the notion of a spectrum of theoretical argument is inapposite; as I and others have demonstrated, there is substantial overlap between the two "endpoints." See Cohen, *supra* note 7, at 322-34, 343-53 (arguing that libertarianism and neoclassical economic theory proceed from the same set of normative premises); Gillian K. Hadfield, *The Economics of Copyright: An Historical Perspective*, 38 COPYRIGHT L. SYMP. (ASCAP) 1, 41-45 (1988) (same); Mark A. Lemley, *Romantic Authorship and the Rhetoric of Property*, 75 TEX. L. REV. 873, 896-98 (1997) (same); Neil Weinstock Netanel, *Copyright and a Democratic Civil Society*, 106 YALE L.J. 283, 310 n.109 (1996) (same). See generally C. Edwin Baker, *The Ideology of the Economic Analysis of Law*, 5 PHIL. & PUB. AFF. 3, 33 (1975) (discussing the convergence of Chicago-style utilitarian and libertarian justifications for market ordering).

108. See, e.g., *Fuentes v. Shevin*, 407 U.S. 67, 102-03 (1972) (White, J., dissenting).

109. See Edwards, *supra* note 81, at 786; Henry Gitter, *Self-Help Remedies for Software Vendors*, 9 SANTA CLARA COMPUTER & HIGH TECH. L.J. 413 (1993); Esther C. Roditti, *Is Self-Help a Lawful Contractual Remedy?*, 21 RUTGERS COMPUTER & TECH. L.J. 341 (1995); Pamela Samuelson, *Embedding Technical Self-Help in Licensed Software*, 40 COMM. ACM 13, 16 (Oct. 1997) ("Licensors of software or other information ... will generally invoke self-help to destroy the licensed property rather than to preserve its value for resale to another customer.").

In a relative sense, some consumers may end up subsidizing others' uses, in that the prices charged them may be greater than they otherwise would have been. It is appropriate to consider whether these relative subsidies, or quasi-subsidies, represent good policy in a system intended to promote the production and distribution of this particular type of public good. But that is a very different question. See *infra* text accompanying notes 142-47.

for copies of works—plainly, they do and should—but only that “lost value” arguments are less compelling in this context; thus, it seems odd that information providers should demand greater powers of self-help than are available to purveyors of tangible goods.¹¹⁰

Second and more important, Article 2B authorizes self-help in a wide variety of circumstances unconnected to failure of payment or financial insecurity—for example, unauthorized modification of software or copying of content for educational purposes.¹¹¹ Even if lost profits warrant electronic self-help when consumers fail to pay, that does not justify using lost profits to bootstrap electronic self-help rights in other cases. Here again there is a gray area, though: if the information provider wishes to charge a fee for every use of a work, or to charge different users different types of fees, may not any case be converted into one of failure to pay? The answer is complicated. In a recent essay, Terry Fisher argues that allowing information providers the freedom to price discriminate may benefit society—except when ceding greater control to information providers threatens other important social values.¹¹² Plainly, price discrimination will benefit marginal consumers; plainly too, there will be difficult cases involving marginal sellers for whom the extra profit would make the difference.¹¹³ But the need to consider other social policies—discussed at greater length below—means that information providers cannot be the ones to decide when certain uses may be restricted, or when electronic self-help may follow. Decisions about privatizing information policy must be based on more than the licensor’s desire for additional profit.

Other economic theorists focus on the general deterrence value of self-help rules and practices. Robert Scott argues that the threat of self-help plays an important role in inducing non-defaulting consumers to pay their

110. The routinely-invoked threat of piracy following loss of control of digital works is overstated, as it is far from clear that every pirated copy represents a lost sale. See, e.g., David M. Hornik, *Combating Software Piracy: The Softlifting Problem*, 7 HARV. J.L. & TECH. 377, 390 (1994). Moreover, other sanctions (in particular, social norms) work to constrain the kinds of unauthorized distribution that represent significant market threats. Cf. Michael J. Madison, “Legal-Ware”: *Contract and Copyright in the Digital Age*, FORDHAM L. REV. (forthcoming 1999) (discussing the importance of social norms, or “conventions,” in determining the practices of copyright users); Michael J. Meurer, *Price Discrimination, Personal Use and Piracy: Copyright Protection of Digital Works*, 45 BUFFALO L. REV. 845 (1997) (treating the “markets” for piracy and unauthorized personal use as factually and conceptually distinct).

111. See *supra* Part III.B.

112. William W. Fisher III, *Property and Contract on the Internet*, 74 CHI.-KENT L. REV. (forthcoming 1998); see also Meurer, *supra* note 110, at 869-80.

113. For examples of both cases, see *ProCD v. Zeidenberg*, 86 F.3d 1447, 1449-51 (7th Cir. 1996).

debts.¹¹⁴ He characterizes the right of self-help repossession as an economic hostage offered by the debtor in a game-theoretic bargaining environment to signal the debtor's commitment to pay.¹¹⁵ In turn, the creditor signals its commitment to enforce the debtor's promise by precommitting to "a sequence of discrete steps ... each act escalating incrementally."¹¹⁶ Scott contends that self-help remedies as a class are important to a creditor's ability to maintain a reputation as an enforcer of promises. The challenge, then, is to "design a pattern of reciprocal commitments that effectively constrains the debtor without unduly tempting the creditor."¹¹⁷

If we accept Scott's argument as sufficient in principle to justify some self-help practices, the question still remains how Article 2B's electronic regulation and self-help provisions fare under his "unduly tempting" standard, which acknowledges that some forms of self-help may create unacceptably high risks of abuse.¹¹⁸ There are good reasons to think that electronic self-help would create such risks. As Part I discussed, section 2B-310 would authorize intrusion at the licensor's sole discretion; in this, it resembles the "confession of judgment" clauses that Scott condemns as offering too great a temptation "to evade contractual risks."¹¹⁹ Once again, this concern is especially great for self-help unconnected to payment, and intended solely to regulate unacceptable behavior as defined by the licensor. In addition, Scott notes that distributional concerns might justify some regulation of otherwise efficient creditor self-help practices.¹²⁰ To the extent that copyright's user privileges reflect such concerns, as this article

114. See Robert E. Scott, *Rethinking the Regulation of Coercive Creditor Remedies*, 89 COLUM. L. REV. 730 (1989). Scott's work addresses the economic justifications for self-help generally; as far as I am aware, he has not written about self-help in the particular context of Article 2B.

115. See *id.* at 744-49.

116. *Id.* at 750-51.

117. *Id.* at 763-64.

118. See *id.* at 764-65. In fact, I am not willing to accept Scott's argument in its entirety, but that is a subject for another occasion.

119. *Id.* at 765; see *supra* text accompanying notes 21-24.

120. See Scott, *supra* note 114, at 782-86. Ultimately, Scott concludes that fairness-based justifications for prohibiting creditor self-help are illusory because consumers who pay their debts bear the costs. *Id.* At most (and again), this argument might support electronic self-help rights in cases of nonpayment. With regard to behavioral restrictions, particularly those aimed at copyright user privileges, it is unpersuasive. In the context of copyright, arguments from redistribution ignore the possibility that the decision to accord user privileges, with the understanding that these privileges may affect prices, represents a societal judgment that a regime of limited author-owner control is best-suited to promoting creative progress and public access to creative and informational works. See Cohen, *supra* note 7, at 383-90. Without more information, the fact that consumers "bear the costs" of copyright's user privileges does not tell us which regime is better.

argues they do, they might well justify a ban on licensor self-help that takes the form of direct electronic control of user behavior.¹²¹

A different sort of justification for creditor self-help remedies is supplied by theories that marry consent and efficiency rationales for commercial rules. Starting from essentially libertarian premises, Randy Barnett argues that rules about contract enforcement must be premised on individual consent.¹²² To avoid the pitfalls of subjectivism, however, Barnett contends that consent should be presumed when legal rules mirror social conventions.¹²³ Barnett's "conventionalist" analysis resonates with the norm-based approach to commercial law, which emphasizes the interplay between law and extra-legal social ordering among groups. To these theorists, the "new law merchant" should reflect a decentralized, bottom-up approach to lawmaking that seeks to affirm existing commercial practices.¹²⁴

An initial problem that confronts the use of norm theory to justify electronic self-help is that such self-help is not, as a factual matter, the ordinary practice—yet. Whether it becomes the norm will depend, in part, on how the law chooses to treat it; norms and law constitute each other in important and complex ways.¹²⁵ More fundamentally, however, the notion that commercial law should be premised on market norms is deeply problematic when applied to the consumer mass market. Norms presuppose communities, and analysis of contracting behavior in the consumer mass market suggests that the community that drives the evolution of mass market norms is the community of providers. Norms also presuppose a sense of shared benefit, and community satisfaction is not necessarily the most appropriate measure for rules that affect relationships between community members and outsiders.¹²⁶ Certainly, such norms cannot be said to

121. See *infra* text accompanying notes 142-147.

122. Randy E. Barnett, *The Sound of Silence: Default Rules and Contractual Consent*, 78 VA. L. REV. 821, 831-55, 860-73 (1992).

123. See *id.* at 855-59, 875-97.

124. See, e.g., Robert D. Cooter, *Decentralized Law for a Complex Economy: The Structural Approach to Adjudicating the New Law Merchant*, 144 U. PA. L. REV. 1643 (1996). But see Eric A. Posner, *Law, Economics, and Inefficient Norms*, 144 U. PA. L. REV. 1697 (1996) (arguing that the norms developed by close-knit communities may also be inefficient).

125. See Madison, *supra* note 110. See generally Lawrence Lessig, *The Regulation of Social Meaning*, 62 U. CHI. L. REV. 943 (1995) (exploring the complex interrelation of norms and law); Cass R. Sunstein, *Social Norms and Social Roles*, 96 COLUM. L. REV. 903 (1996) (same).

126. See ROBERT C. ELLICKSON, *ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES* 169 (1991); Lewis A. Kornhauser, *Are There Cracks in the Foundations of Spontaneous Order?*, 67 N.Y.U. L. REV. 647, 652-55 (1992); Kerry Lynn Macintosh, *Lib-*

be freely chosen by the outsiders whom they affect.¹²⁷ In addition, they may be inefficient when assessed in terms of their effect on the larger society within which the community exists.¹²⁸ The fact of the larger community also should cause us to question our initial identification of provider practice as the relevant norm; if, instead, we chose the community of consumers as the baseline, we probably would discover that existing social norms militate in favor of copyright user privileges.¹²⁹

Historical evidence suggests that Karl Llewellyn, who first conceived the Uniform Commercial Code, sought to establish the Article 2's merchant-nonmerchant distinction precisely so that the rules governing merchants could be regularized without placing individual consumers at a disadvantage or constraining courts' equitable powers in merchant-consumer disputes involving sales of goods.¹³⁰ For similar reasons, Article 9 contains provisions that afford heightened protection for individual consumers in the context of secured transactions.¹³¹ Arguably, Article 2B's distinc-

erty, Trade, and the Uniform Commercial Code: When Should Default Rules Be Based on Business Practices?, 38 WM. & MARY L. REV. 1465 (1997); see also Cooter, *supra* note 124, at 1684-85.

127. Cf. Macintosh, *supra* note 126, at 1534-40.

128. See, e.g., Edward Rubin, *Efficiency, Equity, and the Proposed Revision of Articles 3 and 4*, 42 ALA. L. REV. 551, 562-69 (1991) (arguing that the provisions of Articles 3 and 4 of the U.C.C. that allocate the entire loss from forged checks to consumers, consistent with banking industry practice, are inefficient because banks are in the best position to develop procedures for reducing the risk of loss); Macintosh, *supra* note 126, at 1525-34 (same).

129. See Jessica Litman, *The Exclusive Right to Read*, 13 CARDOZO ARTS & ENT. L.J. 29 (1996); Madison, *supra* note 110; Lloyd L. Weinreb, *Fair's Fair: A Comment on the Fair Use Doctrine*, 103 HARV. L. REV. 1137, 1152-53 (1990). See generally Cooter, *supra* note 124, at 1664-65 (discussing methodological issues that attend the identification of norms).

130. See U.C.C. § 2-104(1) (1994) (defining "merchant"); Ingrid Michelsen Hillinger, *The Article 2 Merchant Rules: Karl Llewellyn's Attempt to Achieve the Good, the True, the Beautiful in Commercial Law*, 73 GEO. L.J. 1141 (1985); Zipporah Batshaw Wiseman, *The Limits of Vision: Karl Llewellyn and the Merchant Rules*, 100 HARV. L. REV. 465 (1987).

131. See, e.g., U.C.C. § 9-307(2) (1972) (providing that a buyer for value of consumer goods for personal, family, or household use takes the goods free of any security interest, even if perfected, as long as the buyer is unaware of the security interest); *id.* § 9-505(1) (providing that if a secured party repossesses consumer goods from a debtor who has paid at least 60% of the price or loan amount, the secured party must resell the goods within 90 days or be liable to the debtor for conversion); see also *supra* note 52 and accompanying text (discussing additional protections afforded in some states by the Uniform Consumer Credit Code, as well as state and federal modifications to Article 2's rules governing warranties for tangible consumer products). And, as one might expect, a debate has raged over whether such protections are economically efficient, and whether there might be other rea-

tion between negotiated and mass market licenses is more appropriate for information markets; many small businesses that Llewellyn might consider "merchants" are nonetheless consumers of mass marketed information products.¹³² However, Article 2B turns Llewellyn's point on its head by according less protection to mass market licensees than to parties to negotiated agreements, and the least protection to individuals who use licensed information products for personal, non-business purposes.¹³³ This approach is consistent with the hypothesis that Article 2B reflects provider norms. That information providers as a group feel Article 2B would put them at an advantage in their dealings with consumers hardly constitutes a compelling case for its adoption.¹³⁴

Still needed, then, is a standard by which to evaluate the desirability of the particular self-help regime embodied in Article 2B. Economic analysis of commercial law posits that the law of commercial transactions should focus primarily on establishing default rules that are "efficient." For some legal scholars, this means that legal rules for resolving disputes should reflect the *ex ante* bargains that a majority of the parties would have reached.¹³⁵ Others contend that the law should sometimes set default rules differently, to encourage one or both parties to reveal information in the course of bargaining around them.¹³⁶ Once again, however, the notion that a rule should mirror or encourage "bargaining" is less than useful in the mass market context, where bargaining typically does not occur on a term-by-term basis. In the mass market, consumers are contract takers; they can refuse to buy, or hold out for a lower price, but they generally cannot de-

sons for retaining them even if they are not. See Elizabeth Warren, *Making Policy with Imperfect Information: The Article 9 Full Priority Debates*, 82 CORNELL L. REV. 1371 (1997).

132. See U.C.C. § 2B-208, Reporter's Note 2 (July 24-31, 1998 Draft); *supra* note 44; see also Braucher, *supra* note 50, at 558 ("Consumer protection appropriately also applies to what I call 'quasi consumers'—sole proprietorships and small businesses without the sophistication and resources to use legal counsel regularly."); Hillinger, *supra* note 130, at 1184 (suggesting that a consumer-nonconsumer distinction would be more appropriate for Article 2); Wiseman, *supra* note 130, at 471, 522-24 (same).

133. See *supra* text accompanying note 58.

134. Cf. Goldberg, *supra* note 105, at 476-81 (observing that it is only logical for participants in markets to seek to enhance their profits by altering existing institutions to their advantage).

135. See, e.g., Frank H. Easterbrook & Daniel R. Fischel, *The Corporate Contract*, 89 COLUM. L. REV. 1416 (1989); Friedman, *supra* note 42, at 1157-58. See generally Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 YALE L.J. 87, 89-90 (1989) (collecting sources).

136. See Ayres & Gertner, *supra* note 135.

mand a particular package of contract terms or product characteristics.¹³⁷ Thus, if the default rule under Article 2B allows electronic regulation and self-help, we would not expect to see consumers bargain around that rule in most cases—even if the rule were structured as a “penalty default” requiring actual disclosure to consumers.¹³⁸ The opposite rule, disallowing electronic self-help unless authorized in a separately-negotiated agreement, probably would encourage more “bargaining,” in that information providers most likely would offer lower prices to consumers willing to agree to electronic monitoring. But information providers also might offer non-monitored products at such high prices that most consumers could not or would not purchase them.¹³⁹ Thus, under either rule, electronic regulation might become the prevailing approach without consumers having any real say in the matter. The problem here is not lack of “bargaining” per se, or even lack of knowledge, but rather lack of consent and inability to affect the options on the table.¹⁴⁰ One may say many things about the results of such a system—that they reduce transaction costs, or that they promote

137. See, e.g., DANIEL W. BROMLEY, *ECONOMIC INTERESTS AND INSTITUTIONS: THE CONCEPTUAL FOUNDATIONS OF PUBLIC POLICY* 65-66 (1989); Samuel Bowles & Herbert Gintis, *The Political Economy of Contested Exchange*, in *RETHINKING POWER* 196, 221 (Thomas Wartenburg ed., 1992); Cohen, *supra* note 7, at 362-70.

138. See O'Rourke, *supra* note 102, at 83-87 (suggesting this approach for contract terms that alter the copyright balance). Ayres and Gertner term this a “penalty default” approach because it penalizes the more informed party (here, the licensor) for failure to disclose information by applying a default rule that is undesirable from that party's perspective. See Ayres & Gertner, *supra* note 135, at 97-98. This is the model chosen, for example, for U.C.C. § 2-316, which requires express disclaimer of the implied warranty of merchantability. As noted above, a number of states and the federal government have concluded that the penalty default model for § 2-316 provides inadequate consumer protection. See *supra* note 52.

139. See *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1449-50 (7th Cir. 1996) (outlining a similar strategy); O'Rourke, *supra* note 102, at 62-63 (discussing the efficiencies available to information providers as a result of price discrimination). Since most consumers in the real world operate under budget constraints, this would not necessarily mean that consumers did not value the absence of electronic monitoring and self-help.

140. It is for this reason that leading scholars have for decades described this regime as one of “private legislation.” See Goldberg, *supra* note 105, at 468 n.15, 484-91; Friedrich Kessler, *Contracts of Adhesion—Some Thoughts About Freedom of Contract*, 43 COLUM. L. REV. 629 (1943); Todd D. Rakoff, *Contracts of Adhesion: An Essay in Reconstruction*, 96 HARV. L. REV. 1173 (1984); W. David Slawson, *Standard Form Contracts and Democratic Control of Law-Making Power*, 84 HARV. L. REV. 529, 538-42 (1971); Vukowich, *supra* note 105, at 800-11; cf. Robert P. Merges, *Intellectual Property and the Costs of Commercial Exchange: A Review Essay*, 93 MICH. L. REV. 1570, 1611-13 (1995) (offering a narrower definition based on antitrust-style market power). For a more detailed discussion of the distribution and exercise of “bargaining power” in the mass market for creative and informational works, see Cohen, *supra* note 7, at 356-77.

freedom of contract for information providers—but one cannot say that they are reliable measure of what consumers want.

Another way to approach the question of private ordering of rights in creative and informational works is by asking whether such private ordering creates unacceptable costs, either for consumers or for society generally. If so, we might decide that a prohibition on the use of electronic regulation and self-help—or on their use in certain categories of disputes—should be an immutable rule.¹⁴¹ The answer to the question depends largely on how overall or social welfare is defined. From a purely allocative standpoint, the mass market behavior predicted above suggests that banning electronic private ordering would be inefficient. If most consumers would submit to self-help that negates their copyright privileges, that would mean that they do not value these privileges as highly as licensors value their absence. Allocative efficiency is a poor measure of social welfare, however. Social welfare is in part a function of nonmonetizable values, external effects, and distributional concerns, all of which the allocative criterion ignores.¹⁴² To decide whether the law should permit or forbid contractual exit from copyright, we must consider the particular social goals that copyright is intended to promote, and whether market transactions in private-law “usage rights” will promote them as effectively.

As I have demonstrated elsewhere, the copyright system promotes the social goals of creative progress and public access to creative works in important ways that the market cannot measure.¹⁴³ Because it is difficult to assess creative potential *ex ante*, because there is no necessary relationship between creative potential and ability to pay, and because current information providers may perceive some works by second-comers (for example, parodies) as detrimental to their interests, there is no reason to think that giving information providers control over all uses of their information products would result in more or better creative progress.¹⁴⁴ Even under a well-functioning regime of contractual usage rights, moreover, second-

141. See Ayres & Gertner, *supra* note 135, at 88-89 (discussing economic justifications for immutable rules).

142. See, e.g., Baker, *supra* note 107, at 32-41; BROMLEY, *supra* note 137, at 75-83 (demonstrating that different initial distributions of entitlements will generate different market equilibria, and arguing that it is incoherent to speak of the “efficient” outcome while ignoring policy considerations that affect the initial distribution); ANDREAS A. PANDREOU, EXTERNALITY AND INSTITUTIONS 200-04, 225 (1994).

143. See Cohen, *supra* note 7, at 382-98 (describing the shared external benefits conferred by the public law of copyright and the nonmarket values implicated in decisions about the appropriate regime of rights in creative and informational works).

144. See *id.* at 335-44; see also Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989, 1048-68 (1997).

comers whose works produce substantial shared social benefits would be unable to appropriate the full value of their contributions, and would be unwilling to pay the prices demanded by existing content owners.¹⁴⁵ In this respect, the enhanced accessibility of creative and informational works under copyright law produces important external benefits that most likely would be underproduced by a private-law, market-based regime.¹⁴⁶ Copyright's access and use privileges, which distribute the "costs" of uncompensated uses broadly among all consumers, attempt to correct for this market failure—or, more accurately, for this failure of markets.¹⁴⁷

In short, the copyright regime of limited rights and user privileges not only serves nonmonetizable and distributional concerns, but those concerns also are central to a particular understanding of creative and social "progress." This suggests that overall or social efficiency may well require an immutable rule prohibiting electronic regulation and self-help in at least some circumstances where private ordering threatens to disrupt the copyright balance. At the very least, the case for unfettered electronic private ordering is resoundingly inconclusive.

V. THE U.C.C., COPYRIGHT, AND THE PUBLIC-PRIVATE DISTINCTION

We turn now from Article 2B's doctrinal and theoretical antecedents to the question of its validity as a matter of federal copyright law and policy. Whether the self-help provisions of Article 2B implicate copyright law, or the limits imposed on copyright law by the First Amendment, turns on interpretation of the public-private distinction in the particular context of the laws that govern ownership of creative and informational works. For Article 2B's electronic rights management and self-help provisions to be valid, Article 2B must be seen to establish merely a neutral background or framework for private exchange. Indeed Article 2B is intended to establish a background framework; however, the framework is not neutral. To the

145. See Cohen, *supra* note 7, at 384-87; see also Lemley, *supra* note 144, at 1056-58.

146. See Cohen, *supra* note 7, at 384-90. User privileges that increase the accessibility of creative and informational works also contribute to the creation of a shared basis for social discourse and the development of a rich and robust public sphere independent from government control. See *id.* at 384-87, 394-98; Neil Weinstock Netanel, *Copyright and a Democratic Civil Society*, 106 YALE L.J. 283, 347-64 (1996); cf. C. Edwin Baker, *Giving the Audience What It Wants*, 58 OHIO ST. L.J. 311, 350-66 (1997) (describing shared external benefits and costs produced by mass media products). These shared social benefits also must be included in any assessment of the total value generated by creative and informational works.

147. See Cohen, *supra* note 7, at 387-90.

extent that Article 2B is intended to give information providers the tools and the authority to contract around their limited entitlements under copyright law and into more robust entitlements of their own design, its adoption threatens to subvert completely the statutory and constitutional underpinnings of federal intellectual property law. Moreover, the process that produced Article 2B has been dominated by information provider interests to such a degree that the public-private distinction cannot credibly be invoked to shield their conduct.

A. Preemption and the "Dormant Intellectual Property Clause"

The public-private distinction mediates the relationship between copyright and contract in several different ways. First, as discussed in Part II, it helps to define the scope of preemption under section 301 of the Copyright Act. Section 301 preempts state-created rights in the subject matter of copyright that are "equivalent" to the rights afforded by copyright.¹⁴⁸ It is fairly clear that Congress did not intend section 301 to preempt many private contracts relating to works falling within the subject matter of copyright—for example, agreements authorizing book publication and distribution, or authorizing the public display of copyrighted films.¹⁴⁹ That does not end the matter, however. Some "contracts" closely resemble universally-applicable proprietary rights. In particular, standard-form, mass market "licenses" for creative and informational works elide the boundary between property and contract.¹⁵⁰ Any state that adopts the electronic regulation and self-help provisions of Article 2B should recognize that it is authorizing the implementation of quasi-proprietary regimes that will affect thousands and even millions of consumers.

Even if contracts as a class are outside the scope of section 301, though, the electronic regulation and self-help provisions of Article 2B fall afoul of the general principle, embodied in the Supremacy Clause, that a

148. 17 U.S.C. § 301(a) (1994); see *supra* notes 15-17 and accompanying text.

149. See Rice, *supra* note 17, at 602-04.

150. See, e.g., Cohen, *supra* note 7, at 322-28; Cohen, *Some Reflections*, *supra* note 17, at 181-82; Elkin-Koren, *supra* note 17, at 107-10; Dennis S. Karjala, *Federal Preemption of Shrinkwrap and On-Line Licenses*, 22 U. DAYTON L. REV. 511, 528-33 (1997); Robert P. Merges, *Intellectual Property and the Costs of Commercial Exchange: A Review Essay*, 93 MICH. L. REV. 1570, 1611-13 (1995); see also Jane C. Ginsburg, *Copyright, Common Law, and Sui Generis Protection of Databases in the United States and Abroad*, 66 U. CIN. L. REV. 151, 166-70 (1997) (agreeing that the rights created by mass market contracts approach property rights, but suggesting that copyright policy supports allowing such contracts in the case of uncopyrightable databases).

state-created regulatory regime cannot undermine federal law.¹⁵¹ Here, the federal law in question is both statutory and constitutional.

The Supreme Court has issued conflicting pronouncements as to whether it will find implied preemption when the federal statute in question contains an express preemption provision that does not cover the challenged action.¹⁵² Most recently, however, it has suggested that a narrow preemption provision merely establishes a rebuttable presumption of Congress' intent not to preempt.¹⁵³ The conflict between Article 2B and the Copyright Act presents a strong case for finding such a presumption rebutted. It is clear that when Congress enacted section 301 as part of the Copyright Act of 1976, it did not consider the possibility of state legislation designed to enable self-enforcing digital contracts that would enable the wholesale displacement of copyright.¹⁵⁴ And, as discussed above, authorizing information providers to define the scope of their entitlements would materially undermine the social objectives that the Copyright Act is intended to promote. The Court's preemption decisions establish as much. Although the Court has held that states may grant protection to potentially copyrightable works that Congress has not chosen to protect,¹⁵⁵ it has also held that they may not grant property-like rights in *unprotectable* inventions, although they may afford a lesser level of protection.¹⁵⁶ On the same

151. See U.S. CONST. art. VI, cl. 2; *Gade v. National Solid Waste Management Ass'n*, 505 U.S. 88, 108 (1992); *Felder v. Casey*, 487 U.S. 131, 138 (1988).

152. Compare *Freightliner Corp. v. Myrick*, 514 U.S. 280, 288 (1995) ("The fact that an express definition of the pre-emptive reach of a statute 'implies' ... that Congress did not intend to pre-empt other matters does not mean that the express clause entirely forecloses any possibility of implied pre-emption."), with *Cipollone v. Liggett Group, Inc.*, 505 U.S. 504, 517 (1992) ("When Congress has considered the issue of pre-emption and has included in the enacted legislation a provision explicitly addressing that issue, and when that provision provides a 'reliable indicium of congressional intent with respect to state authority,' ... 'there is no need to infer congressional intent to pre-empt state laws from the substantive provisions' of the legislation.") (citations omitted).

153. See *Myrick*, 514 U.S. at 288.

154. Indeed, Congress' codification of the first sale doctrine, under which the initial sale of an object embodying a copyrighted work exhausts the copyright owner's right to control the further disposition of that object, suggests just the opposite. See 17 U.S.C. § 109(a) (1994).

155. See *Goldstein v. California*, 412 U.S. 546, 560 (1973).

156. Compare *Aronson v. Quick Point Pencil Co.*, 440 U.S. 257, 262 (1979) (allowing enforcement of a contract requiring ongoing royalty payments for the right to use a trade secret that had subsequently fallen into the public domain, but noting that the two-party agreement did not prevent others from copying the technology) and *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 475-76 (1974) (allowing state law protection of trade secrets, but noting that the protection afforded by trade secrecy laws is substantially less complete), with *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141 (1989) (striking down

reasoning, nor may they confer property-like rights in unprotectable (as opposed to merely unprotected) works, or in unprotectable aspects or components of otherwise copyrightable works.

Ultimately, however, the determination of conflict is not Congress' to make. Neither the copyright objectives nor the limitations on copyright ownership designed to promote them are legislatively-determined. Both are required by the language of the Intellectual Property Clause of the Constitution, which authorizes Congress to grant "exclusive Right[s]" only to "Authors and Inventors" for "their respective Writings and Discoveries," and only for "limited Times."¹⁵⁷ To qualify as a patentable invention under this standard, an innovation must represent a nonobvious advance over the prior art; to qualify as a copyrightable "writing," an expression must attain a minimal level of originality.¹⁵⁸ Consistent with these requirements, the Intellectual Property Clause prohibits copyright protection for facts, ideas, methods of operation, and other elements of "writings" that do not in themselves constitute original expression.¹⁵⁹

Congress, of course, has other sources of power. In particular, it may use its commerce power to grant certain types of rights in intellectual creations; the Lanham Act is one such example.¹⁶⁰ However, the com-

state statute that prohibited a commonly-used method of reverse engineering unpatented boat hulls), *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 230 (1964) (holding that states may not use their unfair competition laws to confer perpetual protection on functional but unpatentable product features), and *Compco Corp. v. Day-Brite Lighting, Inc.*, 376 U.S. 234, 237 (1964) (same). See generally Howard B. Abrams, *Copyright, Misappropriation, and Preemption: Constitutional and Statutory Limits of State Law Protection*, 1983 SUP. CT. REV. 509.

157. U.S. CONST. art. I, § 8, cl. 8.

158. See *Graham v. John Deere Co.*, 383 U.S. 1, 6 (1966) (holding that Intellectual Property Clause prohibits Congress from "enlarg[ing] the patent monopoly without regard to the innovation, advancement, or social benefit gained thereby," and from "issu[ing] patents whose effects are to remove existent knowledge from the public domain, or to restrict free access to materials already available"); *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 349-50 (1991) (holding that Intellectual Property Clause requires originality as a prerequisite for copyright, and therefore bars protection for facts and ideas).

159. See *Feist*, 499 U.S. at 349-50 (holding denial of copyright protection for facts constitutionally compelled); *Baker v. Selden*, 101 U.S. 99, 103-104 (1879) (holding methods of operation protectable, if at all, only under the patent system, and indicating that the Intellectual Property Clause informs this result); *The Trade-Mark Cases*, 100 U.S. 82, 93-94 (1879) (holding that Intellectual Property Clause does not authorize grant of exclusive rights in trademarks).

160. See U.S. CONST. art. I, § 8, cl. 3 (Commerce Clause); 15 U.S.C. §§ 1051, 1058, 1125 (1994) (authorizing federal registration of and/or protection for trademarks, trade dress, and other designators of product origin used in connection with goods or services in interstate commerce).

merce power is plenary only up to a point; it may not be exercised in a manner that ignores other, more specific constitutional constraints.¹⁶¹ Thus, Congress may not invoke the commerce power to do what the Intellectual Property Clause bars it from doing: granting "exclusive Right[s]" in unpatentable or uncopyrightable subject matter.¹⁶² Nor may it invoke the commerce power to authorize the states to grant such rights.¹⁶³ Congress, in short, could neither enact nor authorize the provisions of Article 2B that allow information providers to grant themselves exclusive rights in uncopyrightable content, and to extend their exclusive rights in copyrightable expression for unlimited times.

Where Article 2B is concerned, the relevant question is how these limits on Congress' power bear on what the states may do on their own. Here the plot thickens, for the Court has held that the Intellectual Property Clause does not bar states from enacting their own forms of intellectual property protection, even for works otherwise patentable or copyrightable.¹⁶⁴ But it has never held that the states may offer protection that conflicts with the constitutional scheme, and indeed, on the terms of its own preemption decisions, it could not. The statutory limits that required preemption in those cases are positive constitutional mandates as well. The Intellectual Property Clause denies protection to certain subject matter precisely so that it may remain in the public domain, available to all comers.¹⁶⁵ It follows that where unpatentable know-how and uncopyrightable

161. See, e.g., *Railway Labor Executives Ass'n v. Gibbons*, 455 U.S. 457, 468-69 (1982) (holding that Congress may not invoke the commerce power to enact bankruptcy legislation that violates the Bankruptcy Clause's uniformity requirement).

162. See Marci A. Hamilton, *The Dormant Copyright Clause*, 66-70 (1998) (draft unpublished manuscript, on file with author); David L. Lange, *The Intellectual Property Clause in Contemporary Trademark Law: An Appreciation of Two Recent Essays and Some Thoughts About Why We Ought to Care*, 59 LAW & CONTEMP. PROBS. 213, 225-44 (Spring 1996); Malla Pollack, *Unconstitutional Incontestability? The Intersection of the Intellectual Property and Commerce Clauses of the Constitution: Beyond a Critique of Shakespeare Co. v. Silstar Corp.*, 18 SEATTLE U. L. REV. 259, 313-20 (1995).

163. Thus, the rule of *Prudential Ins. Co. v. Benjamin*, 328 U.S. 408 (1946), does not apply here. See *id.* at 419-27 (holding that commerce power encompasses congressional authorization for states to discriminate against interstate commerce).

164. See *Goldstein v. California*, 412 U.S. 546, 560 (1973); *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 482-83 (1974) (citing *Goldstein*). For criticism of the *Goldstein* decision, see Abrams, *supra* note 156, at 527-30.

165. See *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 349-50 (1991) (reasoning that the constitutionally-granted copyright power requires that facts, ideas, and the like remain in the public domain as building blocks for subsequent creators to use); *Graham v. John Deere Co.*, 383 U.S. 1, 9 (1966) (reasoning that constitutionally-granted patent power requires that insufficiently innovative advances remain in the public domain, because of the high social cost of monopoly when weighed against "the inherent free nature

facts or principles are concerned, the same restrictions that bind Congress also bind the states.¹⁶⁶ Any state adopting Article 2B should recognize that it effectively allows information providers to opt out of those restrictions, thereby frustrating constitutional policy.

B. Speech Harms and the First Amendment

The public-private distinction also demarcates the boundary between private disputes about infringement and public regulation of speech. This observation is commonplace as to tort law. Private parties may sue for defamation, but the state may not structure its law of defamation to chill speech on matters of public concern.¹⁶⁷ Because copyright also implicates First Amendment concerns, the same analysis applies. Private parties may sue for infringement, but neither Congress nor the courts may define the law of infringement in a way that tramples on speech. In particular, the Court has indicated that the idea-expression distinction and the fair use doctrine—and the public domain that these limitations on copyright own-

of disclosed ideas"); Abrams, *supra* note 156, at 579; Lange, *supra* note 162, at 225-44; David Lange, *Copyright and the Constitution in the Age of Intellectual Property*, 1 J. INTELL. PROP. L. 119, 130-34 (1993); L. Ray Patterson, *Copyright Overextended: A Preliminary Inquiry into the Need for a Federal Statute of Unfair Competition*, 22 U. DAYTON L. REV. 385, 394-95 (1992); cf. Pollack, *supra* note 162, at 313-20.

166. In allowing states to afford their own forms of protection for potentially protectable works, the Court noted that states may have special interests in particular innovations, and that the framers granted intellectual property powers to Congress because they believed that a state-by-state patchwork of protection would be ineffective. See *Goldstein*, 412 U.S. at 556-58. Abrams, in particular, has raised serious objections to this reasoning. See Abrams, *supra* note 156, at 527-30. Even taken at face value, however, it does not justify allowing state-level protection that applies (via choice-of-law clauses) extraterritorially, and is so effective that it frustrates the federal scheme. Cf. Paul J. Heald, Comment, *Unfair Competition and Federal Law: Constitutional Restraints on the Scope of State Law*, 54 U. CHI. L. REV. 1411 (1987) (arguing that federal trademark and unfair competition law should preempt extraterritorial application of state unfair competition law via multistate injunctions). Just as the states have not reserved the power to frustrate Congress' commerce authority, they also have not reserved the power to frustrate its intellectual property authority, but only the right to adopt limited forms of protection that supplement federal incentives to innovate.

167. See *New York Times Co. v. Sullivan*, 376 U.S. 254, 264-65 (1964) (holding that Alabama libel law violated First and Fourteenth Amendments as applied to critics of a public official's conduct); Cohen, *supra* note 9, at 1020-21; cf. *Cohen v. Cowles Media Co.*, 501 U.S. 663, 668 (1991) (holding that enforcement of promissory estoppel claim constituted state action).

ership guarantee—are necessary adjuncts of a statute that creates proprietary rights in expression.¹⁶⁸

Even if the Intellectual Property Clause did not constrain Congress' power to grant "exclusive [r]ights" in intellectual creations, Congress could not erase these First Amendment-based limitations on copyright's reach. Similarly, even if no "dormant Intellectual Property Clause" binds the states, no state could establish a regime of proprietary rights in information that ignored First Amendment boundaries. Sections 2B-310 and 2B-715, in contrast, appear to stand for the proposition that private information providers may use non-negotiated, digital standard forms to enforce prohibitions on a broad range of speech activity, ranging from the traditional (criticism, educational discussion, and commentary on the news of the day) to the less so (reverse engineering of software).¹⁶⁹ Any state adopting Article 2B should recognize that widespread adoption of these practices would significantly undermine the First Amendment's guarantees.¹⁷⁰

C. Private Enforcement and Due Process

Finally, the public-private distinction determines what procedures may be used to enforce contract rights. The Supreme Court's procedural due process decisions make clear that a state-aided seizure of licensed information products, as authorized under section 2B-715 of Article 2B, would require certain pre-deprivation safeguards.¹⁷¹ Yet in *Flagg Brothers, Inc.*

168. See *Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 555-60 (1985); *Lange*, *supra* note 162, at 239-40; see also *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 575-76 (1994).

169. Cf. *Bernstein v. United States Dep't of State*, 922 F. Supp. 1426, 1429 (N.D. Cal. 1996) (holding that computer source code is speech protected by the First Amendment).

170. As a facially content-neutral law that burdens speech, Article 2B would need to undergo "heightened" or "intermediate" scrutiny. See *Turner Broad. Sys. v. FCC*, 114 U.S. 2445, 2469 (1994); see also *Denver Area Educ. Telecomm. Consortium, Inc. v. FCC*, 518 U.S. 727, 740-53 (1996) (applying *Turner* scrutiny to content-based legislation allowing private cable operators to prohibit "patently offensive" programming on leased channels). For an idea of how the analysis might go, see Cohen, *supra* note 9, at 1024-28. Briefly, it is difficult to imagine a government interest "substantial" enough to justify wholesale contractual displacement of core First Amendment rights of comment and criticism, and easy to imagine ways in which Article 2B might be tailored to prevent that result.

171. See *Connecticut v. Doe*, 509 U.S. 1 (1991); *Mitchell v. W.T. Grant & Co.*, 416 U.S. 600, 615-20 (1974); *Fuentes v. Shevin*, 407 U.S. 67, 96 (1972); see also *Mathews v. Eldridge*, 424 U.S. 319, 339-49 (1976) (setting forth a three-part balancing test for determining the level of procedural protection to be afforded prior to a state-ordered deprivation of property). The exact amount of "process" that should be required before a court-ordered seizure of information products is a matter for debate. *Doe* suggests that due process requires a hearing when the facts alleged to support the seizure are not readily susceptible of

v. Brooks,¹⁷² the Court held that a private warehouse that had been storing the plaintiff's household goods was not required to provide a hearing before selling the goods to satisfy her account, even though a provision of the U.C.C. adopted by the state authorized the sale. Private self-help repossession, in short, does not involve "state action" and thus is subject to fewer procedural constraints than enforcement via judicial process.

As *Flagg Brothers* suggests, the argument that Article 2B merely will establish neutral background rules for private exchange comports with a well-established (though much-criticized) understanding of the public-private distinction.¹⁷³ However, sections 2B-310 and 2B-715 do far more than simply reshape the private law of contract to accommodate the unique characteristics of information products. Any state adopting Article 2B should recognize that the proprietary regimes Article 2B authorizes likely will rely heavily on electronic self-enforcement, and even more heavily on electronic "regulation of performance" *ex ante*. As a result, the definition of "informational rights"—which, until now, has occurred largely via the judicial enforcement process—will be insulated from public oversight. Article 2B does not merely provide default rules for the private sector; rather, it works a radical reconceptualization of what "private" encompasses.

D. Private Interests and Public Acts

Finally, it is worth noting that Article 2B in fact constitutes a hybrid species of action, both public and private, that the conventional understanding of the public-private distinction does not contemplate. Article 2B is (or will be, if enacted) public action at the behest—and, some would argue, the direction—of particular private interests.¹⁷⁴ Public-choice

documentary proof. *See Doehr*, 509 U.S. at 13-15. This is likely to be the case when fair use is claimed, since the challenged use must be considered in light of the totality of the circumstances. *Doehr* also suggests that exigent circumstances might justify granting a seizure based only on an *ex parte* judicial hearing, and affording the debtor a post-deprivation hearing. *See id.* at 16-18. As discussed above, intangible collateral generally does not raise the same exigency concerns as physical, rivalrous collateral. *See supra* notes 107-10 and accompanying text. Finally, the *Doehr* Court did not reach the question whether the Due Process Clause requires that the party seeking the seizure post a bond. *See id.* at 18. *But see id.* at 18-21 (plurality) (arguing that a bond is constitutionally required).

172. 436 U.S. 149 (1978).

173. *See, e.g.,* Paul Brest, *State Action and Liberal Theory: A Casenote on Flagg Brothers v. Brooks*, 130 U. PA. L. REV. 1296 (1982).

174. The capture of the Article 2B drafting process has been alleged by numerous observers. *See, e.g.,* Gail Hillebrand, *The Uniform Commercial Code Drafting Process: Will Articles 2, 2B and 9 Be Fair to Consumers?*, 75 WASH. U. L.Q. 69 (1997) (arguing that the U.C.C. drafting process systematically disadvantages consumer interests); Kaner, *supra*

analysis of Article 2B is complicated by the involvement of the National Council of Commissioners on Uniform State Laws and the American Law Institute in the U.C.C. drafting and approval process. However, pioneering efforts to model the decision-making patterns of "private legislatures" such as the NCCUSL and the ALI suggest that their involvement makes the U.C.C. process more, not less, subject to capture.¹⁷⁵

Systematic exploration of whether and how the phenomenon of legislative capture should affect judicial characterization of state laws modifying traditionally private-law regimes is well beyond the scope of this article. Nonetheless, one of the primary rationales for the public-private distinction—that laws governing private transactions merely establish a neutral, background framework for private bargaining—is significantly weakened when public power is coopted to serve a private agenda. The resulting law is neither "neutral" nor "background;" it is a partisan instrument undertaken to serve a specific purpose. The realist-inspired challenge to the conventional understanding of the public-private distinction holds that the state always chooses.¹⁷⁶ One need not accept that conclusion to see that when the state enters a private dispute as captive or agent of an affected interest, rather than as "neutral" arbiter, there is a much stronger argument that it should bear responsibility for the result.

The question that Article 2B poses is this: May the states reshape their law of contract to allow automatic, self-enforcing foreclosure of conduct

note 19 (describing information providers' role in the Article 2B drafting process); Consumer Project on Technology, *Protest Page on: Uniform Commercial Code Article 2B* (visited Nov. 7, 1998) <<http://www.cptech.org/ucc/ucc.html>>.

175. See Larry E. Ribstein & Bruce H. Kobayashi, *An Economic Analysis of Uniform State Laws*, 25 J. LEGAL STUD. 131 (1996); Alan Schwartz & Robert E. Scott, *The Political Economy of Private Legislatures*, 143 U. PA. L. REV. 595 (1995); Robert E. Scott, *The Politics of Article 9*, 80 VA. L. REV. 1783 (1994).

It is perhaps unsurprising that initial efforts to integrate the insights of public choice theory and the legal understanding of the public-private distinction have been in the area of antitrust. See Mark A. Lemley & David McGowan, *Antitrust Immunity: State Action and Federalism, Petitioning and the First Amendment*, 17 HARV. J.L. & PUB. POL'Y 293 (1994); John S. Wiley, Jr., *A Capture Theory of Antitrust Federalism*, 99 HARV. L. REV. 713, (1986). Under the antitrust laws, the NCCUSL probably would be considered analogous to a private standard-setting organization, with the result that the state-action immunity doctrine would not shield from judicial scrutiny efforts to coopt the standard-setting process. See, e.g., *Allied Tube & Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492 (1988); Lemley & McGowan, *supra* note 175, at 308-13.

176. See, e.g., Brest, *supra* note 173; Morton J. Horwitz, *The History of the Public/Private Distinction*, 130 U. PA. L. REV. 1423 (1982); Duncan Kennedy, *The Stages of the Decline of the Public/Private Distinction*, 130 U. PA. L. REV. 1349 (1982).

privileged by copyright law and, ultimately, by the Intellectual Property Clause and First Amendment, given that they may not reshape their tort law or their trade secrecy law to produce a similar result? I have suggested that the answer must be no. Whatever the force of arguments that private enforcement of private contracts does not constitute state action, the same arguments cannot apply to state legislation designed largely to authorize private information providers to opt out of the framework of proprietary rights and exceptions established by federal copyright law and mandated (in broad brush) by the Constitution. Put differently, the states should not be able to set default rules that invite information providers to override exceptions that lie at the core of the federal copyright balance.¹⁷⁷ By conferring on information providers the authority to displace federal copyright law, sections 2B-310 and 2B-715 of Article 2B constitute a deliberate usurpation of Congress' role in defining and enforcing the scope of protection in creative and informational works. By any standard—and certainly if the limitations on copyright ownership are to continue to have any meaning in the market for digital works—this is a public act that the Intellectual Property Clause and the First Amendment should not permit. Part VI contends, instead, that copyright law and policy require quite a different approach to electronic self-help in information markets.

VI. RESTORING THE BALANCE: THE CASE FOR LICENSEE SELF-HELP

Courts may, and should, apply principles of preemption and freedom of speech to invalidate license terms authorized by Article 2B that are inconsistent with copyright limitations.¹⁷⁸ Because of the self-enforcing nature of digital rights management technologies, however, relying exclusively on these principles to cure Article 2B's excesses would be unwise. The restrictions authorized by sections 2B-310 and 2B-715 are intended to operate automatically, and in many cases without advance disclosure.¹⁷⁹ These provisions shift the burden of initiating litigation to the licensee,

177. See Cohen, *supra* note 9, at 1022-23; cf. *Flagg Bros.*, 436 U.S. at 162 n.12 ("This is not to say that dispute resolution between creditors and debtors involves a category of human affairs that is never subject to constitutional constraints."). This is doubly so for mass market information providers, whose boilerplate "agreements" operate as quasi-legislative regimes. See *supra* note 140 and accompanying text.

178. See *supra* notes 151-173 and accompanying text. Ordinarily, these will be mass market license terms, for the reasons suggested *supra* notes 111-126 and accompanying text; however, I do not intend to suggest that terms in negotiated licenses may never be subject to preemption.

179. See *supra* Part II.

who in many cases will be poorly equipped to bear it. It is not clear, moreover, what copyright-based cause of action a licensee could assert.¹⁸⁰ Restoring the copyright balance requires procedural as well as substantive measures. Specifically, it requires that rights of self-help be extended to licensees.¹⁸¹

Of course, Article 2B does not leave information consumers wholly without recourse to challenge information providers' electronic regulation and self-help practices. Electronic regulation of performance "that prevents use permitted by the agreement" constitutes a breach, as does electronic self-help repossession in violation of the restrictions imposed by section 2B-715.¹⁸² If a consumer wishes to file suit, Article 2B provides the usual assortment of contract remedies.¹⁸³ In addition, in any case in-

180. Fair use, the idea-expression distinction, and preemption traditionally have been raised (and conceived) as defenses to claims of infringement. *See, e.g.*, 4 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT, §§ 13.03[B][2]-[4], 13.05, p. 13-149 (46th rel. 1998).

181. The simplest and best way to restore the balance that copyright law was designed to establish would be to set better ground rules—including some immutable rules, *see supra* text accompanying note 141—for digitally-mediated transactions in creative and informational works. The Article 2B drafting committee could acknowledge the implications of electronic private ordering of "informational rights" and exercise its power more responsibly. *See, e.g.*, J.H. Reichman & Jonathan A. Franklin, Privately Legislated Intellectual Property Rights: The Limits of Article 2B of the U.C.C. 26-45 (Apr. 10, 1998) (draft unpublished manuscript, on file with author) (advocating the inclusion of a "public interest unconscionability" provision to protect "the public interest in education, science, research, technological development and the preservation of competition"); *see also* U.C.C. § 2B-105(b) & Reporter's Note 3 (July 24-31, 1998 Draft) (noting the introduction and adoption of a similar motion at the NCCUSL's July 1998 Annual Meeting, but implementing the public policy limitation in substantially watered-down form). Instead, the drafters have elected an empty and disingenuous formalism that pleads lack of jurisdiction to address the preemption issue even as it assiduously undermines federal interests. *See* U.C.C. § 2B-105, Reporter's Note 3 (July 24-31, 1998 Draft); *id.* at 10-12. Alternatively, Congress could impose limits on techno-contractual displacement of copyright. *See, e.g.*, Digital Era Copyright Enhancement Act, H.R. 3048, 105th Cong. (1997) (rendering unenforceable "non-negotiable license terms" that abrogate fundamental copyright policy, as expressed in statutory limitations on copyright protection). Thus far, however, Congress has failed to do so; instead, it too has deferred substantially to private ordering, electing not to confront the conflict brewing between digital standard forms and traditional (and constitutionally-mandated) copyright principles. *See* Digital Millennium Copyright Act, Pub. L. No. 105-304, § 3, 112 Stat. 2860 (1998); *infra* note 200. Even if Congress were to act to restore the balance, however, the new rules still would need to be interpreted and enforced. Thus, the procedural considerations discussed in the text would remain vitally important.

182. U.C.C. § 2B-310(d) (July 24-31, 1998 Draft); *see id.* § 2B-715.

183. *See* U.C.C. §§ 2B-706 (July 24-31, 1998 Draft) (fraud), 2B-709 (damages), 2B-711 (specific performance), 2B-713 (right to continue use), 2B-714 (right to discontinue use); *see also id.* §§ 2B-208(b) (right to refund if mass market license terms are unaccept-

volving electronic self-help repossession, section 2B-715 affords the licensee the right to an expedited post-seizure hearing.¹⁸⁴

Nonetheless, Article 2B is not a consumer protection statute, and plainly, the drafters do not intend it to be one. Edward Rubin has criticized the U.C.C. for establishing remedial processes that systematically disadvantage consumers.¹⁸⁵ Rubin decries the U.C.C.'s use of a common-law institutional model for enforcement of consumer remedies as inappropriate given the expense and complexity of litigation, and given the incentives created for merchants, as repeat players in the litigation process, to litigate disputes aggressively for strategic reasons.¹⁸⁶ In a similar vein, Jean Braucher suggests that the uncertainty that surrounds judicial application of the "breach of the peace" standard and the minimal damages typically awarded to successful debtor plaintiffs deter lawyers from agreeing to represent debtors in wrongful repossession suits.¹⁸⁷ Both Rubin and Braucher argue that effective consumer protection requires inexpensive, accessible procedures and incentive-shifting remedies such as statutory damages and attorneys' fees.¹⁸⁸

One avenue of recourse for consumers of mass marketed information products might be the Federal Trade Commission, which has broad jurisdiction over "unfair or deceptive acts or practices in or affecting commerce."¹⁸⁹ Licenses for information products, which implicate federal

able), 2B-616 (same right extended to licensees who acquire information products from a distributor). Article 2B also provides, however, that the license agreement may limit the available remedies "to return of, or delivery to the other party [of] all copies of the information and refund of the contract fee." *Id.* § 2B-703(a).

184. *See* U.C.C. § 2B-715 (July 24-31, 1998 Draft).

185. *See* Edward L. Rubin, *The Code, the Consumer, and the Institutional Structure of the Common Law*, 75 WASH. U. L.Q. 11 (1997); *see also* Braucher, *supra* note 51, at 557-60.

186. *See* Rubin, *supra* note 185, at 21-42.

187. *See* Braucher, *supra* note 51, at 557-60.

188. *See* Rubin, *supra* note 185, at 58-60 (recommending public enforcement of consumer claims); *id.* at 33 ("For the last twenty years, federal legislation involving commercial relationships between merchants and consumers has routinely provided for attorney's fee and court cost awards to prevailing consumer plaintiffs."); *id.* at 41 ("A statutorily liquidated amount, or a mechanical rule by which damages can be calculated without proving actual loss, will lower litigation costs significantly in cases of this nature."); Braucher, *supra* note 51, at 559 (advocating statutory "specificity concerning what acts are prohibited" and "a remedy that provides a prize worth the trouble and expense of pursuing a lawsuit"); *id.* at 613-14 (recommending conversion damages as a "minimum statutory penalty" for wrongful repossession that would not be offset against the debt still owing).

189. 15 U.S.C. § 45(a)(1) (1994). *See generally* EDWIN S. ROCKEFELLER, DESK BOOK OF FTC PRACTICE AND PROCEDURE 53-58 (3d ed. 1979) (delineating sources of and limits on FTC jurisdiction).

copyright interests as well as interstate commerce, fall squarely within the class of transactions with which the FTC is properly concerned. Thus, for example, we might expect the FTC to take an interest in Article 2B's provisions and information providers' practices relating to disclosure and disclaimer of warranties—and, if necessary, to request that Congress extend the specific protections afforded under the federal Magnuson-Moss Warranty Act to information products.¹⁹⁰ In the case of electronic self-help, we would expect the FTC to take an interest in licensor practices relating to disclosure of terms, and to care whether consumers are given adequate notice of the possibility of electronic self-help and the conduct that will trigger it.¹⁹¹

The FTC, however, has neither the jurisdiction nor the expertise to preserve the substantive balance mandated by federal copyright law. Here, Rubin's analysis hints at another option for consumers. Rubin suggests that the law might partially "correct[] the imbalance" inherent in the civil litigation process by allowing consumers to use certain self-help remedies, thereby shifting to merchants the burden of initiating litigation.¹⁹² His analysis applies with even more force to Article 2B, because the addition of self-enforcing technological restraints to information providers' arsenal of enforcement measures produces an even greater imbalance.

In the case of sections 2B-310 and 2B-715, the greater worry is not that information providers will breach their "contracts" with licensees, but that they will honor them, thereby stripping licensees of the privileges they enjoy, and have come to expect, under the public law of copyright. Jane Ginsburg has suggested that in some circumstances the law might afford licensees who engage in contractually-prohibited conduct that is permitted by copyright a "right of fair breach."¹⁹³ That is fine as far as it goes, but an abstract right of breach may count for little in the face of self-enforcing technological protection. I propose to extend Ginsburg's suggestion even

190. Currently, the Magnuson-Moss Warranty Act covers only warranties relating to "tangible personal property." 15 U.S.C. § 2301(1) (1994). The Act and its associated FTC regulations establish requirements for the contents of warranties, including clear and comprehensible disclosure of terms and procedures for asserting claims, and mandate minimum substantive standards for warranty protection. *See id.* §§ 2301-10; 16 C.F.R. §§ 700 *et seq.*

191. *See supra* Part III.B (discussing notice and overbreadth issues).

192. Rubin, *supra* note 185, at 54.

193. Jane C. Ginsburg, *Copyright Without Walls: Speculations on Literary Property in the Library of the Future*, 42 REPRESENTATIONS 53, 63-64 (1993). Ginsburg appears to believe, however, that these occasions should be rare. *See id.* at 63-65.

It is worth noting that patent licensees have similar rights. *See Lear, Inc. v. Adkins*, 395 U.S. 653, 676 (1969) (invalidating contract terms purporting to estop licensee from challenging patent validity).

further: If the user privileges established by copyright, and necessary to ensure that proprietary rights in expression do not frustrate First Amendment freedoms, are to mean anything, users must be afforded affirmative rights to protect themselves. A "right of fair breach" is meaningless unless it includes a right to effectuate the breach—a right to hack the digital code that implements and enforces the challenged restriction.

Larry Lessig has characterized digital code as "privatized law"—"law that need not fit with, or respect, public law," but instead may undermine values that public law has attempted to protect.¹⁹⁴ With respect to rights management code, at least, this is both true and false. Code constitutes itself as an inexorable arbiter of permissible conduct.¹⁹⁵ In this, as Lessig observes, it is not really "contract" at all; rights denominated "contract" are themselves subject to public policy limits.¹⁹⁶ Yet rights management code is, at the same time, simply the physical instantiation of desired contract restrictions.¹⁹⁷ If information providers may not contract around copyright- and First Amendment-based limits on information ownership, it follows they also may not invoke code as an independent legal basis for avoiding those limits.¹⁹⁸ To the extent that copyright overrides inconsistent contract provisions, it supplies a defense for licensees who disable the protective code in order to commit electronic breach. The corollary to Les-

194. Electronic mail from Larry Lessig, Professor, Harvard Law School, to recipients of list CO-E-CONF (Nov. 8, 1996) (on file with author) (proceedings of 25-person online focus group convened by the United States Copyright Office, as part of its "Project Looking Forward," to discuss the future course of Internet technology and its implications for copyright); see also Lawrence Lessig, *The Law of the Horse: What Cyberlaw Might Teach* (Sept. 20, 1998 Draft) <http://cyber.law.harvard.edu/works/lessig/LNC_Q_D2.PDF>; Lawrence Lessig, *The Zones of Cyberspace*, 48 STAN. L. REV. 1403 (1996).

195. See Lessig, *Zones*, *supra* note 194, at 1408 ("One obeys these laws as code not because one should; one obeys these laws as code because one can do nothing else In the well implemented system, there is no civil disobedience.").

196. See Lessig, *The Law of the Horse*, *supra* note 194, at 25-27.

197. Indeed, section 2B-310 says as much. See U.C.C. § 2B-310(b)(2) & Reporter's Note 2 (July 24-31, 1998 Draft) ("This Section distinguishes between active and passive electronic devices [A] passive device merely precludes acts that constitute a breach.").

198. Even if the federal courts were to conclude that Article 2B does not conflict with federal copyright law, for that matter, consumers would still have other legitimate First Amendment and privacy-based grounds for objecting to some of its more intrusive remedies. For discussion of these grounds, see Cohen *supra* note 9. It appears that Congress agrees with this analysis. See Digital Millennium Copyright Act, Pub. L. No. 105-304, § 3, 112 Stat. 2860 (1998) (enacting new section 1201 of the Copyright Act, but specifying in section 1201(i) that individuals may tamper with rights management systems to prevent the collection of personally-identifying information).

sig's observation, in short, is that public law need not respect inconsistent code.¹⁹⁹

Licensees who hack, of course, face the prospect that they will be sued and their actions judged infringing.²⁰⁰ But this is the ordinary rule; the right to challenge a rule of law by violating it is sacred, but the individual disobeys the law at his or her peril. In the case of digital rights management systems, recognizing a right of self-help for licensees simply reaffirms the balance between authors and users, and between information ownership and the public domain—a balance that Article 2B threatens to distort beyond recognition.²⁰¹

VII. CONCLUSION

The electronic rights management provisions of Article 2B represent bad policy, bad theory, and bad law. Allowing electronic intrusion into private homes and offices, and into private computer systems maintained there, would grossly violate established principles of privacy; would empower private information providers to decide a dangerously broad range of factual and legal disputes; and would enable complete displacement of the copyright framework of limited entitlements and user privileges. There is no tenable theoretical justification for according information providers

199. This argument was first set forth in an online discussion group convened by the United States Copyright Office in November 1996. See Electronic mail from Professor Julie Cohen, University of Pittsburgh School of Law, to recipients of list CO-E-CONF (Nov. 8, 1996) (on file with author). I am indebted to Larry Lessig for naming it the "Cohen Theorem." Electronic mail from Professor Lawrence Lessig, Harvard Law School, to recipients of list CO-E-CONF (Nov. 11, 1996) (on file with author); Lawrence Lessig, *Tyranny in the Infrastructure*, WIRED, May 1997, at 96.

200. I would be remiss not to note that there will soon be additional risks. Congress recently enacted legislation prohibiting this particular form of civil disobedience. See Digital Millennium Copyright Act, Pub. L. No. 105-304, §3, 112 Stat. 2860 (1998). The anti-tampering provisions are subject to a two-year moratorium while the Librarian of Congress assesses their impact on fair use, and to ongoing oversight thereafter. See *id.* Efforts to amend the bill to make fair use an outright defense to a charge of tampering with or circumventing digital rights management systems were unsuccessful. The analysis in this article suggests, however, that such a defense may be constitutionally mandated. See *supra* Part V.A-B.

201. It is true that most individuals lack the skills needed to hack rights management code. If such hacking is lawful, though, skilled individuals will be able to sell their services to others. Cf. Cohen, *supra* note 9, at 1029-30 (arguing that individuals who hack rights management code to preserve constitutionally-protected rights of anonymity will have standing to assert their customers' rights). If the consequences of this "universal private ordering" are unacceptable, other avenues for preserving the copyright balance remain available. See *supra* note 181.

such sweeping authority. To the contrary, copyright's user privileges are constitutionally mandated. A state law that seeks to enable information providers to opt out, en masse, from the copyright system cannot, and should not, be saved by ritual invocation of the public-private distinction. For the same reasons, the technologies that implement this exit cannot, and should not, be protected against private acts of resistance designed to preserve the copyright balance.

