

FREE CONTRACTING, FAIR COMPETITION, AND ARTICLE 2B: SOME REFLECTIONS ON FEDERAL COMPETITION POLICY, INFORMATION TRANSACTIONS, AND “AGGRESSIVE NEUTRALITY”

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ABSTRACT

The proposed draft of Article 2B attempts to remain neutral regarding conflicts between the potentially competing goals of state contract law and federal intellectual property and antitrust law. A neutral stance seems sensible because federal law would prevail in any conflict with state contract law. However, this Article argues that such neutrality cannot be completely achieved where antitrust and intellectual property doctrines intersect.

This Article concludes that courts deciding antitrust-related disputes based on matters within the scope of Article 2B should distinguish between claims based on the market position of the intellectual property rights and claims grounded in misconduct during contract negotiations or performance. In the former cases, intellectual property law should govern issues relating to the economic strength of the intellectual property right. In the latter, the courts should look first to contract principles and, if a violation of contract law is found, should determine whether normal contract remedies could provide appropriate relief. If no contract violation is found, courts should scrutinize antitrust claims closely to determine whether any harm to allocative efficiency is shown; courts should not allow antitrust allegations to be used simply to obtain leverage in a contractual dispute.

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"How far the federal policies reach is uncertain in many respects. Article 2B approaches the issue from a posture of aggressive neutrality."¹

I. Contracts and Contractual Competition Policy

How does contract law differ from laws regulating competition? The answer is less apparent than might appear at first glance. Contract and antitrust deal in part with different sorts of behavior, of course. Contract has not historically sought to prohibit unilateral conduct, for example, and antitrust has not concerned itself with the mechanics of agreement—the statute of frauds, consideration, etc. But there is overlap as well, consideration of which is interesting when reviewing proposed Article 2B of the Uniform Commercial Code and the evolving law of "information" licenses from the perspective of federal competition policy.

Section 1 of the Sherman Act prohibits contracts "in restraint of trade," which was a term of art at common law.² As Professor Hovenkamp has emphasized, the common law considered contracts unenforceable as restraints of trade for reasons that reflected theories of liberty and free choice rather than neoclassical conceptions of marginal cost and allocative efficiency.³ But the common law pertaining to restraints of trade was dy-

1. U.C.C. § 2B-105, Reporter's Note 3 (Apr. 15, 1998 Draft). As of the August 1998 version, the drafters' comments on the topics which are relevant here referred to Article 2B's "neutrality policy," eliminating any hint of an "aggressive" stance. The adjective was omitted beginning with the draft prepared for the July 1998 NCCUSL annual meeting.

2. See, e.g., *State Oil v. Khan*, 118 S.Ct. 275, 284 (1997) ("[T]he term 'restraint of trade,' as used in § 1, also 'invokes the common law itself, and not merely the static content that the common law assigned to that term in 1890.'"); *Business Elecs. Corp. v. Sharp Elecs. Corp.*, 485 U.S. 717, 731 (1988) ("The term 'restraint of trade' in the statute, like the term at common law, refers not to a particular list of agreements, but to a particular economic consequence, which may be produced by quite different sorts of agreements in varying times and circumstances.").

3. See *Business Elecs.*, 485 U.S. at 731-32 ("The changing content of the term 'restraint of trade' was well recognized at the time the Sherman Act was enacted The Sherman Act adopted the term 'restraint of trade' along with its dynamic potential. It invokes the common law itself, and not merely the static content the common law had

namic. The Sherman Act's adoption of the term and its more liberal rights of action may have absorbed further development of the law of trade restraints, but one could imagine the common law doctrine evolving over time by absorbing the varied economic thinking that has informed Sherman Act jurisprudence.⁴ Indeed, Professor Hovenkamp traces the evolution of neoclassical concepts through the common law even after passage of the Sherman Act, concluding that "[t]he development of the modern neoclassical model of perfect competition and of the law's new concern with agreements between competitors were nearly simultaneous events" and that by 1900 "the common law's theory of competition had changed completely."⁵

With respect to substantive matters, it is interesting to ask what federal competition policy adds to a conceivable regime of contract law that might have evolved in the absence of federal antitrust statutes. In the absence of federal statutes, could a contract⁶ purporting to preclude a purchaser from

assigned to the term in 1890."); *Dr. Miles Med. Co. v. John D. Park & Sons Co.*, 220 U.S. 373, 384 (1911) ("With respect to contracts in restraint of trade, the earlier doctrine of the common law has been substantially modified in adaptation to modern conditions."); HERBERT HOVENKAMP, *ENTERPRISE AND AMERICAN LAW 1836-1937*, at 268-95 (1991) [hereinafter HOVENKAMP, *ENTERPRISE*]; HERBERT HOVENKAMP, *FEDERAL ANTITRUST POLICY, THE LAW OF COMPETITION AND ITS PRACTICE 52-54* (1994) [hereinafter HOVENKAMP, *ANTITRUST POLICY*].

4. See PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* ¶ 104 (rev. ed. 1997) ("[A]lthough the framers of the Sherman Act may have thought in some generalized fashion that they were 'enacting' the common law of trade restraints, the case law that emerged very quickly deviated from common law principles, was far more aggressive against cartels and mergers, and pursued unilateral conduct for the first time. However, in 1890 the common law itself was experiencing significant changes, and in many respects was moving in the same direction that the antitrust laws would go."); HOVENKAMP, *ENTERPRISE*, *supra* note 3 at 268 ("Antitrust policy has been forged by economic ideology since its inception. But even the common law experienced economic revolutions"). As Professor Hovenkamp notes, one important qualification to this point is antitrust's grant of standing to third parties to bring an action attacking an unlawful agreement. *Id.*; *Apex Hosiery Co. v. Leader*, 310 U.S. 469, 497 (1940) ("The common law doctrines relating to contracts and combinations in restraint of trade were well understood long before enactment of the Sherman law But the ... restraints of trade were not penalized and gave rise to no actionable wrong."). Even the standing question might have been resolved by a corollary to the rule granting intended third-party beneficiaries standing to sue for breach of an agreement to which they were not a party.

5. HOVENKAMP, *ENTERPRISE*, *supra* note 3 at 284-85; E. ALLAN FARNSWORTH, *FARNSWORTH ON CONTRACTS* § 5.3 (1990) (noting usurpation of the common law of restraint of trade by antitrust statutes but noting continuing state review of covenants not to compete).

6. As Professor Lemley has emphasized in his work, whether an agreement by which software should be sold is a contract of sale or a license as defined by U.C.C. §

making an intermediate copy of software to facilitate transformative use (reverse engineering) be enforced?⁷ Or an agreement forbidding the owner of a durable good from making a transitory copy of diagnostic software for repair by a third-party service firm?⁸ Or a contract calling for payments for an operating system based on the number of microprocessors an original equipment manufacturer uses rather than the number of copies it makes?⁹ Could a firm with market power terminate contracts to supply important inputs to a firm in a downstream market?¹⁰ Does a state law recognizing contract terms that are not made available to consumers until after they have tendered payment, as may be the case with some "shrinkwrap" or "click-on" agreements, present an unacceptable risk of reducing nonprice competition on, for example, warranty terms?¹¹ Will "adhesion" contracts or onerous terms offered by a monopolist be subject to closer scrutiny under contract principles than those same contracts and terms offered by a small player?¹² Would it matter if the market were merely concentrated

2B-102(29) is a contested point that may vary depending on the economic circumstances of a transaction. See Mark A. Lemley, *Beyond Preemption: The Federal Law and Policy of Intellectual Property Licensing*, 87 CALIF. L. REV. 111, 116 n.11 (forthcoming 1999). The issue appears to be more contested with respect to mass market transactions than others that are likely of more interest to the topics discussed in this Article. I use the terms contract, agreement, and license interchangeably, without wishing to imply any view on the characterization issue.

7. See *Sega Enters., Ltd. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992).

8. See *Triad Sys. Corp. v. Southeastern Express Co.*, 64 F.3d 1330 (9th Cir. 1995); *Service & Training, Inc. v. Data General Corp.*, 963 F.2d 680, 687 (4th Cir. 1992).

9. Cf. Final Judgment, *United States of America v. Microsoft Corp.*, No. 94-1564 § IV(C) ("Microsoft shall not enter into any Per Processor License.") (July 15, 1994), available at <<http://www.usdoj.gov/atr/cases/f0000/0047.htm>> (visited Nov. 22, 1998).

10. See *Intergraph Corp. v. Intel Corp.*, 3 F. Supp. 2d 1255 (N.D. Ala. 1998).

11. The question is based on a memorandum to members of the American Law Institute from Jean Braucher and Peter Linzer suggesting that approval of shrinkwrap or click-on licenses might reduce nonprice competition. See Letter from Jean Braucher & Peter Linzer to Members of the American Law Institute (May 5, 1998), available at <<http://www.ali.org/ali/Braucher.htm>> (visited Nov. 22, 1998).

12. See, e.g., *Rudbart v. North Jersey District Water Supply Comm'n*, 605 A.2d 681, 687 (N.J. 1992) (noting that among considerations pointing toward enforcement of a term in an adhesive contract "no investor was under any economic pressure to buy the notes They were not driven to accept the Commission's notes because of a monopolistic market or any other economic constraint."); *Rozeboom v. Northwestern Bell Tele.*, 358 N.W. 2d 241 (S.D. 1984) (voiding damage limitation provision in agreement between advertiser and local telephone company and noting, "[i]t is crucial to understand that this case involves an individual versus a monopoly. We do not have two corporations dealing at arms length or two individuals dealing at arms length. We have a factual scenario where the bargaining power is wholly unequal. As a result of that economic ine-

rather than actually cartelized?¹³

The answer to such questions will depend in significant part on the goals of contract and antitrust. If the goals of contract law include, directly

quality and monopoly of Bell, the terms of this contract become substantively unreasonable and should not be enforced"); *Henningsen v. Bloomfield Motors, Inc.*, 32 N.J. 358, 404 (1960) (refusing to enforce disclaimer of implied warranty of merchantability in uniform warranty of Automobile Manufacturer's Association, of which firms producing over 90% of new cars were members: "Chrysler's attempted disclaimer of an implied warranty of merchantability and of the obligations arising therefrom is so inimical to the public good as to compel an adjudication of its invalidity"); Melvin Aron Eisenberg, *The Bargain Principle and Its Limits*, 95 HARV. L. REV. 741, 754 (1982) ("The development and application of specific unconscionability norms is closely related to the manner in which the relevant market deviates from a perfectly competitive market."); Thomas S. Ulen, *Courts, Legislatures, and the General Theory of the Second Best In Law and Economics*, 73 CHI-KENT L. REV. 189, 208 (1998) ("Standard-form contracts, offered on a 'take-it-or-leave-it' basis, may or may not be efficient. If the contract has terms to which the parties themselves ... would have agreed, had there been time and low transaction costs, then the terms may be efficient However, if A imposes the terms in a contract of adhesion on B ... because A has a monopoly position with respect to B, then there is no reason to believe that the contract will be efficient."). For the view that monopolists will exercise their power over price rather than in contract terms, see Richard Craswell, *Property Rules and Liability Rules in Unconscionability and Related Doctrines*, 60 U. CHI. L. REV. 1, 39-40 (1993) ("[T]he monopolist's incentive is normally to offer the most attractive non-price terms she can think of, the better to gouge her customers by charging them an even higher price."). Craswell notes, however, that "in some cases a less efficient non-price term might alter the pattern of demand in a way that increases the monopolist's profits, thus giving her an incentive to use a less efficient non-price term." *Id.* See also RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 102 (3d ed. 1986) (contending that competition should drive contract terms toward an efficient level and that in presence of monopoly power "there is no reason to expect the terms (such as the seller's warranties or the consequences of the buyer's default) to be different under monopoly from what they would be under competition; the only difference is that the monopolist's price will be higher. The problem is monopoly, not bargaining power").

13. Arthur Leff's dictionary, for example, distinguishes between terms offered in an effectively cartelized market and those offered in a market with competition on some terms. Arthur Alan Leff, *The Leff Dictionary of Law: A Fragment*, 94 YALE L.J. 1855, 1931-32 (1985) ("One set of legal responses would be proper with respect to 'adhesion contracts' used by all members of a particular industry such that a consumer could not acquire certain goods or services at all except on a particular set of terms. But the same response might not be proper if each member of an industry refused to change the terms of its own contract, but the contracts of each were not identical, such that a consumer could get materially different terms by choosing to deal with one competitor rather than another. To be concrete, the situation in which all automobile manufacturers put a disclaimer of warranty into their unmodifiable contracts would seem different from one in which half disclaim all warranties and half do not, or at least would 'undisclaim' if paid extra.").

or indirectly, facilitating the efficient allocation of society's resources,¹⁴ and if these are also among antitrust's purposes, then one would not be surprised to find considerable similarity of approach to problems involving contracting behavior. Even if contract does not consciously seek the efficient allocation of resources, but merely to facilitate transactions involving those resources by lowering transaction costs, rules designed to achieve this goal, when combined with the assumption that individuals will rationally seek to maximize their wealth,¹⁵ produce a regime aimed at least in part at producing an efficient allocation of resources. If individuals are assumed to act rationally, and transaction costs (including information costs) are assumed to be zero, the Coase Theorem—which in part demonstrates the possibility of allocative efficiency through exchange rather than taxation or subsidy—illustrates this point.¹⁶

14. Efficiency is often posited as an animating principle of contract law, though not necessarily the sole animating principle. See, e.g., *Seaboard Lumber Co. v. United States*, 41 Fed. Cl. 401, 417 (1998) (rejecting claim of excuse under doctrine of impossibility of performance on ground that placing the burden of performance "on the party who originally accepted that burden, absent rather limited circumstances ... not only preserves the integrity of freedom of contract, but it also serves economic efficiency by the most rational allocation of risk and performance resources."); *Selmer Co. v. Blakeslee-Midwest Co.*, 704 F.2d 924, 927 (7th Cir. 1983) (Posner, J.) (explaining that the doctrine voiding contract modifications exacted by promisee's threat to refuse to perform by "encouraging people to make contracts promotes the efficient allocation of resources"); *Weather Shield Mfg., Inc. v. PPG Indus., Inc.*, 1998 WL 469913, *3 (W.D. Wis. 1998) (noting that the economic loss doctrine "protects the parties' freedom of contract and promotes economically efficient allocation of risk and insurance against risk"); *Rudbart v. North Jersey Dist. Water Supply Comm'n*, 605 A.2d 681, 687 (N.J. 1992) (concluding that in competitive securities markets "the principal justification for invalidating terms of a contract of adhesion are simply not present" and noting that, "if the market is working free from improper influence," prices and terms set through private contracting "tend toward an optimum allocation of resources and are an incentive to efficiency." (quoting W. David Slawson, *Standard Form Contracts and Democratic Control of Lawmaking Power*, 84 HARV. L. REV. 529, 553-54 (1971))); Harvey S. Perlman, *Interference With Contract and Other Economic Expectancies: A Clash of Tort and Contract Doctrine*, 49 U. CHI. L. REV. 61, 79 (1982) ("Existing contract doctrine seems designed to promote allocational efficiency by minimizing transaction costs and encouraging nonperformance where efficiency gains result.").

15. For qualifications on this common assumption in the context of contract law, see Melvin Aron Eisenberg, *The Limits of Cognition and The Limits of Contract*, 47 STAN. L. REV. 211 (1995).

16. For elaboration on this point, see JULES L. COLEMAN, *MARKETS, MORALS AND THE LAW* 69-71 (1988). In part, of course, Coase demonstrated the importance of transaction costs in actual exchange. See RONALD H. COASE, *THE FIRM, THE MARKET, AND THE LAW* 174 (1988); Daniel A. Farber, *Parody Lost, Pragmatism Regained: The Ironic History of the Coase Theorem*, 83 VA. L. REV. 397 (1997).

The law may relax at least strong rational actor assumptions in the consumer context, however,¹⁷ and such assumptions in any event do not solve problems arising from behavior that is individually or bilaterally rational but might be socially suboptimal. Collective action problems, public goods problems, and externalities come to mind. Where such problems exist, the law must take into account the effects of individual behavior on third parties. Contract or, more likely given the historical evolution of the law, antitrust may do this pursuant to a theory of externalities.¹⁸ Copyright may approach similar problems from the public goods perspective, perhaps including mandatory rules designed to overcome what would otherwise be a coordination problem posing a barrier to optimal dissemination and improvement of copyrighted work. Which approach will be preferable depends on the precise nature of the problems and on which body of law best address them, taking into account the methodologies and assumptions underlying the law.

Dwelling on the overlap of competition policy and contract law might seem at best a heuristic exercise in light of the Supremacy Clause,¹⁹ but the recent decision in *Intergraph Corporation v. Intel Corporation*,²⁰ and a recent private antitrust suit against Microsoft,²¹ suggest that contract and antitrust claims may converge in litigation in "copyright industries" more frequently than they have in the past. A single district court decision granting preliminary relief does not establish much in the way of law, new or otherwise. It might not even set a trend in Alabama. As a case study, however, *Intergraph* highlights the difficult issues that arise when contract law, competition policy, and intellectual property law converge.

Intergraph manufactured computer workstations that performed design and drafting functions.²² Intergraph's early products, built in the 1970s,

17. See, e.g., Eisenberg, *supra* note 15, at 216-25 (discussing cognitive limitations relevant to contracting behavior generally); Jason Scott Johnston, *Strategic Bargaining and the Economic Theory of Contract Default Rules*, 100 YALE L.J. 615, 643 n.66 (1990) (noting judicial reluctance to enforce damage limitations in consumer contracts).

18. Externalities are effects of conduct that produce socially suboptimal outcomes. For example, the Antitrust Division's original proceeding against Microsoft worked in part from the premise that Microsoft's per-processor licenses increased the effective cost to original equipment manufacturers of operating systems that competed with Microsoft's products. *United States v. Microsoft Corp.*, 159 F.R.D. 318, 321 (D.D.C.), *rev'd* 56 F.3d 1448 (D.C. Cir. 1995).

19. U.S. CONST. art. VI, cl.2.

20. 3 F. Supp. 2d 1255 (N.D. Ala. 1998). Intel's dispute with Intergraph is, among other things, one of the disputes cited by the Federal Trade Commission in a complaint issued against Intel in June 1998.

21. See *infra* note 25.

22. See *Intergraph*, 3 F. Supp. 2d at 1259.

were based on computers Intergraph purchased from Digital Equipment.²³ In 1986, Intergraph began to produce workstations based on "Clipper" chips manufactured by Fairchild.²⁴ When Fairchild was sold a year later, Intergraph purchased the division that produced the Clipper technology. Intergraph used this technology until 1993.²⁵

In 1993, an Intergraph representative met with Intel's chief executive officer to discuss Intergraph's interest in switching from its own Clipper technology to Microsoft's Windows NT operating system running on Intel chips.²⁶ The court's treatment of this meeting is extremely interesting from the perspective of both competition policy and contract law. Intergraph submitted a declaration from its founder in support of its motion for preliminary injunction, which described the parties dealings as follows:

In 1993, I personally met with Andy Grove of Intel to discuss Intel's future development plans. Mr. Grove represented to me that Intel's chips would soon have the necessary computing power and speed for the development of an Intergraph workstation. I also expressed my concern with Intel being the sole source supplier of its chips, but was assured by Mr. Grove that Intel was sensitive to such issues and that Intel treated all of its developers fairly and equally. Based upon such representations, [Intergraph] began development of an Intel-based workstation and discontinued further development of the Clipper and Clipper-based workstations and servers.²⁷

Intergraph's witnesses at the injunction hearing qualified this testimony somewhat, conceding that "Mr. Grove did not commit Intel to provide a perpetual supply of chips, pre-released chips, or confidential information,"²⁸ the latter two items being necessary for Intergraph to bring its

23. *See id.* at 1263.

24. *See id.*

25. *See id.* at 1263. Intergraph's website further states that it "is the world's largest company dedicated to supplying interactive computer graphic systems Intergraph is a billion-dollar, Fortune 1000 supplier of hardware, software, and services with sales and support offices in 65 countries." Intergraph, (visited Aug. 19, 1998) <<http://www.intergraph.com>>. The district court also noted that Intergraph was a global firm with 8,500 employees, 4,500 of whom were located in Huntsville, Alabama. *See Intergraph*, 3 F. Supp.2d at 1261.

26. *See id.* at 1264.

27. *Id.*

28. *Id.*

workstations to market in a timely manner—contemporaneous with the public release of new Intel technology.²⁹

Following the 1993 meeting, Intergraph began a transition away from its Clipper technology and toward development of Intel-based workstations in reliance on Intel's "assurances and representations that ... Intel would supply its CPUs to Intergraph on fair and reasonable terms."³⁰ The district court concluded that Intel's conduct induced Intergraph to abandon Clipper technology, thereby eliminating Intergraph as a competitor in a "high-end microprocessor market," while simultaneously locking Intergraph into using Intel's chips for Intergraph's workstations.³¹ The case was decided on Intergraph's motion for preliminary injunction and the parties' evidentiary submissions pertaining to that motion; the court cautioned that its findings were "based on the evidence received to this point and may prove illusory after a full trial on the merits of the parties' contentions."³²

Intergraph's transition to Intel technology involved the transfer of substantial technical information from Intel to Intergraph, as well as significant support.³³ The court found that in 1993, "it was the practice of Intel to

29. A variation on this theme has been alleged by Bristol Technology, a small firm marketing a product known as Wind/U, which it describes as "a suite of programs that enables application programs designed to run on the Windows operating system to be adapted to run efficiently under UNIX, Open VMS and OS/390 operating systems." Complaint for Damages and Injunction for Monopolization And Other Tortious Conduct, Bristol Technology, Inc. v. Microsoft Corp., No. 398CV1657 (JCH) (D. Conn. 1998), available at <<http://www.bristol.com/legal/complaint.htm>> (visited Aug. 20, 1998). Bristol alleged that it became a partner in Microsoft's Windows Interface Source Environment ("WISE") program in reliance on public and private assurances by Microsoft that it would provide WISE program members with "continuing access to all Windows source code, details of the Windows programming interface and other data ('compatibility information') necessary to assure that the products offered to consumers by WISE partners would evolve along with future versions of the Windows family of operating systems and assure applications compatibility and performance." Complaint at ¶ 49. Bristol alleged that Microsoft induced Bristol to accept a license for Windows source code, which caused Bristol to modify its business plan in a manner that rendered it completely dependent on access to Windows source code. Bristol further alleged that Microsoft later refused to agree to license Windows source code to Bristol in the future on commercially reasonable terms. Echoing the district court's approach in *Intergraph*, Bristol asserted antitrust claims under essential facilities and monopolization theories as well as a claim based on a promissory estoppel theory.

30. *Intergraph Corp. v. Intel Corp.*, 3 F. Supp. 2d. 1255, 1264 (N.D. Ala. 1988).

31. *Id.* at 1265.

32. *Id.* at 1259 n.4.

33. The district court described the relationship as follows:

freely share with its OEM customers technical information about its products" but that thereafter Intel simultaneously moved to close its technological architecture and to render Intel technology incompatible with that of other firms.³⁴ Intel also entered into various agreements giving it greater (and unilateral) control over its technical information. For example, Intel's non-disclosure agreements included a provision "expressly negat[ing] any obligation on the part of either party to supply confidential information," as well as terms providing that the agreement did not constitute a joint venture or partnership and that the agreement could be terminated at any time.³⁵

Intergraph asserted patent claims based on its Clipper technology against certain computer manufacturers who were Intel's customers.³⁶ These OEMs in turn sought indemnity from Intel, prompting Intel to contact Intergraph and propose an agreement to cross-license certain patented technology.³⁷ The negotiations failed. Intel next sought to include cross-licensing language in further non-disclosure agreements with Intergraph, but Intergraph apparently would not agree to the language. Several months later, Intel "unilaterally canceled all Intergraph's outstanding [non-disclosure agreements] and demanded the return of all confidential information it had provided Intergraph."³⁸

The district court found that Intel was "the world's largest designer, manufacturer, and supplier of high-performance microprocessors," that

Before mid-1996, Intel and Intergraph enjoyed a mutually beneficial business relationship. As a result of this relationship, Intel regularly provided Intergraph with CPUs, technical information, and support essential for Intergraph to be competitive in its chosen field. Intel regularly supplied Intergraph with early samples of its CPUs for testing and development, often within weeks of their first production. Intel provided motherboard design assistance, and it reviewed Intergraph's design schematics to ensure that any 'bugs' or defects in the Intel CPU or chips were avoided. Intel provided detailed information on its technology and future plans, and it solicited Intergraph information and technology for incorporation into future Intel designs. Intel provided advance information on its own design and development efforts, and it supported Intergraph's development efforts.

Id. at 1269.

34. *Id.* at 1265.

35. According to the court, "other documents signed by the parties also provide that they create no obligation to supply products or confidential information and to engage in future business activities." *Id.* at 1266.

36. *See Intergraph Corp. v. Intel Corp.*, 3 F. Supp. 2d. 1255, 1266-67 (N.D. Ala. 1988).

37. *See id.*

38. *Id.* at 1267.

Intel earned 88 percent "of the total revenue derived from microprocessors sold for use in desktop computers, laptops, servers, and workstations," and that Intel had 85 percent of the market for "x86" chips.³⁹ The court concluded there were two chip markets relevant to the case: the market for high performance microprocessors and a separate market for Intel microprocessors. The court found that "[i]t is self-evident, as admitted by Intel's counsel, that Intel has a 100 percent absolute monopoly of Intel CPU's."⁴⁰

Intergraph sought a preliminary injunction that essentially required Intel to continue dealing with Intergraph as the parties had in the past, and to treat Intergraph at least as well as Intel treated its customers who competed with Intergraph.⁴¹ The district court granted the injunction.⁴² The district court's opinion is a relentless exercise in alternative reasoning. The opinion proceeds in concentric fashion by asserting, in turn, successively narrower bases for its order requiring Intel to deal with Intergraph. The court concluded that Intergraph had established a substantial likelihood of showing at trial that (i) "Intel's advanced CPUs and Intel's technical information" were essential to Intergraph's ability to compete, and Intel was therefore obliged to deal with Intergraph under the essential facilities doctrine; (ii) Intel was leveraging its chip monopoly into the graphics subsystem market while denying Intergraph essential inputs; (iii) Intel was engaging in coercive reciprocity by demanding that Intergraph cross-license its Clipper technology in exchange for a continued supply of Intel's chips and technical information; (iv) Intel's "retaliatory enforcement" of its non-disclosure agreements rendered them a part of an anticompetitive scheme and therefore contracts in restraint of trade; (v) Intergraph was entitled to specific performance of a letter the court found sufficiently definite to constitute a contract; (vi) Intel's non-disclosure agreements were unconscionable when made; (vii) Intel's non-disclosure agreements were unconscionable as enforced by Intel; and (viii) Intergraph was entitled to reasonable notice of cancellation.⁴³ The latter four grounds for decision were based in substantial part on the U.C.C.

Our interest in the district court's opinion is not its antitrust analysis, but the interplay between antitrust and contractual theories. In the district court's view, either antitrust or contractual theories could create an obligation for Intel to deal with Intergraph.⁴⁴

39. *Id.* at 1263.

40. *Id.* at 1272.

41. *See id.* at 1268.

42. *Intergraph Corp. v. Intel Corp.*, 3 F. Supp. 2d. 1255, 1288 (N.D. Ala. 1988).

43. *See id.* at 1288-93.

44. *See id.*

The court concluded that Intel's market position, based on a combination of intellectual property rights, scale economies, and network effects, was a monopoly and, given the cumulative effect of these factors on the probability of successful entry, likely a durable monopoly. These same facts, in the district court's view, transformed potentially valid non-disclosure agreements into unconscionable agreements. Use of contractual theory would have fewer collateral effects than the essential facilities theory, which implies that Intel would have had to deal with Intergraph regardless of any conduct by Intel inducing Intergraph to abandon Clipper technology.⁴⁵ On facts such as these, is welfare enhanced more by relatively narrow contract theories based on concepts of reliance and assets allocated pursuant to agreement or by concepts of monopolization and leveraging, for which a mandatory dealing obligation might be a remedy and which would entitle Intergraph to treble damages? More generally, in circumstances in which the conduct at issue involves negotiating tactics or strategic conduct in the course of performance under an agreement, are contract or related doctrines, such as estoppel, more likely to produce efficient results than is antitrust, or vice versa?

These questions are explored further in connection with Article 2B itself. Article 2B professes to remain neutral with respect to any issues relating to federal competition or intellectual property policy. Given the Supremacy Clause,⁴⁶ this is the only sensible position to take as a matter of general policy, and Article 2B is right to do so. Laws are purposive, and any body of law can remain true only to a limited number of purposes. Attempting to achieve too many goals through one body of law produces either legal schizophrenia or platitudinous irrelevance. Article 2B properly seeks to avoid this fate through its efforts to focus on contract law and remain neutral on matters of federal policy.

In cases in which the allegations are based primarily on the position of an intellectual property right in the market, and by extension the market position of the firm owning such rights, contractual theories are unlikely to provide satisfactory solutions. In such cases, of which we may consider *DSC Communications Corporation v. DGI Technologies*⁴⁷ a prototype, the evolving law of copyright misuse is likely to provide a better source of decisions than either contract or antitrust law.

At the intersection of antitrust and intellectual property, however, neutrality cannot be completely achieved. Legal rules designed to shape

45. See *infra* notes 170-77.

46. U.S. CONST. art. VI, cl. 2.

47. 81 F.3d 597 (5th Cir. 1996). See *infra* notes 89-90 for a discussion of the case.

contracting behavior will influence the conduct of parties whose dealings may be significant from the perspective of competition policy. By seeking to lower transaction costs and give force to trade usages and the reasonable expectations of commercial parties, Article 2B might leave (or create) issues for competition policy that could have been resolved under different contractual rules. In addition, particularly to the extent contract pursues goals of efficiency similar and complementary to those pursued by antitrust, the cause of efficiency may be better served by an assertion of contractual primacy over antitrust in some cases. For this category I have in mind cases where the conduct at issue involves assertions by a party to an agreement, or a party seeking renewal of an agreement, of claims based on negotiating behavior or strategic behavior in the course of contractual performance. In such cases, of which *Intergraph* may be considered a model, courts should examine thoroughly the range of contractual rules and remedies. In many such cases, Article 2B's preference for freedom of contract, with its underlying assumption that parties whose interests are at stake in a negotiation are better judges of markets and the effects of contracts than are courts, should be given substantial weight.

II. The Purposes of Article 2B

Under the heading "Nature of a Commercial Statute," Article 2B states that it "supports contractual choice and commercial expansion in information contracting."⁴⁸ Under the sub-heading "Freedom of Contract," Article 2B explicitly draws upon a broader U.C.C. paradigm of commercial contracting:

The U.C.C. is a commercial statute whose basic philosophy builds on two assumptions about *commercial* contract law. The first *commercial* law theme assumes that contract law should preserve freedom of contract. This permeates the U.C.C. as noted in the Article 2A comments: 'This article was greatly influenced by the fundamental tenet of the common law as it as developed with respect to leases of goods: freedom of the parties to contract'

48. Earlier drafts stated a "fundamental philosophy [that] ... centers on supporting contractual choice and commercial expansion in information contracting." U.C.C. Article 2B, Preface at 9 (Apr. 15, 1998 Draft). Article 2B also states that it addresses an "important theme" involving "the need to create and preserve as broad as possible a field for expression and communication, commercially and otherwise, of ideas, images, and facts; material that this draft refers to as 'informational content.' *Id.* This additional theme is said to "argue strongly for an approach to contract law in this field that does not encumber, but supports incentives for distribution of information." *Id.* at 10.

The idea that parties are free to choose terms can be justified in a number of ways. It leads to a preference for laws that provide background rules, playing a default or gap-filling function in a contract relationship.⁴⁹

Article 2B elaborates on the default-rule concept to draw two conclusions of significance here. First, that a

[d]efault rule should mesh with expected or conventional practice in a manner that projects a favorable impact on contracting *and* that can be varied by the contracting parties. This is in contrast with rules that dictate terms and regulate behavior. As a matter of practice, default rules are common in commercial contexts, while consumer law contains many regulatory rules.⁵⁰

Thus, Article 2B's free contracting philosophy is, at least to some degree, utilitarian. If free contracting were all that Article 2B sought to achieve, the content of default rules would be of no moment; Article 2B's goals would be satisfied if the parties were free to vary its rules. That default rules may be better or worse implies a separate goal, which may be used as a benchmark in evaluating competing rules. Article 2B does not specify this goal, but as language from the April 1998 draft shows, it does derive a methodology from the default rule concept:

The second *commercial law* premise defines codification as a means to facilitate commercial practice. This is approached in this draft by an effort to identify existing patterns of commercial practice and to follow a presumption that the goal of the drafting is to identify, clarify and, where needed, validate existing patterns of contracting to the extent they are not inconsistent with modern social policy.⁵¹

Borrowing a term from Grant Gilmore and advancing a concept applied by Lord Mansfield and Joseph Story,⁵² the Article 2B explicitly seeks "[t]o be accurate and not original"⁵³ and thus

49. U.C.C. Article 2B, Preface at 11-12 (Nov. 1, 1998 Draft).

50. *Id.*

51. *Id.* The second sentence in this quotation was omitted from the July 1998 NCCUSL annual meeting draft.

52. See, e.g., R. KENT NEWMYER, SUPREME COURT JUSTICE JOSEPH STORY: STATESMAN OF THE OLD REPUBLIC 122-23 (1985) (noting Story's use of merchant juries to resolve issues of custom and usage while riding circuit in New England); Robert D. Cooter, *Decentralized Law For A Complex Economy: The Structural Approach To Adjudicating The New Law Merchant*, 144 U. PA. L. REV. 1643, 1648-49 (1996) (noting Lord

refers to commercial practice as an appropriate standard for gauging appropriate contract law unless a clear countervailing policy indicates to the contrary or the contractual arrangement threatens injury to third-party interests which social policy desires to protect. Uniform contract laws do not regulate practice. They support and facilitate it. The benefits of codification lie in defining principles consistent with commercial practice which can be relied on and are readily discernible and understandable to commercial parties.⁵⁴

In this regard, Article 2B explains that

In context, the best source of substantive default rules lies not in a theoretical model, but in a reference to commercial and trade practice. This is not simple faith in empirical sources for commercial law. It stems from the reality that, even though we may not know how law interacts with contract practice, decisions about contract law will continue to be made. In those decisions, we should refer for guidance to the accumulation of practical choices made in actual transactions. The goal is a congruence between legal premise and commercial practice so that transactions adopted by commercial parties achieve commercially intended results. Background rules tied to the ordinary, but actual commercial context tend both to provide a legal base that falls within the tacit expectations of the parties and to ameliorate problems from lack of knowledge by supplying common sense outcomes.⁵⁵

I have quoted at length from Article 2B both from a desire to convey the sense of the rich intellectual tradition it seeks to carry forward into the information age and to highlight the degree to which these statements of purpose are incomplete. While Article 2B makes clear that it seeks to enable free contracting and facilitate commercial transactions, it does not fully explain why. The statements that the free contracting philosophy will defer to "modern social policy" heighten the sense that further explanation is needed. Perhaps this is because Article 2B presumes a satisfactory answer to the question of ultimate purpose: there is no need to waste time justifying commercial contracting in a document that would make no

Mansfield's efforts to derive legal rules from optimal business practice in the relevant trade).

53. U.C.C. Article 2B, Preface at 12 (Nov. 1, 1997 Draft) (quoting Grant Gilmore, *On The Difficulties of Codifying Commercial Law*, 57 YALE L.J. 1341, 1341 (1957)).

54. U.C.C. Article 2B, Preface at 14 (Nov. 1, 1997 Draft).

55. *Id.*

sense had a satisfactory justification not been established. If this is the case, however, why include any statement of "philosophy"? And how could Article 2B defer the question of the "relevant social policy" by which the effects of default rules should be measured, while providing a fairly detailed defense of the manner in which such rules should be derived?

The most reasonable answer to these questions is that Article 2B's free-contracting philosophy is instrumental. Article 2B seeks to benefit society by allowing resources to flow to their most-valued use through exchanges falling within the domain of commercial contract law.⁵⁶ In slightly more technical terms, Article 2B seeks to assist the process of exchange and thereby enhance allocative efficiency, or the maximum productive use of resources.⁵⁷ Much modern scholarship and some case law ascribes the same purpose to competition policy.⁵⁸ It is therefore interesting to note the degree to which Article 2B attempts to distance itself from competition policy and the evident determination with which it undertakes the task. This effort begins with Article 2B's conception of property and extends through its notions of exchange. Speaking of the intellectual property laws, but with later explicit reference to competition policy, the Pref-

56. Alternative answers could be based in philosophical theories of obligation. See, e.g., CHARLES FRIED, *CONTRACT AS PROMISE, A THEORY OF CONTRACTUAL OBLIGATION* 1-6 (1981). Such theories, however, are at odds with the overall instrumental structure of both the U.C.C. and Article 2B.

57. Professors Cooter and Ulen define allocative efficiency as that state of affairs in which the allocation of goods and services cannot be altered to improve the position of some people without worsening the position of others. See ROBERT COOTER & THOMAS ULEN, *LAW AND ECONOMICS* 12 (2d ed. 1997); COLEMAN, *supra* note 16, at 71; Herbert Hovenkamp, *Antitrust Policy After Chicago*, 84 MICH. L. REV. 213, 240 (1985) [hereinafter Hovenkamp, *After Chicago*] ("Allocative efficiency refers to the welfare of society as a whole. Situation A is more allocatively efficient than situation B if affected people as a group are somehow better off under A than they are under B.").

58. For a summary of the relevant sources, see RICHARD A. POSNER, *ANTITRUST LAW: AN ECONOMIC PERSPECTIVE* 4 (1976); Hovenkamp, *After Chicago*, *supra* note 57, at 215 (discussing "Chicago School" emphasis on allocative efficiency); Alan J. Meese, *Price Theory and Vertical Restraints: A Misunderstood Relation*, 45 UCLA L. REV. 143 (1997). The Supreme Court has of course not explicitly adopted any particular school of antitrust thought, though several cases over the last 20 years are at least plausibly consistent with either productive or allocative efficiency goals. See, e.g., *State Oil v. Khan*, 118 S.Ct. 275 (1997); *Brooke Group, Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209 (1993); *Business Elecs. Corp. v. Sharp Elecs. Corp.*, 485 U.S. 717 (1988); *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574 (1986); *Continental T.V., Inc. v. G.T.E. Sylvania, Inc.*, 433 U.S. 36 (1977). For simplicity and because one must specify the purpose of any law to engage in meaningful analysis, I here assume that the federal antitrust laws at least accommodate allocative efficiency as a goal.

ace to Article 2B puts the matter as follows: "A contract defines rights between *parties to an agreement*, while a property right creates rights *against all the world*. They are not equivalent."⁵⁹

With respect to competition policy, this premise carries several important implications. The Preface to the April 1998 draft stated that:

These provisions reflect a policy of correspondence of rules in addition to simple recognition that federal law preempts state law. There are other situations where federal law and policy shapes contract law and practice, but the nature of that role is less clear and typically more controversial. The Draft adopts a position of neutrality on such issues, leaving determinations about their content to be determined under federal law, the appropriate venue for such discussion.

This occurs primarily in respect to federal policies managing competition under antitrust and similar theories of intellectual property misuse and to the application of federal policy about the availability of publicly distributed information for fair use and public domain applications. Typically, in determining whether or when such policies apply, courts accept that contract law generally prevails, but ask whether a particular clause in a particular setting conflicts with federal policies when balanced against the general role of contracts in the economy and the legal system. ...

The issues are questions of federal law and policy. They must be resolved by courts and Congress, rather than through state legislation. Article 2B takes no position on these policy questions, but merely provides a generic contract law framework to augment and bring to modern form the existing complex network of common law, code and general industry practice.⁶⁰

59. U.C.C. Article 2B, Preface at 11 (Apr. 15, 1998 Draft).

60. *Id.* at 12. The July 1998 NCCUSL draft reworked this language, acknowledging the strong opinion of a number of commentators that Article 2B should embrace certain federal rules, in particular limitations on the scope of the copyright grant, rather than remaining neutral. The July 1998 revision states that

The basics of the neutrality policy are set forth in section 2B-105, which specifically recognizes federal preemption and that Article 2B does not displace state trade secret law.... Article 2B does not change the law on the enforceability of any restrictive clause that entails copyright misuse or that offends fundamental First Amendment concerns. We expect that, as they do today, courts will continue to reject abusive clauses when they encounter them by applying existing doctrines that preserve the role of information in society.

U.C.C. Article 2B, Preface at 16 (July 24-31, 1998 Draft).

The position stated in the Preface is made explicit in section 2B-105, which first appeared in the September 1997 draft, entitled "Relation To Federal Law,"⁶¹ before being changed in the July 1998 NCCUSL draft to "Relation To Federal Law; Transactions Subject To Other State Law." Section 2B-105(a) states that "[a] provision of this article which is preempted by federal law is unenforceable to the extent of such preemption."⁶² In response to a motion at the 1998 NCCUSL Annual Meeting,⁶³ a proposed section 2B-105(b) was added. That proposed provision states that "[a] contract term contrary to fundamental public policy is unenforceable to the extent that the term is invalid under that policy."⁶⁴ Reporter's Note 1 to section 2B-105 in the August 1998 draft reiterates that "Article 2B deals solely with contract law, not intellectual property, competition, or trade regulation law."⁶⁵

The history of section 2B-105 suggests that it emerged from disagreement over the question whether Article 2B should specifically address certain issues of federal policy, most prominently copyright issues, but with implications for patent law and competition policy. Many observers have argued that Article 2B should embody, presumably as a mandatory term, rules that reflect what they perceive as the consensus of courts that have ruled in cases involving such issues. The April 1998 draft states that, at its 1997 Annual Meeting, the ALI "after a brief debate and by a narrow vote of 86-82" approved a motion that the section pertaining to mass market licenses (at that time section 2B-308) "be amended to provide that a term inconsistent with federal copyright law does not become part of" a mass market license.⁶⁶ Professor Charles McManis, who submitted the

61. Changed in the March 1998 draft to "Relationship To Federal Law."

62. U.C.C. § 2B-105(a) (July 24-31, 1998 Draft).

63. The motion was to amend section 2B-110, addressing unconscionability; the proposed language specified that "[i]f a court as a matter of law finds the contract or any term of the contract to have been unconscionable or contrary to public policies relating to innovation, competition, and free expression at the time it was made, the court may refuse to enforce the contract, or it may enforce the remainder of the contract without the impermissible term as to avoid any unconscionable or otherwise impermissible result." U.C.C. § 2B-105 (Aug. 1, 1998 Draft).

64. The August 1998 draft also proposes a section 2B-105(c), which states that "principles of law and equity supplement this article. Among the laws supplementing, and not displaced by this article are trade secret laws and unfair competition laws." *Id.* § 2B-105(c). This version of Article 2B also contains a section 2B-105(d), providing that unless otherwise specified, "in the case of a conflict between this article and a statute or regulation of this State establishing a consumer protection in effect on the effective date of this article, the conflicting statute or regulation controls." *Id.* § 2B-105(d).

65. *Id.* § 2B-105, Reporter's Note 1 (Aug. 1, 1998 Draft).

66. U.C.C. § 2B-105 (Apr. 15, 1998 Draft).

motion to the ALI, stated that it was intended "to create greater certainty as to the enforceability of mass market licenses by avoiding, or at least reducing, the possibility of conflict with, and consequent preemption by, federal copyright and/or patent law."⁶⁷

The April 1998 draft then recounts that at its 1997 Annual Meeting NCCUSL "adopted by a substantial majority a motion that Article 2B should not deal with federal preemption but should be neutral."⁶⁸ The reasoning behind this view may lie in a comment included in the Reporter's Notes to section 2B-105, which states that "[n]othing in Article 2B is intended to alter the balance between federal mandates and contract principles"⁶⁹ Nevertheless, section 2B-105 was included in the draft prepared for the 1997 NCCUSL Annual Meeting and has remained and, as noted, has been expanded.⁷⁰

67. Charles R. McManis, *Motions and Supporting Comments* (visited Nov. 22, 1998), <<http://www.ali.org/ali/mcmanis.htm>> [hereinafter McManis, *Motions*]. For a detailed statement of Professor McManis' conclusions, see Charles R. McManis, *Intellectual Property Protection and Reverse Engineering of Computer Programs in the United States and the European Community*, 8 HIGH TECH. L.J. 25 (1993).

68. U.C.C. § 2B-105 (Apr. 15, 1998 Draft). Using the signal in its full Leffian sense of "this fits here, but I can't tell how," is Arthur A. Leff, *Unconscionability And The Code—The Emperor's New Clause*, 115 U. PA. L. REV. 485, 530 n.178 (1967) [hereinafter Leff, *Unconscionability*]. Cf., Karl Llewellyn's speech to the Tennessee Bar Association, "Why A Commercial Code?" 22 U. TENN. L. REV. 779, 783 (1953):

It is an amazing thing to see the difference between the operations of the American Law Institute for example, which is a very distinguished body, and the Commissioners. The difference is that the members of the Institute by and large appraise things from the angle of theory; they love a point of theory. They were trained, I guess, under the theoreticians, and they have come to enjoy points of theory; but you can't do anything with theory on the floor of the Conference of Commissioners.... You find the thing tested against the way it looks in the office when you are dealing with practical affairs, or the way it is going to look in court when you present a case. Since the men come from all over the country and are men of wide experience and shrewd observation, it means that you have a testing of material in terms of its practicality, which I think is what we need.

Id. It may, of course, be the case that Professor Llewellyn spoke with an eye toward an audience of practitioners. Professor Patchell's discussion of Llewellyn's theory of a commercial code, the methodological implications of that theory, and some limitations of the methodology, add some perspective to this quotation. See Kathleen Patchell, *Interest Group Politics, Federalism, and the Uniform Law Process: Some Lessons From The Uniform Commercial Code*, 78 MINN. L. REV. 83 (1993).

69. U.C.C. § 2B-105, Reporter's Note 1 (Apr. 1998 Draft).

70. The March 1998 Draft notes that in a February 1998 drafting meeting a motion "to provide that the Article does not change state common law or competition law rules

Professor McManis's motion differed from the language of section 2B-105 at that time in two important respects. The McManis motion specifically referenced several provisions of the Copyright Act, and would have rendered void any contractual term inconsistent with these provisions. The practical effect of the motion would have been to adopt these provisions as mandatory contract rules for mass market licenses.⁷¹ Section 2B-105, however, is not limited to mass market licenses. But consistent with its preference for default terms and free contracting, section 2B-105 also does not impose mandatory contract terms conforming to the statutory grant or limitations on exclusive rights.⁷² Professor McManis renewed his efforts with a motion directed at the ALI's 1998 annual meeting calling on the ALI to concur that Article 2B "has not reached an acceptable balance in its provisions concerning mass-market licenses ... and the relationship between Article 2B and federal law."⁷³ The motion further stated that section 2B-208, the mass market license provision, "reflects a licensor bias that permeates the entire draft" and that "[s]ection 2B-105, while paying lip-service to the supremacy of federal law, does nothing to eliminate or reduce the risk of conflict, nor does it provide contracting parties or the courts with any meaningful guidance about how to avoid such conflicts."⁷⁴ This motion was rejected, though a motion stating that Article 2B "has not reached an acceptable balance in its provisions concerning assent to standard form records" and should be fundamentally revised was adopted.⁷⁵

because Article 2B simply does not deal with these issues" was rejected by a vote of 2-8. U.C.C. § 2B-105, Votes and Action d (Mar. 1988 Draft).

71. As Professor McManis stated following the ALI meeting, he "believe[d] that the use of this unilateral form of contract to contract around these provisions would in effect deprive the entire public of certain federally created user's rights, thus conflicting with the paramount policies of federal copyright and/or patent law." E-mail from Charles R. McManis to 2Bguide (June 16-17, 1997), available at <<http://www.2Bguide.com/ali.html#mcm>> (visited Nov. 22, 1998).

72. Before the language was omitted in the March 1998 Draft, the Reporter's Notes to section 2B-208 made clear Article 2B's general aversion to mandatory terms: "Some argue that law should preclude a vendor from defining the terms under which it markets its product or service. That viewpoint argues that the law should mandate terms, conditions, and risks under which information is distributed. *This regulatory structure is not accepted in Article 2B.*" U.C.C. § 2B-208, Reporter's Note 3 (Nov. 1, 1997 Draft). Though this language is omitted from the March draft and subsequent drafts, it is an accurate description of Article 2B's efforts to adopt default rules that facilitate exchange and avoid mandatory terms to the extent possible.

73. McManis, *Motions*, *supra* note 67.

74. *Id.*

75. Braucher & Linzer, *supra* note 11.

These debates have produced some revisions to Article 2B that have explicitly acknowledged the role of both federal law and public policy. In the April 1998 draft, for example, Reporter's Note 1 to section 2B-105 stated that "[t]he relationship between federal law and state law is complex," but then offered an apparently straightforward, and certainly correct, solution to any complexity:

[I]f federal law invalidates a particular contract law rule or its application in a given contract, federal law controls. If federal law precludes a particular contract provision (or its enforcement) in a particular setting, that federal law rule controls.⁷⁶

Thus, reiterating points made in the Preface, the Reporter's Notes stated that

Article 2B takes no position on the complex competition, social policy and other issues present here Article 2B sets out contract principles governing the contractual relationship in information transactions. It governs the contractual relationship; federal law and policy determines whether a particular contract in a particular setting is barred by federal law.⁷⁷

The Reporter's Notes go on to state that Article 2B approaches the relationship of federal policy and state contract law "from a posture of aggressive neutrality. As with contract law today, Article 2B sets out underlying contract law principles and leaves federal policy determinations to federal courts and federal law."⁷⁸ "Aggressive neutrality" was a wonderfully suggestive phrase, though perhaps a somewhat murky piece of drafting history.⁷⁹ Its deletion from the July 1998 NCCUSL draft was therefore understandable, particularly given the apparent trend toward an iteration of section 2B-105 that states more explicitly its deference to federal policy and that identifies federal policies that presently pose a risk of

76. U.C.C. § 2B-105, Reporter's Note 1 (Apr. 15, 1998 Draft).

77. *Id.* § 2B-105, Reporter's Note 2.

78. *Id.* § 2B-105, Reporter's Note 3.

79. It is indeed something of a defensive term, though a touch of defensiveness is understandable in a document intended for enactment by state legislatures but which is sometimes defined by reference to a federal statute (thus the reference to Article 2B as governing contracts in "copyright industries"), and one containing an express preemption clause at that. *See* 17 U.S.C. § 301 (1995).

conflict.⁸⁰ State judges who may be unfamiliar with federal policies will likely find such guidance helpful.⁸¹

Each iteration of Article 2B has to one degree or another reflected the drafters' apparent determination that the free contracting principle control up to the point where it is decisively truncated by a federal rule.⁸² The Reporter's Notes to section 2B-105 in the August 1998 draft therefore suggests that,

[i]n practice, enforcing private contracts is most often consistent with the fundamentals of these areas of policy. Contract law, freedom of expression, competition and innovation policy are not only consistent, they are most often mutually supportive. Thus, a wide variety of contract terms relating to the use of information present no significant issue under public policy invalidation doctrine.⁸³

Article 2B properly characterizes the question as one of balancing. This implies a proper consideration for the costs and benefits of a given rule both in terms of federal policy and in terms of contract's concern with supporting allocative efficiency:

Information policy thus seeks a balance between two competing interests: the interest of creating sufficient incentives for innova-

80. Reporter's Note 1 to section 2B-105 in the August 1998 draft states that "Article 2B deals solely with contract law, not intellectual property, competition, or trade regulation law." U.C.C. § 2B-105, Reporter's Note 1 (Apr. 15, 1998 Draft).

81. Professor Llewellyn felt that comments to the code were desirable in part for a closely related reason: "For the fact is that our courts have not the time, in the disposition of single cases, to fathom the handling of a whole field by a whole uniform act or code chapter. They are courts of good will. But they are also courts of general, infinitely varied, jurisdiction, working under severe time pressure on a most heterogeneous assemblage of cases. The bearing of parts of an Act or Code on one another and on the whole the courts are willing to see, glad to see; but counsel do not show that full bearing, and the Conference has not undertaken to show it, either." WILLIAM TWINING, KARL LLEWELLYN AND THE REALIST MOVEMENT 527 (1973) (quoting undated memorandum by Llewellyn entitled "The Reasons for a Uniform Commercial Code").

82. See Memorandum from Connie Ring & Ray Nimmer on UCC Article 2B Significant Issues for Committee of the Whole (July 1, 1998), available at <<http://www.law.upenn.edu/bll/ulc/ucc2b/ucc2bpol.htm>> ("Some of the criticisms of Article 2B arise from the desire of some parties for a more regulatory approach. The fundamental premise of the U.C.C. has been freedom of contract and the provision of 'default' rules as gap fillers when the parties have not covered the point. The Drafting Committee does not propose to modify U.C.C. policy.").

83. U.C.C. § 2B-105, Reporter's Note 1 (Aug. 1, 1998 Draft). The Note goes on to reaffirm that, "[i]n some cases, however, a conflict exists and fundamental public policy other than the policy freedom of contract enforcement may over-ride and control." *Id.*

tion by permitting owners to reap the returns from their innovative activities and the public interest in preserving and expanding information in the public domain in order to provide the store of knowledge on which innovation depends. Striking this balance depends on a variety of contextual factors that can only be assessed on a case by case basis with an eye to national policies. The rule recognized in subsection (b) permits courts in appropriate cases to over-ride contract terms where compelling fundamental public policy should prevail to preserve this balance, while continuing to recognize the fundamental policies that support contract and commercial markets as recognized in the [U.C.C.] and common law.⁸⁴

Neither Article 2B nor the Reporter's Notes provide a clear sense of how this balance should be achieved; nor has the case law definitively resolved the issue. Given the considerable thoughtful effort reflected in Article 2B, it would be unfair to criticize it for gaps also found in its source material. Recalling some of the history of section 2B-105, the Reporter's Notes in the August draft state that, "[a]s urged by a near unanimous 'sense of the house' vote at the NCCUSL 1997 annual meeting, the approach of Article 2B has been to correspond state law to clear rules of federal law and to take no position on controversial rules whose application cannot be predicted but must await determination as a general federal policy question."⁸⁵ In the following sections, I suggest that, while this stance is the most sensible approach for Article 2B, the structure of contract rules, including their intersection with competition policy, will invariably influence economic outcomes in licensing transactions. Further, if used judiciously in the proper context, contract rules might resolve disputes in a manner more closely aligned with allocative efficiency concerns than would antitrust rules.

III. The Contours of the Draft's Neutrality Policy

Having examined Article 2B's purpose, we can begin exploring its relationship to federal competition policy. I will use Article 2B's statements regarding the familiar question whether federal copyright law permits intermediate copying of software code for "reverse engineering" as the principal example of this intersection. The analytical approach applicable to this question should be useful for others as well, however. The Reporter's Notes to section 2B-105 in the November 1997 draft stated that "[t]o un-

84. *Id.*

85. *Id.*

derscore" its position of neutrality, "the comments [to section 2B-105] will point to existing case law on several potentially important questions."⁸⁶ As an example, Reporter's Note 5 stated that

[M]odern copyright case law holds that in certain circumstances, making intermediate copies of copyrighted technology for the purpose of 'reverse engineering' and understanding that technology constitutes fair use as a matter of copyright law. The scope of the fair use concept here is not clear and it is similarly unclear to what extent a contract term can alter the analysis of the fair use policy. However, it is clear that [in] some contexts contractual bars on reverse engineering are enforceable. In others, they may not be enforceable.⁸⁷

The Reporter's Notes to section 2B-105 in the February draft added a new distinction:

The scope of fair use here is not clear and it is also unclear to what extent a contract term alters the analysis. It is clear in reference to limited distribution information that contracts barring disclosure or reverse engineering are enforceable. In the mass market the issue in respect to reverse engineering is not settled under federal law.⁸⁸

The Reporter's Notes to section 2B-105 in the March draft omitted this language, settling on the statement that "[t]he scope of fair use here is not clear and it is also unclear to what extent a contract term alters the analysis."⁸⁹ However, the distinction persisted in the March draft in Reporter's Note 6 to section 2B-208, pertaining to mass market licenses:

In some contexts contractual bars on reverse engineering are clearly enforceable in that they create confidential or other requisite relationships. In others, they may not be enforceable as a matter of federal policy. In the mass market, the issue is in dispute. It involves a decision about federal policy, rather than contract law. That federal policy if applicable, is not affected by this Article.⁹⁰

86. U.C.C. § 2B-105, Reporter's Note 5 (Nov. 1, 1997 Draft).

87. *Id.*

88. U.C.C. § 2B-105, Reporter's Note 5 (Feb. 1, 1998 Draft).

89. U.C.C. § 2B-105, Reporter's Note 3 (Mar. 1, 1998 Draft).

90. *Id.* § 2B-208, Reporter's Note 6. This Note also stated:

Exactly where and how these themes interface and what limits they may place on particular contractual relationships is clearly a question

The March draft did not explain what it meant by "confidential or other requisite relationships."⁹¹ The proximity of this notion to a citation to *Sega Enters., Ltd. v. Accolade, Inc.*⁹² prompts the speculation that the drafters might have had in mind transactions in which licensees agree to allow a licensor to manufacture work the licensee produced. This was the license Sega offered Accolade and which Accolade refused, preferring to assert what it believed were its fair use rights.

This formulation remained essentially constant in section 2B-208 through the July 1998 NCCUSL annual meeting. The August 1998 draft moves the discussion back to section 2B-105, and modifies it such that no clear distinction is drawn between mass market and limited distribution agreements. Reporter's Note 3 to the August 1998 draft states:

In part because of the transformations caused by digital information, many areas of public information policy are in flux and subject to extensive debate. One debate deals with when a party may reverse engineer a product to discover and use technology for competitive purposes. U.S. law holds that the buyer of a product sold on an unrestricted basis in an open market may disassemble it to obtain insights into the operations of the product and its technology. Even in mass markets, however, the public policy balance is less clear when reverse engineering involves acts that may infringe exclusive property rights of the information rights owner with respect to digital products. Reverse engineering to examine software code may require reproducing (copying) the code to examine it; this may violate the copyright owner's exclusive right to make copies of its work, an issue that does not arise in reverse engineering ordinary goods. Several

of federal policy, rather than state contract law. With the transition from print to digital media as a main method of conveying information, major policy disputes have erupted concerning the redistribution of rights in light of the fact that the media of distribution allows many different and potentially valuable (for users or authors) uses of information products. The difficulty of balancing policies in this context is demonstrated by the fact that disputes about underlying social policy have erupted and been left unresolved in numerous contexts in the U.S. and internationally. State law that conflicts with the resolution of those questions in federal law may be preempted if that is the policy choice made in federal law. Indeed, currently pending in Congress are proposals dealing with these questions specifically as a matter of federal policy.

Id.

91. *Id.*

92. 977 F.2d 1510, 1515 (9th Cir. 1992).

cases, not involving license restrictions, hold that making intermediate copies of copyrighted technology for "reverse engineering" and understanding technology constitutes fair use in some circumstances associated with, among other things, the need for the information to achieve interoperability and the extent of the copying involved. The scope of fair use here is not clear and it is also unclear how a contract term alters the analysis. Doctrines other than fair use may also apply. For example, an anti-reverse-engineering clause that in effect attempts to monopolize a different product market may constitute copyright misuse under U.S. law in some cases Article 2B does not address or alter this area of public policy which is properly left for resolution in other venues.⁹³

An echo of the March draft's distinction remained, however, in an earlier comment in the same Reporter's Note. Reaffirming its core free-contracting principal, the Reporter's Notes to the August 1998 draft also state that:

A term or contract that results from an informed private agreement between commercial parties should be presumed to be valid and a heavy burden of proof should be imposed on the party seeking to escape the terms of the agreement under subsection (b) [of Section 2B-105]. On the other hand, this Article recognizes the commercial necessity of also enforcing mass market transactions that involve the use of standard form agreements. The terms of such forms may not be available to the licensee prior to the payment of the price and typically are not subject to affirmative negotiations. In such circumstances, courts must be more vigilant in assuring that limitations on use of the informational subject matter of the license are not invalid under fundamental public policy.

However, even in mass market transactions, limitations in a license for software or other information that prohibit the licensee from making multiple copies, or that prohibit the licensee or others from using the information for commercial purposes ... would in most circumstances be enforceable.⁹⁴

93. U.C.C. § 2B-105, Reporter's Note 3 (Aug. 1, 1998 Draft).

94. *Id.* At a November 1998 drafting session, the Article 2B drafting committee "adopted a proposal that expressly safeguards fundamental public policies, including those that deal with innovation, competition and free expression, against potential over-reaching through contracting practices." Press Release, *Committee Drafting New Article 2B of Uniform Commercial Code Makes Major Changes To Protect Consumers and*

The reverse engineering question is one to which much attention has been devoted and on which strong views have been expressed.⁹⁵ Reverse engineering is of importance here both as a vehicle for examining Article 2B's neutrality policy and as an issue of concern regarding competition policy.⁹⁶ Having endorsed decisions permitting reverse engineering from

Small Businesses, and to Safeguard Public Interests in Free Speech and Fair Criticism in the Electronic Age, (visited Nov. 22, 1998) <<http://www.2Bguide.com/docs/prsr1198.html>>. A summary of actions at the drafting session written by Carlyle C. Ring, Jr. characterizes the proposal as providing:

Terms of an agreement can be overridden (not enforced) if fundamental public policy clearly outweighs the interests of enforcement of the agreement made by the parties. By this provision, terms (particularly in non-negotiated agreements) such as restrictions on freedom to comment, fair use, archival use, interactivity engineering etc. may in appropriate cases be overridden by a court. This provision is in addition to the unenforceability of unconscionable terms (2B-110); the proscription on bad faith enforcement or performance of duties and obligations under the contract or Article 2B (2B-102(23) and 1-203); and the supplemental rules of law and equity (such as fraud, misrepresentation, duress, coercion, etc.) under Section 1-103 of Article 1.

Carlyle C. Ring, Jr., *Summary of Actions At Article 2B Meeting Nov. 13-15 1998*, (visited Nov. 22, 1998) <<http://www.2BGuide.com/docs/cr1198sum.html>>.

95. For a broader discussion of this debate, see Anthony L. Clapes, *Confessions of An Amicus Curiae: Technophobia, Law, and Creativity in Digital Arts*, 19 U. DAYTON L. REV. 903 (1994); Julie Cohen, *Reverse Engineering and the Rise of Electronic Vigilantism: Intellectual Property Implications of 'Lock Out' Programs*, 68 S. CAL. L. REV. 1091 (1995); Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CALIF. L. REV. 479 (1998) [hereinafter Lemley & McGowan, *Network Effects*]; David McGowan, *Regulating Competition in the Information Age: Computer Software as an Essential Facility under the Sherman Act*, 18 HASTINGS COMM. & ENT. L.J. 771, 847-48 (1996); Arthur R. Miller, *Copyright Protection For Computer Programs, Databases and Computer-Generated Works: Is Anything New Since CONTU?*, 106 HARV. L. REV. 977 (1993) (opposing reverse engineering rights); David A. Rice, *Sega and Beyond: A Beacon for Fair Use Analysis ... At Least As Far As It Goes*, 19 U. DAYTON L. REV. 1131 (1994) (all favoring reverse engineering rights). It is possible that the importance of legal rules facilitating reverse engineering has been exaggerated. A software firm recently alleged in connection with antitrust (essential facilities) and contract claims brought against Microsoft that "[w]hile it is possible to derive most compatibility information through a laborious process of reverse engineering, the cost of doing so would be prohibitive and the time required would be too great to permit effective competition. The target would have moved again by the time the information had been reverse engineered." *Bristol Technology*, *supra* note 29, at ¶ 83.

96. These competition policy concerns focus on the probability that competitive programs will be introduced into a market and the cost (and therefore probability) of consumers moving from one product "standard" to another. See Lemley & McGowan, *Network Effects*, *supra* note 95, at 525-27; McGowan, *supra* note 95, at 833-35, 847-48.

the perspective of competition policy,⁹⁷ I have no claim to neutrality on the issue. That being said, the issues addressed in the section 2B-105 are important and deserve an objective evaluation.

The November 1997 draft did not explain its view that in "some contexts contractual bars on reverse engineering are enforceable."⁹⁸ That draft cited three cases as bearing on the reverse engineering question. The first two, *Sega Enterprises Ltd. v. Accolade, Inc.*,⁹⁹ and *Atari Games Corp. v. Nintendo of America, Inc.*,¹⁰⁰ involved intermediate copying by "transformative users"—companies that sought to market their own intellectual property and copied the software at issue only to make their programs compatible with hardware manufactured by their (vertically integrated) competitors.¹⁰¹ These cases bear a functional relationship to the cross-software copying at issue in *Lotus v. Borland*,¹⁰² and particularly to Judge Boudin's concurrence, which rested at least implicitly on fair use grounds. All three cases endorsed reverse engineering as a potentially fair use, depending on the circumstances, though none addressed the issue in terms of contract law.

Sega and *Atari* are only distantly related to the case with which they were joined in the November 1997 draft, *Triad Systems Corp. v. Southeastern Express Co.*¹⁰³ *Triad* dealt with an assertion of copyright by a manufacturer of computers and software designed to allow auto parts stores to control their sales, inventory, and accounting functions.¹⁰⁴ *Triad* wrote both operating system and diagnostic software for its computers and, after initially selling the software with the computers, began licensing the software to computer purchasers.¹⁰⁵ *Southeastern* was an independent service organization (ISO) that offered repair service on *Triad* computers and, in this connection, sought to use the diagnostic software (as well as

97. See Lemley & McGowan, *Network Effects*, *supra* note 95, at 847-48; Mark A. Lemley & David McGowan, *Could Java Change Everything? The Competitive Propriety of A Proprietary Standard*, 43 ANTITRUST BULL. (forthcoming 1998) [hereinafter Lemley & McGowan, *Java*].

98. U.C.C. § 2B-105, Reporter's Note 5 (Nov. 1, 1997 Draft).

99. 977 F.2d 1510 (9th Cir. 1992).

100. 975 F.2d 832 (Fed. Cir. 1992).

101. *Atari*, in fact, acquired Nintendo's object code from the Copyright Office under false pretenses. See *Id.* at 836. Because its purpose was to render its games compatible with Nintendo's consoles, rather than to free ride, I treat the use as transformative here, though it did not involve the sort of decompilation at issue in *Sega*.

102. 49 F.3d 807, 821 (1st Cir. 1995), *aff'd*, 165 S.Ct. 804 (1996).

103. 64 F.3d 1330 (9th Cir. 1995).

104. See *id.* at 1333.

105. See *id.*

the operating system) Triad had licensed.¹⁰⁶ Triad brought an infringement action to enjoin Southeastern from making copies of this software and prevailed.¹⁰⁷ If one limits the term to transformative users, as I do here, *Triad* is not a reverse engineering case at all. Yet it was the only authority cited in the November 1997 draft that could have supported enforcement of terms prohibiting reverse engineering. Indeed, Judge Sneed's opinion for the Ninth Circuit distinguished *Sega* on the grounds that Accolade's use was transformative, whereas Southeastern sought to copy Triad's software and use it commercially in its entirety for the purpose of repairing hardware.¹⁰⁸

The February 1998 draft's omission of any reference to *Triad*, therefore, helped clarify Article 2B's discussion of reverse engineering. In place of *Triad*, however, the Reporter's Notes to section 2B-105 in the February draft introduced a distinction between contracts involving "limited distribution information," in which limitations on reverse engineering presumably are permissible, and transactions in the "mass market."¹⁰⁹ No cases drawing this distinction were cited. And, as we will see in a moment, the distinction presents very difficult economic and interpretive issues.

The Reporter's Notes to section 2B-105 in the February draft also cited *DSC Communications Corp. v. DGI Technologies, Inc.*¹¹⁰ DSC manufactured telephone switching systems containing embedded microprocessors.¹¹¹ DSC sold the telephone switches but licensed the operating system software that ran the switches.¹¹² DGI attempted to develop and manufacture a competing microprocessor that would operate in DSC switches. Because its chips would have to interface with DSC's operating system, however, DGI obtained permission from one of DSC's customers to use a DSC switch to test DGI chips.¹¹³ DGI copied DSC's operating

106. *See id.*

107. *See id.* at 1332.

108. *See* 64 F.3d at 1336. According to the court, Southeastern's activities are wholly unlike the reverse-engineering in *Sega*. Southeastern did not make a minimal use of Triad's programs solely to achieve compatibility with Triad's computers for Southeastern's own creative programs. Rather, Southeastern has invented nothing of its own; its use of Triad's software is, in the district court's words, "neither creative nor transformative and does not provide the marketplace with new creative works."

Id.

109. U.C.C. § 2B-105, Reporter's Note 5 (Feb. 1998 Draft)

110. 81 F.3d 597 (5th Cir. 1997)

111. *See id.* at 398.

112. *See id.* at 599.

113. *See id.*

system code by downloading the code onto a laptop computer and by modifying a DSC card to retain operating system code after the card was removed.¹¹⁴ When DSC learned of this activity it sued DGI for copyright infringement. The district court precluded DGI from taking copies of DSC's code from the premises of DSC's customers, but allowed DGI to test its chips on the customer's switch.¹¹⁵ This latter ruling was supported by the court's conclusion that DGI was likely to prevail on its copyright misuse defense to DSC's infringement claim.¹¹⁶ According to the court, "DSC seems to be attempting to use its copyright to obtain a patent-like monopoly over unpatented microprocessor cards."¹¹⁷ This language is reflected in the August 1998 draft's reference to "an anti-reverse-engineering clause that in effect attempts to monopolize a different product market."¹¹⁸ DSC counsels caution in concluding that contractual prohibitions on reverse engineering may be enforced. Because the parties to the license agreement were commercial entities and the transaction presumably did not take place in a mass market, the case offers little direct support for a distinction between enforceable commercial agreements and questionable mass market agreements.

Analyzing the distinction between mass market and limited distribution agreements included in the Reporter's Notes to section 2B-208 in the March-July 1998 drafts and in Reporter's Note 3 to the August 1998 draft clarifies the circumstances in which contract terms restricting transformative use might or might not be enforceable. Assume that a confidential or other requisite relationship within the meaning of the March draft exists only with respect to limited distribution agreements. According to the Reporter's Notes, such a relationship would "clearly" allow enforcement of a prohibition on reverse engineering.¹¹⁹ Two potential justifications for a distinction between limited distribution and mass market agreements come immediately to mind: differing probabilities of deliberative (as opposed to presumed) assent to contractual terms and the differing economic characteristics of products distributed in the retail market and products reserved for limited distribution.

114. *See id.*

115. *See id.* at 599-600.

116. The court stated that the defense "'forbids the use of the copyright to secure an exclusive right or limited monopoly not granted by the Copyright Office,' including a limited monopoly over microprocessor cards." *Id.* at 601 (quoting *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970, 977 (4th Cir. 1990)).

117. 81 F.3d at 601.

118. U.C.C. § 2B-105, Reporter's Note 3 (Aug. 1, 1998 Draft).

119. *See id.*

The first justification relies on bargaining or other evidence that a party assented to a term after deliberation and invokes such welfare interests as may be implicated by deliberative rather than presumed assent. The second justification views copyright grants as embodying a rate of return calculus that sets both a floor and a ceiling on revenues an author may extract from the market.¹²⁰ The first possible justification is discussed here; the second is discussed in Part IV. In brief, I have serious doubts whether, as a matter of contract law, either construction can justify a distinction between agreements arising from confidential relationships and agreements formed in the mass market. Copyright principles might enable the second argument to create such a distinction, though I am skeptical there as well, but neither bargaining nor other purely contract law theories, nor principles of antitrust law, can do the necessary work.

As defined in section 2B-102(32), a "mass market transaction" refers to "a consumer transaction and any other transaction in information or information property rights directed to the general public as a whole under substantially the same terms for the same information with an end-user licensee."¹²¹ In substance, mass market transactions are those in which consumers or business entities (an extension of protection relative to a consumer/merchant dichotomy) enter into software agreements in a retail context. They entail low-volume transactions in which negotiations are unlikely and assent to a particular term is likely to be presumed from the structure of the transaction and the parties' conduct rather than established through negotiation and deliberation on terms.

Neither limited distribution agreements nor confidential relationships were defined by section 2B-102. As used in the February and March 1998 drafts, however, the terms appeared to contemplate situations in which the parties, presumably commercial firms, deal directly with each other outside the retail context. In such cases, parties are more likely to have deliberated before agreeing to a particular term than they would in a retail transaction.¹²² Since the August 1998 draft, the Reporter's Notes to section

120. On the latter point, see Dennis S. Karjala, *Federal Preemption of Shrinkwrap and On-Line Licenses*, 22 DAYTON L. REV. 511 (1997); Robert A. Kreiss, *Accessibility and Commercialization In Copyright Theory*, 43 U.C.L.A. L. REV. 1 (1995); McGowan, *Regulating Competition*, *supra* note 95, at 773.

121. U.C.C. § 2B-102(32) (Aug. 1, 1998 Draft).

122. The February draft appeared to place importance on the probability that a term would actually have been studied by the parties and adopted by mutual consent, which is presumed to be higher in the limited distribution context than in the mass market context. The February draft section 2B-208(a)(2) (mass market licenses) replaced a reference to "negotiated terms" with a reference to "terms to which the parties have expressly agreed," a change the Reporter's Note indicates was made to avoid any inference that

2B-102(31) have described a mass market agreement as "a standard form that is prepared for and used in a mass-market transaction." The Notes state that mass market transactions involve "non-negotiated terms" in "relatively small dollar value, routine and anonymous transactions that occur in a retail market." Such transactions typically involve agreements with "an end user rather than a purchaser who plans to resell the acquired product." The Reporter's Notes contrast these transactions with "ordinary commercial" transactions and those involving "specialty software, information for specially targeted limited audiences, commercial software distributed in non-retail transactions, or professional use software."¹²³

Transactions occurring between definable parties, perhaps with relationships apart from the transaction at hand, are more likely to involve negotiation and deliberation than would be the case in the retail market. It is therefore possible to interpret Article 2B's distinction in a manner that recalls certain conceptions of unconscionability, which, in Professor Leff's famous characterization, embodies both procedural and substantive limitations on the set of contracts the law recognizes.¹²⁴ In particular, the

"dickering is a precondition to the licensee protection contemplated under this Section." U.C.C. § 2B-208(a)(2) (Feb. 1, 1998 Draft). The point that negotiations are desirable as a proxy for deliberative agreement rather than as such (in the abstract they are transaction costs) is a fair one, which applies conceptually to section 2B-105 as well.

123. U.C.C. § 2B-102(32), Reporter's Note 28 (Aug. 1, 1998 Draft).

124. See Leff, *Unconscionability*, *supra* note 68. Article 2B echoes this distinction somewhat, with the Reporter's Note to section 2B-208 stating that the doctrine traditionally "blends questions about the contracting process with questions about the substantive character of the terms themselves. It is aimed at preventing abuse and unfair surprise." U.C.C. § 2B-208, Reporter's Note 3(b) (Aug. 1, 1998 Draft). The March draft restates the point in slightly more Leffian terms: "Traditionally, unconscionability doctrine blends questions about the contracting process (procedural) with questions about the substantive character of the terms (substantive)." U.C.C. § 2B-208, Reporter's Note 4(b) (Mar. 1998 Draft). Professor Craswell and others have questioned whether this dichotomy is a sensible explanation of unconscionability theory or doctrine. See e.g., Craswell, *supra* note 12, at 17. Professor Craswell's use of property and liability rules to analyze unconscionability problems leads him to conclude that in some cases (liability rules) both "procedural" and "substantive" unconscionability would be required to avoid enforcement of a term. *Id.* at 12. Standard-form contracts are one such case, as to which Professor Craswell suggests the law seeks to avoid increasing transaction costs that would result if every term in an agreement was voidable unless it had been specifically explained. To counterbalance enforcement of agreements that likely have not been read, the law enforces only reasonable terms, as judged by the type of transaction and other relevant circumstances. The March 1998 draft makes the latter point explicit in terms of consumer protection, stating that the doctrine "prevents abuse and unfair surprise in standard form contracts. In a [] non-bargained market where purchasers make choices mainly about price and about whether or not to enter into a transaction, this doctrine provides an important safeguard against over-reaching." U.C.C. § 2B-208, Reporter's Note 4(b) (Mar. 1998 Draft).

March draft's former distinction between limited distribution agreements and mass market agreements might be read as locating restrictions on reverse engineering within the realm of procedural unconscionability. One reading of the March draft's suggestion is that such restrictions may be void if imposed in the take-it-or-leave-it retail market, but will be enforced if embodied in an agreement reflecting deliberative assent in a commercial setting. This construction would conform to Professor McManis's focus on the mass market, and his subsequent statement of concern regarding the effect of unilateral form contracts.¹²⁵

To test whether this dichotomy makes sense as a compromise between freedom of contract and intellectual property policy, and to see its implications for competition policy, we may first evaluate what implications bargaining and deliberative assent would have for competition policy in a commercial setting.¹²⁶ Suppose the bargaining goes something like this, a modified version of the facts reported in *Sega*:

- | | |
|-----------|--|
| Accolade: | "I'd like to buy a copy of your computer game, how much is it?" |
| Sega: | "No Deal. We don't sell copies, we only license the right to use the game on terms we set." ¹²⁷ |
| Accolade: | "Well, all I really want is the code so that I can identify the non-copyrightable interfaces so I |

125. See Mark A. Lemley, *Intellectual Property and Shrinkwrap Licenses*, 68 S. CAL. L. REV. 1239, 1292 (proposing that terms prohibiting transformative use be deemed void in mass market licenses and leaving open the question of enforceability in negotiated transactions) [hereinafter Lemley, *Shrinkwraps*]. See also e-mail from Charles R. McManis to 2Bguide, *supra* note 71 (noting that such contracts deprive the public of work to which federal law provides rights).

126. The following approach is, of course, borrowed from Leff, *Unconscionability*, *supra* note 68, at 544-45.

127. In point of fact, video game cartridges are often actually sold. According to the Ninth Circuit, "Accolade explored the possibility of entering into a license agreement with Sega" to obtain access to game code, "but abandoned the effort because the agreement would have required that Sega be the exclusive manufacturer of all games produced by Accolade." *Sega Enters Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1514 (9th Cir. 1992). I couch the sale of cartridge as a license here for the sake of simplicity. One can, of course, view the terms Sega actually offered as a form of exclusive dealing in an effort to obtain market power, using the console as a bottleneck. It is, however, not clear whether demanding such terms would tend to enhance or diminish power: being refused a Sega license Accolade might have focused its energies on writing games for Sega's competitors, such as Nintendo, which apparently licensed its code and charged royalties. See Michael L. Katz and Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93, 103 (1994).

- can produce games that work on your consoles. How much would it be for that kind of license?"
- Sega: "No deal. We don't make any money on our consoles and the games are cheap enough to write that we can come out with our own version of any game you can write before we lose console market share. And we don't let anyone free-ride on our investment in console technology."
- Accolade: "Well, suppose we divide revenues from our game so that we recover our opportunity cost of capital and split any revenues over that with you?"
- Sega: "No deal. You want to sell games? Go talk to Sony or Atari or Nintendo. Go talk to Bill Gates. Better yet, build your own console."

If Accolade acceded to Sega's terms after such a discussion, there could be no doubt that the result would have been the product of actual bargaining and deliberative assent. Absent some alteration of the parties' entitlements prior to bargaining, or a substantive rule of law that would either negate Sega's ability to impose the term altogether or cast doubt on Sega's ability to enforce such a term, Accolade would likely accede if the license terms on balance were more attractive than any available alternative.¹²⁸ If we assume that reverse engineering furthers copyright's goal of promoting the dissemination and improvement of intellectual property, that reverse engineering does not deprive authors of returns necessary to induce investment,¹²⁹ and that Accolade would have preferred the license terms it requested in our hypothetical bargaining to those Sega would offer if terms prohibiting transformative use are enforceable, then competition policy would favor reverse engineering as a device to lower the cost of transition among standard products (thereby enhancing allocative efficiency) without infringing on copyright goals or methodology. Whether a provision precluding reverse engineering was the result of deliberative assent rather than the assent presumed with a shrinkwrap license is essentially irrelevant to these issues.

128. One can imagine a copyright rule approving contracts in which Sega agreed to the opportunity cost/revenue splitting counteroffer, but crafting such a rule would not alter rational bargaining strategies without the additional rule, wherever located in the law, that flat prohibitions on reverse engineering were unenforceable. In other words, if Sega could enforce a flat ban while offering Accolade revenues greater than Accolade could earn from available alternatives, Sega would have no reason to accept the counteroffer.

129. This very important assumption is discussed in detail in Part V.

From the perspective of competition policy, introduction of bargaining to *Triad*¹³⁰ presents a different case. Imagine the following:

- Firm: "That's an impressive computer you have there. How much is it?"
- Triad: "\$500,000."
- Firm: "That's a lot of money. Is it reliable?"
- Triad: "Absolutely. And it comes with a license for diagnostic software that we wrote just for this machine; it can identify any problems so they can be fixed quickly."
- Firm: "A license? Doesn't the software just come with the machine?"
- Triad: "No. We used to do that. But at \$500,000 per machine we're barely covering our costs. We make our money on service; you can't service the machine without the diagnostic software, and only you, the Firm, and we have the right to run the software."
- Firm: "But I can't fix the machine myself. Couldn't I just hire an ISO like Southeastern to look at the diagnostic results and fix the machine?"
- Triad: "No. The only reason you would want to hire an ISO is that they charge less than us because they are free-riding on our investment in the machine and the software, which means their costs are lower. If you hire an ISO they will have to run the software to fix the machine. Running the software means making a copy and if they do that we will sue them within an inch of their lives and enjoin them from copying our software."
- Firm: "That seems unfair. How much more will that cost me over the life of the machine?"
- Triad: "We don't know and it's not our problem. You don't like it, go talk to IBM or DEC; go talk to Bill Gates."

As with *Sega*, if Firm agreed to the terms offered after such a discussion, there would be no question that the terms were the result of deliberation and negotiation and, at least from the perspective of procedural unconscionability, no reason to withhold legal force from the bargain.

Assuming that the equipment market in which Triad operated was competitive, however, the fact of bargaining has different implications for competition policy in these two cases. With respect to *Sega* and transformative use, the problems with which competition policy are concerned are largely, if not entirely, unaffected by bargaining. It is the result (and, as discussed below, the effect of the result on third parties and society at large) that matters. With respect to *Triad*, in which transformative use was not at issue, bargaining is important because the problem with which competition policy might be concerned—opportunistic exploitation of consumers who have purchased expensive equipment—is primarily one of information that can be cured through deliberative assent evidenced by bargaining.¹³¹ Installed-base opportunism is worrisome from the perspective of allocative efficiency only if consumers are unaware of the risk of such opportunism at the time they purchase equipment; indeed, that is why any question of opportunism arises at all. Assuming antitrust is legitimately concerned with such problems, evidence of deliberative *ex ante* assent lessens and may eliminate these concerns.¹³²

131. Cf. *Eastman Kodak Co. v. Image Technical Servs.*, 504 U.S. 451, 474, 476 (1992) (advancing information-based failure in primary market as one potential basis for tying claim in aftermarket). The *Kodak* court also posited the cost of switching from one copier to another as a market imperfection potentially warranting antitrust intervention. See *id.* To the degree the Court had in mind inefficiencies relating to unanticipated costs, bargaining with complete information in a competitive primary market would alleviate this concern as well. For those who believe *Image Technical* was wrongly decided, the hypothetical is unlikely to present any question relevant to competition policy at all. See, e.g., Daniel J. Gifford, *The Damaging Impact of the Eastman Kodak Precedent upon Product Competition: Antitrust Law in Need of Correction*, 72 WASH. U. L. Q. 1507 (1994).

132. See, e.g., E. THOMAS SULLIVAN AND HERBERT HOVENKAMP, *ANTITRUST LAW, POLICY, AND PROCEDURE* 1997 Supp. 34-35 ("The contracting system encourages market participants to take rational risks at the time of contracting. Antitrust intervention providing *ex post* 'fixes' for contracts that have become unfavorable to one party or the other would not only exceed antitrust's mission, it would also undermine the market for assessing risks by providing post-hoc relief to those who lost, thus reducing or destroying the incentives to those who win as well. But the entrepreneurial market depends on parties' willingness to take risks"). Sullivan and Hovenkamp conclude, with respect to installed-base opportunism cases, that "[e]ven if the basic 'lock-in' thesis is plausible, it applies only to situations where the consumer buys the original product at time T1, and then is caught by surprise when required to pay a high price for a repair part of [r] aftermarket component at time T2. It has no application whatsoever when both products are purchased at the same time." *Id.* at 37-38. For further analyses along these lines, see McGowan, *supra* note 95, at 801-02; Carl Shapiro, *Aftermarkets and Consumer Welfare: Making Sense of Kodak*, 63 ANTITRUST L.J. 483, 496 (1995).

It is important to note here that copyright principles might compel a different result than competition policy even if the parties bargained with complete information in a competitive primary market. As discussed in Part V, *infra*, copyright might well find that an author's efforts to preclude copying in aftermarkets exceeded the bounds of copyright. Thus, a court might decline to enjoin Southeastern from using Triad's software even though transformative use was not at issue and even if fully-informed bargaining occurred. With respect to competition policy, however, in *Triad*-like cases, free contracting is the right prescription, and steps designed to facilitate contracting by lowering its costs are welcome as a matter of both contract law and competition policy.

To the extent the distinction between limited distribution and mass market agreements stated in the March draft rests on the assumption that deliberative assent is relatively more likely to be given to limited distribution agreements than to mass market agreements, the distinction is incomplete because it does not address third party effects. Even a fully-negotiated agreement between commercial parties may affect third parties or society as a whole in a manner the law seeks to avoid, without regard to assent or other formation issues between the parties.¹³³ Using Professor Leff's terminology, it is a mistake to locate the distinction on the procedural side of unconscionability; particularly where transformative use is concerned, the law addressing such issues will be substantive. The presence or absence of third party effects alone is too crude a distinction to provide an answer to when contract terms should be enforced (the agreements in both *Sega* and *Triad* affected third parties), but it is useful to be clear about the realm of contract law in which the Article 2B is operating.

This conclusion also holds for contracts in the mass market. Many who contest the legitimacy of shrinkwrap agreements, or their online click-on counterparts, point to the adhesive nature of such agreements and particularly those used in the mass market.¹³⁴ A typical shrinkwrap or click-on agreement is considered a classic boilerplate-ridden, take-it-or-leave-it proposal written by the vendor to tip every benefit in its direction while

133. Cf. Lemley, *Shrinkwraps*, *supra* note 125, at 1277 ("Agreements between private parties to expand the licensor's rights beyond those provided by patent law affect third parties as well.").

134. See, e.g., Karjala, *supra* note 120, at 527-30 (arguing in connection with preemption analysis that the bargain principle provides little justification for enforcement of mass market licenses); Lemley, *Shrinkwraps*, *supra* note 125, at 1286-89 (noting that "the 'fiction' of blanket assent has given way to fantasy in the case of shrinkwrap licenses.").

shunting all possible risk to the consumer.¹³⁵ By design, the chance that any term contained in such mountains of minutiae will be important enough to an average purchaser to warrant prolonged study, or even cursory review, is trivial.¹³⁶ Accepting such points as accurate, it is not clear that they compel the conclusion that such agreements should not be recognized as contracts,¹³⁷ particularly where doctrines such as unconscionability and unfair surprise exist to police abuse. Nor is it clear that such points establish harm to the broader social interests often invoked by commentators concerned that shrinkwrap or click-on agreements will diminish social welfare.

Any analysis that seeks to determine whether form software agreements should be enforced must take into account the costs of practical alternatives. Form agreements generally are enforced on the utilitarian

135. Professor Llewellyn, among many others, discussed such terms; from the perspective of free contracting, he considered such terms at least potentially problematic:

when a contract ceases to be a matter of dicker, bargain by bargain, and item by item, and becomes in any field or any outfit's business or any trade's practice a matter of mass production of bargains, with the background (apart from price, quantity, and the like) filled in not by the general law but by standard clauses and terms, prepared often by one of the parties only — then what?

Karl N. Llewellyn, *Book Review*, 52 HARV. L. REV. 700 (1939).

136. See *Thorton v. Shoe Lane Parking, Ltd.*, 2 Q.B. 163 (Eng. C.A. 1970) (noting, in case involving parking garage tickets, and in reference to precedent involving railways, steamships, and cloakrooms, that "[t]hese cases were based on the theory that the customer, on being handed the ticket, could refuse it and decline to enter into the contract on those terms. He could ask for his money back. That theory was, of course, a fiction. No customer in a thousand ever read the conditions. If he had stopped to do so, he would have missed the train or the boat"); Eisenberg, *supra* note 15, at 243 ("The verbal and legal obscurity of preprinted terms renders the cost of searching out and deliberating on these terms exceptionally high.").

137. The case for considering form agreements generally to be enforceable finds support in the RESTATEMENT (SECOND) OF CONTRACTS § 211 (1981) (standardized agreements) as well as Professor Llewellyn's later work. See KARL N. LLEWELLYN, *THE COMMON LAW TRADITION: DECIDING APPEALS* 370 (1960), noting:

Instead of thinking about "assent" to boiler-plate clauses, we can recognize that so far as concerns the specific, there is no consent at all. What has in fact been assented to, specifically, are the few dickered terms, and the broad type of transaction, and but one thing more. That thing is a blanket assent (not a specific assent) to any not unreasonable or indecent terms the seller may have on his form

Id. See also, 1 CORBIN ON CONTRACTS §1.4 p.14 (rev. ed. 1993) ("Although the flourishing existence of the contract of adhesion and other standardized contracts is a challenge to much contract theory, the contract of adhesion is part of the fabric of our society."). For a general discussion of the problem of forms in contract law generally, exploring limitations on the rational-actor model, see Eisenberg, *supra* note 15, at 240-48.

ground that they lower costs for common transactions. As Professor Leff rightly said, "the use of form contracts is a social good; it is the contract-processing component of the mass transaction, and the mass sales transaction has exceeding economic utility."¹³⁸ The *average* software consumer probably does not decide whether to buy based on terms pertaining to transformative use rather than on factors such as price, compatibility, or brand loyalty.¹³⁹ If this conjecture is correct, then deliberative assent to terms prohibiting reverse engineering could be obtained in an average transaction¹⁴⁰ though only by incurring the sorts of costs that form agreements are designed to reduce.¹⁴¹ Suppose every consumer who purchased

138. Leff, *Unconscionability*, *supra* note 68, at 504. Leff also noted, however, that the process of adhesion contracting "is not one of haggle or cooperative process but rather of a fly and flypaper." Arthur Alan Leff, *Contract As Thing*, 19 AM. L. REV. 131, 143 (1970). Professor Llewellyn, whose concerns regarding form agreements we noted earlier, also recognized that standardized agreements could:

save trouble in bargaining. They infinitely simplify the task of internal administration of a business unit, of keeping tabs on transactions, of knowing where one is at, of arranging orderly expectation, orderly fulfillment, orderly planning. They ease administration by concentrating the need for discretion and decision in such personnel as can be trusted to be discreet. This reduces human wear and tear, it cheapens administration, it serves the ultimate consumer. Standardizing contracts is in this a counterpart of standardizing goods and production processes, as well as a device for adjustment of law to need.

Llewellyn, *Book Review*, *supra* note 135, at 701; *see also*, RESTATEMENT, SECOND, OF CONTRACTS, § 211 comment a. ("Standardization of agreements serves many of the same functions as standardization of goods and services; both are essential to a system of mass production and distribution. Scarce and costly time and skill can be devoted to a class of transactions rather than to details of individual transactions").

139. *See* Maureen A. O'Rourke, *Drawing the Boundary Between Copyright and Contract: Copyright Preemption of Software License Terms*, 45 DUKE L.J. 479, 516 (1995) ("[it] is questionable whether the end user wishes to purchase anything more than the functionality that is obtained by running the object code"). *Cf.* Mark A. Lemley, *The Economics of Improvement In Intellectual Property Law*, 75 TEX. L. REV. 993, 1027 (1997) (noting that "improvers are more likely to be motivated by commercial purposes than many classes of users, such as teachers and reporters").

140. *Cf.* Karjala, *supra* note 120, at 519 (noting that many software purchasers might willingly contract away rights they were granted under the Copyright Act); O'Rourke, *supra* note 139, at 532 ("if, in the mass market context, transaction costs were such that the parties would bargain, they might agree to a decompilation prohibition").

141. *See* Craswell, *supra* note 12, at 9-10 ("[the] costs of obtaining Y's 'proper' consent depend heavily on just what is necessary for Y's consent to be proper. In some cases, it may be appropriate to spare X that task by adopting a liability rule."); O'Rourke, *supra* note 139, at 495 ("In the case of mass market software ... licensors cannot practically incur the huge transaction costs that would be involved if they attempted to negotiate with every licensee"). Craswell discusses the tradeoff between contract terms and price in

software in a retail outlet was met at the cashier's station with a small card bearing two plain-English sentences informing the purchaser that she would be precluded from reverse-engineering the software as a condition of her purchase, and asking her to initial the card. I would conjecture that the *average* purchaser almost certainly would comply. But, on these facts, there would be little room to argue that assent had been given for purposes of contract formation. The same would be true of the on-line equivalent of this procedure, in which a licensee is shown a screen of contract terms and required to click on an icon to proceed with the transaction.

In each of these cases, consumers would be faced with a take-it-or-leave-it choice. Depending on the state of competition in the software vendor's market, the consumer might have substantially inferior bargaining power. But as scholars have noted for some time, it is too strong to say that such conflicts preclude the formation of *any* binding agreement between a consumer and a vendor.¹⁴² Even monopolists are allowed to compete aggressively on the merits of price and functionality,¹⁴³ and will almost inevitably enter into contracts with consumers in doing so. If these two points are accepted, there is relatively little to be gained by stressing

some detail. *See id.* at 29-30 and n.60 (collecting sources discussing this point). Robert Gomulkiewicz has consistently emphasized the value of shrinkwrap agreements in minimizing transaction costs. Robert W. Gomulkiewicz, *The License Is The Product: Comments on the Promise of Article 2B For Software Licensing*, 13 BERKELEY TECH. L. J. 891 (1998); Robert W. Gomulkiewicz & Mary L. Williamson, *A Brief Defense of Mass Market Software License Agreements*, 22 RUTGERS COMPUTER & TECH. LAW J. 335, 338-41 (1996).

142. *See, e.g.*, Craswell, *supra* note 12, at 35 (noting that "if Y's only alternative is so bad that it invalidates his consent to X's contract, it should also invalidate his consent to the terms selected [as 'reasonable'] by the court"); W. David Slawson, *Mass Contracts: Lawful Fraud in California*, 48 S. CAL. L. REV. 1, 47-48 (1974) ("When General Motors deals with me, it will always have the superior bargaining power. If disparity of bargaining power were sufficient to invalidate a contract, General Motors and I could never make a valid contract.").

143. *See, e.g.*, *Alaska Airlines, Inc. v. United Airlines, Inc.*, 948 F.2d 536, 547 (9th Cir. 1991) ("A firm may acquire a monopoly simply by virtue of being a better competitor Because this type of monopolist behaves in an economically efficient manner, the antitrust laws do not stand as an obstacle to its existence."); *Olympia Leasing Co. v. Western Union Tele. Co.*, 797 F.2d 370, 375 (7th Cir. 1986) ("the lawful monopolist should be free to compete like everyone else; otherwise the antitrust laws would be holding an umbrella over inefficient competitors") (Posner, J.); *Foremost Pro Color, Inc. v. Eastman Kodak Co.*, 703 F.2d 534, 543-44 (9th Cir. 1982) ("[T]he Sherman Act ... does not render unlawful all monopolies A monopolist, no less than any other competitor, is permitted and indeed encouraged to compete aggressively on the merits."); *Sargeant-Welch Scientific Co. v. Ventron Corp.*, 567 F.2d 701, 712 (7th Cir. 1977) (monopolist "is not for-bidden from improving his efficiency in manufacturing or marketing, even though the effect of doing so will maintain or improve his sales").

the lack of negotiation of shrinkwrap agreements, for presumed rather than deliberative consent likely does the average consumer no harm. On average, consumers would probably assent to limitations relating to reverse engineering, their assent would be rational, and requiring evidence of deliberative assent therefore would increase transaction costs without yielding corresponding benefits that are relevant to federal policy concerns. Indeed, if a majority of contracting parties would agree to limitations on reverse engineering, a case could be made on that ground for adopting such restrictions as a majoritarian default rule, if Article 2B favors such rules.¹⁴⁴

The collective product of such atomistic acts of assent, however, would pose the same risks for social welfare that advocates of legal rules facilitating reverse-engineering (myself included) would like to ameliorate—lethargic transition among standard products and diminished pro-

144. Article 2B's statement of methodology is ambiguous regarding its favored defaults. It states that it seeks "an intermediate or ordinary framework whose contours are appropriate, but whose terms will be altered in the more sophisticated environments" rather than explicitly seeking to adopt majoritarian rules in either some or all cases. U.C.C. Article 2B, Preface at 9 (Aug. 1, 1998 Draft).

The scholarship on derivation of optimal default rules has grown quite large. For a discussion of majoritarian and alternative default rules and issues pertaining to the choice, see, for example, Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 YALE L.J. 87, 91-94, 101-104 (1989) [hereinafter Ayres & Gertner, *Filling Gaps*] (questioning desirability of majoritarian rules and suggesting employment of "penalty defaults" to induce bargaining in appropriate circumstances); Ian Ayres, *Preliminary Thoughts On Optimal Tailoring Of Contractual Rules*, 3 S. CAL. INTERDIS. L.J. 1 (1993); Ian Ayres & Robert Gertner, *Strategic Contractual Inefficiency and the Optimal Choice of Legal Rules*, 101 YALE L. REV. 729 (1992) (arguing that strategic contracting behavior can undermine efficiency of majoritarian default rules) [hereinafter Ayres & Gertner, *Optimal Choice*]; Jason S. Johnston, *Bargaining Under Rules Versus Standards*, 11 J. LAW ECON. & ORG. 256 (1995); Jason S. Johnston, *Strategic Bargaining and the Economic Theory of Contract Default Rules*, 100 YALE L.J. 615, 624 n.33 (1990) (noting scholars' use of majoritarian default concept as a way to minimize transaction costs); Ian Ayres, Book Review, *Making A Difference: The Contractual Contributions of Easterbrook and Fischel*, 59 U. CHI. L.REV. 1391 (1992).

Article 2B's citation to Ayres & Gertner's 1992 article, U.C.C. Article 2B, Preface at 13, n.14 (Aug. 1, 1998 Draft), is interesting because Ayres & Gertner cast a skeptical eye on majoritarian defaults. See Ayres & Gertner, *Optimal Choice*, *supra*, at 765 (concluding that "[t]he settings in which strategic contractual behavior can undermine the use of majoritarian defaults, however, are not negligible"). Article 2B, while not explicitly endorsing majoritarian defaults, does specifically eschew "tailored" defaults in favor of "an intermediate or ordinary framework." U.C.C. Article 2B, Preface at 14 (Aug. 1, 1998 Draft). While an intermediate, ordinary default may not be a majoritarian default, Article 2B does not clarify any differences it may have in mind.

duction of works building upon ideas embedded in object code.¹⁴⁵ The social welfare problem, in other words, is not a lack of deliberation.¹⁴⁶ Bargaining is itself a transaction cost; to the extent it might be valued, it is valued as evidence of actual assent, or as indirect evidence that one party does not exert power over another in a fashion objectionable to contract law (whether by asserting "market power" in an antitrust sense or through some other means). If actual assent cannot solve the welfare problems related to contracting and copyright law, bargaining cannot do so either. And if I am correct to speculate that the average consumer would consent to a term precluding reverse engineering if the parties took the time to negotiate it, there is no reason to minimize the presumed assent of the form simply because it is presumed. Indeed, if I am right to speculate that average purchasers are unlikely to engage in transformative use, and therefore likely to exchange the right to do so, approaches based in hypothetical bargaining or other variants of consent are unnecessary to resolution of the issue: straightforward application of the rational actor assumption will produce the same result.¹⁴⁷ In this respect Article 2B is correct to take the position that the relevant question is one of federal policy; whether Article 2B is right to go further and assert the enforceability of a certain class of agreements within the shadow of (unclear) federal law is a more difficult question.

IV. External Effects, Externalities, and Efficiency

Particularly since Coase rebutted Pigou's view that taxation was necessary to reach a socially optimal allocation of resources in the presence of external effects, the process of exchange has enjoyed considerable support as a mechanism for enhancing social welfare.¹⁴⁸ Coase's parable¹⁴⁹ posited

145. See Lemley & McGowan, *Network Effects*, *supra* note 95, at 525-26.

146. Though his concentration on preemption leads him to focus on bargaining as an important variable, Professor Karjala frames the welfare problem in similar terms, stating that it arises because "the public interest implemented by the federal limitations [on copyright] is not represented in the contracting process." Karjala, *supra* note 120, at 519. Both Professor Karjala and Professor O'Rourke, *supra* note 139, at 523-24, argue that the case for statutory copyright preemption is more compelling in mass market transactions than negotiated transactions. Whatever one thinks of the preemption question, however, it is not clear as a matter of contract policy or social welfare that bargaining is a desirable basis for distinguishing between enforceable and unenforceable agreements.

147. See JULES COLEMAN, *RISKS AND WRONGS* 169 (1992) (noting that "there appears to be nothing expressed by the concept of hypothetical consent that is not already captured in the idea of rational self interest").

148. See Ronald H. Coase, *The Problem of Social Cost*, 3 J. L. & ECON. 1 (1960).

149. See ROBERT ELLICKSON, *ORDER WITHOUT LAW* 1 (1991).

results that would obtain absent transaction costs and, in so doing, directed our attention toward the importance of such costs as impediments to the ability of exchange to enhance social welfare.¹⁵⁰

Third-party effects are another classic impediment. As Professor Coleman puts it, "[e]xternal effects are byproducts of an activity that influence the production of other goods or the welfare (or utility) of other individuals."¹⁵¹ Coleman distinguishes between external effects and "externalities," reserving the latter term for cases in which the effects of an agreement on nonparties "result in inefficient production or nonoptimal distributions of welfare,"¹⁵² and I employ that usage here.¹⁵³

Because a contract might create third-party effects harmful to social welfare, modern contract scholarship routinely qualifies a preference for contracting by specifying that contracts are presumptively efficient only in the absence of external effects or transaction costs. Article 2B follows this approach as well, qualifying its method of being "accurate not original," for example, with the statement that this policy applies unless "the contractual arrangement threatens injury to third-party interests which social policy desires to protect."¹⁵⁴ Simply qualifying the potential efficiency of exchange by limiting the endorsement to contracts without third-party effects, however, is uninformative. As Professor Trebilcock has noted, "[t]he problem of third-party effects from exchange relationships is pervasive and not aberrational."¹⁵⁵ Depending on one's perspective and goals, some third-party effects that harm individuals or specific firms may be desirable. For example, if I open a shop that produces goods more efficiently than that of a nearby competitor, exchanges with my customers

150. See RONALD H. COASE, *THE FIRM, THE MARKET, AND THE LAW* 174 (1988); Farber, *supra* note 16.

151. COLEMAN, *supra* note 16, at 76.

152. *Id.*

153. See also, Lemley & McGowan, *Network Effects*, *supra* note 95, at 482 n.5. Professors Liebowitz and Margolis have stressed this distinction in writings about network effects. See S.J. Liebowitz & Stephen Margolis, *Network Externality: An Uncommon Tragedy*, 8 J. ECON. PERSP. 133, 135 (1994) (distinguishing between third-party effects and externalities).

154. U.C.C. Article 2B, Preface (Aug. 1, 1998 Draft). The efficiency presumption is further qualified by the stipulation that consent to the agreement must not be obtained improperly. See Craswell, *supra* note 12, at 34-44 (discussing normative basis of consent concept).

155. MICHAEL J. TREBILCOCK, *THE LIMITS OF FREEDOM OF CONTRACT* 58 (1993); RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 12 (3d ed. 1986) (noting that most transactions have effects on third parties, if only by changing the price of other goods); Hovenkamp, *After Chicago*, *supra* note 57 at 244 ("Today we know that externalities are pervasive in almost every market transaction.").

may come at my competitor's expense and he may be driven out of business. Competition policy might favor that result because it directs trade towards more productively efficient firms and frees up resources (the former competitor's retail space, etc.) for more highly-valued uses, thus enhancing allocative efficiency.¹⁵⁶ My exchanges with my customers would, under this view and this goal, produce external effects but not externalities.¹⁵⁷

The difficult questions, therefore, are when to conclude that an external effect is of the sort that is harmful to society in general and, importantly, whether there is anything the law can do to stop the harm.¹⁵⁸ Application of competition policy to "copyright industries" produces a good and difficult example of such questions. Particularly if one assumes that allocative efficiency is the principal aim of antitrust, the methodology of copyright differs in important ways from that of competition policy. Rather than seeking to ensure that resources find their most productive use, copyright seeks to induce investment in the creative arts by preserving such returns as may be gained from the set of rights and limitations conferred by the relevant statutes. This policy is instrumental, seeking to expand both the store of creative works and the public's access to it.¹⁵⁹ The

156. On the distinction between these two concepts of efficiency, see Hovenkamp, *After Chicago*, *supra* note 57, at 238-40. The example in the text would meet the Kaldor-Hicks criterion of efficiency but not that of Pareto superiority. *See id.*

157. *See, e.g.*, Herbert Hovenkamp, *Antitrust's Protected Classes*, 88 MICH. L. REV. 1, 12 (1989) [hereinafter Hovenkamp, *Protected Classes*] ("Competition is by nature exclusionary, and we do not want to penalize companies for engaging in efficient competition").

158. *See* TREBILCOCK, *supra* note 155, at 58-59. Professor Coase states that "the fact that there are transaction costs and that they are large implies that many effects of people's actions will not be covered by market transactions. Consequently, 'externalities' will be ubiquitous. The fact that governmental intervention also has its costs makes it very likely that most 'externalities' should be allowed to continue if the value of production is to be maximized." COASE, *supra* note 150, at 26.

159. *See, e.g.*, *Harper & Row Publishers, Inc. v. The Nation Enters.*, 471 U.S. 546 (1985) ("The rights conferred by copyright are designed to assure contributors to the store of knowledge a fair return for their labors"); Mark A. Lemley, *Book Review, Romantic Authorship and the Rhetoric of Property*, 75 TEX. L. REV. 873, 889-90. (1997) (collecting cases, statutes, and commentary to this effect); William W. Fisher, III, *Reconstructing the Fair Use Doctrine*, 101 HARV. L. REV. 1661, 1687 (1988) ("[T]he elaborate combination of grants and reservations that comprise the Copyright Act is designed to advance the public welfare by rewarding creative intellectual effort sufficiently to encourage talented people to engage in it, while at the same time making the fruits of their genius accessible to as many people as possible as quickly and as cheaply as possible."); Karjala, *supra* note 120, at 515 ("The immediate effect of our copyright law is to secure a fair return for an 'author's' creative labor. But the ultimate aim is, by this incentive, to

underlying notion is that, without legal protection, these goals will not be achieved, which may be interpreted as a Congressional assumption of imperfections in copyright markets.

The ultimate goals of antitrust and copyright do not necessarily conflict—one would hope that the combination of these two regimes would produce the optimal amount of creative work at the smallest cost, and that the work would flow to its most highly-valued use—but their approaches differ and conflict in certain respects.¹⁶⁰ From a legal perspective, once copyright policies become part of the standard against which actions are to be judged, copyright's incentive structure and balance must be considered in addition to efficiency concerns. Copyright might produce inefficient results in some cases, but that fact would not allow us to override the copyright grant.

The relationship between copyright policy and contract law may be analyzed by framing the reverse engineering issue in exchange-based terms. To do so we cast reverse engineering as a limited right to copy for the purpose of engaging in conduct that will expand the available store of

stimulate artistic creativity for the general public good.”); Karjala, *supra* note 120, at 515 n.7 (listing cases noting that the ultimate aim of copyright law is to stimulate artistic creativity); Robert A. Kreiss, *Accessibility And Commercialization In Copyright Theory*, 43 UCLA L. REV. 114 (1995) (“The copyright system seeks to promote the public benefit of advancing knowledge and learning by means of an incentive system. The economic rewards of the marketplace are offered to authors in order to stimulate them to produce and disseminate new works”); William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 326 (1989); Lemley, *supra* note 139, at 1043 (noting need for balance between incentives to innovate and interest in distribution); Lemley, *Shrinkwraps*, *supra* note 125, at 1275; McGowan, *supra* note 95, at 773-75; O'Rourke, *supra* note 139, at 483-84 (“American law historically has cited an economic rationale as the theoretical underpinning of the copyright clause set forth in the Constitution. In its simplest terms, this rationale may be described as a response to market imperfections caused by a public goods problem.”).

160. Thus, Professor Kaplow notes the conflicting approaches of antitrust and patent law, see Louis Kaplow, *The Patent-Antitrust Intersection: A Reappraisal*, 97 HARV. L. REV. 1813, 1817 (1984)), while suggesting that conflicts between antitrust and patent law may be easier to resolve than conflicts between antitrust and other legal regimes because “the primary competing issues can be translated into a ‘common denominator’—economic welfare loss—to a far greater degree than one could hope for in most other areas of the law.” *Id.* at 1888. See also Lemley, *supra* note 139, at 996 (“intellectual property rights must permit prices to rise above marginal cost in some cases to have their intended effect of providing an incentive to create”); Ramsey Hanna, Note, *Misusing Antitrust: The Search For Functional Copyright Misuse Standards*, 46 STAN. L. REV. 401, 419 (1994) (“While both antitrust and intellectual property laws ultimately aim to enhance public welfare, the paths these two bodies of law chart in promoting that ultimate objective diverge.”).

creative work—a transformative use. This definition excludes free riders, a group I will simply assume may be readily identified at low cost by their meager contributions relative to the copied work.

The problem of third-party effects arises from the nature of the copyright grant and its interplay with the public interest. Does copyright confer this right to reverse engineer jointly to the public at large,¹⁶¹ or severally to each individual? Defining the rule as a right owned by each member of the public implies that any member of the public may exchange the right for something a particular person or firm values more. Such a conception fits comfortably with the Article 2B's free-contracting philosophy. Indeed, if the copyright rule pertaining to reverse engineering is a right vested in each individual, then all agreements to refrain from reverse engineering, including those in the mass market, would be potentially enforceable. Conversely, defining the fair use right as one held collectively by the public implies that the right is inalienable—neither an individual nor the public of a given state may exchange the right, and no author could legally bind anyone to a promise to abstain from reverse engineering.¹⁶² If the copyright rule pertaining to reverse engineering is cast as a collective right, then the Reporter's Notes to section 2B-208 are misleading because an agreement precluding transformative use would be void under all circumstances.¹⁶³

These all-or-nothing conclusions are unsatisfactory. Conceiving of a right to reverse engineer held severally leaves little room for the notion of a general public interest in the accumulation and dissemination of knowledge. On the other hand, a collective right implies that prohibitions on re-

161. Cf. O'Rourke, *supra* note 139, at 480 ("The [Copyright] Act confers fair use rights nonexclusively on the public without explicitly indicating whether or not the public or its members are free to contract away those rights.").

162. One could attempt to use Professor Craswell's analysis to characterize the reverse engineering right in the middle of the continuum as a property right that could not be taken unless true assent had been gained. See Craswell, *supra* note 12, at 36. However, because assent does not address the third-party effects at the heart of the problem, the property rule construction will not provide an answer to the problem.

163. In place of a collective right terminology one could frame the same argument by interpreting the Copyright Act as positing a public interest in reverse engineering and define harm to that interest as an external effect of prohibitions on reverse engineering. This is, for example, the substance of Professor Karjala's argument. See Karjala, *supra* note 120, at 518. Further, it is only a slight modification of Professor Lemley's earlier argument. See Lemley, *Shrinkwraps*, *supra* note 125, at 1277 ("Agreements between private parties to expand the licensor's rights beyond those provided by patent law affect third parties as well"). Imposing copyright's rate of return regime as background allows the conversion of the effect into an externality: an agreement that creates losses not within the scope of losses imposed by the Copyright Act.

verse engineering are always, or at least almost always, void. Yet there will likely be cases in which a restriction on reverse engineering would be reasonably necessary to conclude an agreement that enhances social welfare.¹⁶⁴ As discussed above, bargaining or other evidence of deliberative assent between the parties cannot provide a compromise between these extremes because the problem arises from the risk that contracting behavior optimal for the contracting parties will create social welfare losses when the copyright balance is taken into account.¹⁶⁵ In light of these complex and contradictory considerations, Article 2B's frequent reformulations of the problem are understandable.

This brings us back to the second potential justification for the distinction drawn in the Reporter's Notes to section 2B-105—copyright as embodying a mandatory ceiling on an author's rights, as well as a floor. In a recent article discussing copyright preemption, Professor Karjala suggests that Professor Kreiss's distinction between commercial and noncommercial assertions of copyright power might be employed to analyze these issues¹⁶⁶ in a manner that avoids both of the extremes discussed above. Professor Kreiss posits "a quid pro quo at the heart of the copyright system: if an author seeks benefits by commercializing a work, then the public should be able to benefit by having access to the work."¹⁶⁷ Conversely, "[f]or a work that is not commercialized, the exchange is fair: the public receives no access and hence nothing of value; similarly, the author receives no economic return from a copyrighted work that is not commercialized."¹⁶⁸ This dichotomy properly focuses on the rate-of-return implicit in copyright structure, and the correlation between the scope of copyright protections and returns to an author.¹⁶⁹ The distinction suggested in the March 1998 draft of section 2B-208 might be interpreted along these lines,

164. Thus, as Professor Lemley has said, the truly "fundamental question regarding contracts and intellectual property" is "whether signed, bargained contracts that alter intellectual property rights can or should be enforced." Lemley, *Shrinkwraps*, *supra* note 125, at 1292.

165. I believe Professor O'Rourke is correct to say that an agreement reached by bargaining between sophisticated parties with respect to reverse engineering is likely to be priced in light of the rights conveyed. See O'Rourke, *supra* note 139, at 524. However, pricing between parties does not guarantee an efficient outcome if the copyright background is interpreted as embodying third-party interests affected by such an agreement.

166. See Karjala, *supra* note 120.

167. Kreiss, *supra* note 120, at 5; Lemley, *Shrinkwraps*, *supra* note 125, at 1280 (noting that "the public's 'reward' for copyright" is "access to the ideas in the public domain").

168. Kreiss, *supra* note 120, at 6.

169. See McGowan, *supra* note 95, at 775-77; 827-32.

with provisions prohibiting reverse engineering being enforceable where the contract does not commercialize the product but void otherwise.

Any defense of the distinction raised in the Reporter's Notes creates at least two important and difficult issues. The first is a definitional question. Professor Kreiss defines "commercialization" of copyrighted work as "any act that is likely to produce a direct economic return."¹⁷⁰ This formulation appears too broad for Article 2B's commercial contracting framework, which in its February draft assumed that limited distribution agreements occur only in a commercial context.¹⁷¹ A line must therefore be drawn between contracts that contemplate some profitable business exchange for the parties but in which prohibitions will be enforced and profitable exchanges in which prohibitions are void under the mandatory copyright ceiling. Professor Karjala suggests that the "commercialization" concept may be employed to inform federal preemption analysis by modifying the definition to encompass products that are widely distributed.¹⁷² Under this conception, wide distribution would void any agreement restricting transformative use of the distributed code, even if the agreement was negotiated between commercial parties in a commercial setting. Under the commercial/ noncommercial conception, an author could choose to market her work to derive revenues, and thereby become bound by both copyright's revenue floor and its ceiling, or choose to abstain from market exploitation and retain freedom of contract in noncommercial settings.¹⁷³

My intuition, is that firms likely to engage in exchanges limiting or prohibiting transformative use will also likely seek to maximize their profits at some point through the greatest possible commercialization of their work. Unlike J.D. Salinger, firms are unlikely to assert copyrights (or engage in contracting) regarding work they hope never sees commercial light of day. If this is correct, then almost any agreement should be viewed as "commercialization" or a step toward it, and therefore fall on the widely-distributed side of Professor Karjala's dichotomy, with the end result being another all-or-nothing rule.

170. Kreiss, *supra* note 120, at 5 n.13, 14-19.

171. See U.C.C. § 2B-105, Reporter's Note 5 (Feb. 1988 Draft).

172. Karjala, *supra* note 120, at 513 n.2.

173. One could conceive of this as a choice whether to opt into copyright's revenue-generating regime, and to that extent the model casts copyright as a default that may be modified subject to certain conditions. As Professor Karjala rightly concludes, however, Professor Kreiss's model would not support a choice to opt in to only certain portions of copyright's revenue-generating regime (i.e., the floor) while contracting around others (i.e., the ceiling). See Karjala, *supra* note 120, at 518.

The second issue arising from a defense along these lines concerns information costs and lost gains from trade attributable to any mandatory rule that a material number of licensees would contract around if allowed to do so.¹⁷⁴ To say that copyright imposes a ceiling on an author's returns is to say that, however defined, there is a domain in which a provision precluding reverse engineering will not be enforced. It is not hard under such circumstances to envision a possible pooling equilibrium that would create welfare losses.¹⁷⁵ Software vendors presumably will price their licenses to account for the expected cost of competition that might arise through reverse engineering of their own products. We may assume that purchasers are divided into four types: those who have no ability to reverse engineer, those who have the ability but not the intention, those who have the intention but lack the ability, and those who have both.

If these various types of purchasers cannot be bound to an agreement in which they promise to forbear from reverse engineering code as a condition of receiving it, the vendor will be deprived of the best method of credibly distinguishing among types. If the vendor is unable to separate the different types of purchasers through enforceable agreements, it will rationally set the price of its licenses to account for the expected cost of reverse engineering generated by purchasers collectively. This collective price will presumably be higher than the price that would be set for purchasers who could credibly show that they would not engage in reverse engineering if contractual restrictions were binding but who could not credibly make such a showing if such restrictions were not enforceable. Some purchasers who would pay the lower price made possible by the

174. This issue of course pertains as well to the mandatory rule implied by the collective rights concept discussed above. As Professors Baird, Gertner, and Picker put it, [T]he willingness of a party to agree voluntarily to a term in a contract may signal the parties' type. Imposing a mandatory term may prevent this signaling and thereby reduce the amount of information transferred A contract term based on an observable event can communicate information only if parties have a choice about whether to include such a term in their contract. Every mandatory term potentially brings with it a hidden cost because it may prevent parties from revealing nonverifiable information to one another.

DOUGLAS G. BAIRD ET AL., *GAME THEORY AND THE LAW* 147 (1994).

175. On pooling equilibria generally, see *id.* at 145, 154-57 (noting possibilities and limitations of contracts to separate among different types of contracting parties); Ayres & Gertner, *Filling Gaps*, *supra* note 144, at 111-112; Johnston, *supra* note 145, at 625 and n.36.

separating effect produced by enforcing the terms might not pay the higher price produced by refusing to enforce the terms.¹⁷⁶

Article 2B seeks to reduce precisely this sort of loss by embracing freedom of contract as its goal and seeking to employ a methodology that lowers transaction costs while preserving bargaining flexibility. It is therefore not surprising that Article 2B seeks to preserve a domain in which free contracting may operate.¹⁷⁷ Nor is it surprising that Article 2B has consistently insisted on a sphere in which commercial parties are free to negotiate agreements containing terms that might be held inconsistent with the Copyright Act if made the predicate of an infringement claim.

The pooling analysis may be extended to say that such losses are unlikely to be offset by gains to society at large. If mass market purchasers are unlikely to be transformative users, then a rule voiding mass market terms prohibiting transformative use would either increase transaction costs (if an exception were created for actual assent) or impede agreements that would satisfy demand without, in at least many cases, depriving society of transformative works. In contrast, enforcing prohibitions in cases involving sophisticated commercial parties who are able to reverse engineer and might desire to do so, but who might also accede to terms precluding transformative use if the overall license was sufficiently attrac-

176. See BAIRD ET AL., *supra* note 174, at 145 ("A rule that mandates particular actions or particular contract terms imposes a cost on the party who would, in fact, bargain for a different term."); O'Rourke, *supra* note 139, at 516 ("A program that includes the Atari/Sega right to decompile would probably cost the end user more than one that did not"). For a similar application of this concept to the classic case of shippers and carriers in the context of *Hadley v. Baxendale*, 9 Ex. 341, 156 Eng. Rep. 145 (1854), see BAIRD ET AL., *supra* note 174, at 147-52; Johnston, *supra* note 144, at 630-31; Ayres & Gertner, *Filling Gaps*, *supra* note 144, at 94-95, 112-113. As Ayres and Gertner emphasize, contracting around a default rule may enhance efficiency by revealing information but also increase transaction costs. Both effects must be taken into account in assessing the desirability of any given default rule.

177. A similar concern underlies Judge Easterbrook's reasoning in *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1449 (7th Cir. 1996) (arguing that prohibition on commercial use of software facilitated price discrimination); Karjala, *supra* note 120, at 538-39 (agreeing that price discrimination could yield benefits to software vendor but arguing that legislation rather than contract is the appropriate method of deciding the issue). Judge Easterbrook makes a related point using the pricing of academic journals as an example, in which he argues that rampant copying in academia (on which see EL-LICKSON, *supra* note 149, at 258-64) has induced publishers to raise subscription costs to prohibitive levels as a form of "advance fee for photocopying." Frank H. Easterbrook, *Cyberspace and The Law of the Horse*, 1996 U. CHI. LEGAL F. 207, 209 (1996). Readers interested in Judge Easterbrook's opinion in *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447 (7th Cir. 1996), may find in his article at least a partial elaboration of the principles on which the opinion rests.

tive, might create copyright externalities. In other words, if my assumptions regarding the relative probability of transformative use are correct, third-party effects (welfare losses) might well be greater in the circumstances in which the Reporter's Notes suggest prohibitions on reverse engineering will be enforced than in the circumstances about which the Notes express uncertainty.

That being said, these concerns are relatively abstract. The question whether the store of creative works is, on balance, increased or diminished by restrictive terms in agreements actually negotiated by sophisticated commercial parties is an empirical question that would be difficult to answer. Absent hard data on the subject, which may be very difficult to obtain in an industry in which firms may assert that nondisclosure agreements are themselves trade secrets, courts should hesitate to conclude that agreements between presumptively rational commercial actors are sufficiently suboptimal to warrant invalidation on public policy grounds. Almost by definition, given the assumptions of actual assent and sophisticated parties, objections to such agreements will be purely substantive in nature and resolution of such objections will depend on specific facts. Reporter's Note 3 to section 2B-105 is right to say that the tension between maintaining incentives to create and expanding the store of information available to the public must be resolved in light of "contextual factors that can only be assessed on a case by case basis with an eye to national policies."¹⁷⁸ Antitrust or principles of copyright misuse might well play a useful role in such cases, depending on the parties' market position and the theories presented to a court, that contract law would perform less well. This conclusion is particularly true for cases such as *DSC*, in which the principal concern is with the market position of the intellectual property right (and, by extension, that of its holder) rather than the behavior of a firm in contract negotiations or performance over the life of a contract, such as *Intergraph*. In cases such as *DSC*, Article 2B's neutrality policy is appropriate as a general matter. Further, if the public policy exception recently added as section 2B-105(b) is applied in light of principles of copyright misuse and competition policy,¹⁷⁹ Article 2B will have done all it can

178. U.C.C. § 2B-105, Reporter's Note 3 (Aug. 1, 1998 Draft).

179. Reporter's Note 3 to section 2B-105 recommends that courts follow this approach: "Under the general principles in subsection (b), courts also may look to federal copyright and patent laws for guidance on what types of limitations on the rights of owners of information ordinarily seem appropriate, recognizing, however, that private parties may have sound commercial reasons for contracting for limitations on use and that enforcing private ordering arrangements in itself reflects a fundamental public policy enacted through the [U.C.C.] and common law." *Id.* This statement reflects as well can be

reasonably be expected to do in furtherance of allocative efficiency. With respect to the sorts of claims presented in *Intergraph*, however, there is a fair question whether efficiency would be better served by greater reliance on contract theories and principles than on antitrust, a question explored in Part V.

V. Evaluating Claims at the Intersection of Contract, Intellectual Property, and Antitrust

That a mandatory rule might impose social costs does not, in and of itself, imply that freedom of contract should trump copyright. Nor does the fact of losses in the volume of creative works in the public domain created by the copyright's grants of power imply that the copyright laws should be repealed. Copyright deliberately creates losses in exchange for gains as measured by a particular vision of social welfare (at least when compared to a hypothetical world without copyright but with a constant amount of copyrighted work available for distribution).¹⁸⁰ Copyright ideally would set the boundaries of suppression so that society as a whole gains as much as possible while losing as little as possible,¹⁸¹ though there are good reasons to believe that this balance is poorly struck with respect to software. The important point, as Professor Kaplow has shown in the patent context, is that the scope of rights granted affects both the reward to the licensor and the social loss incurred. One cannot change the scope of rights granted without altering the balance, just as one cannot change the risk associated

expected the difficulties Article 2B faces in reconciling its free contracting philosophy with social interests that might be implicated by such contracting.

180. See Karjala, *supra* note 120, at 515, 518-20; Lemley, *Economics of Improvement*, *supra* note 139, at 996 ("[I]ntellectual property rights must permit prices to rise above marginal costs in some cases if they are to have their intended effect of providing an incentive to create. This means that in many cases fewer people will buy the work than if it were distributed on a competitive basis, and they will pay more for the privilege."). Cf. Kaplow, *supra* note 160, at 1514 ("[T]he very purpose of a patent grant is to reward the patentee by limiting competition, in full recognition that monopolistic evils are the price society will pay.").

181. See Landes & Posner, *supra* note 159, at 326. To the degree copyright is analogous to patent law, there is little reason to have confidence that the optimal balance has been struck, or even that the optimal balance is knowable. Cf. Kaplow, *supra* note 160, at 1833 ("[O]ur knowledge is inadequate to inspire great confidence even in the desirability of having a patent system at all, much less in the ability to make the subtle measurements of marginal effects that determine the ratio implicit in the optimal patent life.").

with investment in creative works without changing investment behavior.¹⁸²

Copyright thus creates a structure from which an implicit rate of return may be derived using the scope and duration of the copyright grant.¹⁸³ In practice, such derivations would be heuristic exercises because actual returns and social costs will depend on competition by products that likely also will enjoy copyright protection. Simply knowing that *Time* enjoys copyright protection, in other words, tells you nothing meaningful about its returns relative to those of as *Newsweek* or the cost of providing protection to either.¹⁸⁴ Still, copyright provides tools with which this type of analysis may be undertaken: the statutory rights granted, limitations imposed, and term. Antitrust does not provide such tools, at least not directly, though the rules defining its intersection with copyright will affect social gains and losses.¹⁸⁵

Concepts of competition and efficiency will tell us some things useful to analyzing the exchange of outputs involving copyright industries. But, if we are to give full effect to the instrumental structure Congress has en-

182. See *id.* at 1825 n.29 (discussing risk associated with innovation and concomitant need for increased potential of returns under plausible assumption of increasing marginal costs and decreasing marginal benefits to extended patent term); *id.* at 1831 ("Every patent life implies a specific ratio. The ratio implicit in a given patent life simply refers to the ratio of incremental reward to incremental loss that results from marginal adjustment of the patent life"); *id.* at 1840 ("[S]etting the patent life and determining patent-antitrust doctrine are interdependent endeavors"); McGowan, *supra* note 95, at 830-32 (noting effects of risk adjustments on incentives to invest).

183. Cf. Kaplow, *supra* note 160, at 1825 ("The optimal patent life is that length of time at which the marginal social cost of lengthening or shortening the patent life equals the marginal social benefit.").

184. See *Jefferson Parish Hosp. No. 2 v. Hyde*, 466 U.S. 2, 37-40 (1984) (O'Connor, J., concurring); PHILLIP AREEDA & LOUIS KAPLOW, *ANTITRUST ANALYSIS* 441-42 (1988); HOVENKAMP, *ANTITRUST POLICY*, *supra* note 3, § 8.3 at 219; Lemley, *Economics of Improvement*, *supra* note 139, at 996 and n.26.

185. One analogue in antitrust would be its favorable view of certain economic arrangements, such as vertical integration or mergers, that enhance productive efficiency—the ratio between a firm's inputs and production. Hovenkamp, *After Chicago*, *supra* note 57, at 237-38. As Professor Hovenkamp points out, the notion that firms should be allowed to enhance their own productive efficiency is not generally controversial. Favoring steps that maximize production for a given level of inputs, however, is only tangentially related to the dominant copyright question of how strong intellectual property rights should be to strike the optimal balance between production and dissemination of copyrightable work. There is also a relationship between antitrust and copyright returns in the sense that antitrust, like contract, is part of the legal background against which copyrighted work is exploited. A change in antitrust doctrine at its intersection with copyright would therefore at least potentially change the effective scope of the copyright grant and therefore the returns available to the copyright holder and the social costs created.

acted, optimal or not, the copyright grant's adjustment of the parties' background entitlements must be respected. This statement must be qualified by the interrelationship between copyright and antitrust, which I discuss below. The point for now is merely to note that the different methodologies embodied in the two statutes counsel against reflexive invocation of antitrust principles to tailor the copyright balance. Courts interested in enhancing efficiency must be sensitive to the context in which a claim arises and the legal theories asserted by the parties. As suggested above, *DSC* and *Intergraph* provide examples of the importance of context in this analysis.

A. Claims Based On The Market Position Of Intellectual Property Rights

DSC involved the assertion of copyright in operating system code that worked on a microprocessor embedded in local telephone switching equipment—a technological bottleneck within equipment at the heart of what was long regarded as a natural monopoly.¹⁸⁶ *DSC* claimed a right under the Copyright Act to preclude copying of its operating system, and, on the facts as described by the court, *DSC* sought to use this right to foreclose competition for microprocessors, which were useful to the local telephone provider only if they could operate with *DSC*'s code. One could view *DSC* as presenting the purest of antitrust issues: creating a strategic bottleneck to obtain (preserve) a monopoly in a distinct market.¹⁸⁷ The conduct involved, however—assertion of the right to limit copying of software code—lies at the heart of copyright's grant of power. To proceed immediately to antitrust analysis would bypass the copyright rate-of-return analysis and thus ignore the social costs copyright willingly tolerates to create the opportunity for such returns.

186. Technological advances have rendered the natural monopoly conclusion less certain and less stable than it once was, and network theory has assisted in directing our attention to interfaces and standards as points of concern as well. See Lemley & McGowan, *Network Effects*, *supra* note 95, at 549-51; Jim Chen, *Titanic Telecommunications*, 25 SOUTHWESTERN UNIV. L. REV. 535, 542 (1996) ("The accelerating pace of the technical revolution in telecommunications" may produce a paradigm shift). As of this writing, however, competition in local telephony has yet to emerge. See Bart Ziegler, *Whatever Happened to Competition for Local Phone Service? It's Simple Economics*, WALL ST. J., Sept. 21, 1998, at R6 (noting little change in local telephone competition in wake of 1996 Telecommunications Act).

187. Alternatively, one could conceive of the case as a tying claim. In either event, the problem involves use of economic power in one market to derive revenues from an adjacent but distinct market.

Suppose, in other words, the copyright ceiling allows holders to preclude copying even where preclusion would affect competition in an adjacent market, and therefore that copyright willingly tolerates the corresponding social losses. On what ground consistent with the Copyright Act could a judge applying the antitrust laws lower the ceiling? Unless we are willing to construe the antitrust laws as mandating cost-justified federal legislation generally, the court presumably could not rest on the ground that the ceiling was too high (that its marginal costs exceeded marginal benefits). And if we conclude that preclusion exceeds the copyright ceiling, engaging in a comparison of DSC's conduct relative to copyright parameters, in what sense could this be called an "antitrust" decision? The legal violation would not be the imposition of social costs, about which antitrust could be of assistance, but in imposing losses greater than those tolerated by the Copyright Act. Antitrust cannot perform such measurements and, if what a court decides is that a particular use of copyright would impose costs greater than Congress intended, it would be better to hold explicitly that assertion of copyright in such circumstances exceeds the scope of the copyright grant.

Simply pointing to the use of copyright authority to inflict social losses therefore provides an insufficient basis to invoke antitrust remedies. The question in such a case will be one of balancing the costs and benefits of deliberate disruption of competition, and antitrust is not a balancing jurisprudence in this sense. In cases like *DSC*, involving construction of core copyright grants and limitations, copyright-based theories such as the emerging doctrine of copyright misuse are likely to resolve disputes with less collateral doctrinal distortion than would be the case if antitrust were applied directly. If a court applying copyright principles concludes that an assertion of copyright exceeds the statutory ceiling, then the assertion would presumably be held invalid and injunctive relief or damages would be denied, as occurred—at least in part—in *DSC*.¹⁸⁸ At this point there would be little reason to invoke antitrust, as the impediment to competition would be eliminated and whatever economic "power" remained would presumably be within copyright's parameters.

Because copyright's grants and limitations imply a rate of return structure that antitrust lacks, I doubt that antitrust theory or doctrine will provide much direct assistance to courts, particularly if direct application of copyright principles yields indeterminate answers.¹⁸⁹ The argument that

188. See, e.g., *Lasercomb Am. v. Reynolds*, 911 F.2d 970, 973 (4th Cir. 1990).

189. See O'Rourke, *supra* note 139, at 542 ("It is impossible to know where the balance between creativity and competition would settle if either rule—preemption or non-preemption of decompilation provisions—were adopted."). For Professor O'Rourke the

antitrust and copyright are both designed to remedy market failure, and that the principles of the former may therefore be employed to inform application of the latter, does not take these methodological differences into account. If employed by courts or state legislatures in cases involving interpretation of the statutory rights and limitations from which the copyright rate of return is derived, dual application could lead to frustration and confusion. The two regimes seek to ameliorate different sorts of market failure. As I discuss below, this does not mean there is no role for antitrust in cases that happen to involve intellectual property. But the methodological differences do suggest a heightened degree of caution in invoking antitrust principles to settle disputes in copyright industries: the closer a case comes to requiring construction of statutory rights and limitations, the more hesitant courts should be to resort to antitrust for a remedy.

One conclusion that follows from this analysis is that the copyright misuse defense should be developed as an independent doctrine based on copyright principles and should not require a party to establish an antitrust violation as an element of the defense.¹⁹⁰ The Fourth and Ninth Circuits have adopted this approach, and future courts should do the same.¹⁹¹ Thus,

inconclusive nature of copyright principles as applied to these problems suggests the invocation of antitrust and, in particular, the essential facilities doctrine. For an alternative view, see Hanna, *supra* note 160, at 318 ("Antitrust doctrine does not provide the tools necessary to judge whether a particular mode of exploitation exceeds the permissible bound of the statutory copyright monopoly conferred. Antitrust doctrine does not define the scope of copyright privileges. It looks to *copyright law* to ascertain what degree of anticompetitive conduct is permissible.") (emphasis added). Hanna concludes that "[i]n weighing claims of copyright misuse, courts must develop a functional delineation of the scope of the exclusive privileges inherent to a copyright grant that is compatible with the intellectual property statutes' goal of promoting the development and diffusion of innovative works. Antitrust law is of little aid in this regard." *Id.* at 418 n.110.

190. Professor O'Rourke states a legitimate concern that it is "unclear whether a copyright misuse defense grounded in an antitrust violation requires the usual detailed antitrust proof of that violation" while noting that "the quantum of proof is somewhat less." O'Rourke, *supra* note 139, at 550. On the debate generally, see Lemley, *Beyond Preemption*, *supra* note 6; AREEDA & KAPLOW, *supra* note 183, at 183.

191. See *Practice Management Info. Corp. v. American Med. Ass'n*, 121 F.3d 516, 521 (9th Cir. 1997) ("We agree with the Fourth Circuit that a defendant in a copyright infringement suit need not prove an antitrust violation to prevail on a copyright misuse defense"); *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970, 978 (4th Cir. 1990) ("So while it is true that the attempted use of a copyright to violate antitrust law probably would give rise to a misuse of copyright defense, the converse is not necessarily true—a misuse need not be a violation of antitrust law in order to comprise an equitable defense to an infringement action. The question is not whether the copyright is being used in a manner violative of antitrust law (such as whether the licensing agreement is 'reasonable'), but whether the copyright is being used in a manner violative of the public policy embodied in the grant of a copyright.").

a party asserting a copyright misuse defense to an agreement requiring the simultaneous purchase of two distinct products should not be required to demonstrate either market power in the tying product or a dangerous probability of acquiring power in the market for the tied product that should be demanded of a tying claim under the antitrust laws.¹⁹² If the Copyright Act does not allow firms to capture revenues from adjacent markets, adding these elements to a misuse defense would be superfluous.¹⁹³

Similarly, a simple refusal to grant a license would likely be better addressed under a misuse theory than through application of antitrust's essential facilities doctrine.¹⁹⁴ That line of authority is traditionally based in the feasibility of replicating a competitor's product or infrastructure. The

192. Professor O'Rourke, for example, states that application of tying principles in software markets is appropriate because "the Copyright Act grants a limited monopoly that is not intended to permit the copyright owner to leverage its statutory monopoly into another market." O'Rourke, *supra* note 139, at 548. If the Copyright Act reflects this policy, that fact alone should preclude conduct that might escape sanction under antitrust tying principles.

193. Conversely, one could conceive of a regime in which the producers of *Titanic* owned the copyright in the film but could not assert it to squelch derivative products that competed in distinct markets—such as books about the making of the film that incorporate its footage, T-shirts or posters with photographs of the stars, and the like. Or one could conceive of a what Professor Lemley has called a "blocking copyrights" regime in which creators of derivative works owned rights in their improvement but would have to negotiate with the owner of rights in the original work to avoid infringement claims. See Lemley, *Economics of Improvement*, *supra* note 139, at 1074-76. Even if both alternatives would enhance social welfare relative to the status quo, it does not follow that a manufacturer of a derivative work may (or should be able to) assert an antitrust counterclaim to an infringement action.

194. Professor Areeda referred to this instead as "an epithet in need of limiting principles." Phillip Areeda, *Essential Facilities: An Epithet In Need Of Limiting Principles*, 58 ANTITRUST L.J. 841 (1990). Professor Hovenkamp favors elimination of the doctrine accompanied by adjustments in the rules governing a monopolist's refusal to deal. HOVENKAMP, ANTITRUST POLICY, *supra* note 3, at § 7.7. Professor O'Rourke has suggested the doctrine as of potential use in informing copyright fair use analysis. See O'Rourke, *supra* note 139, at 546. For the reasons stated in the text, I am skeptical of the ability of the essential facilities doctrine to provide efficient answers in such cases, particularly given the significant incursion into intellectual property law the doctrine implies. Development of antitrust doctrine relating to refusals to deal by monopolists that entail anticompetitive effects outweighing any benefits—Professor Hovenkamp's suggestion—would seem to be a better course to follow. See *Image Technical Servs. Inc. v. Eastman Kodak Co.*, 125 F.3d 1195, 1209-11 (9th Cir. 1997) (rejecting the argument that a claim based on unilateral refusals to deal by monopolist must be controlled by the essential facilities doctrine and holding that section 2 "prohibits a monopolist from refusing to deal in order to create or maintain a monopoly absent a legitimate business justification"); *Data Gen. v. Grumman Sys. Corp.*, 36 F.3d 1147, 1183-84 (1st Cir. 1994) (holding that a section 2 refusal-to-deal claim need not conform to the essential facilities doctrine).

cases have tended to involve bottlenecks such as railroad facilities,¹⁹⁵ local electric power wires,¹⁹⁶ and local telephone switching facilities.¹⁹⁷ The doctrine does not require anticompetitive conduct as such; a monopolist's denial of access to the facility to a competitor and economic infeasibility of replication are sufficient.¹⁹⁸ Subject to certain limitations, however, copyright deliberately seeks to make replication—copying—infeasible. Application of the essential facilities doctrine, therefore, would represent a significant intrusion on the core statutory right of a vendor to control copying of its code. The same problems with such an application of antitrust principles that we examined in the case of *DSC* would apply to such an essential facilities claim as well.¹⁹⁹ Competition policy has in certain circumstances been able to analyze the cost structure of relevant markets for the purpose of assessing the feasibility of replication and compelling access. Yet even if one concluded that reverse engineering would be prohibitively expensive in a given case, it is not clear why that conclusion

195. See *United States v. Terminal R.R. Ass'n*, 224 U.S. 383 (1912).

196. See *Otter Tail Power Co. v. United States*, 410 U.S. 366 (1973).

197. See HOVENKAMP, ANTITRUST POLICY, *supra* note 3, at 275 ("The courts have generally interpreted the essential facilities doctrine to require a showing that no practical alternatives are available, including alternatives that entail cost disadvantages."). See *MCI Communications Corp. v. AT&T Co.*, 708 F.2d 1081 (7th Cir.), *cert. denied* 464 U.S. 891 (1983).

198. See *Caribbean Broad. Sys. v. Cable & Wireless PLC*, 148 F.3d 1080, 1088 (D.C. Cir. 1998) ("[T]he elements of an antitrust claim for denial of access to an essential facility are: (1) a monopolist who competes with the plaintiff controls an essential facility; (2) the plaintiff cannot duplicate that facility; (3) the monopolist denied plaintiff the use of the facility; and (4) the monopolist could have granted the plaintiff use of the facility."); *Blue Cross & Blue Shield United of Wis. v. Marshfield Clinic*, 65 F.3d 1406, 1412 (7th Cir. 1995) (Posner, J.) ("[T]he concept of essential or bottleneck facilities has been used from time to time to require a natural monopolist to cooperate with would-be competitors."); *Alaska Airlines Inc. v. United Airlines, Inc.*, 948 F.2d 536, 544 (1991) ("A facility that is controlled by a single firm will be considered 'essential' only if control of the facility carries with it the power to eliminate competition in the downstream market" and such power is "relatively permanent" rather than momentary.); *MCI v. AT&T*, 708 F.2d at 1132-33.

199. That is to say, because compulsory access doctrines go to the heart of the core statutory right to control copies, invocation of the doctrine would alter the implied statutory structure of returns and costs. McGowan, *supra* note 95, at 834. Because the copyright grant itself is the barrier to replication in such cases the question whether software is a natural monopoly is of heuristic interest and may be necessary to interpretation of the doctrine in the view of some judges, but is not necessary to resolution of these issues. The court in *David L. Aldridge Co. v. Microsoft Corp.*, 995 F. Supp 728, 751-55 (S.D. Tex 1998), appeared to assume that operating system software could be an essential facility; the court granted summary judgement for Microsoft on the essential facilities claim without addressing copyright rate of return issues.

should truncate copyright's grant of control over replication. An evaluation of the returns and costs contemplated by Congress—a misuse analysis, for example—would be required before such a conclusion could be reached.

One might argue that, from a deterrence perspective, the Clayton Act's provision of treble damages and attorneys' fees²⁰⁰ might be considered useful if software vendors are likely to assert copyright claims in circumstances constituting misuse unless the penalty for such behavior decisively outweighed potential gains. This argument would have particular appeal if one also believed that consumers will often acquiesce in the face of such assertions rather than litigate or that courts would frequently err in adjudicating such claims. The problem of optimal deterrence is a difficult one for antitrust, however, even assuming allocative efficiency is its goal. It is not clear that treble damages create the optimal antitrust deterrence structure,²⁰¹ though the law requires that they be awarded, nor is there any necessary reason to believe treble damages would achieve the proper level of deterrence for copyright misuse. If the prospect of treble damages chilled assertions of rights contemplated by the Copyright Act, then the prospect of treble-damage liability would effectively lower the copyright rate-of-return ceiling. The difficult question of deterrence suggests that it would be desirable for courts or, better still, Congress, to empower copyright with remedies designed to diminish the degree to which firms might perceive excessive assertions of copyright to be a rational business strategy. Such measures might include, at a minimum, disgorgement of profits obtained through misuse. This approach would allow deterrence to operate within copyright's rule structure and thus preserve a theoretical benchmark against which "excessive" costs or returns could be measured.

Distinguishing between cases explicitly based on a core copyright grant and cases involving copyrighted goods but which are based on some other ground, such as the method of pricing the good, is to some degree artificial. As Professor Kaplow has shown in the patent context, the costs and returns implied by patent law are in part a function of the contours of the patent-antitrust intersection.²⁰² It follows that no true economic dis-

200. See 15 U.S.C. § 15.

201. See, e.g., SULLIVAN & HOVENKAMP, *supra* note 132, at 166-68; Hovenkamp, *Protected Classes*, *supra* note 157; Herbert Hovenkamp, *Treble Damages Reform*, 33 ANTITRUST BULL. 233 (1988).

202. See Kaplow, *supra* note 160, at 1840 ("In general, setting the patent life and determining patent-antitrust doctrine are interdependent endeavors; in other words, the system of equations that defines the optimization process must be solved simultaneously.").

inction between antitrust rules and patent gains and losses is possible. The same general points are true of copyright, which seeks related ends through a different set of incentives and limitations.²⁰³ To complicate matters further, as Professor Kaplow has shown in the patent context, we have inadequate information to derive the optimal scope of copyright protection. Nor, as noted above, do we have any realistic chance of deriving systematically the parameters of the gains and losses flowing from the statutory scheme Congress has enacted.²⁰⁴

Thus, while copyright deliberately imposes social losses that correspond in some manner to social gains, without knowledge of the social cost Congress intended to allow we cannot, as a practical matter, determine directly whether a given activity imposes costs in excess of the statutory boundary. When the relationship between the antitrust intersection and copyright returns is added to the mix, economic indeterminacy results. The inability to draw a true economic distinction does not alleviate the need for legal distinctions, however. In this regard the rule of thumb mentioned above is relevant: the closer a case involving copyrighted work comes to requiring construction of the Copyright Act's rights and limitations, the more hesitant courts should be to apply antitrust as a remedy. Though we cannot in actual practice ascertain the parameters of the returns and losses Congress sought to create, we know the statutory rights and limitations used to create them. Claims requiring construction of such rights and limitations are therefore more likely to involve, at bottom, a contention that the social costs permitted by the Copyright Act have been

203. I would speculate that a greater number of patents create market power in an antitrust sense than do copyrights, as the example of *Time* and *Newsweek* suggests, though I cannot prove the speculation and, as software becomes an integral part of more goods than it has in the past, the economic strength of at least software copyrights may be increasing relative to the implied economic power of copyrights in other products. The increasing number of software copyright misuse case may reflect the increasing ability of copyright to create barriers to competition previously seen only in patents. Cf. *Reed-Union Corp. v. Turtle Wax, Inc.*, 77 F.3d 909, 913 (7th Cir. 1996) (Easterbrook, J.) ("[C]opyrights do not exclude independent expression and therefore create less market power than patents.").

204. Cf. Kaplow, *supra* note 160, at 1834 (noting that "there is ... insufficient information to determine any component of the patent-antitrust doctrine unless one also knows the ratio [of gains to patentees and social losses] implicit in the optimal patent life. Yet our knowledge is inadequate to inspire great confidence even in the desirability of having a patent system at all, much less in the ability to make the subtle measurements of marginal effects that determine the ratio implicit in the optimal patent life"); *id.* at 1888 ("[T]here is no way of knowing whether the current level of reward provided by the combination of the patent system and the patent-antitrust doctrine is anywhere near the optimal level.").

exceeded. Claims contesting the scope or application of copyright's methodology, in other words, are best resolved using copyright's methodology.²⁰⁵

Because the legal distinction I suggest does not correspond with a true economic distinction, my rule of thumb is open to the criticism that it is in some ways quite formal, a criticism Professor Kaplow applies to several efforts to resolve patent-antitrust issues.²⁰⁶ This criticism is correct to some degree. Take Microsoft's former practice of charging for copies of its operating system by the processor rather than by the copy. Microsoft probably could not have obtained OEM agreement to per-processor terms without its copyrights; indeed the market position that prompted the Antitrust Division's concern could not have been achieved without such rights.²⁰⁷ The returns Microsoft earned on its copyrighted operating system software might well have been higher without antitrust intervention, and the social costs of its returns might well be lower in light of such interven-

205. To some extent, of course, this distinction is semantic. If a court could measure social costs and benefits directly and conclude that a given practice imposes greater marginal costs than benefits, and if both copyright and antitrust sought to maximize production of creative work at the lowest cost, one could classify the analysis within the taxonomy of the law either as one of either copyright or antitrust. Different classifications would be meaningful for purposes of standing to bring an action and damages, which might well effect the degree to which a decision achieved an optimal outcome, but the core methodology might well be the same. This is one implication of conceiving of copyright as a method of ameliorating market failure (public goods) limited in scope such that marginal benefits exceeded costs. Analysts might well differ, however, on the question whether the copyright regime we actually have matches these parameters, or is even intended to approximate them.

206. See Kaplow, *supra* note 160, at 1848-49. The approach in the text, which is one of Professor Kaplow's examples of a formal approach, is analogous to Professor Baxter's inquiry into whether a premium derived from patent exploitation "constitute[s] income of the kind contemplated by the patent system." William F. Baxter, *Legal Restrictions On Exploitation of the Patent Monopoly: An Economic Analysis*, 76 YALE L.J. 267, 343 (1966).

207. In other words, if competitors and consumers had the right freely to copy or manipulate Microsoft's products. For more on the per-processor example, see *United States v. Microsoft Corp.*, 159 F.R.D. 318, 323 (D.D.C.), *rev'd* 56 F.3d 1448 (D.C. Cir. 1995). For alternative interpretations of this issue, see Kenneth C. Baseman et al., *Microsoft Plays Hardball: The Use of Exclusionary Pricing and Technical Incompatibility to Maintain Power in Markets for Operating System Software*, 40 ANTITRUST BULL. 265, 267-68 (1995) (criticizing per-processor licenses); Robert J. Levinson, *Efficiency Lost?: The Microsoft Consent Decree*, in *THE ECONOMICS OF THE ANTITRUST PROCESS* 175, 182-85 (Malcolm B. Coate & Andrew N. Kleit eds., 1996) (suggesting that willing acceptance of such terms by some OEMs vitiates inference of competitive harm).

tion.²⁰⁸ Both cases involved simultaneous assertions both of the copyright grant and strategic license terms; without the former the latter would likely not be of much concern. The point that copyright's social costs and benefits are affected by the acts the antitrust laws permit or forbid to be done with copyrighted work cannot be avoided. That said, however, the per-processor dispute was based on a method of pricing and not directly on the right to exclude.

This approach does not argue that either social gains or losses attributable to the copyright system may be ignored. Rather, it suggests circumstances in which application of principles from within copyright, such as misuse, may produce outcomes more consistent with the gains and losses Congress enacted than would application of antitrust. I suggest this distinction primarily on the ground that our imperfect knowledge of the economic parameters of the Congressional copyright mandate renders direct analysis impracticable. We must work with what we have, which are the statutory grants and limitations, and some separation between legal doctrine and economic effects is therefore inevitable. The approach suggested here seeks to minimize the degree of separation given the legal tools available.²⁰⁹

B. Cases Involving Alleged Misbehavior With Respect to The Contracting Process or Performance

As *Intergraph* shows, some cases involving antitrust claims and intellectual property defenses are based on the process of negotiating agreements or disputes over the performance of agreements. Where the dispute involves a party with a large share of a market, and perhaps market power, the importance of contractual doctrines such as unconscionability is heightened. So is the importance of antitrust principles. This is particularly true where a court finds one or more relevant markets based on the product of a single firm, such as the *Intergraph* court's holding that a market

208. OEM's, for example, would have had no incentive to accede to license terms that, after all, reduced their ability to play competitors off against one another, if they could have freely copied Microsoft's code. Of course, if that were the case OEMs would have had no incentive to agree to any terms at all, in which case Microsoft might have had no incentive to write the code, bringing us back to fundamental copyright principles.

209. One additional caveat is in order. Given the realities of the legislative process it may well be that under the current copyright regime marginal social costs exceed marginal social benefits. As noted above, at least with respect to software, copyright protections are suspect on this count. But if Congress has enacted legislation creating losses disproportionate to gains, I do not believe antitrust claims may be employed to move copyright protection away from the regime Congress gave us, even if such moves enhance social welfare.

for "Intel CPUs" exists in addition to the market for high-performance CPUs, or the *Image Technical Services* court's recognition of aftermarkets for parts and services for Kodak machines. Such cases may turn on informational deficiencies that could have been corrected through negotiation or the purchase of aftermarket goods and services at the same time a durable good is purchased in the primary market. Or, as was alleged and accepted by the district court in *Intergraph*, a case may involve statements made during discussions between parties that induce a firm to invest its resources in a manner that leaves it vulnerable to strategic conduct by its contracting party.

In these sorts of opportunism cases, particularly those in single-firm markets or aftermarkets, there is at least a chance; and perhaps a good chance, that application of contract principles will yield more efficient outcomes than application of antitrust principles. Courts seeking to promote efficiency should at least consider the possibility and evaluate the costs and benefits of proceeding under each type of theory. For example, suppose Intel had told Intergraph from the outset of their discussions that Intel reserved the exclusive right to terminate Intergraph's access to technical support information at any time and that Intergraph could have no assurance of a continued supply of Intel's advanced product information, or even of its chips. If Intergraph decided that its savings from ceasing development of the Clipper technology justified the risk that Intel would cut off Intergraph's supply of information and technology, it is hard to see how a claim of opportunism could be stated in terms of diminished allocative efficiency. And unless antitrust policy is willing to decree that firms holding a monopoly by virtue of intellectual property rights are essential facilities, it is hard to see how an antitrust claim based on a refusal-to-deal claim could rest solely on such facts, either.²¹⁰

Many variations on such facts are imaginable. One element of *Intergraph* was a claim that Intel's business strategy had shifted from open to closed architecture, effectively increasing the degree to which firms such

210. For those courts that appear to view essential facilities claims as requiring the presence of a natural monopoly, see, for example, *Blue Cross & Blue Shield United of Wis. v. Marshfield Clinic*, 65 F.3d 1406, 1412 (7th Cir. 1995); an essential facilities claim against a firm whose market position rests on intellectual property rights would be particularly troubling. If intellectual property rights create a monopoly one might well argue that it was socially constructed—instrumental rather than natural. A court might understandably be more reluctant to reach a natural monopoly conclusion regarding firms whose market position rested on rate-of-return statutes such as the patent or copyright laws than it would with respect to firms such as local power distributors or local telephone companies.

as Intergraph were "locked-in" to Intel technology.²¹¹ Similarly, a recent claim against Microsoft alleges that Microsoft gave public assurances of continued access for software firms that joined a program designed to produce software beneficial to Microsoft's Windows NT operating system. The gist of the claim is that after firms joined the program and became dependent on Microsoft for their businesses, Microsoft reneged on these assurances and refused to provide needed technology on commercially reasonable terms.²¹² One can imagine a case in which Intel assured Intergraph of continued supply so long as Intergraph fulfilled its obligations, presented Intergraph with written nondisclosure agreements giving Intel unilateral rights to terminate all dealings with or without cause, and verbally assured Intergraph that the language was meaningless boilerplate to satisfy the lawyers. Or perhaps Intel might have verbally assured Intergraph of a continued supply but drafted writings that limited the obligation to the current generation of technology and disclaimed any obligation with respect to future generations of technology. As every practitioner will recognize, the possible variations on this theme are almost endless.

What the variations have in common is an origin in a process of negotiation and exchange that is squarely within the traditional domain of contract law and is the domain Article 2B claims as its own. They are variations on a theme in which antitrust claims are used as negotiating tactics to obtain leverage.²¹³ If a claim is based not on the misconduct of a monopolist but upon the failure of a plaintiff to read the terms it was given, to think of contingencies it might want specified, or simply on buyer's remorse, principles of free contracting suggest that courts are unlikely to enhance efficiency by intervening *ex post* to reform the relevant agreement using antitrust law.²¹⁴ If a claim is based on bad-faith exercise of contractual rights, principles of good faith and fair dealing might provide the most tailored remedy for the misconduct at issue. If a claim is based on the sort of assurances Intel was found to have given Intergraph, and which Microsoft is alleged to have given Bristol, principles of equitable or promissory estoppel or implied contract might provide relief.²¹⁵

211. See *Intergraph Corp. v. Intel Corp.*, 3 F. Supp. 2d 1255, 1262 (N.D. Ala 1998).

212. See *Bristol Technology*, *supra* note 29, at ¶¶ 49-60.

213. See, e.g., *Digital Equip. Corp. v. Uniq Digital Tech., Inc.*, 73 F.3d 756, 763 (7th Cir. 1996) (Easterbrook, J.) ("This is a mundane commercial case, in which a buyer has used the antitrust laws to postpone paying its debts.").

214. See SULLIVAN & HOVENKAMP, *supra* note 132, at 34.

215. Cf. *Olympia Equipment Leasing Co v. Western Union Telegraph Co.*, 797 F.2d 370, 376 (7th Cir. 1986) ("If a monopolist does extend a helping hand, though not required to do so, and later withdraws it ... does he incur antitrust liability? We think not.

In each of these cases, contract would provide relief more tailored to the misconduct alleged—which in these cases would fall within contract's ordinary domain—than would antitrust. This is particularly true of the more sweeping antitrust theories, such as essential facilities, which pose significant conflicts with intellectual property policy. It is the difference between addressing misconduct with a scalpel or a sledgehammer. Courts facing such "lock-in" and installed-base opportunism claims should first determine whether any contract rules have been violated in the conduct alleged and whether any contract remedies could solve any problems identified. Contract should be considered before antitrust, which should only be used where there is reason to believe the net effect on allocative efficiency would be more favorable than outcomes achieved using contract-based theories. With respect to this category of cases, courts should not view Article 2B's sensible neutrality policy as a suggestion that remedies under federal law are necessarily preferable to state contract law options.²¹⁶

VI. CONCLUSION

Article 2B seeks, for very good reasons, to promote free contracting and commercial transactions and in particular to lower the cost of transacting while preserving contractual flexibility, thereby enhancing allocative efficiency and benefiting society. These are laudable goals and should be encouraged. The extensive and thoughtful work reflected in Article 2B is to be applauded, as are the extensive efforts concerned parties have made to understand and assess the practical aspects of conducting business in the industries that will be effected by Article 2B. The U.C.C. process has produced significant debates in which a wide variety of participants have gained a hearing for a wide array of views. Though as in any process of this type many participants will be disappointed, such disappointments do not negate the valuable advances in understanding the process has produced.

Conceivably, he may be liable in tort or contract law, under theories of equitable or promissory estoppel or implied contract").

216. To reiterate, none of this suggests that cases in which a claim is based in part on negotiating tactics or contract terms are immune from antitrust scrutiny. Some claims, such as the coercive reciprocity theory alleged in *Intergraph*, as well as tying and exclusive dealing theories, are of course based on economic consequences produced by contract terms. In such cases the economic consequence must be evaluated under antitrust law (using an allocative efficiency standard) regardless whether the concerns of contract law are satisfied.

Where intellectual property rate-of-return concerns are not implicated by a rule, the free contracting principle should govern, and default rules should be chosen in a way that facilitates efficient transactions at the lowest cost. Because the relevant principles involve third-party effects of agreements and copyright's concern for creation and dissemination of works, any line dividing enforceable from unenforceable agreements should be drawn using copyright principles. Because commercial contract law and competition policy share similar goals, though they work at different levels of abstraction and apply in part to different sorts of behavior, both are in a position of deference to copyright methodology in cases involving construction of copyright grants and limitations. Antitrust principles are therefore an unlikely source of guidance for resolving the principal intellectual property questions Article 2B identifies, which do involve construction of the rights and limitations granted and imposed by copyright law.

With respect to terms that do not involve construction of copyright grants and limitations, however, such as the per-processor pricing term precluded in the Microsoft consent decree, antitrust should play a role in circumstances where it may enhance efficiency. Courts charged with interpreting agreements under Article 2B should distinguish between claims based on the market position of an intellectual property right and its holder and claims based on misconduct in contractual negotiations or performance. With respect to the latter class of cases, courts should look first to contract principles to determine whether the conduct alleged violates any rule of contract law. If a violation is found, the court should seriously consider whether application of a contract remedy would be more efficient than proceeding to invoke antitrust principles. If no violation is found, the court should grant the normal presumption of efficiency that attaches to negotiated agreements between commercial parties and review the antitrust theories with this presumption in mind. While antitrust violations still may be found in appropriate cases, proceeding in this fashion should help courts remain true to the efficiency concerns that are common to contract law and antitrust.