

MICROSOFT AND THE EVOLUTION OF THE INTELLECTUAL PROPERTY CONCEPT

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I. Introduction.....	1370
II. <i>United States v. Microsoft Corp.</i>	1376
A. Intellectual Property Issues in the Liability Phase.....	1376
B. Intellectual Property Issues in the Remedy Phase	1384
III. Case COMP/C-3/37.792 Microsoft.....	1394
A. Overview of the European Commission’s Case	1394
B. Intellectual Property as an “Essential Facility” in European Competition Law.....	1397
C. Handling the Intellectual Property Issues in Microsoft ..	1404
1. the commission decision	1404
2. the court of first instance: 2004.....	1406
3. future review	1408
IV. The Evolution of the Intellectual Property Concept	1410
A. The Contours of the Argument.....	1410
B. Concept Convergence	1412
C. Evolving the Intellectual Property Concept	1415
D. Applying the Evolved Intellectual Property Concept	1422
V. Conclusion.....	1431

Microsoft is an intellectual property (IP) company. We have no factories of any consequence or natural resources. Indeed, we have no physical assets of any kind that are important to

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the success of the company. Our products instead consist almost entirely of information we create¹

—Bill Gates

I. INTRODUCTION

Since the earliest days of the Sherman Act, courts have been faced with claims by holders of intellectual property rights that they should be permitted to engage in what would otherwise be considered anticompetitive conduct: Publishers of books and manufacturers of phonograph records thought their copyrights gave them the right to control the resale prices of their products.² A manufacturer of mimeograph machines thought its patents gave it the right to require buyers of its machines to purchase its ink.³ A manufacturer of light bulbs thought its patents gave it the right to set the prices at which its competitor could sell light bulbs manufactured under its patent license.⁴ The holder of a patent on a mechanism in a motion-picture projector thought its patent gave it the right to control which motion pictures were used with the patented projectors.⁵

Courts generally dealt with these claims by examining the rights given by the relevant intellectual property statutes—the Copyright Act⁶ and the Patent Act⁷—and attempting to reconcile those rights with the Sherman Act’s⁸ more general prohibitions.⁹ Sometimes this led to cabining the intellectual property rights claim;¹⁰ other times this led to allowing the rights holder to exercise its intellectual property right even

1. Direct Testimony of Bill Gates ¶ 124, *New York v. Microsoft Corp.*, 224 F. Supp. 2d 76 (D.D.C. 2002) (No. 98-1233 (CKK)), <http://download.microsoft.com/download/5/3/2/53239546-efee-460c-a583-11c20cdea9ab/billgates.pdf>.

2. *See Boston Store of Chi. v. Am. Graphophone Co.*, 246 U.S. 8 (1918) (considering whether a patent owner has the right to set the resale prices of phonographic records); *Bobbs-Merrill Co. v. Straus*, 210 U.S. 339 (1908) (considering whether a copyright owner has the right to set the resale prices of books).

3. *See Henry v. A.B. Dick Co.*, 224 U.S. 1 (1912).

4. *See United States v. Gen. Elec. Co.*, 272 U.S. 476 (1926).

5. *See Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502 (1917).

6. 17 U.S.C. §§ 101-1332 (2000).

7. 35 U.S.C. §§ 1-376 (2000).

8. *See* 15 U.S.C. §§ 1-2 (2000).

9. *See, e.g., A.B. Dick*, 224 U.S. at 26-28 (considering proper statutory construction).

10. *See, e.g., Straus v. Victor Talking Mach. Co.*, 243 U.S. 490, 501 (1917) (finding resale price maintenance to be “obnoxious to the public interest”).

though that exercise restricted competition.¹¹ Over time, the courts gradually moved toward giving more weight to the Sherman Act's general policy of competition as against the specific rights of the intellectual property statutes. For example, the courts looked with greater concern at the practices of patent holders who combined their patents into broad pools,¹² at the efforts of patent holders to "extend" their rights through postexpiration royalties,¹³ and at the efforts of motion-picture distributors to engage in block booking of their films.¹⁴

In recent years, however, the foundations of the debate between intellectual property and antitrust have shifted. Intellectual property rights have been in the ascendancy.¹⁵ Where once we were skeptical of intellectual property because it granted a "limited monopoly," we now embrace intellectual property for creating necessary "property rights." Where once we saw intellectual property as one aspect of our broad manufacturing economy—important, of course, but not central—we now see intellectual property at the center of the "new economy."¹⁶ Intellectual property holders have been quite successful in expanding the boundaries of their claims,¹⁷ bringing those rights into ever-greater conflict with the fundamental principles and assumptions of the antitrust laws.¹⁸

11. See, e.g., *Gen. Elec.*, 272 U.S. at 489 (finding price restraints on a manufacturing licensee to be "reasonably within the reward" of the patent).

12. Compare *Standard Oil Co. v. United States*, 283 U.S. 163 (1931) (upholding agreements to pool patents for the process of "cracking" crude oil to produce gasoline), with *Hartford-Empire Co. v. United States*, 323 U.S. 386 (1945) (finding that agreements to pool patents relating to the manufacture of glass containers violated the Sherman Act).

13. See *Brulotte v. Thys Co.*, 379 U.S. 29, 32 (1964) ("[W]e conclude that a patentee's use of a royalty agreement that projects beyond the expiration date of the patent is unlawful per se.").

14. See *United States v. Paramount Pictures, Inc.*, 334 U.S. 131 (1948).

15. See, e.g., Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1042 (2005) ("By virtually any measure, intellectual property rights have expanded dramatically in the last three decades.").

16. The term "new economy" has no fixed meaning, but it has been used to refer to a set of industries whose principal output consists of intellectual property products. See, e.g., Richard A. Posner, *Antitrust in the New Economy*, 68 ANTITRUST L.J. 925, 926 (2001). New economy products are characterized by declining average costs over a broad range of output, high rates of innovation, and network effects. See, e.g., *id.*

17. For a fuller discussion of the steady expansion of intellectual property rights, see EXPANDING THE BOUNDARIES OF INTELLECTUAL PROPERTY: INNOVATION POLICY FOR THE KNOWLEDGE SOCIETY (Rochelle Cooper Dreyfuss et al. eds., 2001).

18. See Reza Dibadj, *Saving Antitrust*, 75 U. COLO. L. REV. 745, 779-80 (2003) (discussing the implications of expanding intellectual property rights for antitrust enforcement).

How are antitrust courts to respond to the expansive claims being made today by intellectual property rights holders? Many commentators have explored this question, suggesting a variety of frameworks for reconciling these two regimes.¹⁹ The federal antitrust enforcement agencies have issued guidelines for licensing intellectual property,²⁰ and a broader critique of intellectual property protection has begun to emerge.²¹ Overlooked in the current debate, however, is the relevance of an earlier challenge to antitrust—and a surprisingly similar one, both in terms of its rhetoric and its economics—from a different set of industries relying on a different set of statutes, which allegedly provided exemption from the requirements of the antitrust laws.

The earlier challenge came from regulated industries—industries that made a generic claim to be called public utilities. The “public utility concept,” described in a famous article written in 1940 by Professor Horace Gray, encapsulated the argument for their antitrust exemption.²² Gray’s article broadly outlined the way in which monopoly enterprises—after using the government to secure control over areas previously in the public domain—had subsequently used the “public utility concept” to obtain protection “against interlopers.”²³ Supported by what Gray skeptically characterized as the economic rationalization of natural monopoly, these firms had convinced legislatures that “all efforts to maintain competition . . . were foredoomed to fail.”²⁴ Although many of the proponents of public utility regulation “intended it to protect consumers,” Gray argued that “behind this laudable social purpose” lurked the forces of monopoly.²⁵ “They

19. See, e.g., Michael A. Carrier, *Unraveling the Patent-Antitrust Paradox*, 150 U. PA. L. REV. 761 (2002) (reviewing approaches and suggesting an industry-specific approach); Herbert Hovenkamp, Mark D. Janis, & Mark A. Lemley, *IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW* (2004).

20. See Antitrust Guidelines for the Licensing of Intellectual Property, 4 Trade Reg. Rep. (CCH) ¶ 13,132 (Apr. 11, 1995). The Department of Justice and the Federal Trade Commission issued these guidelines. *Id.* at 20,733.

21. See, e.g., NAT’L RESEARCH COUNCIL, NAT’L ACADS., *A PATENT SYSTEM FOR THE 21ST CENTURY* (Stephen A. Merrill et al. eds., 2004), available at <http://newton.nap.edu/html/patentsystem/0309089107.pdf> (critiquing the patent system); FTC, *TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY* (2003), <http://www.ftc.gov/os/2003/10/innovationrpt.pdf> (critiquing the patent system).

22. See Horace M. Gray, *The Passing of the Public Utility Concept*, 16 J. LAND & PUB. UTIL. ECON. 8 (1940).

23. See *id.* at 8-9. Gray’s examples included hydro-electric sites, spectrum space for radio and television, highways for regulated trucking, and use of air space for regulated airlines. See *id.* at 11-15.

24. See *id.* at 10.

25. *Id.* at 11.

desired immunity from prosecution under the anti-trust laws, legal validation of their privileges as property rights, the protection of the state for their monopolies, and a relatively free hand to extend their economic power.”²⁶

Although Gray titled his article “The Passing of the Public Utility Concept,” it took some time before the promise of the title was achieved.²⁷ Indeed, it was more than forty years before Professor Alfred Kahn could write a reprise to Gray’s article, arguing that, at last, it was now “possible to talk realistically about the passing of the public utility concept.”²⁸ Although Kahn saw no single institutional choice “valid for all times and places” between competition and regulation,²⁹ he also recognized that there had been a “dramatic change” in the value attached to regulation, on the one hand, and competition on the other.³⁰ Kahn tied this change to a rise in Schumpeterianism, the view that “short-term exploitation of static monopoly power is a small price for society to pay for the dynamic innovation process of ‘creative destruction.’”³¹ Given the loss of international competitiveness, stagnant productivity, and inflation in the 1980s, it did not surprise Kahn that we would opt for the dynamic disorder of competition, “wasteful as it may be in static terms.”³² Competition brings pressure for innovation and efficiencies, in contrast to the “enforced orderliness that is the ideal of central planning.”³³

The public utility concept may now have passed (or, perhaps more accurately, faded) in the part of the economy to which it originally applied—for example, railroads and electric power. Nevertheless, it turns out that the concept is actually alive and thriving in the part of our information-driven economy that relies on intellectual property rights. Indeed, what is now emerging is what we might call the intellectual property concept.

We can see the outlines of this new intellectual property concept by tracking Gray’s earlier description. Once again, monopoly is both

26. *Id.*

27. Gray believed that the institution of public utility control had failed in each area in which it had been applied and that, “[l]ike other outmoded institutions,” it was destined to be replaced by superior institutions yet to be devised. *Id.* at 19. “But,” Gray warned, “the ‘passing of the public utility concept’ is not likely to proceed rapidly.” *Id.*

28. Alfred E. Kahn, *The Passing of the Public Utility Concept: A Reprise, in TELECOMMUNICATIONS REGULATION TODAY AND TOMORROW* 3, 5 (Eli M. Noam ed., 1983).

29. *Id.* at 26 (“Competition and regulation are both highly imperfect institutions.”).

30. *Id.* at 10.

31. *Id.*

32. *Id.*

33. *Id.*

inevitable and desirable, but now this is because of the economic characteristics of intellectual property (nonrivalrousness and nonexcludability³⁴) and the network effects that arise in many information-based industries.³⁵ Echoing Gray's words, the new intellectual property concept suggests that holders of intellectual property rights should have "immunity from prosecution under the anti-trust laws, legal validation of their privileges as property rights, the protection of the state for their monopolies, and a relatively free hand to extend their economic power."³⁶ Unlike the old public utility concept, however, the new intellectual property concept does not even make the pretense of requiring state control of monopoly profits. Taking a Schumpeterian approach to the innovation process—monopoly profits are "the baits that lure capital on to untried trails"³⁷—the new intellectual property concept argues that unregulated monopoly profits are the engine of innovation. As a result, intellectual property rights holders should be entitled to earn maximum profits on the investments they have made in the intellectual property products they produce.

The intellectual property concept, however, is neither passing nor fixed. It is, rather, evolving. The purpose of this Article is to explore that evolution and to draw on antitrust's experience with regulated industries to suggest how this evolving concept can be controlled in the antitrust context, much as we controlled the public utility concept in earlier years when it was advanced in antitrust litigation.

This Article uses one of the most important antitrust prosecutions involving a new economy industry—the government monopolization

34. Nonrivalrousness means that the use of an invention or writing by one person does not diminish the ability of another to use it. *See, e.g.*, DENNIS W. CARLTON & JEFFREY M. PERLOFF, *MODERN INDUSTRIAL ORGANIZATION* 530-31 (4th ed. 2005). Nonexcludability means that, absent some form of legal protection, the inventor or author cannot easily exclude others from using the invention or writing. *See, e.g.*, HOVENKAMP ET AL., *supra* note 19, at 1-4 to -5. These characteristics make intellectual property a form of "public goods." *See id.* at 1-3 to -4; PAUL A. SAMUELSON & WILLIAM D. NORDHAUS, *ECONOMICS* 36-37 (16th ed. 1998) (defining public goods); *see generally* Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY* 609, 614-16 (Richard R. Nelson ed., 1962) (discussing information's properties of indivisibility and inappropriability).

35. Network effects are demand-side economies that arise when a product's value to consumers increases as more consumers use the product. *See, e.g.*, Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 *AM. ECON. REV.* 424, 424 (1985). The increase in value may occur because more consumers are actually or virtually connected, or because consumers of a particular product can expect producers to supply them with products in the future. *See id.*

36. Gray, *supra* note 22, at 11.

37. J.A. SCHUMPETER, *CAPITALISM, SOCIALISM, AND DEMOCRACY* 90 (3d ed. 1950).

litigation brought against Microsoft—as a vehicle for exploring the intellectual property concept. That litigation involves two different antitrust attacks on Microsoft’s business practices: (1) a set of cases brought simultaneously by the United States Department of Justice, twenty states, and the District of Columbia and (2) the case brought by the European Commission. The focus of the discussion will not be on the cases generally, but on how Microsoft shaped its intellectual property arguments in both fora and how the U.S. courts and the European Commission dealt with those arguments. As this Article will show, not only did Microsoft’s arguments echo the old public utility concept, but an important part of the remedy chosen in both Microsoft proceedings is precisely the remedy chosen in many public utility settings—a duty to provide access on reasonable, nondiscriminatory terms.³⁸

Part II of this Article describes how courts handled the intellectual property issues in the U.S. Microsoft monopolization cases, both in the liability phase and on relief. Part III explores the European Commission’s Microsoft decision, in which intellectual property rights were of more central concern with regard to liability than in the United States and which was taken in the somewhat different context of European competition law. Part IV of this Article brings together the public utility concept and the evolving intellectual property concept. This Part suggests how the principles used by the courts in the regulatory context might be applied to intellectual property issues, not only in the Microsoft litigation but also in other recent cases where antitrust and intellectual property have been in conflict. The Article concludes with some observations on how the growth of the intellectual property concept threatens antitrust’s preference for competitive markets, much as the growth of the public utility concept threatened antitrust from the 1930s to the 1970s.

38. As a general matter, few commentators have seen economic parallels between intellectual property and public utility regulation of natural monopoly. For a rare exploration of these parallels, see John F. Duffy, *The Marginal Cost Controversy in Intellectual Property*, 71 U. CHI. L. REV. 37 (2004).

II. *UNITED STATES V. MICROSOFT CORP.*A. *Intellectual Property Issues in the Liability Phase*

Understanding the intellectual property issues in *United States v. Microsoft Corp.*³⁹ first requires an understanding of the plaintiffs' case, which focused on monopolization of the market for operating systems for personal computers.⁴⁰ Plaintiffs alleged that Microsoft had willfully maintained its monopoly position in the operating system market in violation of section 2 of the Sherman Act, through a variety of tactics aimed at suppressing the development of a layer of software, termed middleware, that works between its Windows operating system and software applications.⁴¹ The theory was that the development of independent middleware posed a threat to Microsoft's monopoly position in the operating system market.⁴²

Middleware was important to the plaintiffs' case because of its relationship to one of the most critical barriers to entry into the operating system market,⁴³ the existence of a substantial number of applications programs that work with Windows.⁴⁴ This large array of programs has become an entry barrier because consumers are reluctant to buy an operating system for which there are few applications and software developers are reluctant to write applications for operating systems for which there are few users.⁴⁵ This keeps consumers and developers attached to Windows. The middleware focused on in the litigation, however, was "cross-platform"—that is, it would be capable

39. The district court issued its findings of fact and conclusions of law separately. See 84 F. Supp. 2d 9 (D.D.C. 1999) (findings of fact), 87 F. Supp. 2d 30 (D.D.C. 2000) (conclusions of law). On appeal, the circuit court affirmed in part and reversed in part. See *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir.), cert. denied, 534 U.S. 952 (2001).

40. For a good overview of the plaintiffs' theories, see Franklin M. Fisher & Daniel L. Rubinfeld, *U.S. v. Microsoft—An Economic Analysis*, 46 ANTITRUST BULL. 1 (2001).

41. See DOJ Complaint ¶¶ 16-35, *Microsoft*, 84 F. Supp. 2d 9 (Civil Action No. 98-1232), <http://www.usdoj.gov/atr/cases/f1700/1763.pdf> (describing six aspects of Microsoft's conduct); *id.* ¶ 66 (describing the browser as a "software 'layer'"); Plaintiff States' First Amended Complaint ¶ 35, *Microsoft*, 84 F. Supp. 2d 9 (Civil Action No. 98-1233 (TPJ)) (on file with the Wisconsin Law Review) (describing the "middleware" layer).

42. See DOJ Complaint, *supra* note 41, ¶ 4.

43. See *Microsoft*, 84 F. Supp. 2d at 28.

44. See *id.* at 19-20.

45. See *id.* at 20.

of running with any operating system, not just Microsoft's.⁴⁶ If applications developers could write software to interoperate with such middleware, rather than with Windows, the applications barrier to entry into the operating system market might be lowered or eliminated.⁴⁷

Although the trial produced numerous examples of Microsoft's efforts to suppress middleware threats, the heart of the plaintiffs' case was Microsoft's conduct towards Netscape and its Internet browser, Navigator.⁴⁸ Two aspects of that conduct were potentially related to the scope of Microsoft's intellectual property rights.

The first involved Microsoft's efforts to bundle its own Internet browser, Internet Explorer (IE), with Windows.⁴⁹ Microsoft initially accomplished this through contractual restrictions which forbade computer manufacturers that licensed Windows from modifying or deleting any part of the operating system, including the deletion of IE, prior to shipment.⁵⁰ Subsequently, Microsoft designed Windows and IE so that users would be unable technically to uninstall IE.⁵¹ In particular, Microsoft omitted an add-remove utility for IE (preventing users from easily removing access to programs)⁵² and commingled operating system-only and browser-only routines in the same files (thereby making it more difficult to remove the IE browser code without adversely affecting the operating system as well).⁵³ Microsoft also contractually prohibited licensees of its software from reverse engineering, decompiling, or disassembling any software files.⁵⁴

The second aspect of Microsoft's conduct that relates specifically to its intellectual property rights was the restrictions that Microsoft placed on original equipment manufacturers (OEMs) with regard to modifying other aspects of Windows. Microsoft forbade OEMs from (1) removing desktop icons, folders, or "Start menu" entries; (2) altering the initial boot sequence;⁵⁵ or (3) altering the appearance of the

46. See *id.* at 28-30 (giving Navigator and Java as examples of cross-platform applications); *id.* at 34-38 (discussing other cross-platform applications).

47. See *id.* at 28.

48. See Plaintiffs' Joint Response to Microsoft's Motion for Summary Judgment and Reply in Support of Motions for Preliminary Injunction at 5-7, *Microsoft*, 84 F. Supp. 2d 9 (Civil Action Nos. 98-1232 (TPJ) & -1233 (TPJ)).

49. See *Microsoft*, 84 F. Supp. 2d at 49.

50. See *id.*

51. See *id.* at 52.

52. See *id.* at 51-53.

53. See *id.* at 50.

54. *Id.*

55. "Boot sequence" refers to what occurs each time the end-user starts up a computer. The "initial boot sequence" is the first time the end-user starts up a computer.

Windows desktop.⁵⁶ Microsoft took these actions to discourage the installation of any competing browser.⁵⁷

Software—consisting only of words compiled into numbers, distributable at close to zero cost, readily copyable, and perhaps easily altered—is as close to pure intellectual property as any product can be.⁵⁸ It needs some form of legal protection if society is to expect people to devote their energies and capital to its production.⁵⁹ But should this protection extend so far as to give the producer of software an intellectual property right to exclude competition if that software producer is a product market monopolist?

In Microsoft's brief to the district court on its motion for summary judgment, Microsoft appeared to be arguing for just that sort of maximalist property right. Arguing that the plaintiffs' attack on the tying of IE and Windows "fl[ies] in the face of federal copyright law"⁶⁰ and that the boot-up and screen licensing restrictions "do nothing more than restate Microsoft's rights, as the holder of a presumptively valid copyright,"⁶¹ Microsoft asserted that

[t]o promote creativity, innovation, and competition, the federal copyright laws provide copyright holders such as Microsoft with broad and well-recognized rights, rooted in the Constitution, to license their intellectual property as they see fit. . . . Microsoft is under no obligation to permit its distributors to disassemble its products.⁶²

56. *Id.* at 61.

57. *See id.*

58. *See* Mark A. Lemley & David W. O'Brien, *Encouraging Software Reuse*, 49 STAN. L. REV. 255, 268-69 (1997); *cf.* *Bobbs-Merrill Co. v. Straus*, 210 U.S. 339, 347 (1908) ("The copyright is an exclusive right to the multiplication of the copies, for the benefit of the author or his assigns, disconnected from . . . any . . . physical existence. It is an incorporeal right to print and publish . . . , or, as said by Lord Mansfield in *Miller v. Taylor*, 'a property in notion, and has no corporeal, tangible substance.'") (quoting *Stephens v. Cady*, 55 U.S. 528, 530 (1853) (citations omitted)).

59. *See, e.g.*, Peter S. Menell, *Tailoring Legal Protection for Computer Software*, 39 STAN. L. REV. 1329, 1337 (1987). This is true even for "open source" software which, as its producers are wont to say, is not "free" but is, in fact, protected by license so that subsequent contributors to an open source project cannot propertize their contributions. *See, e.g.*, Free Software Found., Free Software Definition, <http://www.gnu.org/philosophy/free-sw.html> (last visited Dec. 6, 2006).

60. Defendant Microsoft Corporation's Memorandum in Support of Its Motion for Summary Judgment, *Microsoft*, 84 F. Supp. 2d 9 (Civil Action No. 98-1232 (TPJ)), 1998 WL 34201988 at *12 [hereinafter Defendant's Memorandum].

61. *Id.* at *29.

62. *Id.*

Microsoft further asserted that “[t]he provisions of Microsoft’s OEM license agreements at issue merely highlight and expressly state the rights that Microsoft already has under the federal copyright laws.”⁶³

Microsoft’s arguments did not persuade U.S. District Court Judge Thomas Penfield Jackson. In denying Microsoft’s motion for summary judgment, Judge Jackson first pointed out that determining the extent to which copyright law actually protects computer programs is complex (copyright law, for example, does not protect functional aspects of a computer program) and that “whatever copyright protection Microsoft enjoys in its software is not unlimited.”⁶⁴ Judge Jackson then discussed Microsoft’s copyright argument only in connection with the boot-up and screen licensing restrictions, without mentioning the potentially broader application to Microsoft’s refusal to allow unbundling of IE: “Numerous issues remain genuinely in dispute on the boot and start-up screen claim. These include the extent of copyright protection in the *specific* portions of software plaintiffs seek to modify and whether Microsoft abused its copyright for anticompetitive purposes.”⁶⁵

Judge Jackson’s approach on summary judgment narrowed the sweep of Microsoft’s intellectual property argument, taking a nuanced view of the property rights that a holder of the copyright in a computer program might have. He challenged Microsoft to show exactly what protection there might be in those aspects of Windows that computer manufacturers might have wanted to alter.⁶⁶ The judge did not assume Microsoft’s intellectual property rights to be identical to the restrictions it imposed in its licensing agreements. If Microsoft wanted to make the argument that it had an intellectual property right to impose its licensing restrictions, it would need to show that the manufacturers would have infringed its specific copyright rights.

Microsoft’s claim never descended to the level of the specifics, however. Microsoft did not treat the plaintiffs’ case as if it were one of potential copyright infringement. Nor was there any indication that Microsoft had ever treated the OEM restrictions on unbundling or on

63. *Id.* at *30.

64. *See* United States v. Microsoft, 1998-2 Trade Cas. (CCH) ¶ 72,261, at 82,677 (D.D.C. Sept. 14, 1998). For an indication of the difficulties in determining the scope of protection available for copyrighted software, see *Lotus Dev. Corp. v. Borland Int’l, Inc.*, 49 F.3d 807 (1st Cir. 1995) (holding that copying the menu command hierarchy of a copyrighted software program is not an infringement because it is an unprotectable method of operation); *Computer Assocs. Int’l, Inc. v. Altai, Inc.*, 982 F.2d 693 (2d Cir. 1992) (creating a three-step test for nonliteral infringement, involving abstraction, filtration, and comparison).

65. *Microsoft*, 1998-2 Trade Cas. (CCH) at 82,679.

66. *See id.*

providing a different boot-up screen as if these might be copyright infringements.

Instead, Microsoft's argument to Judge Jackson relied on three copyright infringement cases, all of which involved claims of fairly substantial alterations to the copyrighted work.⁶⁷ Although the courts in these cases included some general language about the right of an author to prevent its copyrighted work from being "truncated" by a subsequent author,⁶⁸ there were some obvious problems with arguing that the three cases should provide Microsoft with an antitrust immunity for its conduct: None of these cases involved an allegation of an anticompetitive use of the copyright right. Two of the cases referred to specific statutory provisions of the Copyright Act in which the potential infringement might be located,⁶⁹ while the third referred to one of the other two cases, indicating that the issue was one of "first impression."⁷⁰ Further, all three cases had strong overtones of "moral rights," the idea (not generally accepted in U.S. copyright law) that an author has the right to control subsequent republications of the author's work.⁷¹

The closest of the cases on which Microsoft relied was *WGN Continental Broadcasting Co. v. United Video, Inc.* In that case, a cable-program retransmitter had substituted its own teletext information for the teletext information inserted by a Chicago television broadcaster in the vertical blanking interval of its copyrighted nine o'clock news.⁷²

67. See Defendant's Memorandum, *supra* note 60, at *30 (citing *WGN Cont'l Broad. Co. v. United Video, Inc.*, 693 F.2d 622 (7th Cir. 1982); *Gilliam v. Am. Broad. Cos.*, 538 F.2d 14 (2d Cir. 1976); *Nat'l Bank of Commerce v. Shaklee Corp.*, 503 F. Supp. 533 (W.D. Tex. 1980)).

68. See *Gilliam*, 538 F.2d at 21, *quoted in WGN*, 693 F.2d at 625, and *Shaklee*, 503 F. Supp. at 544.

69. See *Gilliam*, 538 F.2d at 19-20 (discussing 17 U.S.C. § 7 (1970)); *WGN*, 693 F.2d at 625 (discussing 17 U.S.C. §§ 101, 106, 111 (1976)).

70. See *Shaklee*, 503 F. Supp. at 543-44.

71. See *Weinstein v. Univ. of Ill.*, 811 F.2d 1091, 1095 n.3 (7th Cir. 1987) (interpreting *Gilliam* and *WGN* as involving rights similar to moral rights); *Shaklee*, 503 F. Supp. at 544 ("[A]n author should have control over the context and manner in which his or her work is presented."). For further discussion of *Gilliam* and moral rights, see, for example, Edward Lee, *The New Canon: Using or Misusing Foreign Law to Decide Domestic Intellectual Property Claims*, 46 HARV. INT'L L.J. 1, 43 n.195 (2005) (chronicling cases that have rejected *Gilliam's* reasoning regarding moral rights); Thomas F. Cotter, *Pragmatism, Economics, and the Droit Moral*, 76 N.C. L. REV. 1, 16-18 (1997) (providing an overview of *droit moral* in *Gilliam*); Roberta Rosenthal Kwall, *Copyright and the Moral Right: Is an American Marriage Possible?*, 38 VAND. L. REV. 1, 34-38 (1985) ("The peculiar fact situation in *Gilliam* arguably militates against the decision's application in a broad range of copyright cases concerning aspects of the moral right.").

72. See *WGN*, 693 F.2d at 624.

The U.S. Court of Appeals for the Seventh Circuit held that the retransmitter infringed the broadcaster's copyright because the teletext was an "integral part" of the news program, analogous to different pages in the same book.⁷³ There was no controversy over whether the broadcaster had copyrighted the whole news program, however, and it was rather clear that the insertion would change the way that the television program would be displayed,⁷⁴ violating an enumerated right under the Copyright Act.⁷⁵ Neither of these points was so clear when it came to an OEM's possible removal of IE from Windows, or, indeed, with regard to specific OEM changes in the boot-up process or the display of icons on the Windows desktop. Whatever potential *WGN's* book-pages analogy might have for the various aspects of Windows and particularly IE, there would first need to be some finding of copyright infringement, a much more difficult task for software than for a television program.⁷⁶

The copyright argument that Microsoft presented in its summary judgment brief, however, was not detained by such details. Instead of pointing to any specific provision of the Copyright Act, or undertaking to show that its copyright was infringed by the specifics of the conduct it sought to suppress, Microsoft simply argued that federal copyright law gave it an unequivocal right to prohibit OEMs "from altering that software without Microsoft's authorization."⁷⁷

Judge Jackson's denial of Microsoft's motion for summary judgment left Microsoft free to pursue its claims at trial, but Microsoft never really did. The only evidence it offered regarding intellectual property protection for Windows was certificates of copyright registrations for Windows 95 and Windows 98.⁷⁸ Microsoft subsequently argued that, under the Copyright Act, those certificates constituted "prima facie evidence of the validity of the copyright,"⁷⁹ while Judge Jackson pointedly noted that the question was not the

73. *See id.* at 626.

74. *See id.*

75. *See* 17 U.S.C. §§ 106(4)-(5) (2000) (granting exclusive rights to a copyright holder to "perform" or "display" an "audiovisual work").

76. *See* cases cited *supra* note 64.

77. Defendant's Memorandum, *supra* note 60, at *30.

78. *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9, 66 (D.D.C. 1999).

79. *See United States v. Microsoft Corp.*, 87 F. Supp. 2d 30, 40 (D.D.C. 2000) (citing 17 U.S.C. § 410(c)). The scope of the statutory presumption is not necessarily clear. *See, e.g., Superchips, Inc. v. St. & Performance Elecs., Inc.*, 58 U.S.P.Q.2d 1849 (M.D. Fla. 2001) (holding that the plaintiff's registration certificate, issued under the "rule of doubt" because the computer program was submitted in object code, was not entitled to a presumption of validity because the examiners could not determine copyrightable authorship).

validity of the copyrights, but what, precisely, the copyrights protect.⁸⁰ It is not surprising, then, that Judge Jackson was no more disposed to accepting Microsoft's intellectual property argument post-trial than he had been at the summary-judgment stage. "To the extent that Microsoft still asserts a copyright defense," Judge Jackson wrote, "that defense neither explains nor operates to immunize Microsoft's conduct under the Sherman Act."⁸¹ Dismissing the three cases on which Microsoft relied as being "inapposite" because they were suits for infringement without an antitrust issue,⁸² Judge Jackson pointed out that Microsoft presented "no evidence" that the restrictions it placed on the OEMs derived from any of the enumerated rights that a copyright holder has under the Copyright Act.⁸³ Microsoft's actions had nothing to do with protecting the integrity of its artistic work; they had everything to do with suppressing the competitive threat that middleware presented.⁸⁴

Microsoft continued to assert a copyright argument on its appeal from the trial court's finding of a violation of sections 1 and 2 of the Sherman Act, but the intellectual property argument was hardly front-and-center and continued to be somewhat incoherent. In its initial brief to the court of appeals, Microsoft repeated the arguments it had made at the trial-court level—namely, that it had the "right to protect against unauthorized modifications in its copyright works" in relation to the boot-up and screen-modification licensing restrictions.⁸⁵ In its reply brief, however, Microsoft broadened the argument again, asserting that it had the right to prevent OEMs from removing access to its IE browser functionality.⁸⁶ The prohibition on unbundling may have been embodied in the OEM license, but, Microsoft argued, as a mere restatement of the intellectual property right which it had lawfully been

80. *Microsoft*, 87 F. Supp. 2d at 40.

81. *Id.*

82. *See id.* at 40 n.2.

83. *Id.*

84. *See id.* at 41; *cf.* *Image Technical Servs., Inc. v. Eastman Kodak Co.*, 125 F.3d 1195 (9th Cir. 1997) (rejecting as pretextual an intellectual property justification for refusing to sell patented parts).

85. *See* Appellant Microsoft Corporation's Brief at 102-03, *United States v. Microsoft*, 253 F.3d 34 (D.C. Cir. 2001) (Nos. 00-5212 & -5213) (citing Judge Jackson's opinion dealing with those restrictions).

86. Plaintiffs . . . argue that Microsoft was required to permit OEMs, which act as Microsoft's distributors, to delete "user access" to that [Web browser] functionality. By claiming that Microsoft must permit OEMs to make unauthorized modifications to its copyrighted operating systems, plaintiffs seek to deprive Microsoft of its rights under federal copyright law.

Reply Brief for Microsoft Corp. at 29, *Microsoft*, 253 F.3d 34 (Nos. 00-5212 & -5213), 2001 WL 34153358 at *21.

granted to Windows.⁸⁷ In effect, Microsoft asserted that copyright law gave it the right to tie IE to Windows: “[I]f intellectual property rights have been lawfully acquired . . . their subsequent exercise cannot give rise to antitrust liability.”⁸⁸

The court of appeals reacted unfavorably to Microsoft’s arguments. For one, the court considered the copyright argument only in connection with the boot-sequence and desktop restrictions,⁸⁹ hardly the most competitively critical restraints. The court did not even mention the broader application of the argument to the refusal to allow unbundling of IE. Even at this reduced level, however, the court was mostly unreceptive: “Microsoft’s primary copyright argument,” the court wrote, “borders upon the frivolous.”⁹⁰ To say that the exercise of lawfully acquired copyright rights cannot give rise to antitrust liability “is no more correct than the proposition that use of one’s personal property, such as a baseball bat, cannot give rise to tort liability.”⁹¹

Even though the court rejected Microsoft’s broad copyright argument, the court did consider Microsoft’s assertion that it should be able to limit “deleterious alterations of a copyrighted work.”⁹² The court accepted this argument not so much as a matter of absolute right, but more as a matter of judging whether Microsoft was using its intellectual property right “in an unreasonable manner.”⁹³ It thus weighed Microsoft’s interest in forbidding OEMs from installing a shell program that would prevent consumers from ever seeing the Microsoft desktop (which the court called a “drastic alteration” in the copyrighted work) as against the “marginal anticompetitive effect” that such a provision might have had on the ability of middleware to compete.⁹⁴ So stated, the court found that the desktop restriction did not violate section 2 of the Sherman Act.⁹⁵

In reality, the court of appeals’ balancing approach had little to do with the scope of the actual intellectual property rights that Microsoft might have had in preventing alterations to Windows that would result in a different desktop. The question for the court was whether this

87. *See id.*

88. Appellant Microsoft Corporation’s Brief, *supra* note 85, at 105.

89. *See Microsoft*, 253 F.3d at 61-62.

90. *Id.* at 63.

91. *See id.*

92. *See id.*

93. *See id.* Deciding whether the restriction was “unreasonable” was consistent with the overall rule of reason methodology that the court of appeals followed in deciding whether Microsoft’s conduct maintained its monopoly power, in violation of section 2 of the Sherman Act. *See id.* at 58-59.

94. *See id.* at 63.

95. *Id.*

aspect of Microsoft's conduct constituted an exclusionary practice under section 2 of the Sherman Act.⁹⁶ Protection of such a significant product quality of Windows was a sufficiently strong justification to make Microsoft's conduct, on this point, not unreasonable and, therefore, not a violation of the antitrust laws.⁹⁷

Three points emerge from this review of Microsoft's arguments and the courts' decisions. First, Microsoft made its arguments at a level of generality that reveals the intellectual property concept at play. Microsoft urged a broad immunity from antitrust and a strong property right to control all aspects of its software—in much the same way that Gray argued that regulated public utilities had done.⁹⁸ Microsoft never pointed directly to any provisions of the Copyright Act nor did it ever show that the conduct it sought to suppress would have infringed any right the Act might have provided. Second, the two courts that considered Microsoft's arguments reacted differently. The district court was not satisfied with the intellectual property concept approach and sought proof of the specifics of Microsoft's claimed rights.⁹⁹ On the other hand, the court of appeals, while rejecting Microsoft's claim for a broad immunity,¹⁰⁰ was not particularly focused on Microsoft's actual intellectual property rights. Its "bat" analogy casually equated intellectual property rights to rights in other forms of property and the court's analysis of the desktop restrictions simply assumed that Microsoft had some right to forbid OEMs from making what the court believed was a major alteration of the appearance of the desktop. The court of appeals thus provided little guidance on what difference intellectual property law might make in assessing antitrust liability. Third, despite the potential importance of intellectual property issues in the liability phase, these issues actually barely ended up in the discussion at all. For whatever reason, Microsoft chose not to make them a serious focus of its trial efforts, resulting in peripheral court treatment of the intellectual property problems.

B. Intellectual Property Issues in the Remedy Phase

One of the clearest ways in which antitrust law could conflict with intellectual property rights is if an antitrust rule required an intellectual property right owner to share the use of the work over which intellectual property law gives the owner exclusive control. Intellectual

96. *See id.*

97. *See id.* at 63.

98. *See supra* notes 22-26 and accompanying text.

99. *See supra* notes 65-66, 78-81 and accompanying text.

100. *See supra* notes 90-91 and accompanying text.

property law is designed to give the rights holder the ability to appropriate the value of the protected work, be it an invention or a writing.¹⁰¹ Without at least some protection from having the invention or writing used by others—so the theory goes—intellectual products would not be produced.¹⁰² On the other hand, the refusal to share an intellectual property product that competitors find necessary for effective competition could be a way for a firm to get or maintain a monopoly.

At the liability stage of the plaintiffs' case against Microsoft, there was only one minor example that related to Microsoft's refusal to share protected information in a way that might have harmed competition—a four-month delay in 1995 in releasing the specifications for a particular application program interface (API) to Netscape, which excluded Netscape from most of the holiday season that year.¹⁰³ The final judgment entered in relief, however, contains some very significant provisions that require Microsoft to disclose information that might otherwise be protectable under intellectual property law.

After the court of appeals affirmed the district court's ruling that Microsoft had engaged in illegal monopoly maintenance in violation of section 2 of the Sherman Act,¹⁰⁴ it remanded the case for further proceedings, including a reconsideration of the original remedial decree splitting Microsoft into two separate companies.¹⁰⁵ The court of appeals did not preclude the district court from entering a similar restructuring decree, but that court's views on the totality of the plaintiffs' case and its expressed concern for the potential disproportionality between such a decree and the actual competitive harm Microsoft caused made it unlikely that structural relief would subsequently be imposed.¹⁰⁶ The new decree, the court of appeals cautioned, "should be tailored to fit the wrong creating the occasion for the remedy."¹⁰⁷

On remand a new district court judge, Judge Colleen Kollar-Kotelly, was assigned to hear the case.¹⁰⁸ She subsequently entered as

101. See, e.g., Lemley, *supra* note 15 (arguing against allowing inventors to capture the full social value of their inventions).

102. See, e.g., Brett M. Frischmann, *An Economic Theory of Infrastructure and Commons Management*, 89 MINN. L. REV. 917, 947 (2005).

103. See *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9, 33 (D.D.C. 1999). This incident was not mentioned in the court of appeals' decision. See *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001).

104. See *Microsoft*, 253 F.3d at 51.

105. See *id.* at 98.

106. See *id.* at 105-07.

107. *Id.* at 107.

108. Judge Jackson was disqualified from continuing to hear the case, on grounds unrelated to the substantive merits of the case. See *Microsoft*, 253 F.3d at 116.

the final decree in the case a settlement agreed to by Microsoft, the Justice Department, and nine of the litigating states.¹⁰⁹ Not surprisingly, the settlement took a conduct-based approach,¹¹⁰ abandoning the more sweeping restructuring envisioned in Judge Jackson's decree. Nevertheless, within this narrower approach to relief, the government plaintiffs still included what the district court described as two "forward-looking" provisions¹¹¹: One required Microsoft to disclose, in certain circumstances, the APIs "and related documentation" used by Microsoft middleware to interoperate with Windows.¹¹² The other required Microsoft to license, "on reasonable and non-discriminatory terms," communications protocols installed on a personal computer and used to interoperate with a Microsoft server operating system.¹¹³

The reason for requiring API disclosures is related to the plaintiffs' original case. If middleware is to be a competitive threat to Windows, it must be able to work with Windows as well as with other operating systems—that is, it cannot be cross-platform unless it works on the dominant platform as well as on others that might come along.¹¹⁴ Requiring disclosure of APIs helps insure this interoperability, making relief justifiable even if the required disclosure was not "clearly directed at the redress of a specific finding of liability," but, instead, was aimed at "eliminating the effects of illegal conduct."¹¹⁵

Disclosure of communications protocols between Windows and Microsoft server operating systems could also be justified as consistent with the plaintiffs' competition concerns and their theory of the case. The theory was that servers might be the "new middleware," in the sense that future applications might run on servers rather than on

109. See *United States v. Microsoft*, 231 F. Supp. 2d 144, 202 (D.D.C. 2002). The settlement decree and its aftermath are described more fully in Harry First & Andrew I. Gavil, *Re-framing Windows: The Durable Meaning of the Microsoft Antitrust Litigation*, 2006 UTAH L. REV. (forthcoming).

110. See *Microsoft*, 231 F. Supp. 2d at 202.

111. See *id.* at 187-90.

112. See *United States v. Microsoft Corp.*, 2002-2 Trade. Cas. (CCH) ¶ 73,860, at 95,110.

113. See *id.* Protocols, generally, are defined as rules of interconnection and interaction. See, e.g., Eur. Comm'n Decision of March 24, 2004, Case COMP/C-3/37.792 *Microsoft*, ¶ 49. The Final Settlement Decree defines a "communications protocol" as "the set of rules for information exchange to accomplish predefined tasks between a Windows Operating System Product and a server operating system product connected via a network." *Microsoft*, 2002-2 Trade Cas. (CCH) at 95,117.

114. See *Microsoft*, 231 F. Supp. 2d at 186-87.

115. See *id.* at 189. Recall that there was no finding of liability for withholding APIs. See *supra* note 103 and accompanying text.

personal computers.¹¹⁶ Server operating systems thus might become a platform that would challenge Microsoft's dominance in the desktop operating system market, but only if servers are able to communicate with the desktop.¹¹⁷ Such communication requires knowledge of the protocols that Microsoft builds into Windows.¹¹⁸ This required disclosure is one step further from the original case, however, because there was no evidence submitted in the liability phase dealing with server interoperability.¹¹⁹

Even though API nondisclosure was never really a part of the government plaintiffs' case on liability, the idea of requiring such disclosure as part of the remedy had been in the states' case from the very beginning. In their prayer for relief, the states asked for the imposition of broad disclosure provisions relating to interoperability.¹²⁰ In addition, both API and communications-protocol disclosure had been part of the transitional remedies in Judge Jackson's original decree, including the required disclosure of "communications interfaces" between Microsoft server operating systems and Microsoft PC operating systems.¹²¹

Whether foreshadowed or not by the complaints and theory of liability, the final decree's mandatory disclosures—along with compulsory licensing of this information and any intellectual property rights necessary to use it—would seem to raise a direct conflict between antitrust and intellectual property. If anything, the decree raises this conflict more clearly than it was raised at trial. Of course, because the parties entered the final decree by consent, the district court did not

116. See *New York v. Microsoft Corp.*, 224 F. Supp. 2d 76, 172-73 (D.D.C. 2002).

117. See *Microsoft*, 231 F. Supp. 2d at 189.

118. The district court gave two reasons for the provision—to ensure that rival middleware could compete with Microsoft middleware and to ensure that Microsoft did not incorporate functionality into Windows “with which only its own servers can interoperate.” See 231 F. Supp. 2d at 189-90. The former might link to the suppression of middleware that could grow to challenge the desktop operating system, but the latter appears to be directly aimed at the server market. In this sense, Judge Kollar-Kotelly's reasoning seems closer to the concerns in the case subsequently decided by the European Commission. See *infra* notes 156-168 and accompanying text.

119. See *Microsoft*, 231 F. Supp. 2d at 190-91.

120. See Plaintiff States' First Amended Complaint, *supra* note 41, at 35, (asking for a compulsory license of intellectual property rights in “interfaces” for browsers to work with Windows); *id.* (asking for the disclosure of information to allow complementary software products to “run satisfactorily” with Windows).

121. See *United States v. Microsoft Corp.*, 97 F. Supp. 2d 59, 67 (D.D.C. 2000), *vacated*, 253 F.3d 34 (D.C. Cir. 2001). These provisions would have applied until the restructuring had been effectively carried out—either three years after Microsoft's reorganization or on expiration of the final judgment (ten years after entry), whichever came first. See 97 F. Supp. 2d at 66, 71.

need to discuss this conflict, and Microsoft had no incentive to argue that it was being forced to give up rights to which it was otherwise entitled.¹²²

Not all of the states agreed with the consent decree, however, and the nonsettling states (nine of the plaintiff states plus the District of Columbia) proposed a decree with broader compulsory disclosure requirements with regard to Microsoft's middleware APIs and server protocols.¹²³ Although the nonsettling states' disclosure proposal was virtually identical to the judicially unreviewed transitional disclosure provision in Judge Jackson's decree,¹²⁴ Judge Kollar-Kotelly did not make this comparison. Instead, the court compared the proposal to the negotiated decree, finding that the nonsettling states' proposed disclosure provision was "substantially more broad in scope."¹²⁵ In light of the proposal's definition of "middleware,"¹²⁶ Judge Kollar-Kotelly felt Microsoft would have been required to disclose "vast amounts of its intellectual property."¹²⁷ Given the nonsettling states' goal of achieving a high degree of interoperability with Microsoft software, the result might be that non-Microsoft software could end up operating in a way that would be functionally interchangeable with Microsoft's products. In other words, the compulsory disclosures would have permitted competitors to offer clones of Microsoft's software, specifically clones of Windows.¹²⁸

It is here that the intellectual property concept emerges to affect the court's approach to the nonsettling states' proposal. Judge Kollar-Kotelly did recognize that cloning a program's functionality is not the

122. Under the provisions of the Tunney Act, 15 U.S.C. § 16 (b)-(h) (2000), the district court must determine whether a proposed government civil antitrust consent decree is "in the public interest." *See id.* § 16(e). In theory, an objector to the settlement could have argued that its provisions were contrary to the public interest in that they forced Microsoft to give up its intellectual property rights. It does not appear that anyone filing a public comment took such a position. For "major objector" comments on the proposed settlement, see Antitrust Div., DOJ, *United States v. Microsoft* Settlement: Comments Provided to the Court on February 14, 2002, <http://www.usdoj.gov/atr/cases/ms-major.htm>.

123. *See* Plaintiff Litigating States' First Amended Proposed Remedy at 12-14, *New York v. Microsoft*, 224 F. Supp. 2d 76 (D.D.C. 2002) (Civil Action No. 98-1233 (CKK)) (on file with the Wisconsin Law Review).

124. *Compare Microsoft*, 97 F. Supp. 2d at 67, *with* Plaintiff Litigating States' First Amended Proposed Remedy, *supra* note 123, at 13-14.

125. *Microsoft*, 224 F. Supp. 2d at 226.

126. The court concluded that "the definition in [the nonsettling states'] proposed remedy of 'Microsoft Middleware Product' appears to include almost every Microsoft software product." *Id.* at 227.

127. *Id.*

128. *See id.* at 228.

same as copying a program's code.¹²⁹ Indeed, the court acknowledged that not all information in the software industry is protected by intellectual property law¹³⁰ and even stated, albeit without any specific legal analysis, that the mandatory disclosure provisions would allow Microsoft's competitors to clone many features of Microsoft's software "without violating intellectual property laws."¹³¹ Nevertheless, the court referred to the proposed compulsory licensing provision as "an intellectual property 'grab' by Microsoft's competitors."¹³²

If cloning could be done under the proposed decree without violating intellectual property law, then in what way could it be said that the decree was "grabbing" Microsoft's intellectual property? Intellectual property law gives its holders some very specific and bounded rights to exclude others from using the holder's property.¹³³ But there is no clear examination in Judge Kollar-Kotelly's opinion regarding whether Microsoft protects its APIs or communications protocols through copyright, patent, trade secret, or even trademark, or the extent to which intellectual property laws might intendedly provide no protection at all to the information.

Judge Kollar-Kotelly was not really focused on the grabbing of a legal right, but on what she viewed as an effort to deprive Microsoft of its right to returns on investments it had made in its intellectual products:

129. *See id.*

130. *See id.* at 229 ("In the software industry, some information about competitors' products is available and other information is protected by intellectual property laws.").

131. *Id.* It is not perfectly clear what Judge Kollar-Kotelly meant by this statement. Her opinion cites as authority for this point the direct testimony of an economist, Kenneth Elzinga, who wrote the following: "Because trade secrets are an important way of protecting intellectual property rights in software, disclosure itself would enable competitors to clone many features without violating Microsoft's copyrights." *See id.* (citing Written Direct Testimony of Kenneth G. Elzinga ¶ 86, *Microsoft*, 224 F. Supp. 2d 76 (Civil Action No. 98-1233 (CKK)), <http://www.microsoft.com/presspass/legal/elzinga.msp>). It was not clear from Elzinga's testimony whether Microsoft had protectable trade secrets or the extent to which those trade secrets were involved in the particular disclosure provision relating to APIs and protocols, nor did Elzinga refer to any other intellectual property rights. It may be that Elzinga was assuming that competitors would use this information to engage in reverse engineering, a familiar way to deal with interoperability issues without (necessarily) violating any intellectual property right. *See, e.g.*, Pamela Samuelson & Suzanne Scotchmer, *The Law and Economics of Reverse Engineering*, 111 YALE L.J. 1575 (2002).

132. *See Microsoft*, 224 F. Supp. 2d at 229.

133. For copyright, these are the enumerated rights to which Judge Jackson referred. *See supra* notes 80-83 and accompanying text.

In general, the protection of intellectual property rights encourages innovation by rewarding the innovator's investment in creating something new, while making the innovation available to the public. To enable the cloning of Microsoft's products sets this scheme askew by denying Microsoft the returns from its investment in innovation and effectively divesting Microsoft's intellectual property of its value.¹³⁴

Having detached intellectual property rights from intellectual property law, and having articulated Microsoft's entitlement to the returns it has made in investing in its "property," the court then made clear what it believed to be at stake and, consequently, what the intellectual property concept is intended to protect:

Microsoft does not appear to have substantial assets in the form of factories or natural resources, traditional revenue drivers of "old economy" firms. In fact, Mr. Gates testified that Microsoft does not have *any* physical assets which he considers to be "important" to the success of the company. Instead, Microsoft's products consist almost entirely of information Microsoft creates Absent protection for intellectual property, there exists little reason to invest in developing software.¹³⁵

The court is correct, of course, in saying that there needs to be some legal protection for intellectual property. Without some protection intellectual products would be freely appropriable by others, at low or no cost. The real questions are, however, how much protection is necessary and what the costs of that protection might be. For example, a fuller calculus of the effects of compulsory disclosure on Microsoft's incentives to innovate would also have considered the stimulus to innovation that competition might provide, the competition that would be increased by making it easier for other software to interoperate with Windows, and, indeed, the competition that would come from permitting other software to mimic its functionality. The intellectual property concept, however, offers the potential of short-circuiting this inquiry, for it allows the court to focus only on the interests of the producer of the intellectual product. That interest, of course, is to get maximum protection from interference with use of its products and to get maximum reward.

134. *Microsoft*, 224 F. Supp. 2d at 176 (citation omitted).

135. *Id.* at 228 (citations omitted).

Despite the court's reaction to the nonsettling states' proposal, the court's willingness to protect intellectual property was not boundless. After all, the court did approve the provisions in the negotiated settlement which require compulsory licensing of APIs and communications protocols,¹³⁶ a highly controversial policy solution in the intellectual property area.¹³⁷ Even here, however, the evolving intellectual property concept turns out to be at work, for the approach taken by the parties in the decree ended up being more regulatory than the approach taken in most antitrust decrees.

The most obviously regulatory aspect of the decree entered by Judge Kollar-Kotelly was the requirement that the compulsory protocol licenses be offered on "reasonable and non-discriminatory terms."¹³⁸ Public utilities traditionally have been required to provide service to all who ask, without discrimination, and to offer service at "just and reasonable" rates.¹³⁹ For public utilities, these obligations have been

136. See *United States v. Microsoft*, 231 F. Supp. 2d 144, 187-90 (D.D.C. 2002).

137. See, e.g., Robert P. Merges & Richard R. Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839 (1990). Professors Merges and Nelson state that, although "there has been considerable debate over the years on the merits of compulsory licensing of patents under some circumstances, . . . the intellectual property community has repeatedly rejected the idea," *id.* at 840, and the compulsory licensing of patents remains "anathema." *Id.* at 911. Antitrust enforcers have recently expressed similar views. See, e.g., R. HEWITT PATE, ANTITRUST DIV., DOJ, COMPETITION AND INTELLECTUAL PROPERTY IN THE U.S.: LICENSING FREEDOM AND THE LIMITS OF ANTITRUST 10 (2005), <http://www.usdoj.gov/atr/public/speeches/209359.pdf> ("[C]ompulsory licensing of intellectual property as an antitrust remedy should be a rare beast."). Congress has created a variety of specifically circumscribed compulsory licenses relating to copyrights. See, e.g., 17 U.S.C. § 111 (2000) (cable television); *id.* § 115 (phonorecords); *id.* § 116 (jukeboxes), *id.* § 118 (public broadcasting), *id.* § 119 (2000) (superstations and network stations). For a criticism of this approach, see, for example, Paul Goldstein, *Preempted State Doctrines, Involuntary Transfers and Compulsory Licenses: Testing the Limits of Copyright*, 24 UCLA L. REV. 1107 (1977) (critiquing the Copyright Act's compulsory licensing provisions). Congress has also provided for compulsory patent licenses in certain circumstances. See, e.g., 7 U.S.C. § 2404 (2000) (governing patents necessary for the nation's food supply); 42 U.S.C. § 2183 (2000) (governing patents necessary for national atomic-energy needs); 35 U.S.C. § 203 (2000) (governing patents developed through the use of government-research funding).

138. *United States v. Microsoft Corp.*, 2002-2 Trade. Cas. (CCH) ¶ 73,860, at 95,110. This is not the only provision in the decree relating to price. Under section III.B, Microsoft is required to license Windows to OEMs under "uniform license agreements with uniform terms and conditions." *Id.* at 95,109. The decree also requires the licensing of any intellectual property necessary to carry out any of the provisions of the decree on "reasonable and non-discriminatory" terms. See *id.* 95,110-11.

139. See, e.g., 1 ALFRED E. KAHN, *THE ECONOMICS OF REGULATION: ECONOMIC PRINCIPLES* 3 (1970); JAMES C. BONBRIGHT, *PRINCIPLES OF PUBLIC UTILITY RATES* 33 (1961).

overseen by regulatory agencies,¹⁴⁰ but the *Microsoft* decree gave the district court this review function.¹⁴¹ The decree also required the court to supervise the quality of Microsoft's compliance with the protocol-disclosure requirement, with assistance from an outside technical committee.¹⁴² In fact, supervision of this disclosure requirement has proven to be a substantial regulatory burden, as the adequacy of Microsoft's protocol documentation has been a constant point of contention between the parties, leading the court to require periodic reporting and hearings in an effort to force Microsoft to perform adequately.¹⁴³

Antitrust agencies generally avoid such regulatory decrees, preferring remedies that restore competition and then permit the market to do its work.¹⁴⁴ The plaintiffs accepted this more regulatory decree as

140. See LOUIS B. SCHWARTZ ET AL., *FREE ENTERPRISE AND ECONOMIC ORGANIZATION: GOVERNMENT REGULATION* 26-38 (6th ed. 1985) (discussing agency regulation in various industries).

141. See *United States v. Microsoft*, 231 F. Supp. 2d 144, 200-02 (2002).

142. See *Microsoft*, 2002-2 Trade Cas. (CCH) at 95,113.

143. For status reports on Microsoft's compliance with the decree, see Antitrust Div., DOJ, *United States v. Microsoft: Current Case*, http://www.usdoj.gov/atr/cases/ms_index.htm. For information about the difficulties in documenting the protocols, see Joint Status Report on Microsoft's Compliance with the Final Judgments at 3, *Microsoft*, 2002-2 Trade Cas. (CCH) (Civil Action No. 98-1232 (CKK)), <http://www.usdoj.gov/atr/cases/f207200/207283.pdf> (announcing a one-year project to create "prototype implementations" of each task covered by the communications protocol program); Supplemental Joint Status Report on Microsoft's Compliance with the Final Judgments at 3, *Microsoft*, 2002-2 Trade Cas. (CCH) (Civil Action No. 98-1232 (CKK)), <http://www.usdoj.gov/atr/cases/f213100/213109.pdf> (noting that Microsoft would be unable to complete its part of the project until July 2006); Joint Status Report on Microsoft's Compliance with the Final Judgment 3-4, *Microsoft*, 2002-2 Trade Cas. (CCH) (Civil Action No. 98-1232 (CKK)), <http://www.usdoj.gov/atr/cases/f216100/216127.pdf> (stating that the parties' efforts to assure satisfactory technical documentation of protocols had reached a "watershed" and that Microsoft's performance in documenting the protocols and resolving technical issues had been "disappointing"). As a result of these problems, plaintiffs and Microsoft agreed to a two-year extension of the part of the decree relating to licensing the communications protocols, bringing the expiration of that part of the decree to November 2009, and Microsoft agreed that it would not oppose a further extension of this part of the decree for up to an additional three years. See *id.* at 10-11. For the modified decree, see *United States v. Microsoft Corp.*, 2006-2 Trade Cas. (CCH) ¶ 75,418 (D.D.C. 2006). For a fuller discussion of the difficulties in carrying out the final settlement decree, see First & Gavil, *supra* note 109.

144. See, e.g., DEBORAH PLATT MAJORAS, ANTITRUST DIV., DOJ, *ANTITRUST REMEDIES IN THE UNITED STATES: ADHERING TO SOUND PRINCIPLES IN A MULTI-FACETED SCHEME* (2002), <http://www.usdoj.gov/atr/public/speeches/200354.pdf>.

[T]he Antitrust Division is an enforcement agency, not a regulatory body. Consistent with this enforcement role, the Sherman and Clayton Acts authorize the Division to seek and procure a remedy any time it proves a violation of federal antitrust law. But having proven a violation, the goal is

a political compromise, which was forged in the context of a somewhat narrow remand from the court of appeals and a change in policy views at the Department of Justice occasioned by the installation of a new administration.¹⁴⁵ In context, the disclosure provisions looked like a possible way to advance competition.

On the other hand, the direction of the settlement can be seen as consistent with the economic and institutional assumptions that make the intellectual property concept the successor to the public utility concept. As an economic matter, Windows—an intellectual property product—is now taken to be a twenty-first century “natural” monopoly, with economies of scale on the supply side (subject to declining average costs because of near-zero short-run marginal cost) and economies of consumption on the demand side (the network effects arising from its ubiquity).¹⁴⁶ By the end of the case, the government plaintiffs appeared to fear fragmentation of the platform more than a continuation of Microsoft’s monopoly.¹⁴⁷ As a result, the decree left Microsoft in its

not to review the market and decide how it would best operate. Rather, the goal is to effectively remedy the violation for the benefit of consumers Once the violation is remedied, competition will decide how the market performs, including choosing the winners and losers.

Id. at 6.

145. See First & Gavil, *supra* note 109.

146. See Declaration of Kenneth J. Arrow at 5-6, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (Civil Action Nos. 98-1232 (TPJ) & -1233 (TPJ)), <http://www.usdoj.gov/atr/cases/exhibits/2517.pdf> (“[T]he software market is . . . characterized by increasing returns to scale Virtually all the costs of production are in the design of the software and therefore independent of the amount sold, so the marginal costs are virtually zero.”). John Duffy also discusses intellectual property as a “special case of natural monopoly” because of its declining average costs, but his analysis focuses particularly on intellectual property products that can be duplicated at very low cost. See Duffy, *supra* note 38, at 39-40. For a discussion of network effects, generally and with regard to PC operating systems, see Gregory J. Werden, *Network Effects and Conditions of Entry: Lessons from the Microsoft Case*, 69 ANTITRUST L.J. 87, 89-96 (2001).

147. For example, the government opposed requiring the unbundling of middleware code, which could have lowered the applications barrier to entry by encouraging independent software vendors (ISVs) to write to non-Microsoft middleware, on the ground that ISVs would be harmed by unbundling because they had designed software to “rely on the present operating system code.” See Response of the United States to Public Comments on the Revised Proposed Final Judgment at 118-20, *United States v. Microsoft Corp.*, Civil Action No. 98-1232 (CKK) (D.D.C. Feb. 27, 2002), <http://www.usdoj.gov/atr/cases/f10100/10145.pdf>. For a discussion of the fragmentation of the Windows platform and the costs of porting software to new operating systems (that is, making it “transportable” so that it can run on a different operating system), see Stan J. Liebowitz, *An Expensive Pig in a Poke: Estimating the Cost of the District Court’s Proposed Breakup of Microsoft*, 9 GEO. MASON L. REV. 727 (2001). The fragmentation critique was disputed in, for example, Robert J. Levinson et al., *The Flawed Fragmentation Critique of Structural Remedies in the*

monopoly position but imposed on it at least some of the duties traditionally imposed on a regulated monopoly, including the duty to deal on reasonable, nondiscriminatory terms.¹⁴⁸ Instead of a restructured Microsoft, subject to competitive markets, we have a regulated monopoly.

The convergence of the intellectual property and the public utility concepts, however, is not complete. With public utility regulation, there was at least some continuing regulatory apparatus and oversight, even if it was of uncertain effectiveness. For Microsoft, regulatory oversight will end when the settlement decree expires—most of it in 2007, the remainder in 2009.¹⁴⁹ After that, Microsoft will be an unregulated monopoly.

III. CASE COMP/C-3/37.792 MICROSOFT

A. *Overview of the European Commission's Case*

The European Commission's proceeding against Microsoft involved two distinct issues: the bundling of the Windows media player with Windows¹⁵⁰ and Microsoft's refusal to provide information about its server protocols to its rival, Sun Microsystems.¹⁵¹ Thus, although servers and networks played little part in the U.S. proceeding until the remedy phase, competition issues relating to servers have been an important aspect of the liability phase of the European case. Microsoft did not raise intellectual property issues with regard to the bundling problem in Europe, but it did raise these issues with regard to its refusal to supply information to Sun.

Microsoft *Case*, 46 ANTITRUST BULL. 135 (2001). The pre-2000 debate over remedial alternatives discussed a much broader choice of options than the ones chosen by the parties in settlement. *Compare, e.g.*, John E. Lopatka & William H. Page, *A (Cautionary) Note on Remedies in the Microsoft Case*, ANTITRUST, Summer 1999, at 25 (advocating a conduct remedy to protect consumer interests), *with* R. Craig Romaine & Steven C. Salop, *Slap Their Wrists? Tie Their Hands? Slice Them into Pieces? Alternative Remedies for Monopolization in the Microsoft Case*, ANTITRUST, Summer 1999, at 15 (advocating a structural remedy dividing the company into competitors).

148. *See* Transcript of Hearing at 17, *United States v. Microsoft Corp.*, Civil Action No. 98-1232 (CKK) (D.D.C. Feb. 9, 2005) (on file with the Wisconsin Law Review) (“[A]s far as we’re able to observe in the marketplace, [there has been] no demonstrable change in the operating system market.”) (statement of counsel for Justice Department).

149. *See supra* note 143.

150. *See* Comm’n of the European Cmtys., Comm’n Decision of 24 Mar. 2004, Case COMP/C-3/37.792 Microsoft ¶ 4.

151. *See id.* ¶ 5.

Servers are powerful, multi-user computers that operate in a networked environment in which servers are linked to PCs. Operating systems, whether running on a PC or on a server, provide “work group server services,” the basic infrastructure services used by office workers.¹⁵² Such services include sharing files stored on servers, sharing printers, and administering user access to the network services (such as software applications installed on PCs or servers).¹⁵³ Sun, which manufactures servers, has an operating system for its servers called “Solaris.”¹⁵⁴ Microsoft competes with Sun and others in the server operating systems market, particularly with server operating systems based on a version of the UNIX operating system and with Novell’s NetWare operating system.¹⁵⁵

In September 1998, Sun wrote to Microsoft requesting (as Sun rather sweepingly phrased it) “the complete information” which would allow Sun to provide support within Solaris for the directory service technologies that would be part of Microsoft’s not-yet-released new server operating system, Windows 2000.¹⁵⁶ This request included “the specifications for the protocols used by Windows work group servers in order to provide file, print, and group and user administration services to Windows work group networks.”¹⁵⁷ Sun wanted this information so that its network server operating systems could be fully interoperable with networks of servers and PCs running Windows.¹⁵⁸

In December 1998, following Microsoft’s refusal to provide the information Sun wanted, Sun made an application to the European Commission to initiate proceedings against Microsoft for violating Article 82 of the EC Treaty.¹⁵⁹ After a lengthy investigation, the Commission issued a decision in March 2004, finding that Microsoft’s refusal to supply Sun with information violated Article 82.¹⁶⁰

152. *See id.* ¶ 53.

153. *Id.*

154. *See id.* ¶ 97.

155. *See id.* ¶ 514.

156. *See id.* ¶¶ 185-86.

157. *See id.* ¶ 187. The request for protocols did not include a request for the computer source code for implementing those protocols. *See id.* ¶¶ 568-72. The Commission explained the need for the protocols as follows:

For this transparent distribution of software resources across the network to be possible there is a need for interoperability between the various pieces of software running on different physical machines of the network. For instance, this can include the formalisation of rules of interconnection and interaction—often over a wire connection—called “protocols.”

Id. ¶ 49.

158. *See id.* ¶ 560.

159. *See id.* ¶ 3.

160. *See id.* ¶¶ 779-84.

In finding that Microsoft's conduct was an abuse of its dominant position in the PC operating system market, the Commission first determined that there was a link between Microsoft's dominant position in the PC operating system market and its leading market share in the work group server operating system market.¹⁶¹ The link arose from the need for interoperability between servers and PCs connected in work group networks.¹⁶² This link gave Microsoft "the ability to leverage" from the PC operating system market to the market for work group server operating systems "through limitations on interoperability."¹⁶³ Although Microsoft had initially adopted a position that encouraged interoperability between competing server operating systems and the Windows PC operating system, Microsoft's strategy changed as its market share in servers increased.¹⁶⁴ With the introduction of Windows 2000, Microsoft began "a strategy of diminishing previous levels of supply of interoperability information," particularly with regard to group and user administration services.¹⁶⁵ This strategy put Microsoft's competitors "at a strong competitive disadvantage in the work group server operating system market, to an extent where there is a risk of elimination of competition."¹⁶⁶

The Commission concluded that Microsoft's "leveraging strategy" was an abuse of its dominant position in the PC operating system market.¹⁶⁷ Microsoft's "general pattern of conduct," which exploited "a range of privileged connections" between the PC operating system and its work group server operating system, deprived competitors in the work group server market of interoperability information that was "indispensable" for viable competition.¹⁶⁸ By extending its dominant position into work group server operating systems and "capturing" that market, Microsoft then increased the entry barriers into the PC operating system market, because future competitors in that market would need to be able to interoperate with Microsoft's dominant work

161. See *id.* ¶ 514. The Commission found that Microsoft had been dominant in the PC operating system market "since at least 1996." *Id.* ¶ 472. The Commission also found that Microsoft now had at least 50 percent of the work group server operating system market, *id.* ¶ 514, which the Commission defined as server operating systems marketed for "low end" servers that provide work group server services. See *id.* ¶¶ 57-58.

162. See *id.* ¶ 539.

163. *Id.*

164. See *id.* ¶¶ 587-88. For a discussion of Microsoft's earlier licensing to AT&T of portions of the Windows source code for the development of AT&T's UNIX product AS/U, which AT&T licensed to Sun, see *id.* ¶¶ 211-17, 580.

165. See *id.* ¶ 588.

166. *Id.* ¶ 589.

167. See *id.* ¶¶ 1063-65.

168. *Id.* ¶ 1064.

group server operating system.¹⁶⁹ Finally, dominance in the work group server market provided a “bridgehead from which Microsoft could further leverage its position into other areas of the server industry.”¹⁷⁰

For relief, the Commission ordered Microsoft “to supply what has been refused,”¹⁷¹ specifically “complete and accurate specifications” of protocols used by Windows for work group server services.¹⁷² This obligation, however, would not include disclosure of the source code that Microsoft used to implement the protocols.¹⁷³ Microsoft’s disclosures would have to be made on “reasonable and non-discriminatory” terms in a “timely manner.”¹⁷⁴ If users decided to use the disclosed specifications in work group server operating system products, Microsoft’s royalty rates could not reflect the “strategic value” to Microsoft of those protocols.¹⁷⁵ In other words, Microsoft could not charge monopoly rates.

B. Intellectual Property as an “Essential Facility” in European Competition Law

Unlike the U.S. Microsoft prosecution, the conduct which gave rise to liability in the European case involved a direct challenge to a core intellectual property right—that is, the right to exclude others from using the invention that the right protects. To understand how the Commission dealt with the conflict between this right and European competition law, it is important to look more generally at the essential facilities doctrine, a doctrine that the Commission has used in other intellectual property cases for requiring access to otherwise protected information. Although the Commission never uses the term “essential facilities” in its opinion, the Commission’s decision that Microsoft abused its dominant position when it refused to grant Sun’s request for access to its server and PC protocols evoked both the concepts and the requirements of an essential facilities theory of liability.

In the United States, the essential facilities doctrine grew out of monopolization cases in which firms in “old economy” network industries—for example, railroads, telecommunications companies, and integrated electric power companies—used their control over network

169. *Id.* ¶¶ 769, 1065.

170. *Id.* ¶ 1065.

171. *Id.* ¶ 998.

172. *Id.* ¶ 999.

173. *Id.* The disclosure was not limited to Windows 2000 but applied prospectively to future generations of Microsoft products, at least to the extent that they relate to the “generic services” involved in the investigation. *See id.* ¶ 1002.

174. *Id.* ¶ 1007.

175. *See id.* at ¶ 1008(ii).

links to exclude competitors.¹⁷⁶ These firms are the archetype of regulated industries in the United States, and thus the application of this theory to the intellectual property issues in *Microsoft* is further indication of how the intellectual property concept has become the successor to the public utility concept.

Although the requirements for liability under the essential facilities doctrine have been variously phrased, a good statement can be found in *MCI Communications Corp. v. AT&T*.¹⁷⁷ MCI tried to compete with AT&T in long-distance telephone service, but AT&T, which had a monopoly on local service, refused to interconnect MCI with its local distribution facilities. MCI needed such interconnection to be an effective long-distance competitor. The court pointed out that a refusal to allow access to an essential facility can extend monopoly from one stage of production to another, or from one market into another, and then set out four requirements for establishing liability for such a refusal: “(1) control of the essential facility by a monopolist; (2) a competitor’s inability practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility.”¹⁷⁸ Although commentators in the United States have generally been hostile to the theory,¹⁷⁹ and the Supreme Court has distanced itself from endorsing it,¹⁸⁰ lower courts continue to apply the theory in a variety of situations apparently far from its origins.¹⁸¹

176. The key cases developing the essential facilities doctrine are *United States v. Terminal R.R. Ass’n of St. Louis*, 224 U.S. 383 (1912), *Otter Tail Power Co. v. United States*, 410 U.S. 366 (1973), and *MCI Commc’ns Corp. v. AT&T*, 708 F.2d 1081 (7th Cir. 1983). For a discussion of the history of the doctrine, see Robert Pitofsky, Donna Patterson, & Jonathan Hooks, *The Essential Facilities Doctrine Under U.S. Antitrust Law*, 70 ANTITRUST L.J. 443 (2002).

177. 708 F.2d 1081.

178. 708 F.2d at 1132-33.

179. The leading article is Philip Areeda, *Essential Facilities: An Epithet in Need of Limiting Principles*, 58 ANTITRUST L.J. 841 (1990) (criticizing the doctrine). See also Michael Boudin, *Antitrust Doctrine and the Sway of Metaphor*, 75 GEO. L.J. 395, 397-403 (1986) (arguing that the doctrine is of “dubious character”). Not all commentators, however, are adverse. See, e.g., Norman W. Hawker, *Open Windows: The Essential Facilities Doctrine and Microsoft*, 25 OHIO N.U. L. REV. 115 (1999).

180. See *Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 411 (2004) (“We have never recognized such a doctrine . . . and find no need either to recognize it or to repudiate it here.”) (citations omitted); see also *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 428 (1999) (Breyer, J., concurring in part and dissenting in part) (“[T]he . . . ‘essential facilities’ doctrine [is] . . . an antitrust doctrine that this Court has never adopted”); *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985) (refusing to use the “essential facilities” doctrine despite the court of appeals’ reliance on it).

181. See, e.g., *LePage’s Inc. v. 3M*, 324 F.3d 141, 161 (3d Cir. 2003) (discussing how bundled loyalty rebates for adhesive tape resulted in a denial of access

In Europe, prior to the *Microsoft* decision, the theory had gained some usage in the area of intellectual property. The first European Commission case to apply the idea of the essential facilities doctrine in the intellectual property area was *Magill*.¹⁸² In that case, the two United Kingdom broadcasters (the British Broadcasting Corporation and the Independent Broadcasting Authority) and the monopoly broadcaster in Ireland (Radio Telefis Eireann) refused a request from Magill TV Guide to provide their weekly television-program listings.¹⁸³ Magill wanted to publish a weekly television guide in Ireland and Northern Ireland which would contain the listings for all the programming that viewers there could receive.¹⁸⁴ Each of the broadcasters published its own individual weekly program guide and provided their listings to newspapers for daily publication, but there was no weekly program guide that combined them.¹⁸⁵ Viewers who wanted all the weekly listings would have to buy the weekly program guides published by each of the three broadcasters.¹⁸⁶ After the broadcasters enjoined Magill from publishing such a weekly guide, Magill complained to the European Commission.¹⁸⁷

The Commission found that the denial of permission to publish the copyrighted listings was an abuse of the broadcasters' dominant positions.¹⁸⁸ The Commission pointed out that "these listings constitute the essential raw materials for any such guide,"¹⁸⁹ that "it is not possible for third parties to produce reliable listings themselves for

to large-volume customers which were essential to gaining scale economies), *cert. denied*, 542 U.S. 953 (2004); *Caribbean Broad. Sys., Ltd. v. Cable & Wireless PLC*, 148 F.3d 1080 (D.C. Cir. 1998) (involving a radio station that was denied access to microwave transmitters); *City of Vernon v. S. Cal. Edison Co.*, 955 F.2d 1373 (9th Cir. 1992) (involving an electric utility that was denied access to high-powered transmission lines for legitimate business reasons); *Del. & Hudson Ry. v. Consol. Rail Corp.*, 902 F.2d 174 (2d Cir. 1990) (involving the denial of access to short railroad segments as part of longer trans-border transport cooperation); *Advanced Health Care Servs., Inc. v. Radford Cmty. Hosp.*, 910 F.2d 139 (4th Cir. 1990) (finding that a hospital's monopoly over access to patients was used to control the market for selling medical equipment to discharged patients). For earlier cases, see Areeda, *supra* note 179, at 843-44 nn.10-16.

182. Commission Decision 89/205, Relating to a Proceeding Under Article 86 of the EC Treaty, 1989 O.J. (L 78) 43 (EC).

183. *See id.* ¶ 5.

184. *Id.*

185. *See id.* ¶¶ 14-15.

186. *Id.* ¶ 23. "Although no precise statistics are available on the point, it would seem that many of the consumers who purchase the *Radio Times* [the BBC publication] also purchase *TV Times* [the IBA publication]" *Id.* ¶ 17.

187. *See id.* ¶ 43.

188. *See id.* ¶ 23.

189. *Id.* ¶ 20.

publication in their own TV guides,”¹⁹⁰ and that the “factual monopoly” the broadcasters held over their own listings was “strengthened into a legal monopoly in so far as they claim protection under the copyright laws in the United Kingdom and/or Ireland.”¹⁹¹

The Court of Justice eventually upheld the Commission’s position.¹⁹² The Court stressed that the broadcasters were the only sources of program listings and that the “refusal to provide basic information by relying on national copyright provisions prevented the appearance of a new product, . . . which the [broadcasters] did not offer and for which there was a potential consumer demand.”¹⁹³ The Court also noted that the broadcasters’ refusal to license the listings enabled them to exclude competition with each of their weekly program guides because “they denied access to the basic information which is the indispensable raw material for compiling a weekly television guide.”¹⁹⁴

Magill set the stage for the view that the refusal to grant access to protected information might be an abuse of dominant position—at least where the information was an essential or “indispensable” input and the refusal to supply it adversely affected competition in some other market. Viewed in this way, *Magill* was in keeping with the leverage, or market extension, theory behind the U.S. essential facilities doctrine, although not quite in keeping with the factual setting of the original U.S. cases.

Magill was also a highly controversial case, in part because some thought that it might presage a general view that intellectual property owners were under a general duty to license their rights.¹⁹⁵ In the next European Commission case involving a refusal to license intellectual property, *Tierce Ladbroke SA v. Commission*,¹⁹⁶ the Commission took a more cautious approach. Ladbroke was a Belgian company that made “a book in Belgium on horse races run abroad.”¹⁹⁷ Belgian legislation allowed betting outlets to remain open in the afternoons during horse

190. *Id.* ¶ 22.

191. *Id.*

192. *See* Joined Cases C-241/91 & C-242/91 P, *Radio Telefis Eireann v. Comm’n*, 1995 E.C.R. I-743, ¶ 58.

193. *Id.* ¶ 54.

194. *Id.* ¶ 53.

195. *See, e.g.,* Valentine Korah, *The Interface Between Intellectual Property and Antitrust: The European Experience*, 69 ANTITRUST L.J. 801, 811 (2001) (“[T]he [*Magill*] judgment gave rise to heated debate. There was concern that the holder of an improvement patent might be able routinely to require the holder of a basic patent to grant a license under the basic patent.”).

196. *See* Case T-504/93, *Tierce Ladbroke SA v. Comm’n*, 1997 E.C.R. II-923.

197. *Id.* ¶ 1.

racés.¹⁹⁸ Ladbroke sought the rights to transmit live sound and pictures of French horse races.¹⁹⁹ After the owner of those rights refused to grant such a license, Ladbroke complained to the Commission.²⁰⁰ The Commission found no abuse of dominant position, distinguishing *Magill* on the following bases: (1) Ladbroke was already a dominant firm in the horse-race betting market, the market in which the sound and pictures were offered; (2) the rights holders did not compete in the horse-race betting market; and (3) Ladbroke's use of these rights would not provide consumers any different service from the one it already provided—that is, the taking of bets on horse races.²⁰¹ The Court of First Instance upheld the Commission's decision, pointing out that competition was not restricted because Ladbroke was already a strong competitor²⁰² and noting that the rights holders' product was not "essential."²⁰³ The focus at the Commission and in the Court was thus on competition analysis, not simply on the existence of copyright protection.

The Commission revisited the question of when an intellectual property right might be "essential" for competition—and when the refusal to license that right might be an abuse of dominance—in *IMS Health*.²⁰⁴ That case involved competition in the market for providing pharmaceutical manufacturers with marketing data on retail pharmaceutical sales in Germany.²⁰⁵ Pharmaceutical wholesalers collected these data for the various data-service companies.²⁰⁶ The data were eventually formatted in a "brick structure," with each "brick" constituting a "small, useful geographic area" related to the number of pharmacies and prescribing physicians.²⁰⁷ IMS Health had been

198. *Id.* ¶ 6.

199. *Id.* ¶ 5.

200. *See id.* ¶¶ 5-10.

201. *See id.* ¶ 22.

202. *See id.* ¶ 130.

203. The Court of First Instance stated that

[t]he refusal to supply the applicant could not fall within the prohibition laid down by Article 86 unless it concerned a product or service which was either essential for the exercise of the activity in question, in that there was no real or potential substitute, or was a new product whose introduction might be prevented, despite specific, constant and regular potential demand on the part of consumers.

Id. ¶ 131.

204. *See* Comm'n of the European Cmty's., Comm'n Decision of 3 July 2001, Case COMP D3/38.044—NDC Health/IMS HEALTH: Interim Measures, <http://europa.eu.int/comm/competition/antitrust/cases/decisions/38044/en.pdf>.

205. *See id.* ¶ 6.

206. *See id.* ¶¶ 3-4.

207. *See id.* ¶¶ 12-19.

developing brick structures for a number of years; by 2000, it had developed a format of 1,860 bricks.²⁰⁸ Pharmaceutical companies adopted the brick structure as a standard,²⁰⁹ and competitors' efforts to array their data with a different brick structure were unsuccessful in the market.²¹⁰ IMS Health, claiming copyright protection for the 1,860 brick structure, had sued two of its competitors for infringement.²¹¹ When IMS Health refused to grant one of its competitors, NDC Health, a license to use the brick structure, NDC complained to the Commission.²¹²

NDC presented the case as an essential facilities case, and the Commission treated it as such.²¹³ Although recognizing that the European Court had not yet explicitly referred to the doctrine, the Commission drew from case law the propositions that intellectual property could be a "facility" and that a refusal to license could be an abuse of a dominant position under Article 82.²¹⁴ This required finding that the refusal of access would likely "eliminate all competition in the relevant market" and that the facility is "indispensable" for carrying out the business, in the sense that there are no actual or potential substitutes.²¹⁵ The Commission assumed that IMS Health's copyright was valid²¹⁶ and recognized that copyright holders normally have the right to refuse to license.²¹⁷ Nevertheless, the Commission found that the 1,860 brick structure was an indispensable input for producing the data services involved and that NDC's refusal to license was not otherwise "objectively justified."²¹⁸ The refusal to license would "exclude all competition from this market."²¹⁹

Although the Commission took great pains to trace the development of the brick structure (a highly collaborative process involving industry data users along with IMS Health, as opposed to an

208. *See id.* ¶ 22.

209. *See id.* ¶¶ 22-23. Companies outside the pharmaceutical sector also used the 1,860 brick structure. *Id.* ¶ 25.

210. *See id.* ¶ 20.

211. *See id.* ¶ 29.

212. *See id.* ¶¶ 5-6.

213. *See id.* ¶¶ 63-71. The Commission, in its Statement of Objections, framed the question as whether the 1,860 brick structure was an essential facility. *See* Case T-184/01 R, *IMS Health Inc. v. Comm'n*, 2001 E.C.R. II-3193 ¶ 20.

214. *See IMS Health*, Case COMP D3/38.044 ¶¶ 64-70.

215. *Id.* ¶ 70.

216. *Id.* ¶ 36 (noting that the Frankfurt Court in which NDC had brought suit had considered the 1,860 brick structure to be a database protected under German copyright law).

217. *See id.* ¶ 167.

218. *See id.* ¶ 169.

219. *Id.* ¶ 185.

independent creative effort) and to demonstrate the competitive necessity for using this format to array data,²²⁰ the President of the Court of First Instance indicated some skepticism with regard to the Commission's decision. Granting IMS Health's petition for interim relief, the judge noted that the Commission's use of the essential facilities doctrine raised a "serious legal question" under European court precedents and that there was a "serious dispute" as to whether "exceptional circumstances" existed which would justify the "imposition of a compulsory-license obligation."²²¹ Referring to the "public interest in respect for property rights in general and for intellectual property rights in particular," the judge noted that "[t]he mere fact that [IMS Health] has invoked and sought to enforce its copyright in the 1,860 brick structure for economic reasons does not lessen its entitlement to rely upon the exclusive right granted by national law for the very purpose of rewarding innovation."²²² The Commission's appeal of this order to the Court of Justice produced an even terser response from the President of the Court of Justice: "[T]he exercise of intellectual property rights may be subjected to restrictions imposed under Article 82 EC only in exceptional circumstances."²²³

Thus, when the Commission made its decision in *Microsoft*, the state of European law on finding abuse of dominance for an intellectual property right holder's refusal to license protected information was, at best, one of very cautious embrace and, at worst, leaning toward rejection. Both the Court of First Instance and the Court of Justice in *IMS Health* had emphasized an investment theory of intellectual property rights, stressing the entitlement that an intellectual property right holder has to the rewards that flow from its investments in innovation, rather than taking an incentives theory of intellectual property rights, which stresses that intellectual property rights are given only to the extent necessary for the societal purpose of encouraging innovation.²²⁴ Both courts had also placed great stress on the idea that access was required only in exceptional circumstances. These positions appeared to indicate that an intellectual property right holder would have fairly wide latitude—even if not complete freedom—to refuse to

220. See *id.* ¶¶ 17-26.

221. See *IMS Health*, 2001 E.C.R. ¶¶ 105-06.

222. *Id.* ¶ 143 (citations omitted).

223. Case C-481/01 P(R), *NDC Health Corp. v. IMS Health Inc.*, 2002 E.C.R. I-3401, ¶ 64.

224. See, e.g., Lemley, *supra* note 15, at 1031 ("[T]he proper goal of intellectual property law is to give as little protection as possible consistent with encouraging innovation."). Judge Kollar-Kotelly used the investment theory when she rejected the claims of the nonsettling states for broader compulsory disclosure of Microsoft's APIs and protocols. See *supra* text accompanying note 134.

license its protected information. It was against this legal background that the Commission proceeded to evaluate Microsoft's refusal to grant Sun's request for information relating to server protocols.

C. Handling the Intellectual Property Issues in Microsoft

1. THE COMMISSION DECISION

The Commission chose to take an expansive view of the prior European case law regarding an intellectual property right holder's duty to license. Reviewing decisions generally relating to a duty to supply—including *Magill* and *Ladbroke* but not mentioning *IMS Health*²²⁵—the Commission interpreted these cases as being examples of exceptional circumstances, but not as limiting the sorts of circumstances that might be deemed exceptional: “[T]he factual situations where the exercise of an exclusive right by an intellectual property right-holder may constitute an abuse of a dominant position cannot be restricted to *one* particular set of circumstances.”²²⁶ The Commission decided, therefore, that it was required to “analyse the entirety of the circumstances surrounding a specific instance of a refusal to supply.”²²⁷ In effect, the Commission's approach led to a wide-ranging rule of reason analysis—wider than the D.C. Circuit's, perhaps, but not analytically so dissimilar in attempting to weigh all the asserted anticompetitive effects and procompetitive justifications for Microsoft's conduct.²²⁸

Microsoft made two arguments regarding the importance of intellectual property rights that resembled the arguments it made in the U.S. case. First, Microsoft made a broad argument that its refusal to supply the requested information was “objectively justified” by the fact that it had intellectual property rights with regard to that information.²²⁹ Microsoft argued that it had invested “billions of dollars” in developing

225. See Comm'n of the European Cmty's., Comm'n Decision of 24 Mar. 2004, Case COMP/C-3/37.792 Microsoft ¶¶ 547-58.

226. *Id.* ¶ 557.

227. *Id.* ¶ 558. The Commission did point out, however, that the disclosure of interface information was “indispensable for competitors in the work group server operating system market” and that Microsoft's decision progressively to diminish the level of disclosure could not be “objectively justified.” *Id.* ¶ 554 n.670.

228. See *supra* note 93 and accompanying text.

229. See *Microsoft*, Case COMP/C-3/37.792 ¶ 709. In *IMS Health*, the Commission had recognized “objective justification” as a reason for a refusal to deal, but had not explained the term's meaning. See *supra* note 218 and accompanying text. Earlier cases also mention the requirement of objective justification. See, e.g., Case C-7/97, Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs-und Zeitschriftenverlag GmbH & Co. KG, 1998 E.C.R. I-7791 ¶ 41.

its software; intellectual property rights “are meant to protect” that investment and disclosure would “eliminate future incentives to invest in the creation of more intellectual property.”²³⁰ Second, Microsoft more specifically argued that it had copyright and patent rights that allowed it to prevent Sun from implementing the requested protocols in Sun’s products and that trade secret law also gave it the right not to disclose the currently undisclosed protocol specifications.²³¹

Microsoft’s argument that a refusal to supply intellectual property is always objectively justified by the policy reasons behind the protection of intellectual property is, in effect, an argument for exempting all refusals to license intellectual property from Article 82. This was an unlikely argument given the Commission’s prior decisions, but the Commission’s rejection of this argument treated Microsoft more gently than did the D.C. Circuit when it rejected Microsoft’s similarly broad and unsupported U.S. argument. According to the Commission, having an intellectual property right is not a “self-evident” justification for a refusal to license.²³² A primary function of intellectual property rights may be to protect “moral rights” and “ensure a reward” for the rights holder’s investment of creative effort and money, but an “essential objective” of intellectual property is also to stimulate creativity “for the general public good”²³³—that is, intellectual property is an instrument to incentivize certain kinds of activity. This meant that the Commission had to take account of the impact of the refusal to license on competitive conditions in the market and on innovation, both with regard to Microsoft’s incentives to innovate and the ability of Microsoft’s competitors to innovate without the requested disclosure.²³⁴

As for Microsoft’s second argument—that finding a violation of Article 82 might conflict with its specific rights to prevent infringement and disclosure—the Commission did not decide whether such a conflict existed. The Commission conceded the possibility that using the protocol specifications that Sun requested might interfere with Microsoft’s specific intellectual property rights.²³⁵ Nevertheless, because Microsoft had not made the relevant protocol specifications available for review, the Commission found that “it is not possible . . . to determine to what extent Microsoft’s claims relating to various

230. *See Microsoft*, Case COMP/C-3/37.792 ¶ 709.

231. *See id.* ¶ 190 & n.249 (discussing Microsoft’s citation to the specific European patent for which Sun would need a license if it wanted to implement “certain Microsoft file server protocols”).

232. *Id.* ¶ 710.

233. *Id.*

234. *See id.* ¶ 712.

235. *See id.* ¶ 190.

intellectual property rights are justified.”²³⁶ In the end, the Commission treated Microsoft’s intellectual property arguments in a fashion similar to the D.C. Circuit. The question was not whether Microsoft had a particular property right, but how Microsoft used its property and the effect that use had on competition.

In assessing the competitive effects of exclusivity, the Commission looked not only at the general effect on competition in the work group server market, but more particularly at the effect on incentives to innovate in that market.²³⁷ Not surprisingly, in making this assessment, the Commission found that nondisclosure adversely affected competitors’ incentives to innovate.²³⁸ Perhaps more interestingly though, the Commission also examined the effects that diminished competition might have on Microsoft’s own incentives to innovate. The Commission observed that were competitors to disappear, Microsoft’s incentives to innovate would diminish.²³⁹ By contrast, disclosure of interoperability information would “liven up” the “competitive landscape.”²⁴⁰ The Commission noted that “Microsoft would no longer benefit from a lock-in effect that drives consumers towards a homogeneous Microsoft solution” and “such competitive pressure would increase Microsoft’s own incentives to innovate.”²⁴¹ Thus, on balance, the “positive impact on the level of innovation of the whole industry (including Microsoft)” outweighed the possible negative effect that forced disclosure might have on Microsoft’s incentives to innovate.²⁴²

2. THE COURT OF FIRST INSTANCE: 2004

As the *Microsoft* case moved from the Commission to the courts, the centrality of the intellectual property arguments increased. Microsoft’s immediate public response to the Commission’s decision was to emphasize its view that “the Commission is seeking to make new law that will have an adverse impact on intellectual property rights and the ability of dominant firms to innovate.”²⁴³ Similarly, in its

236. *Id.* ¶ 190 n.249.

237. *See id.* ¶¶ 694-99.

238. *See id.* ¶ 700.

239. *Id.* ¶ 725.

240. *Id.*

241. *Id.*

242. *Id.* ¶ 783.

243. Press Release, Microsoft, The European Commission’s Decision in the Microsoft Case and Its Implications for Other Companies and Industries 1 (Apr. 2004), <http://microsoft.com> (search for “Decision in the Microsoft Case”; then follow the “April 2004” hyperlink).

application to the Court of First Instance for suspension of the Commission's relief order pending full court review, Microsoft emphasized the argument that the infringement of intellectual property rights arising from the Commission's relief order would cause it "serious and irreparable harm."²⁴⁴

Microsoft made its intellectual property arguments to the Court of First Instance in a more focused way than it had previously. Although still arguing that its communications protocols were "the fruit of . . . very expensive research,"²⁴⁵ Microsoft also made an effort to point to specific rights granted under copyright, patent, and trade secret law that would be infringed by forced licensing of the protocols.²⁴⁶ The Commission, on the other hand, disputed the extent to which Microsoft even had protectable intellectual property rights which would be infringed by its order.²⁴⁷ Additionally, at least in some of its arguments, Microsoft attempted to distinguish the intellectual property that it had in its software from that involved in other cases, pointing out that, unlike the television listings in *Magill* and the data template in *IMS Health*, its information had not been publicly disclosed.²⁴⁸

The President of the Court of First Instance, Judge Bo Vesterdorf, did not resolve Microsoft's arguments. Judge Vesterdorf recognized that there was a serious dispute between the Commission and Microsoft on a number of key points, focusing particularly on two issues: (1) whether the protocol specifications were "indispensable" within the meaning of the prior case law²⁴⁹ and (2) whether Microsoft's refusal was "objectively justified," either because the refusal was within the scope of its intellectual property rights or because of other adverse effects flowing from forced disclosure.²⁵⁰ The judge concluded

244. Case T-201/04 R, *Microsoft Corp. v. Comm'n of the European Cmty.*, ¶¶ 112-13 (2004), <http://www.curia.europa.eu/jurisp/cgi-bin/form.pl?lang=en> (search for case "T-201/04 R"; then follow hyperlink for "T-201/04 R 2 Order 2004-12-22 *Microsoft v. Commission Competition*").

245. *See id.* ¶ 114.

246. *See, e.g., id.* ¶ 120 (arguing that the copyright owner has the right to derivative works under the Berne Convention); *id.* ¶ 123 (identifying three existing, and two pending, patents that would be infringed).

247. *See id.* ¶ 67.

248. *See id.* ¶ 106. The judge thought that there was a distinction between the kinds of information involved, but that the effect of such a distinction on the legality of Microsoft's refusal to provide the information could not be resolved at the interim relief stage. *See id.* ¶ 207.

249. *See id.* ¶ 213.

250. *See id.* ¶¶ 214-18. The judge placed an "accent" on these two points, *see id.* ¶ 209, although he also noted other disputes (for example, the question whether the four conditions for requiring a duty to supply are necessary conditions, or whether there are other conditions that might also satisfy a finding of an Article 82 violation). *See id.* ¶ 206.

it is for the Court dealing with the substance of the case to ascertain whether a manifest error was made in the evaluation of the interests involved, in particular in connection with the protection of the intellectual property rights relied on and the requirements of free competition enshrined in the EC Treaty.²⁵¹

Judge Vesterdorf thus found that Microsoft's contention that the Commission's decision was erroneous could not "be regarded as prima facie unfounded."²⁵² Microsoft had made out a prima facie case that the Commission's compulsory licensing order was not a permissible exercise of its authority.²⁵³

Nevertheless, Judge Vesterdorf did not grant Microsoft's petition for interim relief because it had not shown the requisite urgency for suspending the application of the Commission's order.²⁵⁴ First, even assuming that Microsoft had intellectual property rights in the specifications, the "breach of the exclusive prerogatives" of the rights holder did not, in itself, constitute "serious and irreparable damage" entitling Microsoft to preliminary relief.²⁵⁵ Second, Judge Vesterdorf examined the specific harms that Microsoft alleged would flow from complying with the Commission's order to disclose interoperability information²⁵⁶ and found that Microsoft had not proved that the alleged harms would be irreparable if they were to occur.²⁵⁷

3. FUTURE REVIEW

One month after the Commission had entered its *Microsoft* decision, the European Court of Justice handed down a further ruling in the *IMS Health* litigation.²⁵⁸ There, the Court made an effort to distill the requirements for judging whether an intellectual property right holder's refusal to provide access to protected information violated Article 82.²⁵⁹ The Court set out four "cumulative" and "sufficient"

251. *Id.* ¶ 224.

252. *See id.* ¶ 225.

253. *See id.*

254. *See id.* ¶ 323.

255. *See id.* ¶¶ 249-50.

256. *See id.* ¶¶ 256-65.

257. *See, e.g., id.* ¶ 265 (stating that Microsoft had failed to show with precision what the risks were from releasing the protocol specifications, despite being given the offer of submitting a confidential technical file to the Commission).

258. *See* Case C-418/01, *IMS Health GmbH & Co. KG v. NDC Health GmbH & Co. KG*, 2004 E.C.R. I-5039.

259. *See id.* ¶¶ 34-38.

requirements: indispensability of the requested information or product to the requester's business, prevention of the "emergence of a new product for which there is a potential consumer demand," lack of objective justification, and exclusion of "any competition on a secondary market."²⁶⁰

It remains to be seen how the European courts will apply the four *IMS Health* requirements to the Commission's decision in *Microsoft* when they reach the substantive merits of the case.²⁶¹ The courts might hew closely to the formal doctrine, elaborating on each of the four requirements. Or the courts might follow the more economic effects-oriented approach taken by the Commission, attempting to assess the economic effects of Microsoft's actions on the involved markets—including the effects on innovation—rather than applying the *IMS Health* factors in a mechanical way.

What seems unlikely, however, is that the courts will examine closely the extent to which Microsoft has the intellectual property rights that it claims to have or what the scope of those rights might be. The Commission did not examine the validity of any of Microsoft's claims; it was willing to take Microsoft's intellectual property rights as a given, balancing the need for such rights against the requirements of free competition embodied in Article 82. As a result, the question whether the European courts see Microsoft's intellectual property as something different than other types of property or as just a "bat" will not likely depend on how they evaluate the specific rights that Microsoft might actually have—either in the specifications of the protocols or in their interoperation with Microsoft's software products. More likely, it will depend on how these courts view the concept of intellectual property generally and whether they think that those rights holders deserve more leeway in how they exploit their rights than the owners of other types of property.

260. *See id.* ¶ 38. The Court referred to three "conditions" that must be satisfied before a refusal to give access to an "indispensable" product will be found to violate Article 82. The President of the Court of First Instance subsequently counted indispensability as a fourth requirement. *See Microsoft*, Case T-201/04 R, ¶¶ 99-100.

261. The President of the Court of First Instance considered these conditions in deciding Microsoft's application for interim relief, but did not need to reach the merits of their application. *See Microsoft*, Case T-201/04 R, ¶ 206.

IV. THE EVOLUTION OF THE INTELLECTUAL PROPERTY CONCEPT

A. *The Contours of the Argument*

Although the government monopolization litigation brought against Microsoft in the United States and in Europe focused on somewhat different conduct, the core intellectual property argument between Microsoft and government antitrust enforcers was similar: how broad should Microsoft's freedom be to control its intellectual property product? This includes the freedom to control the content of that product (for example, the bundling of IE and Windows) and the freedom to withhold access to information about the product (for example, the server-to-server protocols requested by Sun). Microsoft took a maximalist approach in both venues; the D.C. Circuit and the European Commission took a balancing approach. No one, however, sought to inquire very thoroughly into what intellectual property rights Microsoft actually had which might have given it the right to do what it claimed.

Microsoft's maximalist argument was that intellectual property law gave it the unfettered right to control the contents of its software (its intellectual product) and to decide what information about its software it would provide to outside parties (customers, producers of complementary products, or rivals). Assertions as to the exact legislative content of those rights buttressed this argument to some extent. Mostly, however, Microsoft made its argument on the basis of the concept of intellectual property as an entitlement, legislatively granted to advance economic and social policies particularly salient to the information products that it produces. At the core of these policies is the protection of investments in information products from free riding and the protection of intellectual design. As Microsoft argued, it had invested "billions of dollars" in its software²⁶² and "tens of millions of dollars" in its protocols.²⁶³ Requiring access to this information, even on a reasonable fee, would be an "intellectual property grab" which would deny Microsoft a fair reward for its investment and would undercut the incentives for innovation that intellectual property rights are meant to provide.²⁶⁴

262. See, e.g., *Microsoft*, Case COMP/C-3/37.792 ¶ 709.

263. See Case T-201/04 R, *Microsoft Corp. v. Comm'n*, ¶ 256 (2004), <http://www.curia.europa.eu/jurisp/cgi-bin/form.pl?lang=en> (search for case "T-201/04 R"; follow hyperlink for "T-201/04 R 2 Order 2004-12-22 *Microsoft v. Commission Competition*").

264. Note that the Court of First Instance pointed out that Microsoft's investment argument was undercut (at least in terms of irreparable injury) by the fact

In addition, the intellectual property concept advanced by Microsoft included protection for the intellectual aspect of its property—that is, protection of the integrity of the product. Microsoft chose the design for its operating system—the look of the desktop, the presence of some icons and not others, and the preferred Internet browser. Microsoft argued to the U.S. courts that this control should be part of its property right; others should not be allowed to alter that product and sell it as they see fit.²⁶⁵

By contrast, the balancing approach taken by the D.C. Circuit and the European Commission places intellectual property inside competition policy.²⁶⁶ The concept of intellectual property underlying the balancing approach is that intellectual property rights are narrowly instrumental, granted only to provide an incentive for innovation.²⁶⁷ Intellectual property carries with it no particular entitlement, certainly no entitlement greater than any other property right carries.²⁶⁸ If anything, the instrumental purpose of intellectual property rights and their contingent quality (limited in time, granted only on meeting statutory requirements, and uncertain as to the boundaries of the claims) makes them more malleable and necessarily subject to competition analysis.²⁶⁹

Once intellectual property is placed within competition analysis, even innovation should not be seen as an end in itself, nor should intellectual property rights be seen as the only means for achieving that end. Competition analysis can consider the possibility that the short-term monopoly rents that incentivize innovation might not be dissipated

that the compulsory license provided for the payment of reasonable royalties. *See Microsoft*, T-201/04 R, ¶ 256. “Reasonable fees,” however, might not be adequate, in certain circumstances, to compensate for the risks inherent in developing innovations. *See, e.g.*, F.M. Scherer, *The Innovation Lottery*, in *EXPANDING THE BOUNDARIES OF INTELLECTUAL PROPERTY: INNOVATION POLICY FOR THE KNOWLEDGE SOCIETY 3* (Rochelle Cooper Dreyfuss et al. eds., 2001).

265. *See* Defendant’s Memorandum, *supra* note 60, 1998 WL 34201988 at *29.

266. The idea of placing intellectual property within antitrust, and limiting the scope of intellectual property, has common law roots in the English Statute of Monopolies of 1623. LOUIS B. SCHWARTZ ET AL., *FREE ENTERPRISE AND ECONOMIC ORGANIZATION: ANTITRUST 1-2* (6th ed. 1983) (discussing the Statute of Monopolies). This statute outlawed monopolies, but granted limited patent rights “to the true and first inventor” unless the patent was “mischievous to the state, by raising prices of commodities at home, or hurt of trade, or generally inconvenient.” *Id.* at 1.

267. *See, e.g.*, Lemley, *supra* note 15, at 1031 (“[I]ntellectual property rights are . . . granted only when—and only to the extent that—they are necessary to encourage innovation.”).

268. *See id.*

269. The contingencies of the patent right are well-explored in Mark A. Lemley & Carl Shapiro, *Probabilistic Patents*, 19 J. ECON. PERSPECTIVES 75 (2005).

in the long run if the rights holder is a monopolist that can control subsequent innovation. From a competition policy point of view, the cost of the grant of exclusivity might be too high if the rights holder obtains a durable monopoly with the power to extract rents in excess of the value of innovation or of the amounts necessary to produce innovation. Competition analysis also sees marketplace competition as an important tool for incentivizing innovation.²⁷⁰ Loss of marketplace competition from a broad grant of intellectual property rights might result in less innovation over time than the broad grant produces. A rule of reason-type weighing of all these trade-offs, assessing anticompetitive effect against efficiency justifications, seems the inevitable—if highly-complex and potentially indeterminate—outcome.

B. *Concept Convergence*

Providing additional support to Microsoft's intellectual property concept arguments is the economics of Microsoft's particular intellectual property product. Although the concern for free riding on intellectual effort is present in all intellectual property goods, Microsoft's argument is made in the context of an end-product that exhibits natural-monopoly characteristics, with strong supply-side economies (high fixed costs for research and development and near-zero marginal distribution costs) and strong demand-side economies (network effects).²⁷¹ If network industries are winner-take-all (or, at best, winner-take-most) markets,²⁷² free riding on the successful monopolist's front-end investment could wreak particular havoc. Free riding might not only diminish incentives to invest in creating such

270. The view that competition can incentivize innovation has been expressed as far back as the debates over the Sherman Act. *See* 21 CONG. REC. 4085, 4102 (“Skill is created and is stimulated by competition . . . ‘Whenever monopoly is dominant, the incentive for improvement and skill is deadened.’”) (1890) (remarks of Rep. Fithian). This view has been repeated by courts, *see, e.g.*, *United States v. Alum. Co. of Am.*, 148 F. 2d 416, 427 (2d Cir. 1945) (“[I]mmunity from competition is a narcotic, and rivalry is a stimulant, to industrial progress . . .”), economists, *see, e.g.*, F.M. Scherer, *Antitrust, Efficiency, and Progress*, in *REVITALIZING ANTITRUST IN ITS SECOND CENTURY* 130, 141 (Harry First et al. eds., 1991) (“More competition stimulates and accelerates innovation within limits . . .”), and enforcement agencies, *see, e.g.*, *Ciba-Geigy Limited, et al.*, 62 Fed. Reg. 409, 411 (Jan. 3, 1997) (“Through the merger, the companies’ alternative competing gene therapy technologies will be combined, reducing innovation competition. That combination changes the competitive incentives of the merged entity. It will likely lead to a reduction in development of gene therapy products . . .”).

271. *See supra* note 146 and accompanying text.

272. *See, e.g.*, Nicholas Economides, *Competition Policy in Network Industries: An Introduction*, in *THE NEW ECONOMY AND BEYOND: PAST, PRESENT AND FUTURE* § 3.3.4 (Dennis Jansen ed., 2006).

network products, but might also destroy the network itself by fostering the creation of variant products (for example, the creation of operating systems with different code), depriving consumers of the demand-side benefits of having a single network provider.²⁷³ In this economic context, a maximalist concept of intellectual property ensures that the network monopolist of an intellectual property product will have the power to secure and maintain the efficiencies that arise from the network itself.²⁷⁴

The policy behind assuring a single provider for a network intellectual property product is remarkably similar to the policy behind assuring a single provider for a network physical-property product—the type of company that was at the heart of the public utility concept.²⁷⁵ A core notion for the regulation of public utilities is that such firms are natural monopolies and entry into these businesses should be restricted to assure the existence of a single provider that can achieve scale economies (that is, lower unit costs as output increases).²⁷⁶ Competition might be “destructive,” leading to the failure of many (or all) firms as price falls to marginal cost, with the result that no firm would be able to earn back its total costs.²⁷⁷ Competition might also undermine universal service to the detriment of the network as a whole and all consumers who gained from network effects.²⁷⁸ Owners of old economy firms thus used the public utility concept to justify limitations on

273. See John E. Kwoka, *Networks and Natural Monopoly*, in NETWORK ACCESS, REGULATION AND ANTITRUST 19-20 (Diana Moss ed., 2005) (arguing that consumers may place a higher value on a larger network and that the division of consumers between two or more networks may reduce the total demand-side value of networking).

274. Cf. Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 276 (1977) (arguing that broad upstream patents allow coordination of the development of innovations). For a different descriptive framework of the relationships among firms producing complementary products, stressing the importance of the managing of an “ecosystem” of separate firms by a “keystone” firm, see MARCO IANSITI & ROY LEVIEN, THE KEYSTONE ADVANTAGE 83-91 (2004) (applying this analytical framework to Microsoft).

275. See, e.g., BONBRIGHT, *supra* note 139, at 4-5 (explaining that “public utilities” are enterprises supplying electricity, gas, water, and telephone service, as well as transportation systems like railroads).

276. See *id.* at 11.

277. See 2 ALFRED E. KAHN, THE ECONOMICS OF REGULATION: INSTITUTIONAL ISSUES 119-25 (1971) (discussing the economics of natural monopoly and the potential for destructive competition).

278. Note that concern for universal service was an important reason for controlling entry into the telephone industry. See *id.* at 127-29. Similar arguments were made in transportation (for example, trucking and airlines). See *id.* at 8-9.

competition and the adoption of government-imposed restrictions on entry.²⁷⁹

Of course, no one is arguing that there should be government regulation of entry into the business of these intellectual property companies. The argument is rather more subtle. Intellectual property rights holders themselves should be able to exclude rivals, by using their control over the intellectual property components of their products.²⁸⁰ The government need not exclude competitors from their markets. All the government need do, in Gray's words, is to give the producers of intellectual products "immunity from prosecution under the antitrust laws, legal validation of their privileges as property rights . . . and a relatively free hand to extend their economic power."²⁸¹

Not only does the intellectual property concept appear to be a new version of the public utility concept, but the remedies imposed on Microsoft in the United States and in Europe parallel those used for traditional public utilities. Faced with "natural monopolies," the subsequently codified common-law response was to require the natural monopoly provider to deal with all customers on reasonable terms and without discrimination.²⁸² Duplication of the natural monopoly was not the answer; access was. Similarly, the compulsory licensing of Microsoft's APIs and communications protocols rests on the admittedly unexpressed notion that competitors are unlikely to duplicate Windows (indeed, perhaps, that it would be unwise to do so). Instead, the government merely needs to make certain that Microsoft grants access

279. See, e.g., Gray, *supra* note 22, at 11-14 (discussing the application of the public utility concept by the railroads, electric power companies, and the radio industry). For the railroads' argument that cartelization was needed to prevent destructive competition, see *United States v. Trans-Mo. Freight Ass'n*, 166 U.S. 290, 330-31 (1897) (describing how high fixed costs and willingness to price down to "running expenses" lead to insolvency and that the only refuge "from this wretched end" is to agree on prices). Critics of regulation have pointed out that government restrictions on entry are not necessary in any event; competition itself would provide a winner if there were to be a race to be the sole provider in a natural monopoly industry. See, e.g., Richard A. Posner, *Natural Monopoly and Its Regulation*, 21 STAN. L. REV. 548, 611-12 (1969).

280. Acceptance of Microsoft's more extreme intellectual property arguments would have had this effect. See *supra* notes 60-63, 86-88, 229-32 and accompanying text.

281. Gray, *supra* note 22, at 11.

282. See Bruce Wyman, *The Law of the Public Callings as a Solution of the Trust Problem*, 17 HARV. L. REV. 156, 166 (1904) (describing English common law and U.S. court decisions imposing on firms with "virtual monopoly" a duty to deal "with all who apply . . . for reasonable compensation and without discrimination"). Legislatures subsequently imposed such duties. See, e.g., *New State Ice Co. v. Liebmann*, 285 U.S. 262 (1932) (regulating ice manufacturers); *Frost v. Corp. Comm'n of Okla.*, 278 U.S. 515 (1929) (regulating cotton gin operators).

to the operating system, with the terms and conditions of that access policed through the courts rather than through the establishment of an independent regulatory agency. In both cases, the policy solution is regulated monopoly, not unregulated competition in open markets.

C. Evolving the Intellectual Property Concept

Seeing the similarities between today's use of the intellectual property concept and the earlier use of the public utility concept provides some insight into how the intellectual property concept might be evolving and what approaches might be chosen when intellectual property products are involved in efforts to restrict competition. The convergence of the concepts may actually offer a way forward, as it suggests looking to prior experience with public utility regulation and deregulation for policy guidance when dealing with intellectual property claims. Five principles emerge from this prior experience with public utility regulation that have useful application to intellectual property claims in an antitrust context. Two principles are legal, two are economic, and one is institutional.

1. Implied exemptions from antitrust law are not favored. The Supreme Court, since its earliest Sherman Act cases, has followed a rule of interpretation that requires narrow construction of exemption claims arising out of a regulatory statute and has applied a presumption that Congress intends the Sherman Act to control unless it clearly states otherwise.²⁸³ Indeed, the Supreme Court faced this issue in its first case construing the substantive provisions of the Act.²⁸⁴ In that case, railroads, the important network industry of the day, argued that the Interstate Commerce Act authorized their agreement to set rates and that the Interstate Commerce Commission had approved of such agreements.²⁸⁵ The Court rejected both arguments. The Interstate Commerce Act did not confer "either directly or by implication" the authority to make such agreements and the Commission had never "distinctly stated that agreements among competing railroads to maintain prices are to be commended."²⁸⁶ Absent a clear directive from Congress, there was no good reason to exempt the railroads from the

283. See, e.g., *United States v. Phila. Nat'l Bank*, 374 U.S. 321, 348 (1963) ("It is settled law that '[i]mmunity from the antitrust laws is not lightly implied.'") (quoting *California v. Fed. Power Comm'n*, 369 U.S. 482, 485 (1962)).

284. See *Trans-Mo. Freight*, 166 U.S. 290.

285. See *id.* at 314, 338-39. The court of appeals had given great weight to the views expressed by the Commission. See *United States v. Trans-Mo. Freight Ass'n*, 58 F. 58, 76 (8th Cir. 1893) (quoting the Commission's first annual report which stated that such agreements were "essential").

286. *Trans-Mo. Freight*, 166 U.S. at 314, 338.

primacy of competition policy²⁸⁷—even if, as the Court acknowledged, the declining cost economics of the railroad industry might lead competing railroads to price below their long-run average cost, making initial investments worthless.²⁸⁸ Subsequent cases have continued to emphasize that regulatory repeals of the antitrust laws by implication are not favored.²⁸⁹

2. In case of true conflict, the antitrust immunity goes no further than necessary. In cases involving a judicially recognized conflict between antitrust and regulation, the courts have often stated that the grant of immunity should be only what was necessary to make the regulatory act work.²⁹⁰ This rule of narrow construction grows out of the rule against implied exemptions, which stresses that, absent specific statutory directives, only a “pervasive” regulatory scheme is sufficient to show that Congress has “forsover the paradigm of competition.”²⁹¹

3. Economic claims of natural monopoly should be closely scrutinized. Early views of many regulated public utility industries stressed their natural monopoly characteristics without closely examining the industry’s details.²⁹² Transportation, power, and communications industries appeared to have strong natural-monopoly characteristics because of the high fixed costs of investment, the large output that investment produced, and the low incremental costs of serving more customers with the same capital facilities.²⁹³ As time

287. *See id.* at 340.

288. *See id.* at 330-31.

289. *See, e.g.*, *United States v. Phila. Nat’l Bank*, 374 U.S. 321, 350-51 (1963) (discussing the approval of a bank merger by the bank regulatory agency); *Otter Tail Power Co. v. United States*, 410 U.S. 366, 372 (1973) (discussing interconnection under the Federal Power Act, 16 U.S.C. §§ 791-828 (2000)) (quoting *Phila. Nat’l Bank*, 374 U.S. at 350-51). For an indication of a possible retreat from that view, see *Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 412 (2004) (declining to recognize “expansion” of antitrust liability where the conduct was subject to review by state and federal regulatory agencies because “additional benefit to competition provided by antitrust enforcement will tend to be small”).

290. *See, e.g.*, *Silver v. N.Y. Stock Exch.*, 373 U.S. 341, 357 (1963) (“Repeal is to be regarded as implied only if necessary to make the [subsequent law] work, and even then only to the minimum extent necessary.”); *Nat’l Gerimedical Hosp. & Gerontology Ctr. v. Blue Cross of Kan.*, 452 U.S. 378, 389 (1981) (quoting *Silver*, 373 U.S. at 357); *Billing v. Credit Suisse First Boston Ltd.*, 426 F.3d 130, 164 (2d Cir. 2005) (“[I]mplied immunity analysis always begins with the notion that repeal by implication is disfavored.”), *cert. granted*, 75 U.S.L.W. 3311 (U.S. Dec. 7, 2006) (No. 05-1157).

291. *See, e.g.*, *Ne. Tel. Co. v. AT&T*, 651 F.2d 76, 82 (2d Cir. 1981). For a full review of antitrust treatment of regulatory exemptions, see Darren Bush, *Mission Creep: Antitrust Exemptions and Immunities as Applied to Deregulated Industries*, 2006 UTAH L. REV. (forthcoming).

292. *See, e.g.*, BONBRIGHT, *supra* note 139, at 10-17.

293. *See* 2 KAHN, *supra* note 277, at 120.

progressed and technology and demand changed, a closer examination revealed that only parts of these enterprises (at best) had true natural-monopoly characteristics.²⁹⁴ For example, railroads are not natural monopolies, but railroad tracks may be in certain areas.²⁹⁵ Electric power plants are not natural monopolies, but networks of transmission or subtransmission lines may be.²⁹⁶ Telephone service is not a natural monopoly, but the local switch may be.²⁹⁷ Thus, from an economic point of view, competition could occur in parts of these industries (for example, electric power generation or long-distance telephone communication) without disrupting the natural-monopoly characteristics of other parts.

4. “Dis-integrators” play an important role in bringing competitive pressure and change. An important lesson in the move from regulation to deregulation is that rivals or customers often see opportunities for profit in parts of a regulated firm’s operations that policy makers do not see and that regulated firms are unwilling to acknowledge. Electric-utility deregulation owes much to the citizens of Elbow Lake, Minnesota, who saw that they could get cheaper electricity rates if they could buy electric power from lower-cost electric power generating companies who were unable to reach them because of the local electric company’s control of the transmission lines that fed Elbow Lake.²⁹⁸ Telephone deregulation owes much to MCI, which saw that the new technology of microwave transmission would allow it to compete with AT&T for long-distance voice and data transmission, if only it could get into AT&T’s switched local network and reach potential customers.²⁹⁹ Antitrust litigation opened up access in both these cases, confining natural-monopoly privileges narrowly and setting the stage for substantial restructuring of both the electric power and telecommunications industries.³⁰⁰

294. See *id.* at 124 (“[C]ertain portions of an industry—those subject to decreasing costs—may be natural monopolies while other portions may not.”).

295. See John E. Kwoka & Lawrence J. White, *Freight Railroads*, in NETWORK ACCESS, REGULATION AND ANTITRUST, *supra* note 273, at 86-87 (discussing the separation of ownership of rail track and rolling stock).

296. See, e.g., James E. Meeks, *Concentration in the Electric Power Industry: The Impact of Antitrust Policy*, 72 COLUM. L. REV. 64, 69-75 (1972) (discussing the economics of generation and distribution of electric power).

297. See, e.g., *AT&T v. Iowa Util. Bd.*, 525 U.S. 366, 371 (1999) (discussing the background of the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified in scattered sections of 47 U.S.C.)).

298. See *United States v. Otter Tail Power Co.*, 331 F. Supp. 54, 60, 64 (D. Minn. 1971), *aff’d in part, vacated in part by* 410 U.S. 366 (1973).

299. See *MCI Commc’ns Corp. v. AT&T*, 708 F.2d 1081 (7th Cir. 1983).

300. See, e.g., Joseph D. Kearney & Thomas W. Merrill, *The Great Transformation of Regulated Industries Law*, 98 COLUM. L. REV. 1323 (1998)

5. Regulatory agencies are highly imperfect institutions. Gray's article was particularly critical of the idea that regulatory agencies would control monopoly industry for the public good,³⁰¹ foreshadowing the scholarly literature that would develop this theme in greater factual and theoretical detail.³⁰² This critique of regulation and regulatory agencies played an important role in the movement toward deregulation.³⁰³ Nevertheless, Congress has eliminated very few of those regulatory agencies, recognizing that some type of regulation may be necessary when marketplace competition does not solve the problems of durable monopoly.³⁰⁴ The difficult challenge is to find the least imperfect institutional mechanism for controlling those aspects of monopoly that are not amenable to marketplace control.

These five principles might be applied to intellectual property as follows:

1. Implied exemptions from antitrust for intellectual property rights holders should not be favored. There is no reason to treat claims for nonenforcement of antitrust law more favorably when intellectual property law is involved than when regulatory legislation is involved. The background rule remains competition. Congress has on occasion affirmed that background rule, as it did when it enacted section 3 of the Clayton Act to reverse a Supreme Court decision to allow patent holders to impose tying arrangements;³⁰⁵ Congress has also on occasion

(discussing the shift away from regulation in the transportation, telecommunications, and energy industries).

301. See Gray, *supra* note 22, at 15 (“[I]n a capitalist society, all forms of social control lead ultimately to state protection of the dominant interest, [that is], property.”).

302. For a good overview of the literature, see George L. Priest, *The Origins of Utility Regulation and the “Theories of Regulation” Debate*, 36 J.L. & ECON. 289, 289-95 (1993).

303. See *id.* at 290.

304. The Civil Aeronautics Board is the clearest example of the complete termination of a regulatory agency. See SCHWARTZ ET AL., *supra* note 140, at 28-29. Congress also discontinued the Interstate Commerce Commission, but some of the Commission's economic regulatory functions are now performed by the Surface Transportation Board. See ICC Termination Act of 1995, Pub. L. No. 104-88, 109 Stat. 803 (codified in scattered sections of 49 U.S.C.). There is still extensive regulation of the electric power industry, through the Federal Energy Regulatory Commission and state regulatory agencies, and of telecommunications, through the FCC and state regulatory agencies. See, e.g., Harry First, *Regulated Deregulation: The New York Experience in Electric Utility Deregulation*, 33 LOY. U. CHI. L.J. 911 (2002); Robert W. Crandall & Jerry A. Hausman, *Competition in U.S. Telecommunications Services: Effects of the 1996 Legislation*, in DEREGULATION OF NETWORK INDUSTRIES 73 (Sam Peltsman & Clifford Winston eds., 2000).

305. See Clayton Act, Pub. L. No. 63-212, ch. 323, § 3, 38 Stat. 730, 731 (1914) (codified at 15 U.S.C. § 14 (2000)). In *Henry v. A.B. Dick Co.*, 224 U.S. 1 (1912), the Supreme Court had allowed a patent holder to require its licensees to

made clear that careful competition analysis is necessary when deciding conflicts between the two regulatory regimes, as it has done with patent misuse.³⁰⁶ In neither the Patent Act nor the Copyright Act, however, has Congress indicated a general preference for holders of intellectual property rights to be able to use those rights in a way that harms competition.

2. Courts should minimize the conflict between intellectual property and antitrust by carefully examining the intellectual property rights being asserted. Although the default rule may be that competition law should apply, there may be cases in which the courts need to consider the scope of a holder's intellectual property rights. In assessing the extent to which those rights create a conflict between the exclusionary nature of an intellectual property right and the competitive-market focus of antitrust, the first step is to be certain of the exact scope of the intellectual property right, particularly if the claim of deference is broad. This is an area where the equation of intellectual property rights and property rights is most likely to break down.³⁰⁷

Intellectual property rights are highly contingent and discrete. As a general matter, neither copyright nor patent law gives the rights holder a pure right to exclude or control subsequent use.³⁰⁸ To the extent that an intellectual property rights holder claims that denying it certain decisions interferes with its rights, that holder should be required to show that it really has the rights it claims. So, for example, had Sun requested a copy of the Windows source code so that it could sell Windows itself, Microsoft could easily show that it had the right to prevent others from copying and distributing its copyrighted work—assuming, of course, that it had a valid copyright in Windows—because

purchase unpatented products from it as a condition of the license. The case was overruled by *Motion Picture Patents Co. v. Universal Film Mfg.*, 243 U.S. 502, 517 (1917) (noting that Congress had enacted section 3 of the Clayton Act “as if in response to that decision”). To say that antitrust law applies, however, is not to say that the Court then treats every holder of an intellectual property right as if it were a monopolist. See *Ill. Tool Works, Inc. v. Independent Ink, Inc.*, 126 S. Ct. 1281, 1288 (2006) (“[N]othing in our opinion suggested a rebuttable presumption of market power applicable to tying arrangements involving a patent on the tying good.”).

306. See 35 U.S.C. § 271(d) (2000).

307. See Mark A. Lemley, *What's Different About Intellectual Property?*, 83 TEX. L. REV. 1097, 1100-02 (2005) (discussing the problem of specifying the boundaries of intellectual property in contrast to real property).

308. See, e.g., *Adams v. Burke*, 84 U.S. 453, 456 (1873) (holding that, after the first sale, the patented product is “no longer within the monopoly of the patent” and can not be controlled by the patentee); 17 U.S.C. § 109 (2000) (limitations on exclusive copyright rights).

these are among the enumerated rights granted in the Copyright Act.³⁰⁹ A decision that Microsoft violated the antitrust laws by refusing to grant Sun's request would thus present a direct conflict between the rights created by copyright and antitrust laws.³¹⁰ Without a conflict, however, there is no specific right to which to accede. Antitrust analysis can therefore proceed as usual, without regard to any specific intellectual property claims.

3. Courts should closely scrutinize an intellectual property right holder's economic claims to determine their appropriate limitations. The idea that an "intellectual property company"³¹¹ has some natural claim to monopoly status and a right to exclude competitors should always be carefully examined. Intellectual property rights apply to all sorts of products, most of them sold in competitive markets.³¹² Where intellectual property is given as a reason for monopoly position, that reason may very well be found in some other economic aspect of the product and not in the legal protections that intellectual property laws have provided. A careful focus on where the natural monopoly is may show that application of the antitrust laws will not adversely affect the ability of the monopolist to invest in the intellectual effort necessary to produce its product.

4. Courts should appreciate the competitive benefits that dis-integrators bring. When there is a conflict between an appropriately narrowed intellectual property right and the ability of a competitor to contest markets that are (or could be) competitive, courts must weigh the benefits of allowing that competition against the cost to the economic policies advanced by the intellectual property right. In striking this balance, antitrust courts should give weight not only to the benefits in the potentially competitive market, but also to the benefits that competition might bring to other complements produced by the monopoly firm. This approach could be particularly important when the issue is access to interoperability information—the new-economy equivalent of access to the physical networks of old-economy industries. Interoperability information allows firms to enter at just one level of the production process rather than on a fully integrated basis. Besides bringing competition to that level, such entry opens up the

309. See 17 U.S.C. §§ 106(1), (3) (2000).

310. See, e.g., *SCM Corp. v. Xerox Corp.*, 645 F.2d 1195 (2d Cir. 1981) (holding that the refusal to license plain paper copier patents was not a violation of section 2 of the Sherman Act).

311. Direct Testimony of Bill Gates, *supra* note 1, ¶ 124.

312. The Supreme Court recognized this obvious point in *Illinois Tool Works, Inc. v. Independent Ink, Inc.* when it held that there would be no presumption of monopoly power in a tying case arising simply from the fact that the party imposing the tying arrangement had a patent on the tying product. 126 S. Ct. 1281, 1292 (2006).

possibility that wresting control of complements from the monopoly firm will lead to greater overall innovation. In fact, economists have stressed the gains to innovation from having divided technical leadership in producing complementary products in high technology industries (for example, the microprocessor chip and the operating system), rather than having all complements controlled by a single integrated firm.³¹³

Appreciation for the role of dis-integrators also ties into the need for more careful scrutiny of the intellectual property right holder's economic claim to monopoly profits. In the regulated industries cases, the dis-integrators did not attack the natural-monopoly segment of the market (that is, the segment left in the hands of the regulated monopolist where it could achieve scale economies and get its appropriate returns); dis-integrators attacked those parts of the market where competition could flourish.³¹⁴ In the intellectual property area, the parallel might be between downstream product markets and upstream research-and-development markets (or, more generally, innovation markets).³¹⁵ Dis-integrators given access to upstream intellectual property inputs might still provide intellectual property rights holders with sufficient returns consistent with intellectual property policy, while increasing economic welfare by providing downstream product market competition.

5. Regulation is imperfect, but not impossible. Regulatory decrees are not favored in antitrust cases,³¹⁶ so antitrust remedies involving intellectual property products should make every effort to provide structural incentives for competition rather than rely on court oversight of licensing. Placing ownership of different parts of an integrated enterprise in different hands alters incentives and may bring about competition more efficiently. Deregulation in electric power, for example, has sought to separate control of generation and transmission, sometimes requiring integrated utilities to divest themselves of

313. See, e.g., Timothy F. Bresnahan & Shane Greenstein, *Technological Competition and the Structure of the Computer Industry*, 47 J. INDUS. ECON. 1 (1999) (describing "divided technical leadership").

314. See *supra* notes 298-300 and accompanying text.

315. The antitrust enforcement agencies have been making the distinction between downstream product markets and upstream research and development and innovation markets since the 1995 publication of the Intellectual Property Licensing Guidelines. See Antitrust Guidelines for the Licensing of Intellectual Property, 4 Trade Reg. Rep. (CCH) ¶ 13,132, at 20,738-39 (Apr. 11, 1995). The idea for innovation markets was first advanced in Richard J. Gilbert & Steven C. Sunshine, *Incorporating Dynamic Efficiency Concerns in Merger Analysis: The Use of Innovation Markets*, 63 ANTITRUST L.J. 569 (1995).

316. See *supra* note 144 and accompanying text.

generation capacity.³¹⁷ Marketplace incentives might then operate to lower prices without further regulatory intervention.

Despite the imperfections of regulation, there may be times when regulation of monopoly is unavoidable. Such regulation may be second-best, but it is not impossible to do. For intellectual property products, Congress has sometimes given rate-regulation authority to an agency,³¹⁸ but there have also been occasions when courts have supervised rates or other aspects of intellectual property licensing.³¹⁹ This solution might not be optimal, but it is better than uncontrolled monopoly pricing.

D. *Applying the Evolved Intellectual Property Concept*

How might the evolved intellectual property concept be used in actual cases involving the advancement of intellectual property rights as a justification for anticompetitive behavior? Three well-known appellate court decisions—*Data General Corp. v. Grumman Systems Support Corp.*,³²⁰ *In re Independent Services Organizations Antitrust Litigation (Xerox)*,³²¹ and *Image Technical Services, Inc. v. Eastman Kodak Co.*³²²—plus *Microsoft* provide an opportunity to test the utility of the suggested approach.³²³ While the courts in each of the four cases took somewhat different approaches to the antitrust problem presented, none of them quite tracked the evolved intellectual property concept suggested above.

The first case, *Data General*, is one in which the evolved intellectual property concept would protect the intellectual property producer from antitrust liability for refusing to license its product. *Data General* was a copyright infringement suit brought by a computer

317. See Paul L. Jaskow, *Deregulation and Regulatory Reform in the U.S. Electric Power Sector*, in DEREGULATION OF NETWORK INDUSTRIES, *supra* note 304, at 113, 138-48; First, *supra* note 304, at 912-17 (describing New York's experience).

318. See, e.g., 17 U.S.C. § 114(d)(2)(C) (2000) (requiring statutory licensing for noninteractive digital audio transmission).

319. See, e.g., *United States v. Am. Soc'y of Composers, Authors & Publishers*, 2001-2 Trade Cas. (CCH) ¶ 73,474 (S.D.N.Y. 2001) (dealing with the supervision of performance right licensing fees).

320. 36 F.3d 1147 (1st Cir. 1994).

321. 203 F.3d 1322 (Fed. Cir. 2000).

322. 125 F.3d 1195 (9th Cir. 1997).

323. The three cases have been subject to extensive commentary. See, e.g., Joseph P. Bauer, *Refusals to Deal with Competitors by Owners of Patents and Copyrights: Reflections on the Image Technical and Xerox Decisions*, 55 DEPAUL L. REV. 1211 (2006); Daniel J. Gifford, *Antitrust's Troubled Relations with Intellectual Property*, 87 MINN. L. REV. 1695, 1711-17 (2003); Marina Lao, *Unilateral Refusals to Sell or License Intellectual Property and the Antitrust Duty To Deal*, 9 CORNELL J.L. & PUB. POL'Y 193, 202-06 (1999); Mark R. Patterson, *When Is Property Intellectual? The Leveraging Problem*, 73 S. CAL. L. REV. 1133 (2000).

manufacturer against a competitor in the aftermarket for servicing Data General's computers.³²⁴ Data General had approximately 90 percent of this aftermarket; the defendant Grumman, the largest "third-party maintainer," had approximately 3 percent.³²⁵ At first, Data General had supplied the outside repair companies with parts and information about their computers, including diagnostic tools for repair, but later, Data General stopped dealing with the outside companies after deciding it wanted the business for itself.³²⁶ Despite Data General's efforts, Grumman found other ways to obtain the parts and information it needed.³²⁷

Of particular importance to Grumman was ADEX, a software diagnostic tool that Data General refused to license to outside parties and for which no "fully functional substitute" was available.³²⁸ Grumman was able to obtain copies of ADEX from a number of sources, including former Data General service customers who had improperly retained copies of the program left behind after servicing by Data General field engineers.³²⁹ After Data General sued Grumman for copyright infringement for copying the ADEX software, Grumman counterclaimed, alleging that Data General's refusal to license ADEX constituted unlawful monopoly maintenance in violation of section 2 of the Sherman Act.³³⁰

Data General differs from *Microsoft* and the other two cases in that it arises in the context of a claim by the intellectual property rights holder for enforcement of its intellectual property right.³³¹ Perhaps because of this litigation setting, the court of appeals in *Data General* was attentive to the first two principles suggested above for analyzing the claim of an intellectual property rights holder for "immunity from the antitrust laws." The court recognized that implied exemptions from antitrust are not favored³³² and considered the enforceability of Data General's copyright, an issue raised by Grumman in defense to the

324. 36 F.3d at 1154-55.

325. *Id.* at 1152.

326. *See id.* at 1154.

327. *See id.*

328. *See id.*

329. *See id.* at 1154-55.

330. *See id.* at 1155-56.

331. Xerox did raise claims for patent and copyright infringement, but only defensively as counterclaims to the plaintiffs' antitrust suit. *See* 203 F.3d 1322, 1324 (Fed. Cir. 2000).

332. *See* 36 F.3d at 1185 (citing *Square D Co. v. Niagara Frontier Tariff Bureau, Inc.*, 476 U.S. 409 (1986) (involving the scope of a regulatory exemption for joint rate-setting by motor carriers)).

infringement claim but which the court rejected.³³³ The court then reconciled the conflict between the intellectual property right and the antitrust laws by deciding that the existence of the right in the diagnostic software created a rebuttable presumption that the refusal to license was justifiable and, therefore, immune from antitrust attack.³³⁴ Even though the court did not go as far as to make the presumption irrebuttable (as Data General wanted), the court did find that Grumman could not rebut the presumption.³³⁵ Perhaps more problematic for future cases, the court gave no indication of how an allegedly excluded competitor might rebut the presumption, except to say that successful cases would likely be rare.³³⁶

Using the evolved intellectual property concept, the analysis would be focused somewhat differently. Once there is a genuine conflict between a clear intellectual property right and antitrust policy, the third principle suggested above requires close scrutiny of the economic claims to protected monopoly. In *Data General*, the intellectual property product was diagnostic software created for the repair market. The intellectual property right, in itself, did not give Data General a monopoly in the repair market, and allowing competitors to have access to the software would not destroy any demand- or supply-side efficiencies. Both factors would cut against giving an antitrust exemption to the intellectual property right holder for its refusal to deal. Nevertheless, application of the fourth principle would lead to rejection of the competitor's antitrust claim, because this principle not only requires consideration of the benefits that the dis-integrator can bring but also takes into account the effect of liability on the intellectual property right holder's incentives to innovate.

In *Data General*, the impact on incentives through compulsory licensing would be quite direct. Data General created the software to improve its competitive efforts in the service market itself.³³⁷ Returns necessary to incentivize the creation of that intellectual property product must at least come from the market for which the product was created. Courts should be careful about undercutting those returns by requiring the compulsory licensing of a competitor in that market, particularly

333. *See Data General*, 36 F.3d at 1160-63. The issue was whether Data General's alleged defaults in registering the program with the Copyright Office affected its infringement claim, rather than the protectability of aspects of the program which the defendant had copied in its entirety. *See id.* at 1160-61.

334. *See id.* at 1184-88.

335. *See id.* at 1187-89.

336. *See id.* at 1187 n.64 (“[W]e do not hold that an antitrust plaintiff can never rebut this presumption, for there may be rare cases in which imposing antitrust liability is unlikely to frustrate the objectives of the Copyright Act.”).

337. *See id.* at 1154.

given the institutional difficulties in assessing appropriate licensing rates (as the fifth principle discussed above indicates). The evidence of the superior product qualities of the ADEX software and the efficiencies that those qualities produced further supported the court's decision in *Data General*.³³⁸ It is true that the dis-integrator may have helped spur Data General to innovate in the production of diagnostic software. Nevertheless, the overall balance should weigh in favor of the intellectual property rights holder's refusal to license the service software to its direct competitor in the service market.

Things look different in the second case, *Xerox*, despite the superficial similarity of its facts to those in *Data General*. Xerox stopped selling patented copier parts to "independent service organizations" (ISOs) that had previously competed with Xerox in the aftermarket for repairs for Xerox copiers.³³⁹ Xerox also went to some effort to dry up parts that others supplied to the ISOs—including stopping its majority-owned European affiliate, Rank Xerox, from selling parts to the ISOs—although Xerox continued to sell parts to end-users that engaged in self-service.³⁴⁰

The U.S. Court of Appeals for the Federal Circuit did not approach the problem in the same way as the First Circuit in *Data General*. Lacking was any mention of concern for implied repeals of the antitrust laws; to the contrary, the court began its analysis by referring to a patentee's "immunity from the antitrust laws."³⁴¹ The court made no effort to determine the strength or scope of the intellectual property rights in the parts, to consider the efficiency

338. ADEX is a better product than any other diagnostic for MV computers. The use of ADEX appears to have increased the efficiency and reduced the cost of service because technicians can locate problems more quickly and, through the use of the software's 'remote assistance' capability, can arrive at customer sites having determined ahead of time what replacement parts are necessary.

Id. at 1189.

339. *See Xerox*, 203 F.3d 1322, 1324 (Fed. Cir. 2000).

340. *See id.* Xerox also refused to provide ISOs with copyrighted manuals and diagnostic software. *See id.* The court of appeals, applying the law of the circuit in which the case was litigated, purported to apply the First Circuit's rebuttable presumption with regard to copyrights (but not for patents, in which it followed its own circuit law). *See id.* at 1329. Lacking "any evidence that the copyrights were obtained by unlawful means or were used to gain monopoly power beyond the statutory copyright granted by Congress"—evidence which the court indicated was the only "definitive rebuttal evidence" that could overcome the presumption—the court held that "Xerox's refusal to sell or license its copyrighted works was squarely within the rights granted by Congress to the copyright holder and did not constitute a violation of the antitrust laws." *Id.*

341. *See id.* at 1325 (quoting *Nobelpharma AB v. Implant Innovations, Inc.*, 141 F.3d 1059, 1068 (Fed. Cir. 1996)).

benefits provided by the protected products, or to consider the competitive effects of the refusals to deal on the aftermarket for the service of Xerox copiers. Instead the court held that, absent proof of fraud on the Patent Office or sham infringement litigation (both of which go to the validity of the patent), a patent owner has the “right to exclude others from making, using, or selling the claimed invention” and is accordingly “free from liability under the antitrust laws.”³⁴² Neither of those two exceptions being involved in the case, the court concluded its inquiry.³⁴³

The Federal Circuit’s approach is in the tradition of the intellectual property concept advanced by Microsoft in the monopolization cases. The evolved intellectual property concept suggests a different approach, however. The analysis would begin with the first principle suggested above—the recognition that implied exemptions from the antitrust laws are not favored. Although the Federal Circuit is certainly correct that the Patent Act gives a patentee the right to stop anyone who makes, uses, or sells the protected invention without permission,³⁴⁴ the Act does not say that the patentee may therefore make any use it wants of the patented invention free of antitrust liability.³⁴⁵

The second and third principles seek to minimize the conflict between intellectual property and antitrust by examining the scope of the intellectual property rights holder’s legal and economic claims. The court provides little information on either, however. There is no indication of the patents’ validity, how many patents were involved in producing the parts the ISOs desired, or how many of those parts were patented. The relation between the U.S. patents and the parts that Rank Xerox had once been willing to sell to the ISOs is also unknown. What does seem likely, however, is that Xerox’s incentives to invest in innovative parts was not premised on returns in the service market, but on making better copiers to compete in the OEM market. The ISOs, however, were not seeking to deprive Xerox of sales in the OEM

342. *Id.* at 1327.

343. *See id.* at 1328.

344. *See* 35 U.S.C. § 271(a) (2000).

345. *See* *Special Equip. Co. v. Coe*, 324 U.S. 370, 378 (1945). The Court stated that

[t]he patent grant is not of a right to the patentee to use the invention, for that he already possesses. It is a grant of the right to exclude others from using it. As the statute provides, the grant is of the “exclusive right to make, use, and vend” the invention, and this includes the exclusive right to license others to make, use and vend it. By the very terms of the statute the grant is nothing more than a means of preventing others, except under license from the patentee, from appropriating his invention.

Id. (citation omitted).

market nor were they seeking the upstream technology that the parts protected.³⁴⁶ They only wanted to buy the parts from Xerox so that they could compete with Xerox in the service aftermarket.³⁴⁷ Certainly Xerox did not mind selling its parts, for it was selling them to end-users and at prices lower than what it charged some ISOs under an earlier settlement.³⁴⁸

The fourth principle requires considering the benefits this competition might bring, in this case lower service costs and a likely spurring of innovation in the service market. Giving weight to these competitive benefits—as against the narrow effect on intellectual property rights that compulsory sales of the parts might entail—the net balance here should be in favor of finding that the refusal to sell the parts constituted the maintenance of a monopoly in the aftermarket for service to Xerox copiers in violation of section 2 of the Sherman Act.

Facts and inquiries missing in *Xerox* are present in the third case, *Kodak*, which does a better job of keeping intellectual property concerns within proper bounds. Once again, the case involves an OEM's decision to end competition from the independent providers of service for its products: in this case, Kodak was the OEM and the aftermarket was for service of Kodak's high-volume photocopier and micrographic equipment.³⁴⁹ Kodak held 220 valid U.S. patents covering sixty-five of the "thousands" of parts required for this equipment.³⁵⁰ The refusal to deal, however, covered all of Kodak's parts, whether patented or unpatented and whether made by Kodak or by outside manufacturers under contract to Kodak.³⁵¹

The Ninth Circuit's analysis is similar to the First Circuit's approach in *Data General*. The court understood that the existence of a patent or copyright did not grant an immunity from antitrust.³⁵² The court also saw that antitrust decisions must take some account of intellectual property concerns when deciding whether antitrust liability is appropriate.³⁵³ Much as the First Circuit had done, the court chose to express the weight of intellectual property concerns in the form of a rebuttable presumption of justification when the monopolizing intellectual property rights holder stands on its exclusivity and refuses

346. See *Xerox*, 203 F.3d at 1324.

347. See *id.*

348. See *id.*

349. See *Image Technical Servs., Inc. v. Eastman Kodak Co.*, 125 F.3d 1195, 1200 (9th Cir. 1997).

350. *Id.* at 1214.

351. See *id.* at 1219.

352. See *id.* at 1216 (citing the earlier Supreme Court decision in the case, *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 479 n.29 (1992)).

353. See *id.* at 1217.

to sell or license protected inventions.³⁵⁴ Unlike the First Circuit in *Data General*, however, the Ninth Circuit found that the plaintiff had rebutted the presumption of legitimate justification.³⁵⁵ Looking at the facts and not at “formalistic distinctions,”³⁵⁶ the court determined that Kodak’s refusal to sell parts was not motivated by its interest in protecting its intellectual property rights. Not only did the refusal cover thousands of patented and unpatented parts,³⁵⁷ but the court also cited the testimony of Kodak’s parts manager that patents “‘did not cross [his] mind’ at the time Kodak began the parts policy.”³⁵⁸ In other words, the patent justification was pretextual.³⁵⁹ That being the case, imposing antitrust liability for Kodak’s broad effort to maintain its monopoly in aftermarket service would not interfere with the policies the patent laws were designed to advance.

Although the decision in *Kodak* has been subject to criticism,³⁶⁰ the evolved intellectual property concept suggests that the criticism is quite misplaced. The court of appeals both understood the limited impact on intellectual property policy of finding the refusal to deal to be monopolizing conduct and the important impact on competition policy from finding liability for Kodak’s conduct. The pretextual quality of the refusal illuminates both parts of the calculus—as intent evidence should do in antitrust cases—by helping the court predict the likely effect on innovation and on competition from Kodak’s decision to dry up the ISOs’ parts supplies. Kodak was not concerned with optimizing its returns to innovation; few of the parts were patented and the refusal to deal was part of Kodak’s broad campaign to eliminate competition from

354. *See id.* at 1218 (quoting *Data Gen. Corp. v. Grumman Sys. Support Corp.*, 36 F.3d 1147, 1187 (1st Cir. 1994)).

355. *See id.* at 1219-20. Note that the jury did not technically find that Kodak’s justification had been rebutted. The court found that the jury was improperly charged on the question of justification, *see id.* at 1218, but then decided, on the basis of a different instruction, that it was “more probable than not that the jury would have found Kodak’s presumptively valid business justification rebutted.” *Id.* at 1219-20.

356. *See id.* at 1218 (quoting *Kodak*, 504 U.S. at 466-67).

357. *Id.* at 1219.

358. *Id.*

359. *See id.* at 1219-20.

360. *See, e.g.,* PATE, *supra* note 137, at 4.

[T]he argument is that there must therefore be *some* circumstance in which the unilateral, unconditional refusal to license a patent must constitute an antitrust violation. With a single much-criticized exception, this is an argument that has never found support in any U.S. legal decision. At this point in the development of U.S. law, it is safe to say that this argument is without merit.

Id. Note that there was, in fact, no request for any patent licenses in *Kodak*. *See* 125 F.3d at 1216 n.9.

the ISOs.³⁶¹ Indeed, Kodak only began its policy after losing a lucrative contract with the State of California, and consumers appeared to prefer the ISOs' service over Kodak's.³⁶² This case was not about the necessary protection of intellectual property rights. It was, instead, a late discovery by Kodak of the intellectual property concept, which Kodak hoped would give it broad immunity from the antitrust laws.

This brings us to the Microsoft cases. The evolved intellectual property concept has many similarities to the analytical approach of the D.C. Circuit and the European Commission, particularly in recognizing the importance of considering the competitive effects of Microsoft's conduct and balancing those effects against any asserted intellectual property justifications. Nevertheless, the evolved intellectual property concept would give the intellectual property claims both more attention and less weight than either decision-maker may have done. It is not quite accurate to treat intellectual property as if it were any other type of property, because intellectual property has legal and economic characteristics that differ from other forms of property. Consideration of the specifics of Microsoft's intellectual property rights would then lead to a clearer competition analysis, in which the impact on the policies of the intellectual property laws could be assessed more accurately. For example, the court of appeals' decision to permit the boot-up restrictions, which prevented OEMs from replacing the Windows desktop with a different shell program,³⁶³ might have come out differently had the court (1) considered whether the desktop was really a protected element of the copyright granted on Windows and (2) contemplated the limited effect on intellectual property rights and incentives that liability would have imposed as against Microsoft's broad-ranging effort to maintain its monopoly power in the operating system market.³⁶⁴

Finally, there is the fifth principle of the evolved concept—the institutional concern for remedy. *Microsoft* was the only case that presented the possibility of a structural remedy to change the incentives of the intellectual property producer without much intruding on

361. See 504 U.S. at 457-58 (on motion for summary judgment).

362. *Id.* at 1213-14.

363. See *United States v. Microsoft Corp.*, 253 F.3d 34, 63 (D.C. Cir. 2001).

364. The trial judge's approach to the boot-up and desktop restrictions was more consistent with this Article's proposed approach, paying more attention to the specifics of Microsoft's intellectual property rights and viewing Microsoft's intellectual property claim as pretextual, relying, in part, on the Ninth Circuit's decision in *Kodak*. See *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30, 40-41 (D.D.C. 2000); *supra* note 84 and accompanying text.

licensing freedom.³⁶⁵ In the aftermarket service cases, no one proposed divesting the OEMs' service operations, although that would have changed the OEMs' incentives in the aftermarket quite dramatically, with likely salutary effects on competition.

The remedy chosen in cases where liability was found (*Microsoft* and *Kodak*) was compulsory licensing.³⁶⁶ The scorecard on these efforts is uneven so far. The U.S. effort in *Microsoft*—after initial concerns about high licensing rates—has focused on the more complex issue of specifying the protocols to be licensed. The European effort has yet to focus on licensing rates, it, too, being consumed with the quality of Microsoft's compliance with protocol specifications.³⁶⁷ The *Kodak* decree required Kodak to sell all parts to the ISOs for ten years at nondiscriminatory prices.³⁶⁸ The decree specifically allowed Kodak to charge monopoly prices for its parts so as to give it adequate returns for its intellectual property.³⁶⁹ These decrees thus show that compulsory licensing is not impossible to do, but is not necessarily easy to accomplish either. Still, it is worth remembering that regulated monopoly is not the only choice open to courts. Courts should not ignore the possibility that, in certain cases, restructuring might do less harm to intellectual property rights and provide greater benefit to competition. Indeed, the restructuring approach is one that legislators and regulators eventually chose in important regulated industries with dramatic effect in the markets involved.³⁷⁰

365. The district court originally ordered Microsoft to be restructured into two companies, one that would have the operating systems business and one that would have the applications business, *see* *United States v. Microsoft Corp.*, 97 F. Supp. 2d 59, 64 (D.D.C. 2000), but this decree was vacated on appeal, *Microsoft*, 253 F. 3d at 98.

366. *See Kodak*, 125 F.3d at 1226-27; *supra* notes 113, 171-75 and accompanying text.

367. *See* Press Release, European Comm'n, Competition: Update on Microsoft's Compliance with March 2004 Decision (Nov. 23, 2006), <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/06/445> (confirming Microsoft's presentation to the Commission of revised protocol technical documentation, which had been due in July 2004, and discussing the additional €280.5 million fine that had been imposed in July 2006 for failure to comply with the original order).

368. *See* 125 F.3d at 1226-27.

369. *See id.* at 1225-26 (modifying a district court injunction to omit the requirement that prices of all Kodak parts for ten years be reasonable, requiring only that they be nondiscriminatory). "Kodak is entitled to monopoly prices on its patented and copyrighted parts, as the ISOs admit." *Id.* at 1225. An earlier settlement of the *Xerox* litigation had apparently permitted Xerox to charge the ISOs monopoly prices while charging less to end-user customers who self-serviced. *See* 203 F.3d 1322, 1324 (Fed. Cir. 2000).

370. *See supra* notes 300, 317 and accompanying text.

V. CONCLUSION

The intellectual property concept described in this Article is one which is untied from any specific regime of intellectual property. Instead, it is used as a stand-in for the policies said to lie behind intellectual property generally. Taking a maximalist approach to the concept, Microsoft argued that it should have the unfettered right to control its intellectual products, as a just reward for its investments and to promote its incentives for innovation. Taking a balancing approach instead, the D.C. Circuit Court of Appeals in the United States and the European Commission weighed the strength of those intellectual property claims against the impact on competition of Microsoft's conduct. In the United States, the result was that Microsoft's intellectual property claims had almost no impact at the liability phase, but were important at the remedy phase when the district court judge gave more credence to Microsoft's approach by denying requests for greater disclosure of APIs and communications protocols. In Europe, intellectual property claims played a greater role at the liability phase, and the European Commission's use of the balancing approach led to a decision that Microsoft's refusal to supply protected information likely had an adverse effect on competition and innovation in the affected markets.

As this Article indicates, use of the intellectual property concept, particularly as articulated by Microsoft, compares interestingly to the earlier use of the public utility concept. In similar fashion, both concepts have been used to advance notions of natural monopoly and freedom from the rules of competition. Proponents' overclaiming, and downright bad results, led eventually to approaches that limited—but did not eliminate—the use of the public utility concept. A similar fate should await the intellectual property concept.

This Article argues that overclaiming by intellectual property rights holders can be limited if the intellectual property concept evolves along the lines that were used to control the public utility concept. That is, there should be no implied exemption from antitrust for intellectual property rights; intellectual property rights should be carefully examined so that the conflict between antitrust and intellectual property is minimized; the economics of intellectual property and intellectual property products should be carefully understood in each case so that the impact of antitrust liability on those rights and on the incentives provided by intellectual property is properly assessed; and the benefits provided by the dis-integrators that want access to intellectual property should be appreciated, particularly for the ability of such firms to stimulate innovation.

Historically, government regulation has posed the most direct challenge to antitrust, often being viewed as antitrust's antithesis. From the 1930s to the 1970s, regulatory agencies received wide latitude to pursue policies that substituted government control over price and entry for the discipline of the marketplace and the control of the antitrust laws.³⁷¹ In the 1970s, however, the abdication of antitrust ended, and the public utility concept began to pass.³⁷² As Kahn noted, we chose markets over the "enforced orderliness" of central control.³⁷³

Antitrust faces a similar challenge today from intellectual property. Not all claims for intellectual property protection are wrong, but many commentators have become concerned that the claims for intellectual property protection have become overbroad and that dominant intellectual property rights holders may manage innovation in ways that thwart Schumpeterian competition.³⁷⁴ As Professor Kenneth Arrow pointed out in an early declaration in the *Microsoft* litigation, companies "in the information business" with strong market positions have not necessarily been better at choosing future technology winners in their markets than the government has been when choosing entrants.³⁷⁵ Paying careful attention to the intellectual property claims being made—and not just dealing with intellectual property as a concept—can help insure that monopoly firms are not able to assert "intellectual property" to block competition from firms that can bring the very innovations that the intellectual property laws seek to advance.

371. For a full description of court decisions during this period, see Louis B. Schwartz, *Legal Restriction of Competition in the Regulated Industries: An Abdication of Judicial Responsibility*, 67 HARV. L. REV. 436 (1954).

372. See, e.g., Thomas M. Jorde, *Antitrust and the New State Action Doctrine: A Return to Deferential Economic Federalism*, 75 CAL. L. REV. 227 (1987) (discussing the change in court decisions).

373. Kahn, *supra* note 28, at 26.

374. See, e.g., Merges & Nelson, *supra* note 137, at 908. After reviewing technical advances in a number of industries, the authors conclude that, with some exceptions, "where a few organizations controlled the development of a technology, technical advance appeared sluggish." *Id.*

375. See Declaration of Kenneth J. Arrow at 8-9, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (Civil Action Nos. 98-1232 (TPJ) & -1233 (TPJ)), <http://www.usdoj.gov/atr/cases/exhibits/2517.pdf>.