

FOREWORD

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Now in its fourth year, the *Annual Review of Law & Technology* (“*Annual Review*”) provides practitioners, judges, policymakers, and scholars with timely summaries and analyses of leading developments in technology law, including the fields of intellectual property, antitrust, constitutional law, telecommunications, business law, and international law. This year’s volume contains detailed analyses of twenty-two important developments during the period September 1, 1999 through August 30, 2000 as well as shorter summaries of thirty-nine other cases and other developments through February 2001.

During the past year, the Internet and digital technology continued to take center stage in the evolution of copyright, trademark, antitrust, telecommunications, and business law. The year will be remembered for the epic battle between music copyright owners and new online music services, the implementation of new legal regimes—domestic and international—to protect the rights of trademark owners in cyberspace, and the finding that Microsoft Corporation violated antitrust law through its licensing practices. In addition, federal and state legislatures made strides in developing a new commercial law for the Internet Age.

I. INTELLECTUAL PROPERTY LAW

A. Copyright

All three of this year’s copyright Notes present cases that arose from the use of computer technology. These cases reflect the courts’ continuing struggle to protect the rights of creators of digital information without unduly interfering with public access to and use of that content.

Two cases highlighted this year apply traditional copyright law to the digital world. In *Tasini v. New York Times Co.*,¹ the Second Circuit ruled

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that publishers of magazines, newspapers, and other collective works lack authority to place contributions from freelance writers into conventional electronic databases. While recognizing that § 201(c) authorizes the owners of collective works to revise such works, the Second Circuit held that this limited privilege did not extend to breaking the collective work into its component contributions and archiving the content independently of the collective work. This decision threatens the availability of comprehensive archives of news stories and other works because of the high transaction costs of acquiring requisite permissions from freelance authors. The Supreme Court recently heard arguments on this case, so we can expect to revisit this issue in next year's *Annual Review*.

In *Sony Computer Entertainment v. Connectix Corp.*,² the Ninth Circuit ruled that reverse engineering a video-game console's operating-system software in order to produce a competing product (an emulator) was fair use. The court emphasized that the competitor, Connectix, was entitled to study and understand the functional aspects of Sony's software and that reverse engineering was the only available means for such study. The court accorded much less importance to the potential effect of Connectix's competing product on the market for Sony's PlayStation. In so doing, the court added further support for the view that copyright protection does not extend to network features of computer technology.³

This year's *Annual Review* analyzes the first two cases to apply the Digital Millennium Copyright Act's ("DMCA") anti-circumvention provisions, *RealNetworks, Inc. v. Streambox Inc.*⁴ and *Universal City Studios, Inc. v. Reimerdes*.⁵ In *RealNetworks*, the developer of RealMedia technology that enables content owners to stream (in a non-downloadable form) content over the Internet sued the developer of Streambox VCR, a product that overrides the RealMedia encrypted security measures so as to enable users to download streamed content. The court held that the Streambox VCR violated the DMCA's anti-circumvention provisions, rejecting the argument that such technology was permissible under the *Sony* stan-

1. 206 F.3d 161 (2d Cir. 2000), *cert. granted*, 121 S. Ct. 425 (2000).

2. 203 F.3d 597 (9th Cir. 2000)

3. See Peter S. Menell, *An Epitaph for Traditional Copyright Protection of Network Features of Computer Software*, 43 ANTITRUST BULLETIN 651 (Fall-Winter 1998); Julie E. Cohen, *Reverse Engineering and the Rise of Electronic Vigilantism: Intellectual Property Implications of 'Lock-Out' Programs*, 68 S. CAL. L. REV. 1091 (1995).

4. No. C99-2070P, 2000 U.S. Dist. LEXIS 1889 (W.D. Wash. Jan. 18, 2000).

5. 111 F. Supp. 2d 294 (S.D.N.Y. 2000).

dard⁶—that the product had substantial noninfringing uses. In *Reimerdes*, the major movie studios obtained an injunction against publication of “DeCSS” software, which decrypts encrypted movies on DVD. DeCSS enables users to watch DVD movies on Linux-based computers; it also enables users to create and distribute unlimited numbers of digital copies of the movies. This case is currently on appeal in the Second Circuit.

In addition to these cases, the litigation over Napster’s online music-swapping service attracted substantial attention throughout the year. At the urging of major record labels and other music copyright owners,⁷ the Northern District of California issued a preliminary injunction enjoining the service in August 2000,⁸ which the Ninth Circuit stayed pending its consideration of the matter. The Ninth Circuit’s decision, which issued in February 2001,⁹ substantially upheld the lower court’s legal analysis but remanded for narrowing of the injunction. This decision was handed down too late for full treatment in this year’s *Annual Review*, but will be featured in next year’s issue.

B. Patent

With the general questions of the patentability of software and business methods apparently settled,¹⁰ the Federal Circuit focused on more traditional questions of patent law in the prior year. This year’s *Annual Review* highlights a number of cases addressing the construction of means-plus-function claims,¹¹ the application of the doctrine of equivalents,¹² licensee standing,¹³ and the best mode requirement.¹⁴

6. *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984) (holding that private home viewing of TV programs on copies made by videotape recorders is fair use).

7. *E.g.*, *A&M Records v. Napster, Inc.*, 114 F. Supp. 2d 896 (N.D. Cal. 2000); *Young v. Napster, Inc.*, No. 00-04366 (C.D. Cal. filed Apr. 25, 2000); *Metallica v. Napster, Inc.*, No. 00-0391 (C.D. Cal. filed Apr. 13, 2000) (filing copyright infringement and racketeering claims against Napster and three universities).

8. *A & M Records*, 114 F. Supp. 2d at 927 (2000).

9. *A&M Records v. Napster, Inc.*, Nos. 00-16401 & 00-16403, 2001 U.S. App. LEXIS 1941 (9th Cir. Feb. 12, 2001).

10. Software and Internet patents continue to pose challenges to the Federal Circuit. *See, e.g.*, *Interactive Gift Express, Inc. v. CompuServe, Inc.*, 231 F.3d 859 (Fed. Cir. 2000) (holding that the district court construed the claims in a software patent too narrowly); *Amazon.com v. Barnesandnoble.com*, No. 00-1109, 2001 U.S. App. LEXIS 2163 (Fed. Cir. Feb. 14, 2001).

11. *IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422 (Fed. Cir. 2000); *Kemco Sales, Inc. v. Control Papers Co.*, 208 F.3d 1352 (Fed. Cir. 2000).

In November, the Federal Circuit released its long-anticipated en banc decision in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*,¹⁵ addressing the range of equivalents available for a claim element amended during prosecution. In a decision that will undoubtedly place greater emphasis upon the patent prosecution process, the court ruled that an amendment to a claim restriction for any reason related to patentability bars application of the doctrine of equivalents to that claim limitation. In resolving the tension between ensuring patentees' protection against insubstantial imitation and affording the public notice of the scope of patent claims, the majority came down squarely on the side of public notice in those circumstances where the patentee narrows a claim restriction. Because the decision came so late in the year, *Festo* will receive full coverage in next year's *Annual Review*.

As the initial map of the human genome reached completion, the patenting of sequence data received substantial attention. The Patent and Trademark Office issued new utility guidelines aimed at raising the standards patent applicants must meet in order to patent genetic data. Meanwhile, in an effort to preempt the patenting of human genetic code, the Wellcome Trust embarked on a new institution for disclosing gene sequence data into publicly accessible databases. While this will prevent companies from securing rights to the raw sequence data, participants hope that the lure of proprietary rights in new gene-based diagnostic and therapeutic tools will encourage exploitation of genome data.

C. Trademark

The Internet dominated new developments in trademark law as two new tools became available to trademark owners in the battle against cybersquatting. First, the Anticybersquatting Consumer Protection Act of 1999 took effect, providing mark owners with a more effective and better targeted means of addressing cybersquatting than the Federal Trademark Dilution Act. The Second Circuit was the first court to apply these new standards.¹⁶ In a parallel development of potentially greater importance, the Internet Corporation for Assigned Names and Numbers ("ICANN")

12. *Vehicular Techs. Corp. v. Titan Wheel Int'l, Inc.*, 212 F.3d 1377 (Fed. Cir. May 22, 2000); *Zodiac Pool Care, Inc. v. Hoffinger Indus. Inc.*, 206 F.3d 1408 (Fed. Cir. 2000); *Optical Disc Corp. v. Del Mar Avionics*, 208 F.3d 1324 (Fed. Cir. 2000).

13. *Speedplay, Inc. v. Bebob, Inc.*, 211 F.3d 1245 (Fed. Cir. 2000); *Prima Tek II, L.L.C. v. A-Roo Co.*, 222 F.3d 1372 (Fed. Cir. 2000).

14. *Northern Telecom Ltd. v. Samsung Electronics Co.*, 215 F.3d 1281 (Fed. Cir. 2000).

15. 234 F.3d 558 (Fed. Cir. 2000) (en banc).

16. *Sporty's Farm L.L.C. v. Sportman's Market, Inc.*, 202 F.3d 489 (2d Cir. 2000).

implemented its Uniform Domain Name Dispute Resolution Policy (“UDRP”).¹⁷ This alternative dispute resolution institution provides fast and inexpensive resolution of the multitude of disputes relating to the use of trademarks in domain names. In its first year of operation, the ICANN UDRP process resolved well over 1,000 domain name disputes.

This past year also witnessed important developments in more traditional areas of trademark law. In *Wal-Mart Stores, Inc. v. Samara Bros.*,¹⁸ the Supreme Court ruled that although product packaging may be inherently distinctive trade dress, product design cannot acquire trade dress protection without having acquired secondary meaning. While the Court resolved the circuit split over the distinctiveness of product design, lower courts will no doubt spend several years wrestling with the problem of distinguishing product packaging from product design.

In *Comedy III Productions, Inc. v. New Line Cinema*,¹⁹ a case dealing with the overlap between different intellectual property regimes, the Ninth Circuit ruled that trademark law could not be used to substitute for an expired copyright. The court rejected the plaintiff’s claim that the use of a thirty-second clip from a Three Stooges film that had fallen into the public domain violated any rights to the name, likeness, or act of The Three Stooges.

D. Trade Secret

With its capacity to provide inexpensive, instantaneous, and widespread distribution of vast amounts of information to anyone with a website, the Internet poses a substantial threat to trade secret owners. *Ford Motor Co. v. Lane*²⁰ demonstrated the complex balancing required to protect trade secrets in this promiscuous environment. The Eastern District of Michigan, citing First Amendment concerns, refused to enjoin defendant Lane from posting misappropriated trade secrets on his website. The court held that in the absence of a confidentiality or fiduciary agreement between the parties, Ford’s commercial interest in its trade secrets and Lane’s misappropriation did not outweigh the First Amendment interest in avoiding prior restraints on speech.

17. ICANN, Uniform Domain Name Dispute Resolution Policy, at <http://www.icann.org/udrp/udrp-policy-24oct99.htm> (Oct. 24, 1999).

18. 529 U.S. 205 (2000).

19. 200 F.3d 593 (9th Cir. 2000).

20. 67 F. Supp. 2d 745 (E.D. Mich. 1999).

II. ANTITRUST

The past year saw the trial court resolution of a historic antitrust case: *United States v. Microsoft Corp.*²¹ Unlike the IBM antitrust litigation that dragged on for more than a decade without resolution,²² the comparably complex Microsoft case proceeded on a fast track and resulted in a strongly worded decision that Microsoft violated section 1 of the Sherman Act through its bundling of Internet Explorer with Microsoft Windows in an attempt to leverage its operating-system monopoly into a monopoly in web browser software. As a remedy, the court ordered a break-up of the corporation into an operation system company and a software applications business. The case is currently on appeal in the District of Columbia Circuit. Regardless of the outcome, the decision has already reverberated through the digital technology industries.

In another important antitrust development, the Federal Circuit came out strongly in favor of patent and copyright owners' right to exclude in *In re Independent Service Organizations Antitrust Litigation*.²³ The court ruled that it was not an antitrust violation for Xerox Corp. to refuse to sell the patented parts for its copiers or the copyrighted service manuals to independent service providers. With respect to patents, the Federal Circuit held that a patentee has the right to exclude unless the antitrust plaintiff can prove illegal tying, fraud on the Patent Office, or that the patentee is engaged in sham litigation. With respect to copyrights, the court held that the antitrust plaintiff must overcome the presumption that a desire to exclude others from access to a copyrighted work is a sound business justification for a refusal to sell or license the work.

III. CONSTITUTIONAL LAW

The Supreme Court expanded First Amendment protection for cable broadcasters in *United States v. Playboy Entertainment Group*.²⁴ The Court struck down a provision of the 1996 Telecommunications Act requiring cable operators either to completely block adult-channel signals from nonsubscribers or to show adult programming only during hours when children were unlikely to watch. Significantly, the Court subjected the provision to strict scrutiny, the first time a law restricting broadcasters'

21. 84 F. Supp. 2d 9 (D.D.C. 1999) (findings of fact); 87 F. Supp. 2d 30 (D.D.C. 2000) (conclusions of law); 97 F. Supp. 2d 59 (D.D.C. 2000) (remedy).

22. See FRANKLIN M. FISHER ET AL., FOLDED, SPINDLED, AND MUTILATED: ECONOMIC ANALYSIS AND U.S. V. I.B.M. (1983).

23. 203 F.3d 1322 (Fed. Cir. 2000).

24. 529 U.S. 803 (2000).

speech was subjected to this high standard. Equally significantly, the Court pointed to advances in technology to establish that a less restrictive alternative existed.

IV. TELECOMMUNICATIONS LAW

The rise of the Internet and of Internet Service Providers (“ISPs”)—largely unforeseen when the Telecommunications Act of 1996 opened up competition in local telephone markets—has also affected telecommunications law. As local telephone markets have been opened to competition, incumbent carriers (“ILECs”) and their new competitors (“CLECs”) have negotiated reciprocal compensation agreements, in which each carrier compensates others for the cost of terminating calls originating from the carrier’s subscribers. Many CLECs have signed up ISPs as subscribers and profited from the reciprocal compensation agreements, as ISPs make few calls but receive many. To avoid paying the high fees, the ILECs sought and won a ruling from the FCC exempting ISP-bound local traffic from reciprocal compensation agreements. The D.C. Circuit, however, vacated this ruling in *Bell Atlantic Telephone Cos. v. FCC*,²⁵ with language strongly suggesting that ISP-bound traffic must be included in reciprocal compensation.

V. BUSINESS LAW

The past year brought various developments regarding the adaptation of commercial law to the new realities of the Internet Age. The Electronic Signatures in Global and National Commerce Act,²⁶ signed June 30, 2000, affords electronic signatures the same legal force as those executed in ink. The law mandates a technologically-neutral approach in deciding what form of electronic signatures are binding. Thus, everything from private-key encryption systems to a simple click on an “I Agree” box can be legally binding. While this approach avoids the danger of requiring contracting parties to use a technology that may become obsolete or easily forged, it raises concerns about consumer protection and the allocation of the risk of a falsified electronic signature.

25. *Bell Atlantic Tel. Co. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000).

26. Pub. L. No. 106-229, 114 Stat. 464 (codified at 15 U.S.C.A. §§ 7001-7006 (West Supp. 2001)).

Efforts by the 106th Congress to extend the moratorium on Internet taxes²⁷ led to a number of bills,²⁸ but no new laws. The bills reflect efforts to retain traditional state sovereignty over sales taxes without burdening the emerging Internet economy with a multitude of conflicting tax provisions or the possibility of incurring tax liability in multiple jurisdictions for the same transaction. With the current moratorium set to expire later this year, the 107th Congress is likely take up the issue soon.

At the state level, efforts to regulate unsolicited e-mail came under constitutional attack. In recent years, many states have sought to regulate senders of bulk e-mail, requiring flags in subject lines, accurate identification of the sender, and opt-out mechanisms. This year, two state trial courts struck down anti-spam laws as violating the dormant Commerce Clause.²⁹ If these decisions stand, numerous existing state spam laws may be invalid as well. Federal regulation may be the only answer to the increasing burdens on ISPs and individual recipients of unsolicited e-mail. Indeed, the 106th Congress considered an Unsolicited Commercial E-Mail Act ("UCEMA"), but did not adopt it.

As part of the continuing effort to adapt contract law to the age of software licensing, several state legislatures began debating the Uniform Computer Information Transactions Act ("UCITA") in 2000. Two states, Virginia and Maryland, adopted UCITA, albeit with various modifications. A third state, Iowa, took the opposite approach by passing a "bomb-shelter" provision that invalidates choice-of-law provisions in consumer contracts if the state selected in the provision would apply UCITA.

VI. FOREIGN & INTERNATIONAL LAW

As noted above, the ICANN implemented an international dispute resolution mechanism for domain names. In another important international development, U.S. copyright law came under scrutiny at the WTO in 2000.³⁰ On a complaint brought by the European Union, a dispute reso-

27. Internet Tax Freedom Act, Pub. L. No. 105-277, Div. C, Title XI, §§ 1100-1104, 112 Stat. 2681, 2681-719 (1998), available at <http://www.house.gov/chriscox/nettax/law.html> (last visited Nov. 5, 2000).

28. *E.g.*, H.R. 3709, 106th Cong. (2000); H.R. 4460, 106th Cong. (2000); S. 2775, 106th Cong. (2000); H.R. 4462, 106th Cong. (2000); H.R. 4267 106th Cong. (2000).

29. Order on Civil Motion Granting Defendant's Summary Judgment, *Washington v. Heckel*, No. 98-2-25480-7SEA (Wash. Super. Mar. 10, 2000) (Washington state law); Order Sustaining Defendants' Demurrer without Leave to Amend, *Ferguson v. Friendfinder, Inc.*, No. 307309 (Cal. Super. June 2, 2000) (California state law).

30. WTO Dispute Panel Report on Section 110(5) of the U.S. Copyright Act, WT/DS160/R (June 15, 2000), at <http://www.wto.org/wto/ddf/ed/public>.

lution panel of the WTO considered two provisions of the Copyright Act that allowed bars, restaurants, and stores to play music on radios and televisions without obtaining licenses if certain conditions were met.³¹ The panel ruled that one of the provisions created too broad an exception to the general rule that authors control the distribution and broadcasting of their works and that that provision violated the TRIPS Agreement and the Berne Convention. The United States has agreed to amend the provision.

The rapid pace of developments at the intersection of law and technology presages new developments for the coming year. The debate over digital music and digital rights management, the appeal of the *Microsoft* antitrust case, and further development of the legal infrastructure for electronic commerce are just a few of the salient issues already on next year's agenda for the *Annual Review*. The *Berkeley Technology Law Journal* and the Berkeley Center for Law & Technology remain committed to providing this reliable, up-to-date resource for lawyers, judges, policymakers, and the academic community interested in following this fast-moving field of law now and in years to come.

31. 17 U.S.C. § 110(5). The conditions involve the type of equipment and number of speakers used; the particulars depend on the type and size of the business establishment.

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