

**THE PATENT WARS:
THE BATTLE TO OWN THE WORLD'S TECHNOLOGY**

By Fred Warshofsky.¹
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Due to a conjunction of economic, political, and social factors, patent protection is the strongest it has ever been in the United States. Patent law, the area of intellectual property law devoted to the protection of tangible inventions, has taken on new significance in an era driven by exponential increases in technological innovation and the globalization of economic trade. As a result, companies seeking a competitive advantage in the world marketplace are recognizing the importance of the acquisition and protection of intellectual property rights. In his new book, *The Patent Wars: The Battle to Own the World's Technology*, Fred Warshofsky provides a general overview of patent protection and the millions of dollars at stake. While the book is an excellent exposition of numerous patent disputes and abuses, it does not offer the critical analysis of the patent system that the issues he raises seem to require.

According to the author, the resources devoted to the protection of intellectual property and the stakes involved in these patent wars are tremendous, because the foundation of "a nation's true wealth is based on the creativity of its people and the ideas and innovations they generate" (p. 4). Warshofsky argues that a number of factors have contributed to stronger patent protection. First, the increase in the amount of imported goods and the subsequent decline in America's ability to compete have made patent protection necessary to ensure economic viability. Second, the election of Ronald Reagan, the palpable shift in the political attitude towards monopolies, and the resulting decrease in the prosecution of antitrust cases have together removed political obstacles to increased patent protection. Finally, judicial reform contributed to this favorable atmosphere toward patent protection through the creation in 1982 of a specialized appellate court with exclusive jurisdiction over patent appeals: the Court of Appeals for the Federal Circuit. Warshofsky notes that "[d]uring the 1980s, patent litigation rose by 50 percent, and patents were upheld by the new court 80 percent of the time" (p. 9).

1. Fred Warshofsky has written several books on technological issues, including *THE CHIP WAR: THE BATTLE FOR THE WORLD OF TOMORROW* and *DOOMSDAY: THE SCIENCE OF CATASTROPHE*.

As patent protection has expanded, patent law has been challenged by two important developments: the rapid pace of technological change, and the globalization of the marketplace. The development of new technologies has forced judges and lawmakers either to shoehorn the protection of new products into existing categories and definitions of rights, or to create new forms of intellectual property protection. For example, the increasing significance of semiconductors prompted Congress to create a *sui generis* type of protection,² while the boundaries of patent law are being pushed every day in the nascent field of biotechnology. Courts have also grappled with the difficulty of fitting protection for software into existing doctrinal structures.

Globalization has forced policymakers to consider international solutions, especially in light of the highly divergent approaches that individual countries take to the protection of intellectual property. Warshofsky points to a nation's level of industrial development as the key indicator of the strength of its patent protection; he contends that more industrialized countries have greater incentives to implement heightened patent protection than less developed countries (p. 10). American lawmakers have confronted the issue by linking a foreign nation's trade status with its level of intellectual property protection (p. 13), and by pursuing harmonization of intellectual property standards through the General Agreement on Tariffs and Trade (p. 108). Clearly, the importance of patent protection is now being addressed on a worldwide scale. And, as Warshofsky asserts, the United States has recently begun losing ground to foreign nations in the race to stake claims to intellectual property (p. 28).

Independent of the pressures exerted by technological and global change, the patent system as it exists today is certainly susceptible to abuse by those who avail themselves of its protection. Warshofsky argues that abuse occurs most often when large companies use the patent system not only to protect their investments, but also to stifle competition (p. 267), through the pursuit of expensive patent infringement litigations, the use of "cluster patenting,"³ or the filing of overly broad patent claims (p. 268).

The strength of Warshofsky's book lies in his ability to narrate in vivid detail several intense legal battles over patent protection. For example, in Chapter 5, he focuses on the animosity and numerous patent suits between microprocessor giants Intel and AMD. Intel invented the microprocessor in the early 1970s and was chosen by IBM to supply its

2. Semiconductor Chip Protection Act of 1984, 17 U.S.C. §§ 901-14 (1988).

3. Cluster patenting is the surrounding of an existing patent with scores of detail-improving patents so that the original patent holder is forced to negotiate a license with the holder of the cluster patents (pp. 28-29).

8088 chip for integration into IBM's new line of personal computers. IBM, however, was reluctant to rely on only one supplier and required Intel to license its technology to AMD. AMD would then serve as a second source for the microprocessors. The result, as Warshofsky describes it, is "one of the most bitter, ongoing patent battles in history, rapidly becoming more a blood feud than a mere legal dispute" (p. 135).

The conflict arose from an interpretation of the 1982 technology-sharing agreement the two companies signed as a result of the IBM PC contract. In 1985, when Intel came out with a new type of microprocessor, the 386 chip, it broke the technology-sharing agreement and refused to share the chip's microcode with AMD. Both Intel and the market had grown enough that there was no longer a need to use a second source, and from 1985 until 1991 Intel enjoyed strong profits from brisk sales of the much-improved chip. In 1991, AMD released its own version of the 386 chip that was partially based on Intel's copyrighted microcode, insisting that the 1982 technology-sharing agreement allowed the use of the 386 microcode despite Intel's withdrawal. The dispute was eventually litigated by the two parties, and the trial judge allowed AMD to continue production of its version of the 386 chip and barred Intel from further litigation. In June 1993, the trial court was overruled by a California appeals court.⁴ In addition to the dispute regarding the 1982 technology-sharing agreement, each side filed numerous patent infringement suits, prolonging and intensifying the animosity between the two parties. Warshofsky relates the stages of the various litigations in detail, allowing the reader to gain a comprehensive understanding of both the factual and legal issues in dispute.

If the chief strength of *The Patent Wars* is its enlightening descriptions of high-stakes patent suits, the book's main weakness is an unwillingness to recognize that correcting the abuses within the patent regime may require systematic reform. Warshofsky is an Incrementalist, hoping to maintain the existing system, while his description of patent abuses seems to warrant the more dramatic reforms proposed by the Radical Revisionists,⁵ who favor more fundamental change. For Warshofsky, reform of the patent system is a balancing act: he proposes actions "to prevent the system from abuse and still maintain an environ-

4. In December 1994, after *THE PATENT WARS* was published, the California Supreme Court overruled the appeals court and reinstated the trial judge's ruling in favor of AMD. See *AMD v. Intel*, 885 P.2d 994 (1994).

5. The rapidly changing economic and technological foundations have divided the commentators on copyright law specifically, and intellectual property more generally, into two disparate camps. The Incrementalists believe that these rapid changes can be absorbed into the existing system, while the Radical Revisionists argue for a systematic overhaul. See David Post, *New Wine, Old Bottles: The Evanescent Copy*, *THE AMERICAN LAWYER*, May 1995, at 103.

ment where science and the useful arts are promoted by granting to inventors exclusive rights to exploit their inventions" (p. 267). This can be accomplished, Warshofsky argues, by making the costs of defending a patent litigation suit smaller (p. 267). To do so, he suggests the following: requiring compulsory arbitration conducted by specialists or requiring the use of special masters to resolve patent disputes; changing to a "first to file" system; and allowing the requester of a patent re-examination to be present at the hearing (pp. 267-70).⁶ Warshofsky maintains that these reforms are "not radical proposals," as he believes that the current patent system does not require a substantive overhaul (p. 270). Yet it seems unlikely that the modest changes he proposes can truly counteract or eradicate the abuses he condemns. For this reason, the force of his message is compromised.

Warshofsky also neglects to focus on the potentially dramatic effects that rapid technological change and globalization will have on intellectual property law. This shortcoming is especially evident in his discussion of software protection and intellectual property in cyberspace. Computer software is a prime example of a field that cannot easily be grafted onto the existing intellectual property system. The result, as Warshofsky indicates, is a patchwork of legal protections for software that includes trade secret, copyright, and patent laws (p. 10). Certainly, the process-oriented reforms espoused by Warshofsky will not have a significant impact on clarifying or strengthening this particularly complex and increasingly inadequate area of law. Effective protection of software will require substantive reform, perhaps of the type advocated by one of the leading Radical Revisionists, Pamela Samuelson, who has argued that a new form of intellectual property protection must be created to cover software's design behaviors.⁷

Furthermore, Warshofsky underestimates the potential threat to existing intellectual property laws posed by the explosive growth of the Internet. The ease of digital reproduction, manipulation, and transmission that the Internet allows will place an increasing strain on the present system of copyrights.⁸ As a result of the Internet's expansion, our

6. These last two reforms would adopt two innovations of the present European system. In America, a patent is awarded to the first to invent, whereas in Europe, the patent is issued to the first to file.

7. See Pamela Samuelson et al., *A Manifesto Concerning the Legal Protection of Computer Programs*, 94 COLUM. L. REV. 2308 (1994). See also Leo J. Raskind, *The Continuing Process of Refining and Adapting Copyright Principles*, 14 COLUM.-VLA J.L. & ARTS 125 (1990) (suggesting that reliance on classical classification systems of copyright creates unsatisfactory case law).

8. See Pamela Samuelson, *Digital Media and the Changing Face of Intellectual Property Law*, 16 RUTGERS COMPUTER & TECH. L.J. 323, 324 (1990) (noting this phenomenon generally, without specifically mentioning the Internet).

current copyright system may eventually need to be abandoned.⁹ Because Warshofsky fails to acknowledge and address the fundamental impact that digital transmission has already begun to have on existing intellectual property law, his analysis is perhaps myopic.

Finally, as the book's title suggests, Warshofsky views patent protection as virtual combat, but the omnipresent militaristic metaphors are largely overwrought. Warshofsky characterizes patent litigation as "economic warfare on an international scale, with battle reports of new litigation and ever-larger awards for infringement reported in the business pages daily" (p. 17). Patents are described as "major weapon[s]" and federal courts "the main battlefield" (p. 28). In these patent wars, according to Warshofsky, companies do not simply *threaten* a patent suit, they bare their "litigious fangs" (p. 153). For example, in its patent suit with Kodak, Polaroid "protect[ed] its turf as fiercely as a Los Angeles street gang" and "launched a furious legal attack" (p. 79).

More than simply being overused, the metaphors also illustrate Warshofsky's views on the goals of the American intellectual property system. For Warshofsky, intellectual property laws should be used to protect American industry at the expense of foreign intellectual property holders. The patent system, therefore, is viewed in the book as a battleground on which American and foreign companies can "fight it out," rather than a coherent, universal regime designed to encourage world-wide creativity and innovation.

For anyone interested in the emergence and increasing value of intellectual property, *The Patent Wars* is an excellent introduction. In particular, Warshofsky's entertaining descriptions of the history, legal tactics, and outcomes of recent patent disputes heighten the book's appeal and accessibility. Analytically, however, Warshofsky merely grazes the surface of a complex and dynamic area of law. In the end, *The Patent Wars* is a battle cry without a credible battle plan.

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9. See Esther Dyson, *Intellectual Value*, WIRED, July 1995, at 136.

