

Pirates on the High Seas

*The United States and Global
Intellectual Property Rights*

Bénédicte Callan

From the Study Group on American
Intellectual Property Rights Policy

Bénédicte Callan, Project Director
Ellen L. Frost, Chair

CONTENTS

Acknowledgments	iv
Foreword	v
Members of the Study Group	vii
Introduction	1
The Evolution of U.S. IP Policy	8
The TRIPs Agreement and Beyond	16
The Modern Pirates	27
Stopping Piracy Behind Borders—The China Case	38
American Goals	43
Constraints	52
The Asia Challenge	68
Conclusions	79
Bibliography	84

The Council on Foreign Relations, Inc., a nonprofit, nonpartisan national membership organization founded in 1921, is dedicated to promoting understanding of international affairs through the free and civil exchange of ideas. The Council's members are dedicated to the belief that America's peace and prosperity are firmly linked to that of the world. From this flows the mission of the Council: to foster America's understanding of its fellow members of the international community, near and far, their peoples, cultures, histories, hopes, quarrels and ambitions; and thus to serve, protect, and advance America's own global interests through study and debate, private and public.

THE COUNCIL TAKES NO INSTITUTIONAL POSITION ON POLICY ISSUES AND HAS NO AFFILIATION WITH THE U.S. GOVERNMENT. ALL STATEMENTS OF FACT AND EXPRESSIONS OF OPINION CONTAINED IN ALL ITS PUBLICATIONS ARE THE SOLE RESPONSIBILITY OF THE AUTHOR OR AUTHORS.

For further information about the Council or this Paper, please contact the Public Affairs Office, Council on Foreign Relations, 58 East 68th Street, New York, NY 10021.

Copyright © 1998 by the Council on Foreign Relations®, Inc.
All Rights Reserved.
Printed in the United States of America.

This Paper may not be reproduced, in whole or in part, in any form (beyond that copying permitted by Sections 107 and 108 of the U.S. Copyright Law and excerpts by reviewers for the public press), without written permission from the publishers. For information, write the Publications Office, Council on Foreign Relations, 58 East 68th Street, New York, NY 10021.

INTRODUCTION

THE AMERICA THAT Anthony Trollope came to know as an English emissary in the 1870s is entirely unfamiliar to contemporary readers. Despite their nominal protection in the U.S. Constitution, Trollope encountered indifference and resistance from American officials in his efforts to enforce copyrights for literary works.¹ His eloquent arguments about the benefits of strong intellectual property protection for the domestic literary market fell on deaf ears. Yet a century later, an older and more prosperous United States casts itself as the great proponent of intellectual property rights worldwide. Modern American negotiators take the moral high ground in the battle against international piracy and counterfeiting, denouncing unfair practices abroad and claiming that stronger rights can only help the economy in developing countries. Much has changed in a hundred years.

The switch in the U.S. position is understandable. A country's level of development heavily influences the value placed on intellectual property rights. Developing countries have always been leery of strong IP protection, which favors innovators over consumers, creative production over diffusion, and private interests over social goals. In Trollope's time, the United States was just becoming an international economy and remained unconvinced that IPR enforcement was a necessity. The U.S. position changed with its status in the world. In fact, just a few years after Trollope's visit, the United States came to see the value in international intellectual property cooperation, and joined Europe in signing the Paris Convention for the Protection of Industrial Prop-

I have no doubt that if I could poll American readers, or American Senators . . . or even American booksellers, that an assent to an international copyright would be the result. The state of things as it is crushing to American authors, as the publishers will not pay them on a liberal scale, knowing that they can supply their customers with modern English literature without paying for it . . . It is equally injurious to American booksellers—except to two or three of the greatest houses. No small man can now acquire the exclusive right of printing and selling an English book. If such a one attempt it, the work is reprinted instantly by one of the levians—who alone are the gainers. The argument of course is that American readers are the gainers—that as they can get for nothing the use of certain property they would be cutting their own throats were they to pass a law debarring themselves from the power of such appropriation. In this argument all idea of honesty is thrown to the winds . . . The ordinary American purchaser is not much affected by slight variations in price. He is at any rate too high-hearted to be affected by the prospect of such variation. It is the man who wants to make money, not he who may be called upon to spend it, who controls such matters as this in the United States.

—ANTHONY TROLLOPE, 1876

¹ The U.S. Constitution lays out the intention "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries," Article 1, section 8.

erty (1883) and the Berne Convention for the Protection of Literary and Artistic Works (1886). An era of international cooperation opened, and while IPRs were mainly of domestic concern, countries extended national treatment to foreign firms. Decades of relative quietude passed, during which intellectual property remained an arcane and technical field populated by inventors and lawyers.

In the 1980s intellectual property suddenly became the cause célèbre of trade politics, and the United States quickly became a formidable proponent of global IP rights. The United States has had showdowns with half a dozen countries over their IP policies. Twice, altercations with the People's Republic of China have brought the United States to the brink of a trade war. The Trade-Related Intellectual Property (TRIPs) Agreement is in many respects the heart of the new World Trade Organization (WTO). The United States concocted a policy of aggressive unilateral pressure for key countries with weak IP regimes to curb their piracy rates and maintain American incentives to innovate despite a world of porous international boundaries. Through the use of the Special 301 clause in the 1988 Trade Act, the General Agreement on Tariffs and Trade (GATT) negotiations on TRIPs, and the North American Free Trade Agreement (NAFTA), the United States brought intellectual property to trade's center stage. The policy was a radical break with the past, and it coincided with a change in America's position in the world economy.

This activist IP policy was formulated amid the economic and security upheavals of the 1980s, which included the globalization of business, the yawning trade deficit, slow growth rates, and Asian competition. Its first objective was to strengthen American exports in the entertainment and technology industries—the so-called information industries of the future. If the United States could recapture \$25 billion of sales lost to piracy, a very optimis-

tic scenario, exports would rise by about five percent.² The second objective of the policy was to combat the free rider problem inherent in industrial research and development (R&D) investments. When piracy is rampant, industrial R&D essentially becomes a nonexcludable and nonrival good (i.e., companies at home and abroad are loath to invest in research since its fruits are easily available to all for free).³ Reinforcing research incentives for U.S. firms should encourage them to maintain technological leadership. A third and related objective was to expand the innovation pie for all countries. Enhancing the appropriability of knowledge in developing countries should not only help local innovators but also facilitate technology transfers, trade in technology goods, and foreign direct investment. Increasing access to technology should spur growth in developing countries, and growing export markets are good for U.S. business.

In an era of such economic turmoil, an aggressive global intellectual property policy was perceived as necessary to champion American jobs, exports, and growth. The idea was not to coddle weak industries. In fact, the industries in the IP limelight—software, entertainment, and pharmaceuticals—were already stars of the American economy; big, dynamic sectors that exported their products worldwide. For example, in the 1980s the personal computer created a mass market for business software estimated at \$8 billion, and jobs for software engineers boomed, growing by 156 per cent over the decade.⁴ Looking more broadly at informa-

² According to the International Monetary Fund, total U.S. exports in 1994 were \$465 billion; see *1994 International Financial Statistics Yearbook*.

³ Nonexcludable means that a company cannot prevent others from using its ideas or products. Nonrival means that one person's use of the good does not detract from another's enjoyment of it. When a good is nonexcludable and nonrival, the private sector has a tendency to underinvest in its production.

⁴ By comparison, the growth rate in jobs nationwide was a modest 12% over the same period, according to the U.S. Bureau of the Census' *Statistical Abstract of the United States: 1995*.

tion industries, almost five percent of the U.S. work force is employed, directly or indirectly, in copyright-dependent sectors—including software, music, film, and print.⁵ The vitality and promise of these industries are embodied in their growth rates, which have recently been twice as high as that of the U.S. GDP (5.6 per cent versus 2.7 percent between 1991 and 1993).⁶ Worldwide revenues from video entertainment—films, TV, and rentals—grew by 16 percent in 1993, and video games alone have become an impressive \$12 billion industry with a 40 percent annual growth rate.⁷

In addition to their contribution to growth rates and employment, the intellectual property-dependent industries are important because they export. Copyright industries exported \$45.8 billion in 1993, second only to the automotive industry. Chemical products, which include pharmaceuticals and other goods heavily reliant on patent protection, exported \$45.1 billion that year.⁸ In general, “high-technology” goods are increasingly important to trade, accounting in the United States for more than 52 percent of all merchandise trade and growing 17 percent faster than trade in all goods from 1985 to 1993.⁹

⁵ Just under six million people, or 4.8% of the U.S. work force, work in copyright-related areas; see National Intellectual Property Association, “Copyright Industries in the U.S. Economy: 1977–1993,” Washington, D.C., 1995.

⁶ International Intellectual Property Association (IIPA), “Copyright Industries in the U.S. Economy: 1977–1993,” Washington, D.C., 1995.

⁷ For total revenues of \$23.7 billion; see IIPA, “Copyright Industries in the U.S. Economy: 1977–1993.” The growth rates are for 1987–93 as quoted in Gary Nelson, “The Sufficiency of Copyright Protection in the Video Electronic Entertainment Industry: Comparing the U.S. with the European Union,” *Law and Policy in International Business*, vol. 27, no. 3 (1996), p. 805.

⁸ IIPA, “Copyright Industries in the U.S. Economy: 1977–1993.”

⁹ Maskus, “Regionalism and the Protection of IPRs,” unpublished paper presented to the Council on Foreign Relations study group American IPR Policy after the TRIPs Agreement, April 19, 1996.

Piracy is, therefore, a scourge because it affects the symbols of American industrial strength—modern information-intensive industries—in which the United States places its greatest hopes for the future. Remember also that this IP strategy was forged in the dying embers of the Cold War, just as the United States was getting its first glimpses of a liberal trade regime on an unprecedented geographic scale. At stake, therefore, is not simply the competitiveness of a handful of U.S. industries but the shape of the entire international R&D system—who pays for innovation, and who benefits from it. Developing countries see American policy as an attempt to freeze the present technological division of labor, and not entirely unreasonably, they accuse the United States of technological protectionism.¹⁰ The United States emphasizes the incentives for creativity that stronger IPRs promise for all countries.

Despite skepticism abroad, from 1986 to 1996 American powers of persuasion worked to improve the level of international IP protection. Dozens of bilateral agreements have raised protection levels in the four corners of the globe. The GATT TRIPs Agreement was signed, NAFTA included an intellectual property agreement, and the Asia-Pacific Economic Cooperation (APEC) forum is considering doing so. Anthony Trollope would hardly recognize this new world. Yet the success of American IP policy has bred its own problems, and U.S. policymakers are struggling with how to proceed in further raising IP standards abroad. The second term of the Clinton administration offers the opportunity to redefine intellectual property policy, to clarify its goals and make it more consistent across countries.

The following article explores the types of strategies open to the United States in its effort to continue combating global piracy in a

¹⁰ For this argument see Paulo R. de Almeida, “The Political Economy of Intellectual Property Protection: Technological Protectionism and the Transfer of Revenue among Nations,” *International Journal of Technology Management*, vol. 10, no. 2/3 (1995), pp. 214–29.

post-TRIPs environment. A change in strategy is necessary, not because American IP goals have changed but because the challenges are different. First, the momentum of the Uruguay Round has dissipated, leaving the United States with little visible support from Japan and Europe in its efforts to raise IP standards globally. Second, bilateral negotiations will produce fewer results, both because the United States has already concluded the easy bilateral IP agreements and because the tools it once relied upon to force changes abroad have become blunt with wear.¹¹ Third, no matter what means are used, extracting further IP concessions in the developing world is going to become more difficult and expensive, especially as the U.S. must now contend with typical behind-the-border monitoring and enforcement problems. Finally, the countries the United States most wants to reach are in Asia. They are neither as vulnerable to U.S. demands as Latin America was, nor as interested in a rule-based trade agreement.

If the United States is committed to furthering the harmonization of IP systems internationally, it has three policy options—a deepening of multilateral commitments through the World Trade Organization, the forging of regional agreements with an intellectual property dimension, or the country-by-country negotiation of bilateral IP agreements within the parameters allowed by the WTO. The present administration, much like its predecessors, has a predilection for bilateral negotiations. This paper argues that, while effective for a limited number of countries, in order to build a global IP system, the U.S. emphasis should be on putting IPRs front and center in future multilateral forums.

¹¹ Harvey Bale suggests that for a number of reasons the American strategy of using sticks to encourage the enactment of stronger IPRs has reached an impasse. See Harvey Bale, Jr., "External Pressure: Does It Work? The Case of Pharmaceuticals," unpublished paper for the Council on Foreign Relations study group American IPR Policy after the TRIPs Agreement, Washington, D.C., June 6, 1996.

Asia, as the home to some of the most inveterate IP infringers, will be the proving ground for American policy in the near future. At the moment, neither APEC nor the WTO seems capable of convincing recalcitrant Asian countries to upgrade their IP regimes. The United States will be tempted to rely on bilateral agreements to raise standards in specific nations. But a bilateral strategy is too expensive and inconsistent to employ on a large scale. And while regional agreements have an important role to play in coordinating national IP policies and creating global standards, regional strategies cannot fully achieve U.S. goals either. Neither strategy should be pursued to the detriment of broader multilateral agreements that will bring all countries into a single system and provide a predictability attractive to the developing countries that sign on.

This paper starts by briefly reviewing the recent history of U.S. IP policy (Section 2); what global IP standards have been achieved (Section 3); and why the United States, given its present IP strategy, must expect iterative rounds of negotiations before satisfactory levels of international protection are achieved. Next the challenges to American IP policy are described, including the growing price tag and geographic spread of piracy (Sections 4); and the difficulty of eradicating piracy because of its behind-the-border character (Section 5). The U.S. government must choose among possible strategies and goals for combating global piracy (Section 6); and its choices are constrained by important political and financial considerations (Section 7). Finally, Section 8 uses Asia as an example of the comparative effectiveness of regional and multilateral agreements in raising IP standards.

THE EVOLUTION OF U.S. IP POLICY

IN THE 1980S AMERICAN intellectual property policy evolved from ad hoc to a coordinated policy of forcing change in trading partners whose standards were considered below par. The acts committed by IP infringers were really no more egregious than in the past, but U.S. interests and conditions in the world changed to make them unacceptable, and the world changed, allowing America to take action. Over the course of the 1980s, the United States redefined lax global IPRs as a threat to its economic strength, and created a multitrack strategy to combat piracy at multiple levels.

Americans began to treat international IP disputes with the gravity reserved for unfair trade practices once they became conscious of the dangers inherent in economic globalization for U.S. competitiveness. Americans have since become accustomed to hearing about the "global economy" and thinking that the United States has a privileged but precarious position as an economic superpower. But in the early to mid-1980s, Americans were very anxious about four macroeconomic problems: new international trade patterns, U.S. balance of payment problems, an overvalued dollar, and slow growth rates. Deep fears about the ability of the U.S. economy to compete led many in government to believe that liberal economic policies were hampering U.S. firms. Open U.S. markets were thought to be a mistake if foreign markets were less open or trade policies not symmetrical. The 1980s, therefore, gave birth to a protectionist backlash. Selective reciprocity—the belief that liberalization should only be offered on a tit-for-tat basis—

The Evolution of U.S. IP Policy

came to characterize much of U.S. trade policy, including that on intellectual property.¹²

The most disturbing macroeconomic trend was the skyrocketing deficit in the balance of payments, which reached well over \$100 billion per year in the mid-1980s, due mostly to a surge in imports of manufactured goods, particularly automobiles and parts, industrial supplies and materials, and consumer goods.¹³ In addition, the United States became acutely aware during this period that it no longer reigned unchallenged as global economic leader. U.S. trade as a percentage of world trade was dropping, during a period in which the importance of international trade was growing. The decline was natural, as Japan and Europe had recovered rapidly after the war, but the emergence of newly industrializing countries like Taiwan and Korea as strong exporters was worrisome, and the United States became much more sensitive to the perceived "unfair trade" practices of its partners.

In addition, the United States found itself slipping in some key high-technology sectors.¹⁴ In industries like semiconductors, microelectronics, and machine tools, the rapid loss of world market share sparked a debate about the future of American growth and competitiveness and exacerbated tensions in trade relations with Asia.¹⁵ High-technology trade had become very important to the United States: recent figures show that in the advanced industrial-

¹² One of the classic texts exploring the economics of selective reciprocity as a trade strategy is Paul Krugman, ed., *Strategic Trade Policy and the New International Economics*, Cambridge, MA: MIT Press, 1986.

¹³ See U.S. Department of Commerce, *U.S. Foreign Trade Highlights*; Washington, D.C., 1995, pp. 11–15.

¹⁴ For a history of high technologies in the U.S.; see Richard R. Nelson and Gavin Wright, "The Rise and Fall of American Technological Leadership: The Postwar Era in Historical Perspective," *Journal of Economic Literature*, vol. 30 (December 1992), pp. 1,931–64.

¹⁵ For a review of high technology trade disputes, see Laura D'Andrea Tyson, *Who's Bashing Whom?* Washington, D.C.: Institute for International Economics, 1992.

ized countries, over half of total trade flows are in high-technology sectors.¹⁶ Furthermore, the growth of high-technology trade is faster than the total rate of growth for all trade. Losing market share in such large and growing export sectors was cause for concern. Technology-intensive products and entertainment were an island of export strength in an era of poor American economic performance, and they were directly threatened by weak intellectual property rights abroad. Since intellectual property is an important component of most high-technology products, American firms lobbied to raise the level of protection afforded abroad.

By the end of the 1980s, not only did the United States have strong motivations to protect American intellectual property on a global scale, but for the first time in half a century, it was also at liberty to do so. *Glasnost* and *perestroika*—the elements of Soviet liberalism that ultimately led to the end of the Cold War—freed American economic diplomacy from the shadow of grand security concerns. It was no longer necessary to overlook the economic peccadilloes of U.S. trade partners for the sake of a stronger military alliance. Trade consequently moved up the ladder of U.S. national priorities. In addition, American timing was fortuitous. The early 1980s were a period of deep economic turmoil marked by oil and banking crises that hobbled many developing countries.¹⁷ In response, countries chose to adopt more liberal economic policies to escape the crisis. From 1985 to 1995, foreign direct investment in a range of developing countries rose from between 100 percent and tenfold.¹⁸ While the investments provided capital and technol-

¹⁶ Maskus, "Regionalism and the Protection of IPRs."

¹⁷ This point is made by Susan Sell, "Intellectual Property Protection and Anti-trust in the Developing World," *International Organization*, vol. 49, no. 2 (Spring 1995), pp. 315-49.

¹⁸ See Carlos M. Correa, "Intellectual Property Rights and Foreign Direct Investment," *International Journal of Technology Management*, vol. 10, no. 2/3 (1995), pp. 173-99.

ogy, they also made governments—especially in Latin America—more vulnerable to American IP demands. The coincidence of American activism with such important shifts in the international economic order made power IP politics possible.

The United States Trade Representative (USTR) under the Reagan administration first articulated a "multitrack" approach to trade. The idea was to expand multilateral discussions, while continuing to engage countries in bilateral agreements and intensifying unilateral pressures.¹⁹ In intellectual property this entailed an American shift away from the World Intellectual Property Organization (WIPO)—responsible for oversight of the major international intellectual property conventions—where discussions of IPR harmonization had stalled due to WIPO's single-issue focus and proclivity to weigh developing nation concerns heavily.²⁰ Instead, the USTR, at the prodding of American industries, pushed a novel IP initiative onto the agenda of the GATT Uruguay Round. The United States continued to engage in bilateral discussions, especially with Japan, but as the largest importer in the world, it also decided to toughen its unilateral IP demands.

Most emblematic of the new IP vigilance was the Trade and Competitiveness Act of 1988. The amended Section 301 requires the USTR to investigate countries that "have a history of violating existing laws and agreements dealing with intellectual property rights."²¹ Countries whose observance of intellectual property rights are subpar are put on a "watch" list, which opens bilateral

¹⁹ For further discussion of the multitrack policy, see Sylvia Ostry, *Governments and Corporations in a Shrinking World*, New York: Council on Foreign Relations, 1990, pp. 25-30.

²⁰ WIPO was created in 1967. It administers the Berne Convention, the Rome Convention, the Geneva Convention, and the Paris Convention. Organizationally, WIPO's one-nation, one-vote organization favors the less-developed countries, which are more numerous.

²¹ Definition from I.M. Destler, "American Trade Politics," Washington, D.C.: Institute for International Economics, 1995, p. 318.

discussions. The worst offenders—called priority foreign countries—can be subject to retaliatory sanctions if bilateral discussions do not lead to a change in practices. Much to the chagrin of other nations, Section 301 has been a powerful stick for shaping foreign IP practices, especially those that rely heavily on exports to the American market. Of the countries named “priority foreign countries,” only Brazil did not act to change IP practices to the U.S. government’s satisfaction, resulting in the imposition of trade sanctions.²² (See Table 1 for a listing of all priority foreign countries and investigations under Section 302(b)(1) of the Trade Act.)

Countries have changed their behavior to avert sanctions or simply to avoid being cited on the watch list by the USTR. The United States also linked intellectual property to the Generalized System of Preferences (GSP) and other benefits for developing countries ranging from International Development Bank loans to the funding of joint scientific projects.²³ These “sticks,” combined with the persistent prodding of state and private delegations, forced the issue of stronger IP protection on U.S. trade partners.

In the mid-1990s, the United States continues to press hard for intellectual property protection despite the fact that the economic outlook is arguably much rosier, at least from a U.S. perspective. Domestically, the United States enjoys a “dream economy” of low inflation, low unemployment, reasonable growth, and a growing stock market. Internationally through 1996, the dollar had become more competitive, the current account deficit was improving (as a percentage of GDP), and exports were growing at a brisk

²² In 1987 Brazil was named priority foreign country for its lack of pharmaceutical patents. Retaliatory tariffs affecting \$39 million Brazilian exports per year remained in place for two years. For a general discussion of the success of the use of Section 301, see Alan O. Sykes, “Constructive Unilateral Threats in International Commercial Relations: The Limited Case for Section 301,” *Law and Policy in International Business*, vol. 23, no. 2 (1992), pp. 263–331.

²³ The Generalized System of Preferences is a set of preferential market access measures for developing countries. The Caribbean Basin Initiative and the Andean Trade Preferences Act also linked to intellectual property protection.

Table 1. Section 301 and 302 Intellectual Property Investigations

		Resolution
Argentina	1988	agreed to better pharmaceutical patent protection, case withdrawn
Brazil	1985	on informatics policy and related IP protection, case withdrawn
	1987	sanctions imposed because of lack of pharmaceutical IP protection, sanctions lifted when product and process protection agreed to, 1990
	1993	agreed to enact a new patent law, case withdrawn
Chile	1988	pharmaceutical patent complaint withdrawn by initiating party
	1991	agreed to improve general IP protection, case withdrawn
China	1994	memorandum of understanding signed, case withdrawn
	1996	negotiated enforcement, case withdrawn
India	1991	for general intellectual property protection, case remains open
	1996	WTO Dispute Settlement (DS) Panel on pharmaceutical and agricultural patents, case remains open
Pakistan	1996	WTO DS Panel on pharmaceutical and agricultural patents, reached agreement
Portugal	1996	request WTO DS on TRIPs patent term, reached agreement
S. Korea	1985	agreement reached on stronger IP protection
	1987	pharmaceutical patent complaint withdrawn by initiating party
	1988	two pharmaceutical patent complaints withdrawn by initiating parties
Taiwan	1992	agreement reached on stronger IP protection, monitoring compliance
Thailand	1990	agreed to amend and enforce copyright laws, monitoring compliance
	1991	inadequate pharmaceutical patent protection, U.S. delaying action
Turkey	1996	WTO DS Panel, box office tax, case open

Source: USTR Website—<http://www.ustr.gov>.

rate.²⁴ Still, defensive efforts continued to protect the most vibrant "knowledge-intensive" industries and to facilitate their ability to compete worldwide. Most of the impetus, however, comes from three main sectors: software, pharmaceuticals, and entertainment.²⁵ The argument put forward by these sectors is that without strong intellectual property protection abroad, the technology industries would have trouble recouping high development costs and would probably invest less in research. A slightly different logic applies for the print, music, and film industries. Since protection abroad is usually not necessary to guarantee domestic investment, U.S. support of copyright protection is a matter of propping up profits and stemming losses in one of the United States' strongest export sectors.²⁶ For better or worse, these industries continue to define international IP policy within the USITR, often without much domestic debate and in the absence of any larger trade policy context.²⁷

²⁴ The United States has regained some self-confidence and optimism about economic prospects, now that the Europeans are mired in double-digit unemployment and the Japanese are just barely pulling themselves out of a four-year recession.

²⁵ While these industries continue to produce trade surpluses for the United States, the surplus in advanced technologies has been declining since 1991. See National Science Board, "Science and Engineering Indicators, 1996," Washington, D.C.: National Science Foundation, 1996.

²⁶ The International Intellectual Property Alliance (IIPA) calculates that copyright-protected industries accounted for \$238.6 billion in value added to the U.S. economy, or 3.74% of the gross domestic product. From 1991 to 1993 the industries grew at more than twice the rate of the U.S. economy, and employment growth in copyright industries grew four times the national employment growth rates between 1988 and 1993. Foreign sales grew 11.7% in 1993, to an estimated \$45.8 billion, second only to sales of motor vehicles and parts. More than half is due to software sales, 18% to motion pictures, 16% to records and tapes, and 8% to print. See Jon Schaffer, "Copyright Protected Industries Outpacing Other U.S. Sectors," February 16, 1995. United States Information Agency website—<http://www.usia.gov/topics/ip/ipr58.htm>.

²⁷ When there is debate about the appropriate format of domestic IP protection, however, the debates are heated. Examples of issues still unresolved in the United

The U.S. commitment to raise world IP standards is thus designed to buttress the comparative advantage of American firms in a more global economy by all possible means. As long as American comparative advantage lies in knowledge-intensive products, processes, and designs, and as long as these are easily appropriated and disseminated abroad, the United States will have a significant stake in shaping the global management of intellectual property.

I would argue, however, that the mid-1990s are not the mid-1980s, and the United States does have a choice about whether it wants to continue its activist bilateral policies or adopt a more comprehensive, transparent, and equitable global IP policy. I believe the latter creates a more solid platform from which to build new multilateral agreements on intellectual property. Aggressive unilateralism has reached an impasse, which provides an opportunity to redefine the goals and methods of U.S. policy.

States include the patenting of genetic sequences and the breadth of copyright protection to be extended to on-line information and databases. In the latter, the U.S. Patent and Trade Office is pitted against the Library of Congress, the National Education Association, and the Internet service providers. See Denise Camuso, "Global Debate over Treaties on Copyright," *The New York Times*, December 16, 1996, p. D1.