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INTRODUCTION

Globalization has moved copyright to the center stage of international economic policy. Most scholars agree that a distinction between internationalization and globalization is that the latter is impelled by the

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1. In this Article, globalization refers to a process involving multiple levels of supranational social, economic, and political transactions. Individuals or corporate entities who exercise ownership over a variety of resources and who enjoy unprecedented technological ability to operate across territorial boundaries largely determine the impact of this process. The result is an ascendancy of private decisionmaking, replacing sovereign prerogative with corporate initiative, in a worldwide economy. In contrast to its antecedent, "internationalization," globalization dispenses with the centrality of national sovereignty as a requisite constituent of its legitimacy, and with any notion of obligatory political process as fuel for its sustained momentum. The absence of a core global actor exercising political power to achieve strategically identified ends is a standard feature of most attempts to explain the phenomena of globalization. At the very least, globalization is a process that affects all aspects of social, political, and economic activity. Each category is affected directly, indirectly, and differently.

2. Internationalization depended on States exercising political will for multilateral strategic economic and military alliances. The concept of Statehood was fundamental to the international order. The State was recognized as the principal bearer of rights and duties; the only legitimate agent for the use of force and the source of order in the international system. The legitimacy of international law derived from adherence to these axioms. See David Held, Democracy and the Global Order: From the Modern State to Cosmopolitan Governance 75-76 (1995). The centrality of States, and Statehood, was evidenced in the last half century by the dominant role of international organizations that, with the mandate of sovereign States, exercised regulatory authority over vital areas of common concern such as international security, finance, and trade. See, e.g., U.N. Charter art. 1, para. 3 (The purposes of the United Nations are "[t]o achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character."); Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, Legal Instruments--Results of the Uruguay Round, 33 I.L.M. 1144 (1994) ("The WTO shall provide the common institutional framework for the conduct of trade relations among its members."); Articles of Agreement of the International Monetary Fund, Dec. 27, 1945, 60 Stat. 1401, 2 U.N.T.S. 39, as amended by 20 U.S.T. 2775 (1968), 29 U.S.T.2203 (1976) and T.I.A.S. No. 11898 (1990) ("The purposes of the International Monetary Fund are ... to promote international monetary cooperation through a permanent institution, which provides the machinery for consultation and collaboration on international monetary problems.").
exponential increase in flows of information across national boundaries occasioned by information technology. If the international era was characterized by the liberalization of trade in goods and multilateral cooperation achieved through national and supranational political processes, globalization is denoted almost singularly by its minimization of the role and importance of territorial boundaries and the resulting implications for sovereignty. Globalization thrives on the ascendancy of information as the subject of, and the agency for, socioeconomic activity worldwide. In sum, information and information technology constitute the centripetal forces of globalization.

Intellectual property law, specifically copyright law, effectuates the exercise of sovereignty over information. A case may be made for distinguishing between implications for sovereignty that flow from the exercise of treaty making between States, and those implications that result from the rapid spread of information and its associated technologies such as the Internet. With respect to the latter, a burgeoning body of scholarship has examined the implications of globalization for traditional notions of sovereignty. See, e.g., David R. Johnson & David Post, Law and Borders—The Rise of Law in Cyberspace, 48 STAN. L. REV. 1367 (1996); Keith Aoki, Considering Multiple and Overlapping Sovereignties: Liberalism, Libertarianism, National Sovereignty, "Global" Intellectual Property, and the Internet, 5 IND. J. GLOBAL LEGAL STUD. 443 (1998); Henry H. Perritt, Jr., The Internet as a Threat to Sovereignty? Thoughts on the Internet's Role in Strengthening National and Global Governance, 5 IND. J. GLOBAL LEGAL STUD. 423 (1998); see also generally ROBERT J. HOLTON, GLOBALIZATION AND THE NATION-STATE (1998). As to the former, limitations on sovereignty are the sine qua non or opportunity cost of international treaties. For example, in their article, Bargaining Around the TRIPs Agreement: The Case for Ongoing Public-Private Initiatives to Facilitate World Wide Intellectual Property Transactions, Professors J.H. Reichman and David Lange use the term "residual sovereignty" in their description of limitations on a State's power to maneuver within the confines of obligations under the WTO Agreement on Trade Related Aspects of Intellectual Property. See 9 DUKE J. COMP. & INT'L L. 11, 22 (1998). Other scholars note with concern the domestic ramifications of a State's voluntary and self-imposed limitation on its sovereignty in the name of globalization. See Sara Dillon, Fuji-Kodak, the WTO, and the Death of Domestic Political Constituencies, 8 MINN. J. GLOBAL TRADE 197, 197-204 (1999) (defining sovereignty to include a nation's capacity to respond to democratic inputs from domestic constituencies and criticizing the "fictional" hierarchy of WTO law over national legislation as a fundamental flaw in the WTO adjudicative process). Dillon argues that "[m]odern judicial systems must, under any democratic theory, rest on a basis of complex legislation derived from competing social inputs. Since the WTO lacks such a basis, it is at best a partial, and at worst a fraudulent, judicial system." See id. at 248, see also W.R. Cornish, Judicial Legislation, in LAW, SOCIETY AND ECONOMY 359, 370-74 (Richard Rawlings ed., 1997) (expressing concern over the possibility that, under the TRIPS Agreement, States may threaten international litigation as a means of securing private rights for their citizens in other States). Professor Cornish expresses concern that this litigation will take place wholly divorced from the political institutions of each State to the dispute, yet the outcome will determine the essence of the laws on the subject in all States party to the Agreement. See id. at 374. He advises that international obligations should become European Community law "only after the law-making institutions of the Community itself have settled in detail how this should occur and, in particular, how far implementation should devolve to national law-makers in the Member States." Id.

4. Sovereignty is admittedly a nebulous term denoting the exercise of power over things or people. In an economic context, sovereignty is exercised through ownership. Ownership is, in turn, characterized by the right to exclude others from use and to control the terms governing interaction with the thing owned,
ownership of creative content and thus grants copyright owners authority to regulate how and under what terms protected information is sold, bought, used, and otherwise transmitted. Recent legislation in the United States has heightened the scope of copyright protection, while proposed legislation seeks to include, in the copyright corpus, informational content not traditionally recognized as protectable under copyright law. These legislative developments purport to be a necessary and effective response to the dependence of the U.S. economy on the production of information goods, and the potential destabilizing impact of heightened global competition on U.S. economic hegemony. Particularly in recent years, the pervasive ideology of liberalized or "free" trade cast intellectual property protection as a primary factor in penetrating foreign markets and (re)establishing U.S. dominance in the global economy. This ideology is consistent with the venerable hypothesis that American comparative advantage lies in technology. Since intellectual
property law protects the fruits of innovative activity, which lead to technology production, a powerful conceptual link was forged between the protection of intellectual property and the pursuit of the free trade ideal. The theory that spawned from this union held that the United States enjoys a comparative advantage in technology, due primarily to a well-developed system of intellectual property rights, which provides incentives to individuals to invest in creative activity. The theory concludes that, when intellectual property rights are violated by international trading partners, the flow of free trade is distorted, resulting in a significant reduction of welfare benefits that should inure to a country engaged in free trade. To remedy this loss and to restore the integrity of comparative advantage as the basis of free trade, developed countries, led by the United States, introduced the protection of intellectual property as a trade matter during the Uruguay Round of multilateral trade negotiations. The Agreement on Trade Related Aspects of has witnessed a dramatic increase in government support of research, including institutional alliances between the private and public sector. This alliance is a deliberative policy initiative, encouraged by scholars and industry, as a necessary complement to other efforts to strengthen domestic innovation. See Edward M. Graham, U.S. Technological Innovation and the Nation's Competitiveness in International Trade in Technology, INTERNATIONAL ECONOMICS AND PUBLIC POLICY 1, 2-6 (Hugh H. Miller & Rolf R. Piekartz eds., 1982) (discussing the product life cycle model as the “best explanation for post WWII U.S. dominance in technology-intensive goods”); Robert C. Holland, The Committee for Economic Development Report on United States Technological, in TECHNOLOGY, INTERNATIONAL ECONOMICS AND PUBLIC POLICY 79, 92 (Hugh H. Miller & Rolf R. Piekartz ed., 1982) (recommending expanded government support for basic research). The Committee for Economic Development (CED) concluded that new policies to stimulate innovation should concentrate most on improving the balance between real rewards and risks incurred. See id. at 87; James P. Chandler, The Loss of New Technology to Foreign Competitors, 27 GEO. WASH. J. INT'L L. & ECON. 305, 319-20 (1994). 9. There is an abundance of literature from opponents and supporters of international intellectual property rights, iterating this theory, or at least, assuming its validity. See, e.g., Joseph W. P. Wong, Overview of TRIPS, Services and TRIMs in The New World Trading System: Readings, OECD DOCUMENTS 173 (1994) (noting that developed countries are “naturally” concerned that their comparative advantage should not be eroded by the lack of, or inadequate, intellectual property protection); Alberto Bercovitz, Copyright and Related Rights, in INTELLECTUAL PROPERTY AND INTERNATIONAL TRADE: THE TRIPS AGREEMENT 145, 147 (Carlos M. Correa & Abdulqawi A. Yusuf eds., 1998) [hereinafter INTELLECTUAL PROPERTY AND INTERNATIONAL TRADE] (asserting that violations of copyright by companies in newly industrialized countries has a negative effect on the balances of payments of developed countries). The author concludes “[t]his negative effect in the trade balance of developed countries has led to the consideration of the protection of intellectual property at the highest political levels.” See id.; see also J.H. Reichman, Universal Minimum Standards of Intellectual Property Protection Under the TRIPS Component of the WTO Agreement, in INTELLECTUAL PROPERTY AND INTERNATIONAL TRADE 21, 23 (Carlos M. Correa & Abdulqawi A. Yusuf eds., 1998) (observing that competition in the manufacture of traditional industrial products “has forced the developed countries to rely more heavily on their comparative advantages in production of intellectual goods”), Chandler, supra note 8, at 313-314; Edward S. Yambrusic, Trade Based Approaches to Intellectual Property Protection (1992).
Intellectual Property Rights (TRIPS Agreement or Agreement)\(^{10}\) is the fruit of this marriage of trade and intellectual property.

In this Article, I argue that the harmonized rules of intellectual property are unlikely to produce net welfare gains either domestically for the United States or globally. The protection of information under intellectual property laws within the multilateral trade system is ostensibly premised on the classic theory of free trade which significantly constrains government intervention in the marketplace. However, as the process of globalization has created powerful links between markets, peoples, and cultures, it has also engendered problems the solutions to which are dependent on a multiplicity of factors that, perversely, require more, not less, government intervention in the marketplace. At the same time, the heightened rules of intellectual property protection evidenced in the TRIPS Agreement minimize and implicitly delegitimize, the role of governments in ensuring that domestic constituencies have access to the most significant resource of this era, namely, information. Consequently, this Article begins with an examination of the claim that securing international protection of intellectual property rights is consistent with liberal free trade ideals. I conclude that this claim lacks any cogent theoretical or empirical basis. I argue that the claim has largely gone unchallenged because of a tacit, but influential, assumption by scholars and policymakers that the integration of intellectual property into the international trade regime is consistent with the welfare goals of \textit{domestic} intellectual property protection.

The argument by the United States that international violations of U.S. intellectual property rights has a welfare-distorting effect should be understood as a conflation of two distinct welfare concerns. First, and most obvious, failure to recoup full value for intellectual property products because of large scale piracy reduces the revenue earned by the United States from the sale of its products in international trade and thus constitutes a direct welfare loss. Second, if one accepts the established wisdom that intellectual property rights provide incentives for individuals to create, then failure to protect such rights (or the lack of enforcement for these rights) retards creative activity or reduces the rate of such activity to sub-optimal levels. This would lead to a less direct, but equally palpable, welfare loss in the form of low levels of creativity and innovation. Lack of enforcement would also likely lead to inefficient and costly strategies to protect whatever innovations might occur, while eliminating the prospects of disseminating new information to the

\footnote{10. Marrakesh Agreement Establishing the World Trade Organization, \textit{supra} note 2.}
public. As most students of intellectual property are aware, these objectives—to stimulate innovation, encourage diffusion, and eliminate the public goods problem inherent in intellectual property products—are at the core of the economic justifications for the intellectual property system in the United States. Although these objectives are explicitly directed to enhance domestic welfare, they have been elevated to universal status by economists, international institutions, and other scholars who project the model of intellectual property dominant in industrialized countries as an "objective" economic model that is easily, and just as effectively, transplantable to any country. This has given legitimacy to another trenchant assumption, that if intellectual property protection enhances social welfare in industrialized countries, the same must be the case for developing countries; the logical extension being that overall global welfare is enhanced under a regime of harmonized rules for intellectual property protection.

In previous work, I have joined other scholars to demonstrate and criticize the political, cultural, legal, and economic fallacy that underlies this argument, not to mention its ahistorical premise and neo-colonial roots.\(^{11}\) Even if the protection of intellectual property in each individual country were to produce welfare benefits within that country, the enhancement of global welfare would require not only uniformity in the rules of protection, but also that each country shares similarities in history, culture, political organization, and legal institutions so that each could potentially benefit in comparable ways from an integrated international system.\(^{12}\)

The international protection of intellectual property has never had, and does not now have, as its primary justification the promotion of global welfare, where global welfare is defined as a universal enterprise ignorant of stakes held by individual countries in the international economy or divorced from political boundaries of individual States. If there is one thing that globalization does not yet stand for, it is an eradication of national identity, particularly in the context of multilateral trade negotiations where national self-interest clearly is the motivating force for the compromises that emerge. Instead, global welfare, at least in the intellectual property qua international trade context, is often assumed to be the natural outcome of protecting

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12. While globalization may, ultimately, bring this about, we are still a long way away from a "one world" phenomenon unless by globalization we refer primarily to the implications of having one superpower. That discussion is beyond the scope of this Article.
intellectual property rights at national levels. Global welfare is thus implicitly defined in terms of States acting as rational agents in pursuit of national self-interest in the global marketplace. In short, global welfare, like national welfare, is assumed to be the product of market based efficiencies that simultaneously promote and reflect the pursuit of self-interest. Despite this, domestic economic policy in most industrialized countries recognizes and seeks to promote and implement non-market driven welfare benefits. For example, government policies in areas such as education or scientific research, or tax-based support for infant industries, are standard examples of welfare benefits that do not derive from the free market model. In the specific area of intellectual property, the U.S. fair-use exception in copyright and other limitations on the exclusive rights given to rights holders, also reflect welfare concerns that are not subject to the market-based modeling that informs much of the discourse on the protection of intellectual property. These well known deviations from the free market paradigm reflect domestic attempts to rectify weaknesses in the classical free trade theory and in intellectual property theory. My task in this Article is to examine how these domestic deviations from the underlying theories interact with the TRIPS Agreement, and in turn, whether the Agreement is consistent with welfare norms in international trade theory.

Drawing from the disciplines of welfare economics and political economy, I examine the welfare model that informs modern international economic relations theory and contrast it with the ideal of public welfare in copyright law as elucidated through statutes and case law. The analysis presented in Part I identifies and addresses two related welfare issues. First, is the heightened protection of copyright reconcilable with conceptions of welfare in international trade? Second, does heightened international copyright protection simultaneously promote domestic public welfare norms of intellectual property policy and maximize national welfare gains from international trade? Put differently, does the international protection of intellectual property advance the domestic progress of science and the arts? For only if it does can the heightened levels of protection under the TRIPS Agreement and subsequent international treaties be rationalized as welfare generating for the United States, much less other countries. This is particularly the case where, as in the United States, the domestic

implementation of these treaties dramatically undermines non-economic welfare objectives of intellectual property policy.\(^{15}\)

Part II discusses the asymmetries between the concept of welfare that dominates international trade and the concept of public welfare in copyright law. The analysis seeks to present a global perspective of welfare that more accurately reflects the political economy of copyright and ultimately enriches the discourse on strategies for regulating the information economy. In Part III, I offer some thoughts on the implications of heightened copyright protection for those who are at the margins of the globalization process and for whom the construction of public welfare in an information economy holds daily economic significance. What emerges is a recommendation that marginalization should no longer be viewed in its traditional application as exclusion from political power. Instead, marginalization in the information age should be viewed as sub-optimal access to computers, information, and information technology. Viewed this way, marginalization ceases to be a geographical marker identifying poor, underdeveloped regions of the world. This new view of marginalization cuts through geographical boundaries and rends the veil of Statehood to impact individual (potential) users of information wherever they are located, albeit affecting disproportionately citizens of developing and least developing countries. For example, Thailand has more cellular phones than Africa; South Asia, with twenty-three percent of the world population has less than one percent of Internet users. Globally, thirty percent of Internet users have at least one university degree. English is the language of choice on eighty percent of all Websites even though only ten percent of the world's population speak it. In developing countries, men and younger citizens make up the majority of Internet users.\(^{16}\) In all, twenty percent of the population of the world's richest countries constitute 93.3 percent of the Internet users.\(^{17}\)

A sub-theme developed throughout the Article is the relationship between the political and socioeconomic transformation of eighteenth century England, which embraced free trade, and the evolution of copyright law. This relationship provides historical antecedents for demonstrating how policies that shape the discourse on public welfare in turn affect or reflect the ruling ideology which determines, ultimately, how resources are distributed in a

\(^{15}\) See discussion infra Part III.

\(^{16}\) See UNITED NATIONS DEVELOPMENT PROGRAMME, UNITED NATIONS HUMAN DEVELOPMENT REPORT 1999, 6 (1999).

\(^{17}\) Id. at 2 graph.
I conclude that the determination of resource allocation, including allocation of intellectual property rights, must first reflect and promote domestic welfare, since globalization does not entail a complete loss of sovereignty. At the international level, rules of intellectual property protection should include an express social welfare axiom of a negotiated balance between the interests of users and rights-holders. Unless this is done, I argue that welfare concepts in trade theory and intellectual property theory will negatively reinforce each other and produce negative global welfare results. While there are possibilities that certain provisions of the TRIPS Agreement already make room for such negotiated balance, ambiguities in the language of the TRIPS Agreement, uncertainty over how the provisions may be interpreted, and the significantly enhanced cost of violating the Agreement are unlikely to produce an optimal mix of material and nonmaterial welfare benefits (even if the latter is quickly eroding) that have proven successful in undergirding the public interest in the intellectual property policy of developed countries.

I. THE THEORY OF WELFARE IN INTERNATIONAL TRADE VERSUS PUBLIC WELFARE IN INTELLECTUAL PROPERTY POLICY: CONFLICTING IDEALS OR COMPLEMENTARY ENDS?

A. Social Welfare and International Trade Theory

Economic theory in the field of international trade is largely concerned with maximizing the economic well being of nations through trade. Since Adam Smith's Wealth of Nations, economists have generally agreed that

18. See e.g., Article 13 which permits member States to provide narrowly tailored limitations and exceptions to the exclusive rights granted.

19. According to Smith's classic formulation of free trade:
   [T]here should be no interruptions of any kind made to foreign trade, that if it were possible to defray the expenses [sic] of government by any other method, all duties, customs, and excise should be abolished, and that free commerce and liberty of exchange should be allowed with all nations and for all things.

ADAM SMITH, WEALTH OF NATIONS 497 n.17 (Bk. IV, ch. 3) (R.H. Campbell et al. eds., 1981) (internal citations omitted). See generally, Bk. IV, chs. 2 & 3. For a recent, erudite work on the history of the intellectual underpinnings of the development of the theory of free trade, see DOUGLAS A. IRWIN, AGAINST THE TIDE: AN INTELLECTUAL HISTORY OF FREE TRADE (1996), and economist Paul Samuelson's path breaking work on the value of international trade, Paul A. Samuelson, The Gains From International Trade, 5 CANADIAN J. ECON. & POL. SCI. 195 (1939).
nations should trade with one another for their enhanced mutual benefit. The central tenet of classical economics, adhered to by neo-classical and liberal economists, is that welfare gains are maximized through the unfettered flow of goods across national boundaries. Simply put, trade without barriers or "free trade" enhances national welfare by encouraging specialization. Specialization is, in turn, facilitated by the division of labor leading to the most productive use of factors of production to provide goods at marginal cost.

The systematic critique of the mercantilist economy laid out in Wealth of Nations was both a political and an economic project. Mercantilist theory emphasized strong State intervention to protect the domestic market from imports. Mercantile policies benefitted select industries but diminished the welfare of the general society by raising costs of production. According to Smith,

[that this monopoly of the home market frequently gives great encouragement to that particular species of industry which enjoys it, and frequently turns towards that employment a greater share of both the labour and stock of society than would otherwise have gone to it cannot be doubted. But whether it tends to increase the general industry of the society, or to give it the most advantageous direction, is not, perhaps, altogether evident.]

Smith demonstrated that the gains of those who benefitted from mercantile-derived monopolies were ultimately eroded by the overall cost to the nation. He pointed out that despite the trade policy implemented by a society, there can be no improvement in the number of industries beyond what

20. In Wealth of Nations, Adam Smith simultaneously attacked the mercantilist policies of eighteenth-century Britain while also establishing the conceptual framework for free trade. Indeed, Jacob Viner has observed that the ideas discussed in Wealth of Nations were not novel in Smith's time. Rather, he suggests that the significance of Wealth of Nations is that it brought these ideas together in a systematic, coherent theoretical construct, thus giving shape to the idea of free trade. See Jacob Viner, Adam Smith and Laissez Faire, 35 J. POL. ECON. 198 (1927); see also Arthur I. Bloomfield, Adam Smith and the Theory of International Trade, in ESSAYS ON ADAM SMITH (Andrew S. Skinner & Thomas Wilson eds., 1975).


22. SMITH, supra note 19, at 453 (discussing the impact of restraints on imports of goods that could be produced domestically).
the capital generated in the economy can sustain. There must always be a balance in the relationship between capital generation and employment (or labor): "[t]he general industry of the society never can exceed what the capital of the society can employ... the number of those that can be continually employed by all the members of a great society must bear a certain proportion to the whole capital of that society and can never exceed that proportion." Trade barriers direct capital to industries or sectors in which it might not otherwise be employed, and, argued Smith, "it is by no means certain that this artificial direction is likely to be more advantageous to the society than that into which it would have gone of its own accord."

Instead, Smith advocated little or no State intervention in the marketplace. He argued that in the absence of monopolies or other distortions caused by State interference, a merchant would prefer to invest capital in the home market. This investment was done because of gains that come from familiarity with domestic laws and the knowledge of the local market and its supporting institutions. These benefits create an incentive for the merchant to employ her capital domestically rather than in a foreign country. However, Smith observed, since such investment will be done only for the sake of profit, the employment of capital will go to the particular industry where the greatest value can be obtained. Left alone to pursue their own self-interests, Smith argued that these self-serving merchants would unknowingly contribute to overall national social welfare. A merchant who makes a decision to invest capital domestically, in doing so out of her own self-interest, does so also for the public interest. For, in maximizing her wealth, the wealth of the nation is inexorably maximized. This increase in

23. See id.
24. Id.
25. Id.
26. See id. at 454-56.
27. See id. at 454.
28. See id.
29. See id. at 455-56.
30. Smith’s grundnorm in a sense was his idea that individuals are motivated primarily by self-interest. As such they will make rational decisions which inure to the benefit of society as a whole. For a discussion of the moral and philosophical basis for Wealth of Nations, see richard f. Teichgräber III, ‘Free Trade’ and Moral Philosophy, Rethinking the Sources of Adam Smith’s Wealth of Nations (1986).
31. Smith, supra note 19, at 456.
32. See id. It is important to note that in his discussion about wealth and the advancement of public welfare, Smith was not referring to money. Indeed, the concept of wealth as money was attacked vehemently in Wealth of Nations. See, e.g., id. at 438-51. Instead, Smith saw wealth as the increase in the quantity and diversity of goods produced for consumption. Cf. John Stuart Mill, Principles of
welfare would result, said Smith, because the “invisible hand” of the market causes a convergence of private and social interest by promising value to the merchant and effecting the production of greater goods for society at lesser cost.\footnote{33}

The discourse of free trade in terms of market forces, and particularly the insistence that the government must be isolated from the market in order to free “natural” economic forces, obscured the powerful political structure embedded in Wealth of Nations.\footnote{34} To the extent that free trade, as Smith conceptualized it, rested on the premise that the government ought to have little or no role in directing market processes or influencing market outcomes, free trade required a fundamental reordering of the relationship between the State and its polity. In this sense, the thesis so powerfully enunciated in Wealth of Nations was a call to the political transformation in the role of the State.\footnote{35}

\footnote{33. According to Smith, 
\begin{itemize}
\item every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of society, which he has in view. But the study of his own advantage, naturally, or rather necessarily, leads him to prefer that every individual is continually exerting himself to find employment which is most advantageous to the society.\end{itemize}

\textit{Smith, supra} note 19, at 454.}

\footnote{34. Some scholars have noted that \textit{laissez-faire} economics was developed simultaneously with free trade, an academic association that no doubt has its roots in the fact that both are attributed to Smith in Wealth of Nations. See W. MAX CORDEN, TRADE POLICY AND ECONOMIC WELFARE 2 (2d ed. 1997). This approach to the political structure of Wealth of Nations accepts as valid the dichotomous treatment of economic policy and political process. The consideration of economic goals as distinct from other national policies is largely responsible for the inconsistencies in strategies for pursuing public welfare. As some scholars have aptly stated, “[t]rade policy cannot be understood without explicit attention to the political channels through which policies are adopted. Economic efficiency is not the only consideration influencing this process.” Dillon et al., \textit{Future Directions in the Political Economy of Trade Policies, in INTERNATIONAL TRADE POLICIES, GAINS FROM EXCHANGE BETWEEN ECONOMICS AND POLITICAL SCIENCE} 273, 274 (Odell & Willett eds., 1990); cf. RAJANI KANNEPALLI KANTH, \textit{POLITICAL ECONOMY AND LAISSEZ FAIRE} (1986) (making explicit the extension of free trade theory to political organization).}

\footnote{35. For an elaboration of the political dimensions of the principles in Wealth of Nations, see KANTH, \textit{supra} note 34, at 2-3 (describing classical economics as an empirically specific political science of transition); \textit{see also} id. at 10-41 (discussing the relationship between the politics and economics of laissez-faire). One trade scholar suggests that Smith was not a “full-fledged” adherent to the laissez-faire doctrine, and defends this contention with examples of Smith’s support for government provision of certain social services. \textit{See IRWIN, supra} note 19, at 78. While it is true that Smith recognized a role for government policies in cases where the market was unlikely to produce desirable outputs, most scholars have regarded these as exceptions to the free trade principle rather than a fundamental derogation from the case for the superlative “invisible hand” of the market. Indeed, in view of the implications of Smith’s case for free trade}
Principles of Political Economy and Taxation by David Ricardo\textsuperscript{36} and Principles of Political Economy by John Stuart Mill\textsuperscript{37} added significant theoretical dimensions to the edifice laid down in Wealth of Nations.\textsuperscript{38} While Smith demonstrated that foreign commerce would increase specialization, decrease costs of production, and ultimately benefit a country, Ricardo developed the theory of comparative advantage.\textsuperscript{39} The theory of comparative advantage, also known as the theory of comparative cost, states that countries trading together will both benefit if they specialize in producing the good that they can produce at a relatively lesser cost.\textsuperscript{40} The theory of comparative advantage was a significant contribution to Smith's treatise. The theory established that international specialization enhances productivity, increases wages, and decreases the cost of outputs. As Mill expounded:

There is much misconception in the common notion of what commerce does for a country. When commerce is spoken of as a source of national wealth, the imagination fixes itself upon the large fortunes acquired by merchants rather than the


\textsuperscript{37} MILL, PRINCIPLES, supra note 32.

\textsuperscript{38} Economists have disagreed over the intellectual relationship between Smith's Wealth of Nations and David Ricardo's Principles of Political Economy and Taxation. Some classical scholars regarded Ricardo's work as a break away from, or a sharp contrast to, the scientific model established by Smith. For scholarly attempts to rationalize Smith and Ricardo, see Samuel Hollander, The Historical Dimension of the Wealth of Nations, in THE LITERATURE OF POLITICAL ECONOMY, COLLECTED ESSAYS II 87 (Samuel Hollander ed., 1998).

\textsuperscript{39} In Principles of Political Economy, Mill credits another scholar as being the first to develop the principle of comparative advantage, but acknowledges Ricardo as having perfected the principle. See MILL, PRINCIPLES, supra note 32, at 576.

\textsuperscript{40} In Ricardo's simple but classic model, one assumes two countries A and B, and two goods—food and clothing. Further assume that one unit of food takes one day's worth of labor to produce in country A, but two day's worth of labor to produce in country B. One unit of clothing takes one day's worth of labor to produce in country B, but two days worth of labor to produce in country A. It is obvious that trade in these items between A and B will be mutually beneficial where A's labor has greater productivity in food and B's labor has greater productivity in clothing. Ricardo's theory went a step further. Welfare is still enhanced even where country A has more productive labor in both items if it allows country B to specialize in the good in which B has the strongest productivity, and A and B trade for those goods produced based on respective comparative advantage. See Ricardo, supra note 36, at 134-41.
saving of price to consumers. But the gains of merchants, when they enjoy no exclusive privilege are no greater than the profits obtained by the employment of capital in the country itself. Commerce is virtually a mode of cheapening production; and in all such cases the consumer is the person ultimately benefitted. . . .

Put differently, Ricardo’s principle of comparative advantage demonstrated that specialization would lead to a situation where the price of outputs is equal to marginal cost. Mill later described the principle of comparative advantage as “a more efficient employment of the productive forces of the world” leading not only to direct economic results, but also indirect intellectual and moral gains. The principles developed by Ricardo and Mill, as well as other classical economists, significantly enriched the theoretical pillars of Smith’s laissez-faire economy. Despite numerous variations and refinement, the basic model of free trade based on comparative advantage continues to dominate contemporary economic literature and, certainly in the United States, has pervaded policy debates about appropriate policy choices in the area of international economic relations.

The specific conditions under which free trade will maximize benefits to every country remains a contested subject of inquiry, as is the question of

42. See id.
43. Id. at 578.
44. Mill identified gains such as increased cultural interaction between nations leading to greater knowledge of the races; greater contact which would minimize the incidence of war; and enhancement of global welfare by enlarging the amount and variety of consumptive goods. His identification of these benefits from international trade anticipated the justifications espoused after World War II for the establishment of the multilateral trading system. See generally Jagdish Bhagwati, Is Free Trade Passed After All? in Political Economy and International Economics (Douglas A. Irwin ed., 1991).
45. See, e.g., Jean Baptiste Say, I Treatise on Political Economy or The Production, Distribution and Consumption of Wealth (1821). Say was a French classical economist who interpreted Smith’s Wealth of Nations for the French. In so doing, he developed some theories of his own. The theory for which he is particularly known is the “Law of Markets,” which posits that supply creates its own demand.
46. Cf. Paul R. Krugman, Is Free Trade Passed?, 1 J. Econ. Persp. 131, 131-34 (No. 2, 1987) (describing a counter-culture in international trade literature based on new models that deviate from the traditional rationale of comparative advantage as the primary basis for trade).
47. Wealth of Nations is often misquoted for the proposition that free trade is always the best for a country. Indeed, Smith himself recognized that the market would not provide certain necessary social institutions such as national defense and, as such, some intervention by the State was necessary for the public good. Mill, in a controversial paragraph in Principles of Political Economy, advocated protection for infant industries as an exception to the free trade ideal. Even the most ardent free trade advocates recognize the need for government intervention for the public good. The contest is over the methodology
what policy choices are optimal in dealing with those industries (and individuals) who do not benefit from free trade. Smith's conclusion that the invisible hand of the market will always cause a convergence of social and private interests—so that individuals, and therefore nations, are better off—is one of the considerable weaknesses of the free trade paradigm. In fact, there are repeated significant divergences between social and private costs and benefits. What benefits a nation as a whole will not necessarily benefit all or even most individuals within that nation, and certain otherwise efficient transactions may yield externalities that decrease welfare. A classic example is pollution from factories, or the significant risk involved with activities such as working with explosives or poisons. Smith, as did other classical scholars, recognized that in certain cases the market will not always deliver the best outcome for a nation, a phenomenon best known as market failure. For Smith, an exception to the free market model was national defense, and for Mill, it was the protection of infant industries. Most scholars today agree that there exist several sectors that should receive government support or outright exclusion from the free trade paradigm. These exceptions are not rooted exclusively in problems of market failure, but on principles of political ideology and national interest. One significant national interest concern, and a key weakness of the free trade ideal, is the social costs associated with free trade.

Free trade theory, as with much classical economic theory, fails to account for or to address issues of income distribution or distributive justice. The
more obvious social costs of free trade include worker displacement, high unemployment rates, and, with some countries, growing trade deficits.\textsuperscript{54} Such economic ills generate political pressure to revive protectionist trade policies, \textit{à la} the mercantilist era, to protect domestic industries and, ultimately, domestic economy.\textsuperscript{55} The United States experienced each of these social costs from the 1980s through the negotiation of the Uruguay Round. Scholarship on the Uruguay Round negotiations has demonstrated a significant link between the economic downturn in the United States and the vigor with which negotiations on intellectual property became a central part of the trade talks.\textsuperscript{56} In addition to introducing intellectual property within the context of the Uruguay Round, the United States also embarked on a series of unilateral strategies to pry open foreign markets and secure protection of intellectual property rights in specific countries. These strategies ranged from negotiating bilateral trade agreements, use of voluntary export restrictions, and, with regard to intellectual property, use of the notorious Section 301 provision of U.S. trade law.\textsuperscript{57} In part, the Uruguay Round negotiations served to broaden the platform on which these strategies might operate, while simultaneously legitimizing the results obtained through these largely coercive strategies. Most significant, however, the Uruguay Round ostensibly gave global imprimatur to the theory that the protection of intellectual property is about preserving the free trade ideal. The copyright industry in the United States, largely responsible for marketing this theory, repeatedly made claims of enormous losses to the industry and, consequently, the nation, because of


\textsuperscript{54} Throughout the 1980s and early 1990s, there was significant preoccupation with the significant trade deficit with Japan. This prompted some “voluntary” interventionist strategies in the automobile industry, for example. For a discussion of the welfare impacts of voluntary export restrictions (VERs) and other forms of intervention in free trade, see R.A. Brecher, \textit{Voluntary Export Restrictions Versus Import Restrictions: A Welfare Theoretic Comparison, in Protectionism Competition in International Trade, Essays in Honor of W.M. Corden} (H. Kierzkowski ed., 1987); \textit{see generally} Anne O. Krueger, \textit{The Political Economy of the Rent Seeking Society}, 64 \textit{Am Econ. Rev.} 291 (1974).

\textsuperscript{55} It should be remembered that mercantilists were not against trade per se, but in favor of high import tariffs and other policies to protect domestic industry. \textit{See IRWIN, supra} note 19, at chs. 2, 3 (discussing mercantilist theory and the emergence of free trade as a countervailing theory).

\textsuperscript{56} \textit{See, e.g.,} Gerald J. Mossinghoff, \textit{The Importance of Intellectual Property Protection in International Trade}, 7 B.C. \textit{Int’l. & Comp. L. Rev} 235 (1984); \textit{See supra} note 7 and references cited.

\textsuperscript{57} \textit{See 15 U.S.C. § 1124} (1994). \textit{See generally} Anne O. Krueger, \textit{The Political Economy of Trade Protection} (1996). It is not farfetched to state that the path for the TRIPS Agreement was paved by the use of domestic trade law to enforce intellectual property rights abroad.
infringement overseas.\textsuperscript{58} In essence, the TRIPS Agreement reflected the globalization of U.S. domestic policy in the area of intellectual property protection. Just as Section 301 explicitly linked domestic trade law to international intellectual property protection for the singular purpose of protecting domestic industry, so the TRIPS Agreement reflects a convergence of international trade policy with domestic intellectual property policy. As I discuss later in the Article, domestic intellectual property policy was shortchanged in this marriage.

At first blush, the integration of intellectual property and international trade appears consistent with the free trade model. However, when examined more critically, the theoretical links between intellectual property and international trade are very weak. First, there is no ineluctable correlation between goods that embody intellectual property rights that constitute the traditional subjects of trade, and the intangible rights that are associated with the product. The first sale doctrine in copyright law is a classic example.\textsuperscript{59} According to this doctrine, a copyright owner cannot use the intangible rights granted by copyright law to control what an individual does with the physical object that is the fruit of the creative expression.\textsuperscript{60} This is not to say that the definition of "goods" for the purposes of trade cannot be expanded to include the rights associated with creative expression; after all, the rationale is that absent enforcement of these rights, the "goods" will not generate value to the author. My point is that promotion of the free trade ideal does not lead inexorably, or even logically, to heightened, harmonized rules of protection and enforcement of intellectual property rights.

Second, to the extent that the United States copyright industry, via the government, based its justification of intellectual property \textit{qua} free trade on the economic losses sustained from inadequate protection abroad, it reflects an unfortunate capture of the international process to achieve purely domestic concerns. In other words, the international protection of intellectual property did not have as much to do with protecting free trade, as with protecting the domestic economy, and a specific sector at that.

Third, in protecting primarily material benefits to the domestic economy, the marriage of international trade and domestic intellectual property skewed potential welfare gains against users of intellectual property in developed and

\begin{flushleft}
\textsuperscript{58} See infra note 166. \\
\textsuperscript{59} See 35 U.S.C.A. § 108. \\
\textsuperscript{60} Id.
\end{flushleft}
developing countries, and ignored the possibilities of securing non-economic welfare gains.

Fourth, and most important, the very grant of intellectual property is a form of protectionism and, as such, is inherently contradictory with the free-trade ideal. The public goods problem makes such protectionism necessary to facilitate a market for intellectual property goods. Sectors and industries dependent on intellectual property protection are examples of areas where, absent such intervention, there would be massive market failure. State intervention to cure such failure cannot, however, be easily or comfortably justified as a matter of international free trade (which frowns on State intervention directed at protecting domestic industry).

One might argue that developed countries had little choice but to defend their remaining advantages, with respect to high-tech goods, to counter the social costs associated with the loss of jobs in the manufacturing sector, because of competition from developing countries whose large populations and low wages are attractive to manufacturing firms. For the United States in particular, with information production as its primary economic resource, it made sense to protect intellectual property in a forum most likely to lead to a preservation of its economic strength.

This argument has both moral and economic logic with which I do not disagree. My point, however, is that as a doctrinal matter the protection of intellectual property is inconsistent with the free trade model, exhibits the presence of rent-seeking behavior at a global level, and has worked to the detriment of other domestic interests historically fostered by the intellectual property system. Thus, the weaknesses of the free trade model are negatively reinforced by weaknesses in the intellectual property model, with potentially adverse consequences for consumers worldwide, but particularly in developing countries. While classical trade theory does recognize areas where government intervention is necessary, such intervention typically is a response to an explicitly domestic concern and not an instrument to further the goals of international free trade.

The dominant justifications for expansive intellectual property rights reflect a confluence of protectionist tendencies in general, as well as a fervent belief in the primacy of intellectual property in determining the size of the U.S. gross domestic product as reinforced by the creed of comparative advantage. Yet, at the same time that free trade rhetoric is employed to justify expansive intellectual property rights, economists have increasingly questioned comparative advantage as the sole or primary basis of free trade
and, further, free trade as a primary source of domestic economic growth.\textsuperscript{61} This has produced a veritable body of scholarship calling into question the continued legitimacy of the free trade ideal. As one leading trade economist put it:

\textit{[T]he case for free trade is currently more in doubt than at any other time since the 1817 publication of Ricardo's \textit{Principles of Political Economy}. This is not because of political pressures for protection which have triumphed in the past without shaking the intellectual foundations of comparative advantage theory. . . . [N]ew models call into doubt the extent to which actual trade can be explained by comparative advantage; they also open the possibility that government intervention in trade via import restrictions, export subsidies, and so on may under some circumstances be in the national interest after all. . . . [F]ree trade is . . . an idea that has irretrievably lost its innocence. Its status has shifted from optimum to reasonable rule of thumb. There is still a case for free trade as good policy, and as a useful target in the practical world of politics, but it can never again be asserted as the policy that economic theory tells us is always right.\textsuperscript{62}}

The fact is that, historically, most nations have actively intervened in international trade.\textsuperscript{63} Over the last ten years, for example, the United States has employed a variety of domestic policy measures to counteract the social

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\textsuperscript{61} For example, modern theories of endogenous growth. \textit{See, e.g., Nicholas Kaldor, Further Essays on Economic Theory} (1978); Michael E. Porter, \textit{The Competitive Advantage of Nations} (1990). \textit{See also economic scholarship positing refinements of the comparative advantage theory, particularly scholarship within the Heckscher-Ohlin framework. A compilation of seminal works in this regard may be found in International Trade, Selected Readings Part 1 and 2} (Jagdish Bhagwati ed., 1969).

\textsuperscript{62} \textit{See} Krugman, \textit{supra} note 46, at 131-32. Krugman’s assertion has been very controversial among economists, and considered revisionist by some. However, his claim did help to refine explicitly the liberal free trade model by generating scholarship which pointed to the recognized limitations of free trade theory. \textit{See Bhagwati, supra} note 44, at 6-7 (responding to Krugman and observing that post-war economists did recognize that some deviations from the free trade model were theoretically justifiable; the question is whether a particular country’s reality fits any of the theoretical cases). Free trade remains the most influential doctrine of international economic relations. \textit{See generally Irwin, supra} note 19.

\textsuperscript{63} \textit{See generally} Harry Shutt, \textit{The Myth of Free Trade: Patterns of Protectionism Since 1945} (4th ed. 1985) (arguing that despite strong rhetoric by governments in the post WWII era, the basis of economic organization in most Western countries has been managed or qualified free trade).
and economic effects of free trade. In the mid-1980s, a policy of "strategic" or "managed" free trade emerged in response to the domestic malaise occasioned by the social impact of free trade and the resulting political pressure on the U.S. Congress. Strategic trade theory emphasized policy options, usually through support of domestic industry, to tilt free trade favorably towards the domestic economy. Although some of these policies are legitimate practices under the multilateral trading regime, there are others that are arguably less desirable than others in terms of their impact on overall welfare. Indeed, economists have been quick to point out that questions of what strategies to use, when to use them, and what industry to use them in favor of, are questions that must be determined in specific country contexts.

If free trade is the rule, and some individuals are certain to suffer adverse impacts from its application, how is domestic welfare enhanced? Specifically, how is a social maximum—i.e., maximum utility—achieved from diverse individual interests? This is the question of social welfare.

Voting and the market, the two mechanisms by which social decisions are made in a free market democracy, have been shown to disadvantage discrete and vulnerable social groups. Indeed, there is significant legal scholarship demonstrating the failures of these institutions. More important for

64. See id.; see also Louis S. Jacobson et al., Earnings Losses of Displaced Workers, 83 AM. ECON. REV. 685 (1992).
65. See Krugman, supra note 46, at 134-37.
66. The WTO agreement continues a number of exceptions to the free trade ideal also protected under GATT (art. XX), including a modern articulation of Mill's infant industry argument, (art. XVIII); an exception to protect balance of payment concerns (art. XII); an exception for national security (art. XXI). See generally BERNARD M. HOEKMAN & MICHEL M. KOSTECKI, THE POLITICAL ECONOMY OF THE WTO: FROM GATT TO THE WTO (1997).
67. For example, most economists agree that government intervention in form of subsidies is more desirable than interventions through tariffs. See, e.g., BHAGWATI, supra note 44, at 11-12.
68. See id. at 5.
70. See, e.g., U.S. v. Carolene Products Co., 304 U.S. 144 (1938). In Carolene Products, the Supreme Court upheld the constitutionality of a federal statute that prohibited the shipment of filled milk in interstate commerce. The Court reasoned that a statute that provided economic regulation need only be justified by the rational basis test. Having concluded that this legislation, ostensibly justified by government concerns for the "public interest," the Court in a famous footnote, entered a caveat.

It is unnecessary to consider now whether legislation which restricts those political processes which can obviously be expected to bring about a repeal of undesirable legislation, is to be subjected to more exacting judicial scrutiny under the general prohibitions of the Fourteenth Amendment than are most other types of legislation ... [i]nor need we enquire whether similar considerations enter into the review of statutes directed at particular religions ... or national or racial minorities ... whether prejudice against discrete and insular minorities may be a special condition,
achieving social welfare is that neither of these institutions can operate to
determine and reflect choices that are highest on the social preference
system.\(^7\) In his influential article in 1950, Kenneth Arrow demonstrated the
difficulty of aggregating individual preferences in a way that satisfactorily and
consistently maximizes social welfare, whether the mechanism used is voting
or the market.\(^7\) The problem, as Arrow presented it, is that there is a wide
range of social states for individuals. Even if each individual ranked these
“orderings” by preference, it would still be difficult to determine which
particular social state is the \textit{most} desirable. For example, some citizens might
want more innovation, despite the cost, to improve their quality of life,\(^7\) while
others prefer less innovation at less cost; still others who prefer to live as close
to a “natural” state as possible, or who value environmental safety more than
conveniences made possible by technology, may choose a state of minimal
innovation.

The market mechanism fails to yield true measurements of social welfare
because it cannot account for values which shape an individual’s desires, and
which must be accounted for in the calculation of the social optimum.\(^7\)
Paradoxically, globalization has created cross currents between the traditional
subjects of trade negotiations (tariffs and quotas) and a host of intensely
contested social concerns such as environmental safety, child labor, health
issues, and human rights. These issues have increasingly become intertwined
with multilateral trade talks, and as such, have become a part of domestic
political agendas of specific countries, including the United States.\(^7\) These
developments suggest that the regulation of free trade under the classic liberal
model will be subject to greater pressure as globalization makes isolated
responses to specific concerns increasingly difficult; selecting one problem for
which tends seriously to curtail the operation of those political processes ordinarily
to be relied upon to protect minorities, and which may call for a correspondingly
more searching judicial inquiry.

\textit{Id.} at 152 n.4. For discussions on the implications of this footnote for the democratic process, see J.M.
Balkin, \textit{The Footnote}, 83NW. U. L. REV. 275, 283 (1989); Bruce A. Ackerman, \textit{Beyond Carolene Products}, 98
\textit{HARV. L. REV.} 713, 714-15 (1985); Lea Brilmayer, \textit{Carolene, Conflicts and the Fate of the Insider-Outsider},

\(^7\) If determinable, this choice would reflect social welfare. See Kenneth J. Arrow, \textit{Formal Theories of Social Welfare}, in \textit{COLLECTED PAPERS OF KENNETH J. ARROW: SOCIAL CHOICE AND JUSTICE} 115, 116
(1983).

\(^7\) \textit{Id.} at 129-31.

\(^7\) See, e.g., Richard Lloyd Parry, \textit{Meet Robokitty}, \textit{INDEPENDENT}, Nov. 5, 1999 (describing the
demand for the latest robot pets manufactured by Sony. Each pet costs about 2,400 euros). These pets were

\(^7\) See Arrow, \textit{supra} note 69, at 331.

government intervention will directly implicate others. The interconnectedness of these issues is certain to generate conflict.

The voting mechanism fails because of Arrow's "voting paradox" and the related "impossibility theorem." Briefly, Arrow demonstrated that it is impossible under a free market democratic system, to establish a pattern of social decisionmaking that maximizes social welfare even with a set of established individual tastes. Similarly, in the context of international trade, Professor Samuelson demonstrated that, while free trade makes individuals better off than a situation where there was no trade, it does not necessarily follow that the post-trade equilibrium is optimal. Indeed, under highly specialized conditions, both the market and voting mechanisms can fail, though they rarely do. Under what conditions, then, are changes in allocation of resources optimal? Or, put differently, how can we determine what policies are best for the overall welfare of a country?

Paretian optimality, the leading, if impracticable, theoretical model of social welfare, requires that an economy's resources and output be allocated in such a way that no reallocation can make anyone better off without making another person worse off. If a change in the economy makes one person better off and none worse off, then social welfare may be said to be increased. The Pareto optimum and improvement scheme, like other welfare indicators, rests on value judgments about what state of economy is best for society as a whole. It provides no system for attaining the optimal state or measuring the improvement. Scholars, including Arrow and Samuelson, have criticized the Paretian scheme as confining and incapable of guiding social policy. Specifically, Arrow noted that, in the absence of ethical justifications for the status quo, there is no reason for insisting that a reallocation be harmless in order to be welfare maximizing, particularly when the initial distribution is already questionable. He sought a method of defining social welfare without the method being plagued by the problems of interpersonal utility.

76. See Arrow, supra note 69, at 127-31. This is illustrated by three individuals, 1, 2, and 3 and three alternatives A, B, and C. Individual 1 ranks her preferences in order as A:B:C; individual 2 as B:C:A; and individual 3 as C:A:B. Two individuals prefer A to B, and two individuals prefer B to C, but a majority prefers C to A. However, if we assume that the community behaved rationally, our choice would be first A, second B, and third C. This, in sum, is the paradox of voting. Arrow concludes that neither plurality voting nor proportional representation will remove the paradox, and the market will not produce a rational alternative. See id.

77. See Samuelson, supra note 19, at 265. Krugman repeats this point. See Krugman, supra note 46, at 134.

78. Arrow, supra note 69, at 329.

79. See id.
comparisons.\textsuperscript{80} Adopting Bergson's formulation of a social welfare function,\textsuperscript{81} Arrow proposed a set of conditions to circumscribe the range of permissible options reflecting social welfare.\textsuperscript{82} Applying these conditions, Arrow concluded that the only method of moving to a state of social welfare that comprises an aggregate of individual preferences will require the imposition of a dictatorship.\textsuperscript{83} Thus, in a free market democracy, social welfare must be based on an ethical (or normative) rule that assigns value to certain social outcomes. The ethical system is the rule, which selects a social state as the optimal welfare choice from a given set of alternative distributions of goods.\textsuperscript{84} This ethical system may be "public policy," the theory of the market place, or another normative system for evaluating and making social choices. Thus, the determination of what constitutes social welfare is a political judgment, rationalized through the democratic process or the market mechanism.\textsuperscript{85}

In a recent article on social choice theory, Nobel laureate Amartya Sen noted that majority rule is inconsistent with social welfare, particularly where distribution issues are the primary concern.\textsuperscript{86} He proposes an expansion of the strict Arrovian framework to allow a greater informational base for interpersonal comparisons. Rather than exact interpersonal comparisons of utility, Sen suggests that "partial comparability" is capable of yielding a sound basis for making welfare choices.\textsuperscript{87} Thus, rather than comparing mental states—what people desire or want—Sen suggests that comparing interpersonal utilities may be more malleable for making welfare choices that reflect distributional concerns. This model avoids Bentham's utilitarian focus on the sum total of utilities as a measure of welfare, yet does not ignore interpersonal comparisons necessary to evaluate utility in a way that is sensitive to

\textsuperscript{80} See id.
\textsuperscript{81} This is a means by which utility is assigned to a particular set of options reflecting social preferences with the ultimate goal of identifying the highest social state given the relevant constraints. See Abram Bergson, \textit{A Reformulation of Certain Aspects of Welfare Economics}, LII Q. J. ECON. 310 (1938).
\textsuperscript{82} See Arrow, supra note 69, at 334-39.
\textsuperscript{83} See id. at 342.
\textsuperscript{84} See id. at 345.
\textsuperscript{85} For example, the Senate recently voted against a bill that would have restricted steel imports. Trent Lott, the Senate Majority leader, argued that such a bill "would adversely affect our businesses and farmers who depend upon access to the international market. There's no question that this bill will undercut the economic growth that we enjoy today." See David E. Sanger, \textit{Senate Kills Effort to Impose Tight Limits on Steel Imports}, N.Y. TIMES, June 23, 1999, at A1.
\textsuperscript{87} Id. at 355-57.
inequalities in opportunities and individual well-being. As Sen poignantly elucidates:

A hopeless destitute with much poverty, or a downtrodden laborer living under exploitative economic arrangements, or a subjugated housewife in a society with entrenched gender inequality, or a tyrannized citizen under brutal authoritarianism, may come to terms with her deprivation. She may take whatever pleasure she can from small achievements, and adjust her desires to take note of feasibility (thereby helping the fulfilment of her adjusted desires). But her success in such adjustment would not make her deprivation go away. The metric of pleasure or desire may sometimes be quite inadequate in reflecting the extent of a person’s substantive deprivation.

For my purposes, Sen’s model offers new insights into what constitutes public welfare while providing a means for calculating such welfare results in a way that requires resource allocations to flow where it is needed, without ignoring the preferences and tastes of others. Implicit in this model is the principle that true welfare is a result of an overall improvement in standards of living and quality of life for all, not simply those who command a majority vote or, in regard to the global economy, those with access to information. Sen’s thesis is consistent with Smith’s other important, if less celebrated work, Theory of Moral Sentiment which defines welfare as the quality of life attainable. Although Wealth of Nations defined welfare in material terms (i.e. level of real income) Smith’s treatment of the role of the state reflects his own concern with issues of allocation. For example, Smith argued that taxes should not be levied on necessities. He viewed the task of government as the “provision of plentiful revenue or subsistence for the people, or more properly to enable them to provide such a revenue or subsistence for themselves.”

88. Id. at 358.
89. Id. (citation omitted).
90. Indeed, Sen notes that the model may account for different items, such as income and resources, to evaluate a person’s advantage as well as the mental state these resources produce. He also notes that ownership of primary goods and resources, and the ability to convert them in ways that improve quality of life would improve the model and provide a better basis for social judgement. Id. at 358-59.
91. ADAM SMITH, THE THEORY OF MORAL SENTIMENTS
92. See generally SMITH, supra note 19 (Bk. V. ch.2).
93. Id. at 428.
Predictably, mainstream liberal economic scholarship failed to temper *laissez-faire* economic theory with the "philosophical" themes of *Theory of Moral Sentiment*, most likely on the academic ground that, as some commented, the works "relate to different areas of life." This dichotomy between the "economic" and the "philosophical," a pervasive feature of Anglo-American legal culture, has served to perpetuate an impoverished ideal of welfare in the modern State, and has played a significant role in the entrenchment of *laissez-faire* as the indomitable characteristic of American capitalist democracy.

Several principles have emerged from the discourse of social welfare and free trade. First, modern free trade theory has traditionally viewed welfare as a function of efficiency, that is, having more goods at lesser costs. However, free trade only results in an efficient outcome if the price mechanism works well; price must reflect true social costs. Who are the losers, and what will it cost to compensate them (or not)? This question invokes the political process. However, political outcomes do not always reflect social welfare, particularly where distributioal issues are at stake. To this end, external trade opportunities should be evaluated independent of, even if correlated with, one's domestic trade policy. In other words, in determining what policy choices will promote social welfare, the focus should be on achieving domestic priorities. There are strategic justifications for this. The success of free trade depends on the existence of strong governments that can respond effectively to public prejudices that would otherwise affect the general equilibrium in society. Public prejudice in the United States towards Japan in the late eighties, and the resulting venal politics that resulted in negotiated trade restraints against Japanese products, is one example of how governments are sometimes forced to respond to threats to domestic equilibrium that are fostered by deep prejudice. Perceptions that free trade is not fair, and that the government is more concerned with international affairs than domestic well-being can lead to severe political penalties within the home country. Consequently, domestic social welfare is a critical component of a viable free trade policy.

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94. *Id.* at 38.
95. See generally, HOROWITZ, supra note 35.
96. See generally BHAGWATI, supra note 44, at 7; see generally Arrow, supra note 69; Samuelson, supra note 19.
97. See SMITH, supra note 19, at 471-77. See also BHAGWATI, supra note 44.
trade regime. Free trade then, ironically, requires strong domestic political institutions and effective government policies to calibrate the inherent tension between domestic welfare and global free trade. Additionally, if welfare gains for free trade is the function of a nation’s pursuit of self-interest, then it follows that failure to pursue national self-interest first, will lead ultimately to a loss in overall global welfare. In short, States do not exist for free trade, free trade exists for the State. And to restate Samuelson’s thesis, not only is free trade not the scientifically superior state of equilibrium, it is but one option, even if the most preferable, in a continuum of strategies available to promote domestic social welfare.

Second, free trade maximizes returns through specialized production, which can be used to facilitate the exchange of other goods, or through manufacturing the goods oneself. Noted trade scholar Jagdish Bhagwati observes that a mix of the two techniques may be used to produce returns at the margins. Thus, even if a nation does not have a comparative advantage in the production of a product, other factors may require that the nation should, in any event, produce that product. Third, comparative advantage is only one basis for trade. The factors that stimulate economic growth and prosperity go beyond the principle of comparative advantage to issues wholly determined by domestic policies in areas such as science, education, research and development funding, industrial policy, and regulatory regimes. The success of intellectual property policy is in part dependent on the success of these macroeconomic building blocks, reinforcing again, the need for strong

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99. See Samuelson, supra note 19, at 266. Professor Samuelson is quick to point out, however, that this does not mean that he is against the orthodoxy of free trade, merely that the question of free or freer trade is, to him, primarily a political one. Id. Before choosing this option as “the best” other factors must be considered.

100. See BHAGWATI, supra note 44, at 7.

101. See, e.g., Juhana Vartiainen, Understanding State Led Industrialization, in GOVERNMENT AND GROWTH 229-39 (Villy Bergström ed., 1997). The author examines the experiences of four countries that underwent late industrialization, namely Taiwan, Korea, Finland, and Austria. In each country, the State was heavily interventionist and worked in concert with labor and business to determine and implement strategic industrial and economic decisions. The author stops short of recommending State intervention as a principle worth replicating by all countries. However, the author does note that too much attention has been paid by developed countries to the creation of free exchange as a requisite for growth and development. The author concludes that under certain conditions well organized State interventionism can produce good economic results. See generally, COMPETITION POLICY AND INTELLECTUAL PROPERTY RIGHTS IN THE KNOWLEDGE BASED ECONOMY (Robert D. Anderson & Nancy T. Gallini eds., 1998) (a series of articles that examine the interface between competition policy and intellectual property policy in Canada); Donald G. McFetridge, Intellectual Property, Technology Diffusion and Growth in the Canadian Economy, in COMPETITION POLICY AND INTELLECTUAL PROPERTY RIGHTS IN THE KNOWLEDGE BASED ECONOMY 65, 65-75 (Robert D. Anderson & Nancy T. Gallini eds., 1998). See generally, infra Part III.
government and some intervention in the market at the very least to provide a framework in which the gains of free trade can more fully materialize.

What is clear about the theory of international free trade is that the pendulum is fixed not on an unequivocal and absolute support for "free" trade, but on an emergent consensus that the principle of free trade must be tempered with some government intervention. The consensus, however, is more aptly characterized as political, rather than economic. Whether free trade is always in the best interest of a nation, is a question of politics, policy, and economics, and more often than not, a precarious balance of all three. While the rhetoric of free trade remains strong, and free trade remains the dominant theory of international economic relations, government manipulation of market forces is an explicit exercise of political choice at the national and international level. Domestic manipulation of the free trade principle is manifested through the powerful role of actors, governmental and nongovernmental, in shaping national (trade) policymaking. This was precisely the case during the TRIPS negotiations, and almost the case during the negotiations for the two recent international treaties on protecting intellectual property in the digital age. At the international level, political manipulation

102. Even the WTO recognizes the need for government intervention in certain prescribed cases, and has made a provision for derogation in those cases. See HOEKMAN & KOSTECKI, supra note 66 (citing exceptions from the WTO disciplines). Bhagwati suggests, however, that exceptions in a free trade regime, should be treated differently, in theory, from exceptions to the free trade principle. See BHAGWATI, supra note 44, at 13.

103. See Henry R. Nau, Domestic Trade Politics and the Uruguay Round: An Overview, in DOMESTIC TRADE POLICY AND THE URUGUAY ROUND 1, 3 (Henry R. Nau ed., 1989) (hereinafter DOMESTIC TRADE) (noting the importance of interest group politics and institutional forces that shape trade policy and describing them as the "proximate" factors affecting national trade policy making); ROBERT E. BALDWIN, THE POLITICAL ECONOMY OF U.S. IMPORT POLICY 41 (1985) (showing that votes on trade by Congress generally reflect the particular industries in the Congress person's respective constituency). But see the work of some economists who, in defense of free trade, have developed a theoretical model that seeks to address the distortions that lead to government intervention in free trade. See generally CORDEN, supra note 34.

104. See F.W. TAUSIG, I PRINCIPLES OF ECONOMICS, chs. 36, 37 (4th ed. 1939) (arguing that a case for free trade or protectionism cannot be made on perceived benefits to social soundness or welfare).


It would be a mistake, however, to ascribe protectionist acts of government mainly to a failure to appreciate the intellectual case for free trade. By and large they are a reaction to pressures from special domestic groups acting rationally in their own interests... And traditionally, Congress has responded to the concentrated and well-organized pressures of special groups whose jobs and incomes are threatened by imports, despite the more diffused interest of the nation as a whole in open markets.

is often couched in terms of unfair trade, which, to quote Bhagwati, has become “the handmaiden of protectionism.” Nevertheless, he acknowledges that “pluralist politics will generally rule out accommodation to free trade unless trade is also seen to be fair.” The international expressions of national political choice should at least represent more than the rent-seeking activities of special interest groups. Otherwise, the distortions inherent in market intervention are further exacerbated by capture of the political process.

B. Copyright and Discourses of the Public Good

In the United States, the various categories of intellectual property serve distinct ends with a unifying purpose—the promotion of public welfare. These ends were so important that protection of the two principal categories of intellectual property was mandated by the U.S. Constitution. Patents were conceived primarily as a necessary means to stimulate inventive activity for industrialization to the greater benefit of the young nation. Copyright protection evolved to encourage creativity in the arts. This deceptively simple legal architecture has produced a complex labyrinth of judicial

108. Id. at 14.
109. According to James Madison, the utility of the constitutional grant was evidenced by the fact that intellectual property rights affords a rare instance of the public good coinciding fully with claims of individuals. See The Federalist No. 43 (James Madison) (1941). In the frequently cited landmark case of Mazer v. Stein, the Supreme Court stated in dicta that “copyright law like patent statutes, makes reward to the owner a secondary consideration .... The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that .... it is the best way to advance public welfare through the talents of authors and inventors.” Mazer v. Stein, 347 U.S. 201, 471 (1954) (emphasis added); see also PAUL GOLDSTEIN, 1 COPYRIGHT 6 (2d ed. 1996) (arguing that this quote is frequently misunderstood as subordinating author’s rights to public interest). Goldstein argues that the point of the dicta is that a proper balance between the two is necessary to satisfy the goals of copyright. See id.
110. U.S. CONST. art. I, § 8, cl. 8 (vesting Congress with power "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"). The Patent and Copyright Acts are derived from this Constitutional authority.
112. See Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975); GOLDSTEIN supra note 109, §1.1 (1989); Walterscheid, supra note 111, at 33.
 But knowing the objective of the scheme does not naturally lead to a precise methodology for its fulfillment nor to a measure of how to determine its success or failure. Indeed, several courts have viewed the maximalist enforcement of intellectual property rights as necessary to ensure fulfillment of the Constitutional goals.\textsuperscript{114}

The dominant conception of the public welfare vision explicit in the Constitutional authority has come primarily from law and economics scholarship, which has offered economic analysis of intellectual property rules, particularly patent law.\textsuperscript{115} Generally, this scholarship has emphasized the importance of intellectual property rules first, in ensuring that private producers have the necessary incentive to create and second, to preserve the ability to appropriate value from the utility users derive from the created work.\textsuperscript{116} The standard thesis is that absent intellectual property rules, this appropriation may not take place\textsuperscript{117} or may take place at a sub-optimal rate, thus discouraging rather than encouraging creative activity.\textsuperscript{118} Legal scholars and economists have equally accepted this analysis. Implicit in the thesis is

\textsuperscript{113} See, e.g., Copyright Term Protection Act, Pub. L. No. 105-298, 112 Stat. 2827 (1998) (extending copyright protection to life plus 70 years); Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1997) [hereinafter Digital Copyright Act] (amending Title 17 and modifying United States law to meet obligations imposed by WIPO Copyright Treaty and WIPO Performance and Phonograms Treaty); Collections of Information Antipiracy Act, H.R. 2652, 105th Cong. (1997) [hereinafter Proposed Database Bill] (providing protection for collections of information) (A version of this bill was reintroduced in the 106th Congress as H.R. 354); Proposed Article 2B (a proposed state law that would amend Article 2 of the Uniform Commercial Code). Article 2B proposes contract law rules that could expand protection of copyright beyond its current scope. For extensive analysis of the impact of proposed Article 2B on the public welfare goal of copyright, see Litman, supra note 6, at 931 (criticizing proposed Article 2B as contemplating an “assertion of rights beyond those provided by any branch of intellectual property law”).


\textsuperscript{116} See id, see also Arrow, supra note 69.

\textsuperscript{117} See generally Besen & Raskind, supra note 116, at 3.
the idea that the production of such work is the *sine qua non* of public welfare, at least public welfare relating to intellectual property. As a result, law and economics scholarship has focused disproportionately on the levels of protection necessary to sustain creative activity and tilting, typically, in favor of stronger protection for intellectual property owners.

In addition to economic analyses, there is a strong body of scholarship offering another perspective on the public interest in copyrighted works.9 Scholarship in this vein has been vigilant in asserting the primacy of public welfare in relation to the pecuniary gains of rights of owners. The emphasis of this scholarship has been the balance between rights of owners and users of copyrighted works. This balance, the argument states, is pivotal to the public welfare goals integral to the Constitutional framework for the protection of copyright. While both sides tend to agree on the role of an incentive structure in ensuring a steady production of works, these public interest advocates insist that the utilitarian theory undergirding copyright demands that the protection of such works be balanced by limits on the rights of owners. The balance between the public interest in access to creative works and the author's interest in remuneration for her efforts is maintained through doctrines in copyright law such as fair use, first sale, and, more limitedly, through express statutory provisions.121

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10. The fair-use doctrine is fundamental to the public policy behind copyright laws. Originally a judicial doctrine, fair use was codified in the 1976 Copyright Act. See 35 U.S.C. § 107, 33 I.L.M. 81 (1994). The fair use doctrine legitimizes certain limited uses of copyrighted works without liability for infringement. Examples of such uses include news reporting, teaching, criticism, comment, scholarship or research. The statute lists factors to be considered in evaluating whether a particular use is fair use. See id.; see also Harper & Row, Publishers, Inc. v. Nation Ent. Inc., 471 U.S. 539 (1985) (applying the factors to unauthorized quotations of Gerald Ford's unpublished manuscript). The Court found that this use was not protected by the fair-use doctrine. Id. at 556. See Sony Corp. v. Universal City Studios, Inc., 464 U.S. 417 (1984) (finding manufacturers of VCRs and VTRs not liable for contributory infringement for time-shifting videotaping of television broadcasts). According to the Court, "[t]o the extent time-shifting expands public access to freely broadcast television programs, it yields societal benefits .... [This interest] supports an interpretation of the concept of 'fair use' that requires the copyright holder to demonstrate some likelihood of harm before he may condemn a private act of time-shifting as a violation of federal law." Id. at 454. See also Campbell v. Acuff-Rose Music, Inc., 114 S. Ct. 1164 (1994) (finding parody can be fair use).

11. See 35 U.S.C.A. § 109(a) (West 1998). The first sale doctrine provides that a copyright holder cannot dictate what a buyer does with the physical copy of the copyrighted work. See id. For the most recent Supreme Court pronouncement on the limitation of rights by the first sale doctrine, see Quality King Distribrs. Inc. v. L'Anza Research Int'l, Inc., 523 U.S. 135 (1998) (holding that copyright rights cannot operate to bar what a purchaser does with the goods, even where the goods are imported to the United States in violation of contractual arrangements).

12. See, e.g., 35 U.S.C.A. § 108 (reproductions by libraries and archives) (this section has been amended by the Digital Copyright Act, § 404); § 110 (exemption of certain performances and displays); § 111 (secondary transmissions); § 112 (ephemeral recordings).
The dividing line between those who oppose expansionist tendencies in copyright and those who embrace such tendencies is analogous to the free trade versus strategic trade divide in international trade theory. There is agreement on the basic principle; in the case of free trade, that free trade is in the best interest of a nation (or that trade is better than no trade) and, in the case of intellectual property, that the protection of creative works is in the public interest. In both fields, the opposing sides also agree that some government intervention is necessary. However, the normative question of just how much protection is best for social welfare constitutes a point of divergence. The divisions are not merely academic, but rooted very much in particular convictions of the role of the State and the place of the market in a capitalist economy. To demonstrate the parallels between conceptions of welfare in international trade and international intellectual property protection, and the pivotal role of political and economic ideology in constructing models of public welfare, it is useful to examine, briefly, the division between developed and developing countries in the international protection of intellectual property. In so doing, it is also interesting to note the parallels between the arguments made by developing countries against the extension of intellectual property systems to their domestic economies, and scholars who have contributed to attempts to stall the tide of maximalist copyright laws in the United States.

1. An Often Told Tale: Developing Countries and Intellectual Property

European expansionism—politically through colonialism and economically through trade—ensured the spread of cultural concepts such as intellectual property. The divergent philosophies of Europe and the United States in the protection of intellectual property\(^\text{123}\) did not weaken initial attempts to extend the system beyond their national boundaries. Instead, these philosophies

\(^{123}\) The protection of intellectual property is also a prominent feature of European legal systems. Indeed, the inception of intellectual property protection is inextricably associated with historic European cultural milieus. In Europe, generally, intellectual property philosophy emphasizes the importance of the author/creator and the “natural” right of ownership to the product of intellectual labor. This approach protects all the dividends that are the results of her efforts. Thus, for example, continental European copyright protects the moral rights of the author. These rights include the right of integrity (to protect the work from mutilation or distortion) and the right of attribution (to have one’s name associated with the work). These rights were recently granted limited recognition under American copyright law. See The Visual Artists Rights Act of 1990, Pub. L. No. 101-650, §§ 601-610, 104 Stat. 5128 (1990) (reflected in §106A of the Copyright Act).
successfully legitimized the argument that the international protection of intellectual property is an indispensable requirement of international, and ultimately national, economic well-being. In the post-colonial era, developing countries were "encouraged" through a variety of means to adopt intellectual property laws and, subsequently, to accede to international treaties for intellectual property protection. To this end, the utilitarian justification of intellectual property had its earliest triumph over competing philosophical perspectives. International institutions, influenced by success stories of technological innovation in England and the United States, adopted the philosophy that national protection of intellectual property was key to every country's industrialization, growth, and development.

Intellectual property laws, it was argued, would stimulate creativity by providing incentives to authors and inventors. In addition, intellectual property laws were necessary to attract much-needed foreign capital to developing markets and to facilitate technology transfers from developed countries to developing countries. At the same time, intellectual property was also recognized as a "human right" under the Universal Declaration of Human Rights, creating moral pressure on developing countries to recognize this "natural" law, and legitimizing the international political pressure to enact national intellectual property laws. The promulgation of such laws was enabled by the work of international institutions, such as the World Intellectual Property Organization (WIPO), which drafted "model" laws for

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124. This epoch coincided largely with the establishment of the Bretton Woods system which established the GATT system.
126. See WIPO, BACKGROUND READING MATERIAL ON INTELLECTUAL PROPERTY 43 (1998) ("Without a national industrial property system and, particularly, a patent system, it will be difficult for a country to stimulate and protect the results of indigenous innovation.").
127. See, e.g., Milan Bulajic, INTERNATIONAL PROTECTION OF INTELLECTUAL PROPERTY AND FOREIGN INVESTMENT, in FOREIGN INVESTMENT IN THE PRESENT AND A NEW INTERNATIONAL ECONOMIC ORDER 51 (Detlev Chr. Dicke ed., 1987) (quoting the United States Registrar of Copyrights as saying "protection of foreign intellectual property... will enhance the attractiveness of a country to foreign direct investment.").
developing countries to emulate, and other United Nations specialized agencies responsible for marketing the system worldwide.130

Notwithstanding intellectual property laws, developing countries remained marginalized in the global economy. Innovative technology was not then, and is not now, a "natural" byproduct of incentives to create through a patent or copyright system.131 However, the arts that had flourished in many marginalized societies before copyright laws, continued to flourish unaffected by the existence of copyright incentives.132 Overall, the experiment with intellectual property laws in developing countries was broadly regarded as a failure in terms of accomplishing economic development goals. The persistent economic malaise in many developing countries, despite elaborate technology transfer regimes, gradually diminished the legitimacy of national intellectual

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131. See J.H. Reichman, Intellectual Property in International Trade: Opportunities and Risks of a GATT Connection, 22 VAND. J. TRANSNAT'L L. 747 (1989) (showing differences between views of developing and developed countries with regard to GATT); id. at 26-56 (outlining elements of a procompetitive strategy for developing countries that would serve their interests in acquiring technological products); see also J.H. Reichman, Universal Minimum Standards of Intellectual Property Protection Under the TRIPs Component of the WTO Agreement, in INTELLECTUAL PROPERTY AND INTERNATIONAL TRADE: THE TRIPs AGREEMENT 21 (Carlos M. Correa & Abdulqwai A. Yusef eds., 1998) (noting that one advantage of TRIPS is the elimination of free riders and that compliance with TRIPS has the potential to expand the capacity of developing countries to acquire skills necessary to compete in the technology market); cf. Ruth L. Gana, Problems and Prospects for International Copyright at the Close of the Twentieth Century: Lessons for the United States (March, 1996) (unpublished S.J.D. dissertation, Harvard University) (on file with the Harvard University Library):

There is no question that technology transforms any society. Indeed, there is also no question that technology is a critical resource for growth and development. What has not been sufficiently addressed by developing country governments, international institutions or scholars, however, is how different societies/countries are able to develop technology that is suited to their peculiar environment. A central issue is how the means of transfer determines the efficacy of the technology in the importing country because control over when and how the technology is used remains with the exporting country and the holder of the intellectual property right. Further, the very decision to "transfer" technology affects values in the importing country. Technology transforms the way people live; it creates possibilities that may nevertheless not be realized because a broader framework to ensure sustained growth does not exist.

Id.

132. See Gana, supra notes 129 & 131 (suggesting reasons why Western-style intellectual property did not have similar effects in developing countries).
property laws and, ultimately, of the international system. Dominant issues of concern included the prohibitive costs of licenses for copyrighted works, the strict terms of use imposed by licensing agreements over patented products, and the disparate levels of bargaining power between users of protected goods and intellectual property owners. Countries at the margins experienced the social and economic costs associated with intellectual property rights, but none of the perceived systemic benefits—in particular, the stimulation of local inventiveness. The international system did not model the public welfare provisions that were an integral part of the utilitarian platter on which intellectual property protection was served to developing countries. Ultimately, it became clear that national economic prosperity could not be predicated solely or even largely on the acquisition of technology through the promise of intellectual property rights. Consequently, developing country adherence to international treaties and enforcement of intellectual property rights was less than enthusiastic.

In the early 1990s, the pervasive ideology of intellectual property protection was reincarnated under the auspices of the international trade system established by the General Agreement on Tariffs and Trade (GATT) as a matter of "fair trade." The liberal economic orthodoxy was centered on the assumptions that the free movement of goods and services produced efficiency in: (i) allocation of resources, (ii) production of goods, and (iii) distribution. It was invariable that the market orthodoxy would continue to triumph in international trade negotiations that extended to intellectual property protection. For the United States in particular, the national interest


134. This is, arguably, attributable to many factors, not the least of which is the absence of supporting legal institutions, general political instability, and economic malaise. However, the socioeconomic conditions that characterize some developing countries does not fully explain why intellectual property protection in these countries did not yield results comparable to developed countries. See Gana, supra note 131.

135. This may be explained in part by the fact that developed countries, due to their different underlying philosophies of intellectual property, had different approaches to the protection of public welfare. In some countries such as the United States, the doctrine of fair use played a significant role in preserving welfare interests. England also has a fair use doctrine, but the British approach is decidedly more restrictive than its U.S. counterpart. Other countries did not have explicit fair use provisions but, instead, recognized limited exceptions to an author's exclusivity on a case-by-case basis.


137. Ironically, TRIPS is a highly protectionist treaty, and not at all representative of the free trade features in GATT. See infra note 140 and accompanying text.
arguably at stake in the international protection of intellectual property justified its aggressive stance at the trade negotiations.\(^{138}\) After all, the protection of national interests against encroachment by other nations is a legitimate welfare goal in international fora, and consistent with some aspects of social welfare theory in international trade.\(^{139}\) The resulting TRIPS Agreement \(^{140}\) formally established an inextricable relationship between trade and intellectual property rights. The Agreement replaced the decaying international system; the treaty expanded the scope of protection for intellectual property rights, provided the necessary legal and institutional structure for a global information industry, and laid the foundation for global control of access to information and associated technology. With its century-old antecedents, the globalization of information through the TRIPS Agreement, reinforced by subsequent international agreements, posed an even greater threat to developing countries, and to the welfare interests of users in the United States.

2. Private Welfare

The question of whether copyright is about (international) trade, and thus a proper subject of that field, requires an inquiry beyond the fact that copyright law, by enabling the commodification of information, ensures that international trade flows will facilitate market transactions in the copyrighted product. Indeed, the genesis of modern copyright law was trade—a commercial battle between booksellers in eighteenth-century England over proprietary rights in manuscripts.\(^{141}\) The system of Royal Charters and privileges obscured the need for property rights in creative work since the Crown granted these privileges in the form of monopolies.\(^{142}\) With the promulgation of the world’s first copyright statute, the Statute of Anne of 1710, the privilege was

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\(^{139}\) See, supra pp. 125-128.


\(^{141}\) There is an impressive amount of literature which discusses the evolution of modern copyright. For leading historical works, see LYMAN RAY PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE (1968); BENJAMIN KAPLAN, AN UNHURRIED VIEW OF COPYRIGHT (1967).

\(^{142}\) For an overview of the social and economic conditions that bedeviled authors, as well as the economic structure of the relationship between authors and publishers, see I VICTOR BONHAM CARTER, AUTHORS BY PROFESSION (The Society of Authors eds., 1978).
codified and given to authors, instead of publishers.\textsuperscript{143} The transfer of ownership to authors, a disaggregated group, rather than the guilds that characterized the mercantilist economy, led gradually to a "market" for the exchange of copyright privileges in return for remuneration to the author. The economically strategic importance of this move by British Parliament was deliberate. The preamble to the Statute of Anne made clear that part of the overarching policy was to secure the private welfare of authors and their families\textsuperscript{144} and, by so doing, promote the general public welfare by rewarding authors and thus encouraging the production of literary works. Copyright in this sense was "trade," a means of livelihood for authors and booksellers.\textsuperscript{145}

The enhancement of private welfare through gain from copyrighted works would seem, at least perfunctorily, to reflect the work of the invisible hand of the market causing public and private interests to converge. Yet, an assiduous study of the history of copyright in eighteenth- and nineteenth-century England reflects the divergence of social and private interests. For example, universities and public bodies were granted eleven copies of published works under the amendments to the Statute of Anne. This policy was vigorously opposed by some who argued that it was unfair to reduce the economic worth of the copyright by dispensing a public grant.\textsuperscript{146} Yet, development of the conception of "author" as a phenomena unaffected by or unrelated to society, is, to borrow from scholars such as Jamie Boyle, merely a romantic view of authorship.\textsuperscript{147} This view of authorship, as some scholars have suggested, may

\begin{itemize}
\item \textsuperscript{143} See Statute of Anne 1710, 54 Geo.III, ch. 156, § 14 (Eng.).
\item \textsuperscript{144} The preamble stated:
\begin{quote}
Whereas Printers, Booksellers and other Persons have of late frequently taken the Liberty of printing reprinting and publishing or causing to be printed, reprinted and published Books and other Writings without the Consent of the Authors or Proprietors of such Books and Writings, to their very great Detriment and too often to the Ruin of themselves and their families ... [to prevent] such Practices ... and for the Encouragement of learned Men to compose and write useful Books ...
\end{quote}
\textit{Id.} Proposed bills leading up to the final statute reflected similar concerns. \textit{See also} ROBERT ANDREW MACFIE, COPYRIGHT AND PATENTS FOR INVENTIONS 5-7 (1879) (documenting part of the legislative history of the Statute of Anne, including the economic concerns of authors and printers and/or booksellers).

\item \textsuperscript{145} In an influential article defending the institution of copyright, one prominent author extended the private welfare concern evident in the Statute of Anne to the U.S. copyright landscape. \textit{See} Zechariah Chafee, Jr., \textit{Reflections on Copyright: I}, 45 COLUM. L. REV. 503, 505-15 (1945). According to Professor Chafee, "[i]t goes against the conscience of society that destitution should seize on the family of a man who has made possible great public good." \textit{Id.} at 508.

\item \textsuperscript{146} \textit{See} SAMUEL EDGERTON BRYDGES, \textit{A Summary Statement of the Great Grievance Imposed on Authors and Publishers; and the Injury Done to Literature by the Late Copyright Act, in Four Tracts on Copyright 1817-1818} (Stephen Parks ed., 1974) (1818).

\item \textsuperscript{147} \textit{But see} Mark Lemley, \textit{Romantic Authorship and the Rhetoric of Property}, 75 TEX. L. REV. 873 (1997) (review of BOYLE, \textit{infra} note 148). For historical studies of authorship, see Martha Woodmansee,
be consistent with the utilitarian values inherent in the modern regime, but it unduly impedes social welfare by prescribing rights as though creativity is a process divorced from social interaction. It therefore justifies a copyright regime that precludes direct benefit from the copyrighted work unless such benefit is paid for, or on other terms as stipulated by the copyright owner.

The creation of copyright was also the creation of commerce. The property rights granted by copyright laws provided a mechanism for exchange between authors and booksellers, thus facilitating the creation of a market in literary works. The exchange enhanced the well-being of authors by simultaneously rewarding them and promoting their industry, and increased social welfare by ensuring the writing of books and thus securing the "encouragement of learning." As a welfare goal, the "encouragement of learning" or the "progress of science and the arts" was, and is, a judgment about value (one of the principal factors in determining social welfare). Indeed, in England the early debates about the question of literary property often invoked questions about liberty, labor, and the "fairness" of allowing individuals to profit from the intellectual industry of authors. By the early nineteenth century, the philosophy that it was only "natural" or "right" that authors owned the produce of their minds was so firmly set in England as to be without debate. Locke's theory of property no doubt influenced the tenor


149. See Arrow, supra note 69.

of the theoretical justifications for recognizing a property right in books.\textsuperscript{152} The copyright grant eroded the power of the bookseller's guilds and ultimately overturned the system of monopolies and privileges that dominated the production of literary works.\textsuperscript{153} In this sense, the copyright grant to authors represents a thread in the set of events that undermined features of the mercantilist system. Antedating Smith's \textit{Wealth of Nations} by sixty-seven years, the Statute of Anne, and the literary property debates that preceded it, anticipated one of the central tenets of \textit{Wealth of Nations}—namely, a call for policy reforms to enhance a particular vision of social welfare in a competitive exchange economy based not on agriculture, but on capital.

3. Public Welfare

If specialization led to a maximization of wealth, then authors in eighteenth-century England were the logical welfare choice for devolving the property right to literary works. The property right ensured that market forces would lead to transactions that benefit society as a whole. This hypothesis was wholly consistent with Smith's invisible hand theory; after all, the writing of books presumably was in everyone's best interest, so that in fact there was a convergence of public and private interest. The contemporary articulation of this phenomenon can be found in neo-classical economic justifications of intellectual property. Simply, the general theory states that: (i) property rights are incentives to authors and inventors to create; (ii) it facilitates efficient market transactions by letting the market set the price of the creative product; and (iii) it ensures a consistent supply of creative products at a price that reflects the utility of the product to the consumer. In short, intellectual property rules address the public goods problem inherent in intangible property and remedy the market failure concern that in the absence of such rules the market will fail to generate an optimal level of creative works absent incentives to create.\textsuperscript{154}

\begin{itemize}
  \item \textsuperscript{152} See, e.g., HARGRAVE, supra note 151 (arguing for property rights in literary works and asserting that the "first consideration" in the origin of such right is the author's labor in composing it); see also Wendy J. Gordon, \textit{A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property}, 102 YALE L.J. 1533 (1993).
  \item \textsuperscript{153} The maturation of this transformation took years. See ROSE, supra note 147.
  \item \textsuperscript{154} See Ian E. Novos & Michael Waldman, \textit{The Effects of Increased Copyright Protection: An Analytic Approach}, 92 J. POL. ECON. 236, 245 (1984) (analyzing claims by scholars that increased copyright protection will increase social welfare due to optimal production, and providing supporting analyses for the hypothesis).
\end{itemize}
Casting copyright in property terms did not, however, resolve all questions of public welfare. The development of a market, and the extension of copyright beyond the basic prohibition to print another's work, transformed the focus of the public welfare question from one of production to one of consumption. Copyright was more than just an instrumentalist feature of capitalist economies; from its genesis in Anglo-American and continental discourses, copyright had a far weightier calling. From the modest beginnings of copyright, governments used the grant to accomplish a variety of explicit and not so explicit social functions. The U.S. utilitarian emphasis on intellectual property theory is an explicit normative decision, rooted in its Founding Fathers' rejection of a natural right to creative works, but constrained by the necessity of stimulating production of such works. Similarly, the protection of moral rights in Europe serves an explicit welfare function unrelated to the economic value engendered by creativity. Moral rights reflect social and political values that inform the structure of the market for creative works, while also bearing witness to dominant political and cultural ideologies. The fact that copyright is more than just the sum of the economic values it can generate is one marker of its social welfare function.

There has never been serious question that the protection of intellectual property imposes certain costs to the public. The standard justification for these costs has relied on another unquestioned assumption, namely, that the system benefits public welfare by facilitating a steady supply of new ideas expressed as inventions or creative works of authorship. In the digital context, this justification is reframed as a matter of balance between the constitutional mandate that the protection must promote progress, and the ultimate goal of enhanced public welfare by facilitating access to protected works.

Recent scholarship has questioned the essentialism that underlies the modern intellectual property systems, including the specific requirements of the individual categories of protection. Some of the criticism questions the legitimacy of the modern system in light of the historical forces that shaped them, while other scholarship has pointed to the limitations and

155. See Paul Abel, Copyright In International Perspective, 1 J. WORLD TRADE L. 399 (1967) (noting that copyright was constructed universally as a "socially bound" right, combining social and individual elements).

156. Novos & Waldman, supra note 154 (reasoning that there is little or no support for the claim that increased copyright protection decreases social welfare due to underutilization of the works). The analysis is based on cost considerations as the determinant of underuse of protected works.

157. See Gana, supra note 11; Coombe infra note 160.

158. See Oddi, supra note 133 (on the requirement of nonobviousness in patent law).

159. See The Construction of Authorship: Textual Appropriation in Law and Literature,
irrelevance of the system when transported out of Western liberal societies to developing countries at the margins. More recently, scholars and activists in anthropology and human rights have examined the role of indigenous knowledge and its use as fodder for many multinational companies who subsequently patent products that are a direct result of years of discovery and use by indigenous groups. In economics, scholars have advanced other theories to explain national economic growth that are not related to the presence or absence of innovation strategies. And still, members of other disciplines question the propriety of increased rights in intellectual property without the benefit of public debate. In a sense, scholarship from these various disciplines are representative of a growing concern over the rabid response to globalization that focuses almost exclusively on one category of interests--namely, that of rights-holders--at the expense of other equally compelling social objectives. The wisdom that impels a narrow focus on rights-owners is not the wisdom that produced the U.S. intellectual property system. More significantly, acquiescence to forces of globalization that exalt ownership of private property owners over all else fundamentally alters the role of the nation-State as the guardian of national public good. As observed by a trade economist,

the most fundamental trade conflicts are not those between home and foreign countries but those between different interest groups within the same country. This is not surprising when it is realized that trade protection is basically


163. See, e.g., Jonathan King & Doreen Stabinsky, Patents on Cells, Genes, and Organisms Undermine the Exchange of Scientific Ideas, CHRON. OF HIGHER EDUC., Feb. 5, 1999, at B6 (noting with disapproval the commercialization of biological entities through an expansive patent policy and asserting the need to curb this trend).
an instrument for shifting income within a country from those who use a product to those who produce it. Or stated differently, the costs of protection are borne primarily not by foreigners but by consumers and other adversely affected domestic groups.164

Ironically, intellectual property protection was identified as a subject of international trade by the United States precisely because maintaining national economic well-being required harnessing, not succumbing to, the force of globalization.165

4. Achieving "Welfare" Through Copyright

Once the strength of the U.S. economy shifted from industrial goods to service and information goods, competition in information products gained momentum. Reports of huge financial losses to the economy, allegedly caused by copyright infringement, spurred the strengthening of the international intellectual property system.166 The huge volume of trade in mass media

164. Frank, supra note 105, at 45.
165. The economic centrality of intellectual property in the United States can certainly not be underestimated. Although public awareness of intellectual property rights and the recent legislative initiatives enhancing protection for intellectual property have placed the subject matter squarely at the forefront of national discourse, intellectual property has long been venerated as the vintage of U.S. economic dominance both in the industrial and the information age. See supra note 8.
products such as movies, compact discs, television programs, and software led to a campaign by the industry to ensure that greater control over rights to intellectual property goods were addressed at an international forum. The pressure from private industry for heightened domestic protection of copyright, in particular, was justified by repeated reference to the need to maintain U.S. economic hegemony.\textsuperscript{167} Heightened domestic protection offered the opportunity to control and dominate the global marketplace, specifically by expanding categories of protection and lengthening the term of protection for the sake, purportedly, of enhancing national competitive ability in the global market.

There is some plausible argument for more and stronger intellectual property rights. Since globalization is dependent largely on the flow of information—either as the subject of the transaction or ancillary to the use of a product that is the subject of the transaction—the legal regime that protects information, primarily copyright, is a factor of production. That is, copyright is integral to the functioning of the process of globalization in regard to the information technology industry that, in turn, is indispensable for all other aspects of globalization.\textsuperscript{168} Information technology—as a source and resource—is both the subject of, and provides a basis for, effective globalization in virtually all spheres of activity.\textsuperscript{169} Strategic trade policy in the information market would suggest that an oligopolistic presence in the information market will shift excess returns away from foreign to domestic firms. But such a presence would also shift returns between firms in the same country to the firm with the proprietary information.\textsuperscript{170} In effect, only

\begin{itemize}
  \item \textsuperscript{167} See Smith, supra note 166; see also Chandler, supra note 8.
  \item \textsuperscript{168} Stephen J. Kobrin, The Architecture of Globalization, in GOVERNMENTS, GLOBALIZATION AND INTERNATIONAL BUSINESS 137 (Dunning ed., 1997) [hereinafter GOVERNMENTS] (defining globalization as the "technologically driven expansion of the scope of markets well beyond the limits of even the largest national territories, and the replacements of markets and hierarchies by relational networks as the mode of organization of international economic transactions"); see also Susan Strange, An International Political Economy Perspective, in GOVERNMENTS, supra (Globalization is the "[t]he coinciding of acceleration of internationalization of production, increased mobility of capital, and the greater mobility of knowledge or information.") (emphasis added).
  \item \textsuperscript{169} See generally Strange, supra note 168; see also Andrew Hurrell & Ngaire Woods, Globalisation and Inequality, 24 MILLENIUM: J. INT'L STUD. 447 (1995) (noting that liberal views assume that globalization is driven by technological advance).
  \item \textsuperscript{170} See generally Murray C. Kemp & Shigemi Yabuuchi, The Role of Information in International Trade Theory, in ECONOMIC THEORY, WELFARE AND THE STATE (Athanasiou Asimakopolus et al. eds., 1991) (examining the viability of the Stolper-Samuelson and Rybczynski theorems when changes are made to assumptions about the availability of technical information). The authors conclude that both theorems survive a change in assumption from open to closed access to information, although in a slightly modified
\end{itemize}
government policies that are directly applied, such as research and
development policy and export subsidies, can, under certain circumstances,
deter foreign firms—relative to domestic firms—from competing in markets that
are lucrative.\textsuperscript{171} Further, the complexity of cross-national R&D investments,
and increased internationalization of R&D has engendered a global
interdependence of science and technology policy so that notions of direct
government policies purely for domestic benefit are increasingly illusory.\textsuperscript{172}

Intellectual property policy would have the same effect on domestic and
foreign firms particularly given the limitations of the national treatment
principle.\textsuperscript{173} While international trade rules constrain the scope and reach of
some domestic policies, the multilateral trade regime does not proscribe all
initiatives directed at supporting domestic industries. Indeed, some policies,
such as those taken to safeguard balance of payment difficulties, or those
necessary to protect essential security interests, are explicitly recognized by
the multilateral trade regime (under specific conditions) as legitimate
interventions in the market.\textsuperscript{174} The precise reach of the limited exceptions to
rights protected by the TRIPS Agreement remains uncertain. What is clear,
however, is that in exchange for heightened intellectual property protection
under global rules, the United States failed to implement in the same
international system explicit welfare enhancing provisions for users, domestic
or otherwise.\textsuperscript{175}

The extensive preoccupation of the United States with intellectual
property as a main source of domestic economic growth is, in light of some
scholarly accounts, misplaced and ill fated—particularly in the absence of
supporting domestic policies necessary to ensure that gains from intellectual
property protection represent real rewards relative to the cost (to consumers)
of artificial supports such as research and development investments, tax

\textsuperscript{171} Barbara J. Spencer & James A. Brander, \textit{International R & D Rivalry and Industrial Strategy}, 50

\textsuperscript{172} See David Mowery, \textit{The Global Environment of U.S. Science and Technology Policies}, available
at Speaker Comments (visited Nov. 29, 1999) <http://www4.nas.edu/pd/harness.nsf/85256>.

\textsuperscript{173} The principle of national treatment is the cornerstone of the multilateral trade system. It requires
nations to treat goods from foreign firms the way it treats goods from domestic firms. Article III of the
TRIPS Agreement extends the national treatment principle to the protection of intellectual property.

\textsuperscript{174} See \textit{HOEKMAN & KOSTECKI}, supra note 66; \textit{see also} General Agreement on Trade in Services of
(specifically, art. XII (restrictions to safeguard balance of payments); art. XIVbis (security exceptions); art.
XIV (recognizing general exceptions to the multilateral trade rules)).

\textsuperscript{175} For example, none of the global agreements contain an international fair-use principle.
 incentives, and other policies to stimulate innovation. First, empirical evidence suggests that labor skills are a significant determinant of international trade flows from the United States.\textsuperscript{176} Indeed, an influential series of articles by economist Wassily Leontief demonstrated that the United States exports products, that require inputs of highly-skilled labor, and tends to import goods representing low-skilled labor.\textsuperscript{177} The Leontief study formed the axis in the development of theories seeking to rationalize the strength of exports in manufactured goods despite the high costs of U.S. labor.\textsuperscript{178} It concluded that the "high productivity of American labor, as opposed to foreign labor, plays a decisive role in the determination of the composition of those United States exports and imports which do not directly reflect the presence or absence . . . of certain natural resources."\textsuperscript{179}

If labor skills are critical to the rate of exports, maintaining the quality and size of the labor pool is indispensable for terms of trade, particularly if, as policymakers parrot, goods subject to intellectual property rules constitute a significant portion of the national economy.\textsuperscript{180} Labor skills are, in turn, inextricably bound to education policy. Government investments in education determine to a great extent the quality and size of skilled labor available. In an information economy, education policy will play a greater role than ever before in determining growth in domestic real income, as technical skills become indispensable for individual participation in the information economy.\textsuperscript{181} Protecting intellectual property without a correlating investment

\begin{quote}
\textsuperscript{176.} See Donald B. Keesing, \textit{Labor Skills and International Trade: Evaluating Many Trade Flows with a Single Measuring Device}, 47 REV. ECON. & STAT. 287 (1965) (stating that the availability of labor skills determines patterns of international location and trade for products not tied to natural resources; the author demonstrates empirically that the availability of labor skills strongly influences the pattern of international trade in industrial goods).


\textsuperscript{178.} See supra note 166.

\textsuperscript{179.} Leontief, \textit{Factor Proportions}, supra note 177, at 399.

\textsuperscript{180.} See supra note 166.

\textsuperscript{181.} President Clinton's National Information Infrastructure Advisory Council (NAIIAC) issued a report in 1996 identifying three skills necessary for success in the workplace of the 21st century. These skills are (1) the ability to read, write, perform arithmetic and mathematical operations, listen, and speak; (2) the ability to think creatively, make decisions, solve problems, visualize, learn outside of the classroom environment, and reason; and (3) personal qualities, including responsibility, self-esteem, sociability, self-management, and integrity and honesty. The report adds: "Whether in the classroom, in a library, in a community center, or at home, every American who goes online is acquiring many of these skills—often
in education, and other policies specifically directed at macroeconomic conditions, will not yield significant long-term benefits to the national economy.

For example, a study by the Committee for Economic Development (CED) during a time of economic downturn in the United States, suggested changes in the regulatory climate to promote certainty, expanded government support for basic research, and tax changes to improve the risks and rewards in research and development. The CED concluded that new policies to stimulate innovation should concentrate on flagging business investment in the economy, suggesting that macroeconomic policies are indispensable for sustained success in rates of domestic innovation. Recently, other studies have emphasized the importance of capitalizing on investments in science and technology. The report made four recommendations including a recommendation that the government should consider the education of scientists and engineers an essential component of maximizing investments in the national technology base.

The creation of intellectual property is initially a function of skilled labor in the form of creative ideas. The manufacture of the final product, however, is often capital intensive. This rarely is the case with copyright. Only the first of the final product is likely to be capital intensive. Indeed, the heart of the public goods problem is precisely that a minimal amount of capital is needed to generate multiple copies of the protected work, so that absent copyright protection, an author is unlikely to receive a return on her initial investment of time, capital, and skill. It is for this reason that intellectual property law, particularly patent law, is strongly justified with reference to the need for an incentive to encourage investments in creative activity while also facilitating recoupment of the capital invested by granting an exclusive right to the patented product.

In the copyright context, an argument can be made that the production of copyrighted works is equally capital intensive when considered from the point of creation to the point of marketing the end product. The copyright allows

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183. See id. at 87.

184. COMMITTEE ON SCIENCE, ENGINEERING, AND PUBLIC POLICY, CAPITALIZING ON INVESTMENTS IN SCIENCE AND TECHNOLOGY (1999).

185. See id. at 56.
the owner to recoup some of her investment. In addition, however, the right to make derivative works tends to operate as a significant source of monopoly power since derivative works occlude the prospect of perfectly substitutable goods, which is precisely the goal. Thus, in some instances, the labor factor (i.e., creativity) employed in the production of a copyrighted product is likely to earn more than the capital employed to bring the creative expression to the market. Put differently, the availability of copyright protection raises the equilibrium real reward of skilled labor, and depresses that of the other factor of production of copyrighted goods, namely capital. In theory, this suggests that the creators of the work, the authors, should earn more than the publishers, and certainly more than non-skilled labor in the economy. In order to achieve real growth from this situation, however, macroeconomic policies must succeed in increasing the pool of skilled labor. If not, the economic success of the nation vis-à-vis other nations may suggest robustness, but in reality the domestic economy is shrinking as growth in real income is concentrated only in one industry. Additionally, microeconomic policies that affect rates of employment, capital availability, and other economic strategies should be coordinated to maximize the potential for real domestic growth. Economic success should be evaluated with reference first to prevailing domestic conditions. Intellectual property rules designed to advance public welfare must, consequently, balance exclusivity with access in order to channel resources to other potential producers. Instead, however, the expansive scope of intellectual property rights attracts capital to the same owners and industries as the equilibrium real reward of a narrow class of skilled labor increases.

187. This is a simplified expression of the Stolper-Samuelson and Rybczenski theorems of international economic theory. According to the Rybczenski theorem, any small increase in the endowment of one factor of production, say labor, raises the output of the industry which uses that factor relatively intensely and depresses the output of the other industry. The Stolper-Samuelson theory states that any increase in the price of a commodity, raises the equilibrium real reward of the factor of production employed relatively intensively in the industry that produces the commodity and depresses the equilibrium real reward of the other industry. The theorems relate to a model which assumes one national economy in which two goods are non-jointly produced by two primary factors of production under constant returns to scale. The difficulty of quantifying which factor of production—labor, capital, or entrepreneurship—is responsible mostly for goods protected by intellectual property make applications of these theorems difficult. Additionally, the assumption of constant returns to scale are not applicable to the production of intellectual property. However, in the context of international trade, these theorems provide a normative guide in evaluating how proprietary ownership of information may in fact adversely affect assumptions underlying the free trade model.
188. See infra Part II (discussing the prospect of secondary innovation by individuals other than the first creator and the adverse impact of recent legislation on this prospect).
Additionally, the role of domestic research and development investments has proven influential in the specialization of U.S. firms in high technology products. Economists have found a high correlation between the research effort and trade position of industries\textsuperscript{189} as an explanation for economic success. Such research and development policies or tax policies support domestic industry but distort real market prices in high-tech goods. Intellectual property rules add a further layer of distortion by fostering imperfect competition between producers. The real problem is, however, that imperfect competition resulting from intellectual property rules exists both in the domestic and international market. The globalization of copyright, on the one hand, limits the scope of available policy options to encourage domestic economic welfare, but, on the other hand, allows certain types of distortions; it makes no distinction between domestic economic welfare and global economic conditions, and it strengthens imperfect competition in copyrighted goods notwithstanding the negative effect on overall domestic market conditions. Contemporary intellectual property policy, like trade policy, "reflects a resolution of sectional interests in a political domain. There is no necessary correspondence . . . between triumphant sectoral interest and national interests . . . [or between] . . . national interest and international interest" where the latter must define the international trade system.\textsuperscript{190}

There must be a sustained and deliberate coordination of macroeconomic policies to support the framework in which innovators can flourish and users may benefit from introduction of new knowledge products. A marketplace incapable of distinguishing between local and foreign firms must have mechanisms structured to ensure that the benefits of innovation are captured, at least in part, within the domestic economy. In a global context, both developed and developing countries must be careful that rules that purport to harmonize the rules of competition do not trum the welfare goals of national systems designed to promote the public interest of its citizens. For developing countries in particular Professor Reichman has, for example, stressed maximum exploitation of ambiguities in the TRIPS Agreement to promote

\textsuperscript{189} See Gruber et al., The R & D Factor In International Trade and International Investments of United States Industries, 75 J. Pol. Econ. 20, 22-23 (1967) (concluding that "the five industries with the highest research effort are the five with the most favorable trade position" both in terms of the ratio of exports to sales and the excess of exports over imports); Donald B. Keesing, The Impact of Research and Development on United States Trade, 75 J. Pol. Econ. 38 (1967) (concluding that "R&D explains competitive trade success in manufacturing industries considerably better than any other variable tested").

\textsuperscript{190} BHAGWATI, supra note 44, at 56. See also Jane C. Ginsburg, Copyright Legislation for the Digital Millennium, 23 COLUM.-VLA J. L. & ARTS 137, 178-79 (1999) (observing that modern copyright laws are made by affected industries).
local inventiveness, utilization of spillover effects of technology diffusion, and establishment of intellectual property rules that appropriately balance the interest between rights-holders and users. However, there is no universal point of balance; each country must identify those interests that remain a priority and coordinate its related policies—science, education, competition, industrialization, research and development—accordingly.

In whole, U.S.'s economic success cannot be explained by reference to any one policy or industry. Indeed, the difficulty of prescribing any specific mix of economic policy to guarantee or enhance future economic success is due, in part, to the absence of historical antecedents; U.S.'s success is simply, in part, a product of a series of historical accidents. Historical evidence suggests that patent protection, in particular, has played a role in the success of the U.S. economy from the late eighteenth century through the present.

In reality, however, innovation is an unstable basis for comparative advantage. The comparative advantage from any technology, particularly information technology, is typically short-lived. Consequently, expansive long-term intellectual property protection cannot provide a sure basis for sustained economic growth. Yet, even courts have yielded to the ideology that intellectual property is primarily responsible for this success and must be protected at all costs. Further, no evidence so far has been adduced to suggest that comparative advantage has equal utility as a basis for international trade in an economy based not on manufactured goods, but on information.

193. See supra note 111.
194. See e.g., Wm. A. Wulf, Remarks on the Education Challenge, National Forum on Harnessing Science and Technology for America's Economic Future, Feb. 3, 1998, available at <http://www4.nas.edu/pd/harness.ns/85256> (criticizing the focus on buying computers just for use in education, rather than fundamentally rethinking how to use technology to expand education. He points out that given the rate of technological change, government expenditure should not be directed merely at purchasing PC's). Id. at 3-4.
195. See Nelson supra note 192 ("[T]he process of technological advance involves uncertainty in a fundamental way.... The fundamental uncertainty involved in technological advance seems to be the basic reason why detailed, long range planning is doomed to frustration and often disaster, and why to get rapid advance of technology, society generally needs a variety of different parties trying out different bets."). Id. at 2.
196. In Rockwell Graphics Systems v. DEV Industries, the Seventh Circuit Court of Appeals held that "[T]he future of the nation depends in no small part on the efficiency of industry, and the efficiency of industry depends in no small part on the protection of intellectual property." 925 F.2d 174, 180 (7th Cir. 1991).
5. Competing Ideals

Combining the industrial focus that was largely responsible for internationalization with information technology that is largely responsible for globalization, some scholars minimize the distinction between both phenomena by arguing that internationalization leads to globalization as contact between nations increases with the transcending of national borders.\textsuperscript{197} Such contact involves information, financial capital, physical capital, labor, goods, and services.\textsuperscript{198} Clearly, information technology has enabled this contact to affect nations all over the globe, notwithstanding disparate levels of national participation\textsuperscript{199} or disparate degrees of industry involvement.\textsuperscript{200} Thus, the argument goes, economic models that flourished in the international era are just as easily applicable, and transferable, to the global, digitalized era. This approach fails to acknowledge, much less examine, the possibilities that the digitalized era may offer to expand our vision of welfare and, by so doing, increase and secure welfare benefits in a season of enormous social and economic activity. Despite the distinctions I have earlier articulated between national and global welfare, this approach attempts to sustain and perpetuate the same narrow vision of welfare at both national and global levels. In other words, it reconciles the competing ideals by redefining welfare in terms that

\textsuperscript{197} See CLARK, infra note 293, at 19 (defining globalization as a more advanced form of internationalization). Clark, however, also identifies the diminished role of national economies as a distinguishing feature of globalization. See id. For a similar convergence between internationalization and globalization, see NATIONAL RESEARCH COUNCIL, COMMITTEE FOR THE STUDY OF THE CAUSES AND CONSEQUENCES OF THE INTERNATIONALIZATION OF U.S. MANUFACTURING, THE INTERNATIONALIZATION OF U.S. MANUFACTURING 7 (1990) (defining internationalization as "[a] process by which global manufacturing systems and networks of firms are interlocked in both formal and informal relationships resulting in levels of global interdependence"); see also PETER DICKEN, GLOBAL SHIFT: THE INTERNATIONALIZATION OF ECONOMIC ACTIVITY 1 (1992); BRIGETTE UNGER & FRANS VAN WAARDEN, CONVERGENCE OR DIVERSITY 13 (1995).

\textsuperscript{198} See UNGER & VAN WAARDEN, supra note 197 ("[T]his state of being can be considered global if it concerns nations all over the globe.").

\textsuperscript{199} Despite differing estimates, a consensus has emerged that the United States accounts for the greatest use of the Internet, specifically, the World Wide Web. Some estimates claim that there are 36 million household users in the United States constituting 62.8 percent of the on-line market. See GEORGE B. DELTA & JEFFREY H. MATSUURA, LAW OF THE INTERNET, §1.02, at 1-8 (1998) (citing Jupiter projects Global Online Growth, DM NEWS, Nov. 25 1996, at 10). Others assert that 60 to 75 million adults have access to 320 million pages of information. See Thomas P. Novak & Donna L. Hoffman, Bridging the Digital Divide: The Impact of Race on Computer Access and Internet Use, at 1 (visited Nov. 30, 1998) <http://ecommerce.vanderbilt.edu/papers/race/science.html>.

\textsuperscript{200} See Stanley Hoffmann, The Crises of Liberal Internationalism, 98 FOREIGN POL’Y 175 (1995) (expressing concern that the highest levels of globalization occur in the financial industry where, as a result of instant communications ability, major transactions can occur globally).
obviate the differences between national and global conditions. The implications for this are attenuated by the fact that globalization has radically transformed personal, communal, and national stakes in a world system governed by technology.

The GATT was identified as the most effective forum for expanding intellectual property rights for a number of strategic reasons: first, the multilateral framework provided institutional support with strong enforcement prospects; second, the question of free trade in services was sufficiently related to the protection of intellectual property; and third, the trade negotiations provided a context for ratcheting up rights in the protection of intellectual property, an opportunity that would unlikely present itself in WIPO which administers the other major international treaties for intellectual property.

The significance of the Uruguay Round of trade negotiations was reflected in the dramatic international institutional changes that it engendered. The Round introduced new subjects, such as intellectual property and services, into the multilateral trade system; it established the World Trade Organization (WTO) as the governing institutional body for administration of the system and enforcement of the Agreement; and it created a new dispute resolution process. Once the rules and institutions were in place, the full force of globalization was unleashed. The TRIPS Agreement established a “global competitive framework” built around the international protection of intellectual property. In effect, the Agreement laid the foundation for globalization; it “universalized the particular” by requiring commitment to a set of intellectual property rules, derived exclusively from common practices in developed countries, as the price for participation in the international economy. In addition to a set of rules governing old categories of intellectual property, the TRIPS Agreement also expanded the scope of protectable subject matter. The central victory of the TRIPS Agreement, however, was

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203. See THE CULTURES OF GLOBALIZATION § XI, (Fredric Jameson & Masao Miyoshi eds., 1992) (Globalization is “the particularization of the universal and the universalization of the particular.”) (citing ROLAND ROBERTSON, GLOBALIZATION: SOCIAL THEORY AND GLOBAL CULTURE 177-78 (1992)).

204. Previous international agreements for the protection of intellectual property focused on one of the two major categories of intellectual property namely patents and copyrights. See, e.g., Berne Convention, Sept. 9, 1886, 828 U.N.T.S. 221; Paris Convention, Mar. 20, 1883, 21 U.S.T. 1583, 828 U.N.T.S. 305, as revised July 14, 1972; Universal Copyright Convention, 6 U.S.T. 2731, 216 U.N.T.S. 134 (1952), revised July 24, 1971, 25 U.S.T. 1341, 943 U.N.T.S. 178. In addition, there were other, less significant multilateral
the inclusion of developing countries in an enforceable international system for the protection of intellectual property, while simultaneously expanding prosecutable subject matter and heightening levels of protection. Given the failure of past arrangements to protect developed country interests in intellectual property in developing countries, the TRIPS Agreement was an important and necessary milestone in the move toward globalization and in ensuring continued U.S. economic hegemony.

Once the international rules were set in place, the focus turned to strengthening intellectual property rights internally. This domestic turn, in tandem with the international system, expanded marginalization to discrete and disaggregated individuals, including a vast majority of United States citizens, as well as citizens of developing countries. One of the profound effects of globalization, therefore, is the determination of socioeconomic status based on access to, or control of, information products.

The theory behind copyright and patent protection is in conflict with free-trade principles in several regards. A true laisser-faire economy precludes any kind of government intervention. Even the most ardent free-traders, however, recognize exceptions to the principle of nonintervention. These exceptions are, in turn, subject to the qualification that intervention to correct market shortcomings is usually not the optimal or first-best option. Therefore, once there has been intervention to address market failures, such intervention should be tailored to avoid exacerbating the original market distortion. In cases where market failure is massive, such as with intellectual property, government intervention must seek to limit the costs of increased protection of consumers. Expanding rights globally simply exacerbates the costs associated with domestic market failure. Domestic market failure is best addressed by domestic policy to countervail the failure without exacting a toll.

agreements on other subjects loosely classified as, or associated with the protection of, intellectual property. The categories of intellectual property governed by TRIPS are: (1) copyright and related rights; (2) trademarks; (3) geographical indications; (4) industrial designs; (5) patents; (6) integrated circuit designs; and (7) trade secrets and confidential information. See supra note 2.


206. The standard argument holds that a service economy requires strong rules of protection for the source of its comparative advantage in the global market, namely, intellectual property. This argument assumes, without establishing, that a service economy does, can, and should trade on the basis of comparative advantage.

207. See Reichman, supra note 202, at 24-27 (noting that developed countries have increasingly abandoned concerns of the welfare of their own constituents).
on consumers. Section 301 of the 1974 Trade Act,\textsuperscript{208} for example, used to counter intellectual property violations abroad, is an example of such a domestic policy. Similarly, provisions in the Lanham Act\textsuperscript{209} prohibiting the import of infringing products also correct market failure concerns at the root without a disproportionate impact on public access to the goods at competitive prices.

The very institution of intellectual property rights is a response to market failure and the public goods problem associated with intellectual property. The recent increase of the scope of protection for intellectual property only amplifies the distortions caused by nonrivalrous goods, without a concomitant policy to protect welfare. The welfare concern, in this context, relates to the proposition that preserving a measure of balance between owners and users of copyrighted goods, through fair use and copyright expiration, has served to provide a resource for future creativity. Eliminating or greatly skewing this balance by increasing rights for owners amplifies the underlying distortions inherent in the market for intellectual property goods.

Free trade, and even its modified corollary, strategic trade, seeks to promote production of goods at marginal cost so that consumption costs are kept to a minimum. To this end, free trade seeks both a diversity of goods and the price benefits associated with specialization. As Ricardo observed, "[n]o extension of foreign trade will immediately increase the amount of value in a country, although it will very powerfully contribute to increase the mass of commodities and therefore the sum of enjoyments."\textsuperscript{210} Intellectual property rules, however, assume that incentives are needed to encourage production. The concern as such is not with efficient production (that is, how production occurs) but rather with the fact of its occurrence. The general economic formulation views "the objective of intellectual property protection [as the creation of] incentives that maximize the difference between the value of the intellectual property that is created and used and the social cost of its creation, including the cost of administering the system."\textsuperscript{211} However, the explicit objective of copyright and patent law is to promote the progress of science and the arts by ensuring an optimal supply of copyrighted works.\textsuperscript{212}

\textsuperscript{210} Ricardo, supra note 36, at 128.
\textsuperscript{212} See Mazer v. Stein, 347 U.S. 201 (1954).
Traditionally, domestic intellectual property policy has dealt with the public welfare question as one that simply requires calibrating the balance between users and producers. In other words, how is innovation protected so that innovators will keep on producing? The model assumes that the measure of welfare is the abundance of new innovations available to the public. However, an influential body of scholarship has demonstrated that high rates of domestic innovation are more significant for determining levels of foreign trade for the United States. Consequently, the domestic welfare question is not limited to maximizing incentives to create, but rather, what level of protection will have a positive impact on domestic consumption levels of the product. This is particularly important for information and its associated technologies, given its fundamental role in the global economy. As one scholar argues:

Interest in innovation and technological change lies in the potential they offer for welfare gain and the structural and adjustment problems they inevitably bring with them. The growth in the potential for social welfare, based on consumption, depends over time on the growth of productive potential, real incomes and the distribution of income. Economic growth springs logically from growth in the quality of productive inputs, improvements in their quality and increases in the efficiency with which inputs are combined.

Thus, while trade theory focuses on efficient production to facilitate the end of optimal consumption, intellectual property theory assumes this end or, at best, assumes that the gains obtained from the fact of production is a sufficient measure of welfare.

A further conflict between international trade and international intellectual property is the fact that trade in innovation is beset by government intervention, and this has been the case for at least the past fifty years. Indeed, there is no such thing as “free” trade in high-tech industries. Incentives to create, in the form of legal rules, are not the only factor in promoting innovation. Industrial innovation policy, science policy, and education policy

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213. See Keesing, supra note 176, at 287 (empirically demonstrating that the availability of labor skills strongly influences the pattern of international trade in industrial goods).

have been equally significant factors. Since World War II, an eclectic mix of domestic research and development subsidies, tax cuts, and other measures aimed at encouraging industry has been the mainstay of the innovative process for firms in the United States. Additionally, the government has been directly involved in research through government-funded labs, government-sponsored research endeavors, and joint alliances with educational institutions. What is interesting about this web of subsidization is its acceptance by trade theorists as inexorable. To counteract the distorting effects of such policies on international trade in high-tech goods, Bhagwati suggests that an international consensus be negotiated “on the desirability of achieving a broad intra-sectoral balance of artificial advantages in a narrow range of industries” to supplement the multilateral trade regime. He advocates a fixed-rule regime, in a multilateral context, which exposes the various ways in which nations obtain comparative advantage in technology. In sum, the question of comparative advantage in technological products is manifestly irrelevant to international trade in these products, in the absence of procedures to determine the level and impact of artificial supports. Claims that the United States has a comparative advantage in technology are not consistent with Ricardo’s factor endowments or Smith’s invisible hand. Instead, comparative advantage, to the extent it is maintained, is the result of a complex, often uncoordinated blend of legal entitlements in the form of intellectual property rights, government policy in areas such as science and education, tax schemes, and through direct government sponsorship of research. Thus, the claim that the absence of adequate intellectual property systems in other countries distorts the flow of international trade because it unfairly erodes the United States’ comparative advantage is, at best, specious. Ironically, although the hypothesis may ostensibly rationalize the union between intellectual property and trade, while reinforcing the primacy of laissez-faire economics, the empirical evidence suggests that government intervention in the high-tech industry represents a significant deviation from the free trade ideal.

215. See Keesing, supra note 176; Gruber et al., supra note 189.
216. In particular, since the early 1980s, the government has utilized a systematic policy to encourage research alliances between public and private industries. The Bayh-Dole Act was the legislative embodiment of this policy. See 35 U.S.C. §§ 200-211 (1988).
217. See BHAGWATI, supra note 44, at 44-47.
218. See id. An evaluation of the merits or otherwise of this proposal is beyond the scope of this paper. Suffice it to say that macroeconomic policies that interfere with the free market are nonetheless acceptable under the current multilateral trade regime.
The principle of comparative advantage is partly premised on the fact that trade occurs because people benefit from exchange. It assumes a perfectly competitive market, which, as economists have repeatedly demonstrated, is simply not the case with international trade. Since intellectual property rights are implicated only in respect to a sole actor—the author or owner—and since both categories preclude others from creating substitute goods at the same utility levels, an international “market” for copyrighted goods is an example of a purely imperfect market. This market imperfection should constitute strong basis for government policy that corrects the disequilibrium. Instead, international trade rules limit the scope of intervention possible.

And, in any event, any policy adopted would, under the principle of national treatment, have to be extended to actors from other countries, thus eliminating any advantage to the domestic economy of such welfare-enhancing policies.

Finally, there is the question of how social welfare is determined. Those who would argue that the heightened protection of intellectual property is in the best interest of the nation perceive, only dimly, the long-term effects of such a premise. Intellectual property became a trade issue because interest groups captured the political process and subverted it to their private agendas. This tendency is a prime example of the weaknesses of the political process and the reason Smith decried voting (political measures) as a means of achieving efficient (and in his view, welfare enhancing) results. Even if one would cede that heightened protection benefitted the nation in some skeletal way, if the resulting growth from undistorted trade (now that the source of the distortion is fixed) will concentrate increased incomes entirely among the affluent, with no corresponding upward mobility, then intellectual property policy in this configuration gives a zero rate of return to society. Put differently, if growth is immeserizing to the poor who need it the most, then

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219. See Krugman, supra note 46; Bhagwati, supra note 44.

220. Both patents and copyright protection preclude copying. While leaks in the system may yield patents around the original product, the right to make derivative works makes this possibility unlikely in copyright law.


222. For a vivid account of how this rent-seeking behavior transcended national political process, see Samuelson, supra note 106.

223. See SMITH, supra note 19 at 471. Smith’s concern with sectoral pressures is evidenced thought Wealth of Nations.
Thus, while the poor, like developing countries, have benefitted from innovation, they have nonetheless stayed poor.

The economics of welfare is vital to the success of the domestic information economy. This welfare is, in turn, directly impacted by the policies that regulate the use and disposition of information. The heightened protection of intellectual property through the international trade regime relegates domestic welfare to a "rule of thumb" and not the raison d'etre of the copyright system. The interjection of copyright protection in the trade regime raises serious theoretical problems with the free trade ideal and leaves little room for domestic initiative.

II. (Re)Envisioning Public Welfare in a Global Context

This section continues with the question of whether the theory of welfare gains through international trade, which reached its peak in post-World War II international trade literature, is synonymous with the advance of public welfare explicitly mandated in the U.S. Constitutional clause respecting copyright laws. In particular, I critique the assumption that international copyright laws extend any perceived national welfare gains to other countries in the global economy.

224. See Jagdish Bhagwati, Distortions and Immiserizing Growth: A Generalisation, 35 REV. ECON. STUD. 481 (1968). See also, e.g., Helping the Third World, ECONOMIST, June 26, 1999, at 23, 24. "GDP is not a foolproof measure of well-being. Wealth may be unevenly spread, so that a high average disguises widespread wretchedness. Nor does GDP take account of the hidden costs of pollution, for example." Id.

225. The prevailing philosophical perspective in international intellectual property negotiations has been that the protection of intellectual property rights are in the best interests of both developed and developing countries. This did not change in the context of the TRIPS negotiations. See, e.g., Gerald J. Mossinghoff, The Importance of Intellectual Property Protection in International Trade, 7 B.C. INT'L & COMP. L. REV. 235, 249 (1984) (concluding that steps by the U.S. Patent and Trademark Office to increase worldwide protection of intellectual property rights will strengthen trade opportunities for all nations and increase developing country access to new technology); Robert W. Kastenmeier & David Beier, International Trade and Intellectual Property: Promise, Risks and Reality, 22 VAND. J. TRANSN'L L. 285, 305 (assessing potential costs and benefits of a trade-based intellectual property agreement and concluding that "[t]he inclusion of intellectual property in the GATT... represents a concrete opportunity to improve the international trading system"). But see Abdulqawi A. Yusuf, TRIPS: Background, Principles and General Provisions, in INTELLECTUAL PROPERTY AND INTERNATIONAL TRADE, supra note 9, at 8 (stating that the GATT connection was insisted upon by developed countries not on the basis of liberal trade ideology but as a bargaining chip for access by developing country’s products to markets of the developed nations). See also Reichman, supra note 131, at 23 (making the same observation).
A. Marginalization and Social Costs

If the international system produced "hierarchy" in political relations, and "unevenness" in economic progress between States, globalization is responsible for extending the reach of inequality to groups and individuals at an unprecedented level. Thus, while globalization may offer dim hopes of stabilizing international political order, or at least of making relationships between States less relevant for global economic progress, it transforms inequality, or "unevenness," into the orthodoxy of global citizenship. In other words, "unevenness" is the common, indomitable feature of supranational interaction—"the asymmetrical effects of . . . globalization on the life-chances and well-being of peoples, classes, ethnic groupings, movements and the sexes." The asymmetries are correlated with geography, race, gender, and poverty. Accordingly, marginalization—traditionally reserved for countries at the margins and their citizens, or for racial minorities and others excluded from power and who lack access to enabling resources such as capital or education—is now extended to include those who are excluded from access to computers, and the associated benefits such as electronic mail and the Internet. In sum, marginality is a phenomenon that transcends national borders even as it reflects inequities within nations.

Recent studies in the United States show that there is a significant gap between the "haves" and the "have-nots" with regards to access to information and information products. For example, empirical evidence suggests that Caucasians are significantly more likely than African-Americans to have a home computer and to have access to a computer at work. An evaluation of access to information on the Internet, defined in sociological terms to include skills such as the ability to read, write, and type, will likely reveal even more significant disparities. Addressing this gap has become a significant social concern for the Clinton Administration, spawning national policies, community initiatives, and coalitions of interest groups for the express purpose of facilitating equal access to information goods. The question of access, broadly defined, implicates State responsibility to allocate resources

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226. See HELD, supra note 2, at 80 (internal citation omitted).
227. Id. at 81.
228. See id.
229. Access here is defined narrowly in terms of computer access. See Novak & Hoffman, supra note 199.
230. See id. at 3.
in a way that ensures that the social dividends contemplated by the proliferation of information goods is, in fact, a realistic prospect for all citizens. Basic goods, such as education and employment, are indispensable raw materials in the quest to eliminate unevenness in the national and global economy. These building blocks of successful participation in the global economy continue to remain the purview of political governments. The theoretically diminutive role of nation-States in the process of globalization should not be mistaken to mean that States are therefore irrelevant to the ability of individuals and groups to harness the productive forces and economic dividends of globalization. For countries and groups at the margins, the State is still an indispensable source and determinant of social and economic enablement, and it is via State action that public welfare must be guarded.

In the United States, the "digital divide" has attracted ambitious policies directed specifically at bridging the gap. The Clinton Administration has targeted several important objectives to ensure that "every 12-year-old can log onto the Internet." At the same time as these government initiatives were underway to ensure opportunities for all U.S. citizens to participate in the global information economy, the 105th Congress was busily expanding protection for intellectual property owners. Several bills were introduced to Congress, designed to increase current levels of statutory protection for copyright in a variety of ways. For example, the Sonny Bono Copyright Term Extension Act provided an increase in the term of copyright, from life of the author plus fifty years, to life plus seventy years. Theoretically, extension of the copyright term has at least two immediate effects. First, copyright extension prolongs the length of time during which the public must depend on the vicissitudes of the copyright owner's terms for using the

231. See id. at 2 (noting that formal access (i.e., access to a computer) is strongly correlated with income and education). The authors also note that as income level increases, disparities between the races lessen significantly with regard to such access. See id. at 4.

232. See Jessica Litman, The Exclusive Right to Read, 13 CARDOZO ARTS & ENT. L.J. 29, 54 (1994) (advocating that the Copyright Office, a government agency, should view the public as its client and thus attend to the problem of how the move towards greater rights might destabilize the balance in the copyright bargain to the detriment of the public).

233. See Novak & Hoffman, supra note 199, at 3.

234. Id. See also Statement of The National Forum on Harnessing Science and Technology for America's Economic Future, available at <http://www4.nas.edu/pd/harness.nsf/85256> (iterating the importance that all regions and groups in the U.S. share the benefits of new technology).

235. See supra note 6.


237. See id.
copyrighted work while continuing to pay for such use. Second, copyright extension shrinks the size of the public domain from where others may freely draw from previously protected works. As many scholars have pointed out, the public domain is a resource for future authors and creators, and it is sustained by the expiration of copyright. Copyright extension only encourages creativity, if at all, for a select group of authors. However, the number and variety of works produced, as well as the diversity of authors in any society, all serve the welfare goals of intellectual property. Copyright extension potentially endangers them all as well.

In addition to the Copyright Term Extension Act, other legislation further amends the 1976 Copyright Act by delineating restrictive terms that will govern what those who have access can read, “borrow,” and productively employ.


239. See Boyle, supra note 148, at 363; Litman, supra note 119, at 968. See generally Coombe, supra note 160.

240. See Litman, supra note 119.

241. The protection of derivative works already serves to curtail new forms of expression in protected works by reserving such right to make derivative works for the creator of the first work. Copyright extension exacerbates the transaction costs of bargaining for nonexistent works and may result in market failure for works in which authors/creators fail to exercise the right to make derivative work. But see Landes & Posner, supra note 115, at 363 (arguing that long terms of protection may serve as incentives for people to work in order to leave a bequest for family members). In this regard, underutilized derivative rights may be a source of income for future heirs and heiresses.

242. See id. at 340-41 (arguing that an increase in copyright protection is likely to reduce welfare benefits (defined as consumer surplus plus producer surplus) from a given work). The increase in the cost of creating the work and in the cost to copiers due to such extension are likely to be greater than the savings generated by shifting the production of legitimate copies from others to the author. See id. The difference will be greater (as will be the welfare loss) the lower the author’s marginal cost of production. See id. This is because a cost increase occasioned by copyright extension will affect all copies produced by others, while the savings from production by authors affects only the additional units the author chooses to supply. See id. Landes and Posner go on to assert, however, that total welfare depends on the number of works created, which may increase as copyright protection is expanded. See id. They disagree with the traditional model which emphasizes increased price as the source of welfare decreases from copyright extension, but agree that welfare is likely to fall due to such extension. See id.

B. An Overview of Copyright Legislation for the Global Economy

1. The Digital Millennium Copyright Act (DMCA)

Prior to the conclusion of the Uruguay Round of multilateral trade negotiations, movement was underway to identify specific copyright concerns engendered by the development of digital technology. As early as 1988, the European Commission published a report that surveyed the challenges posed to the copyright system by digital technology. In addition, the World Intellectual Property Organization began preparing for diplomatic conferences aimed at supplementing the principal international copyright treaty, the Berne Convention for the Protection of Literary and Artistic Works. The proposals that were the subject of the diplomatic conference all included responses to the concerns raised by digital technology.

The diplomatic conference resulted in two significant international treaties supplementing the Berne Convention. The WIPO Copyright Treaty and the WIPO Performances and Phonogram Treaty are intended to address the challenges posed by new digital technology, in particular the regulation of the distribution of copyrighted works over global technological systems. The DMCA implements the WIPO treaties and purportedly “balances the interests of both copyright owners and users.”

Section 1201 of the WIPO Copyright

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244. On October 28, 1998, President Clinton signed the Digital Millennium Copyright Act, H.R. 2281, into law.
245. See Green Paper on Copyright and the Challenge of Technology: Copyright Issues Requiring Immediate Action, COM (88)172 final at 3.
246. See WIPO Convention, supra note 130. WIPO became a specialized agency of the United Nations in 1974.
249. See Samuelson, supra note 106.
250. WIPO Copyright Treaty, supra note 14.
251. WIPO Performances and Phonogram Treaty, supra note 248.
Treaty prohibits circumvention of technological protection measures that control the user's access to protected works. This Section also prohibits the manufacture, import, offer to the public, provision of, or trafficking in any technology, product, service, or device designed primarily to circumvent the technological measure put in place by a copyright owner. Thus, Section 1201 allows copyright owners to police their copyright rights to an extent that dilutes the rights of users in the new digital milieu.

First, the anti-circumvention provision is unprecedented in the history of intellectual property policy and portends a chilling impact on the use of copyrighted material on information technology networks such as the Internet and its related applications. Intellectual property policy has typically been construed in favor of producing new technology, even where such technology has possible infringing use or where such technology, in fact, offends other policies for social welfare norms. For example, in Sony Corporation of America v. Universal City Studios, Inc., the manufacturers of video cassette recorders (VCRs) were sued by movie studios who claimed that consumers bought VCRs and used them to tape movies and television shows. The lawsuit alleged contributory infringement by the manufacturers. The United States Supreme Court held that uses of the new technology yielded societal benefits including expanded public access to freely broadcast television programs. The Court expressly acknowledged the public interest in making broadcasting more available, although cautioning that such public interest is not unlimited. In conclusion, the Court held that the substantial noninfringing uses made possible by the new technology did not constitute a copyright infringement of the movies. In effect, Congress through the

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253. See id.
255. While the DMCA does include provisions designed to preserve a minimum level of fair use, the argument here is that the anticircumvention law has a chilling effect on use if not on creativity. Clearly this chilling effect tips the traditional balance between users and owners of copyrighted work in favor of the latter.
257. See id.
258. See id. at 454 (citing Southern Cal. v. Gottfried, 459 U.S. 498, 508 n.12 (1983)).
259. The majority argued that copyright should not confer rights over an emerging market for a new technology. The Court's opinion is justified by the volume of video rentals and sales that has, in fact, generated significant profits for the movie industry.
DMCA purports to "promote the progress of science and the arts" by banning a whole category of new inventions.

Another source of concern regarding the DMCA's impact on users' rights is the subtle shift of regulatory power from institutions such as the Copyright Office, and from traditional judicial enforcement by courts to the copyright owner. In other words, the DMCA creates a shift from public enforcement to private enforcement through technological means. One may assume that a positive externality of the DMCA will be the creation of a market for technological "wraps," that is, technological mechanisms for preventing access to copyrighted works. However, the DMCA precludes the creation of technological works that have, as a primary purpose, the avoidance of the wraps that have been put in place by a copyright owner. While there is still a marginal incentive to create such wraps even though circumventing them is illegal, the potential economic value of Sony is diminished with respect to a market for anticircumvention technology.

The DMCA contains a limited exemption for non-profit libraries, archives, and educational institutions. This limitation permits a good faith inquiry or access to a commercially exploited copyright work in order for the institution to determine whether or not to acquire a copy of that work. This limitation on copyright rights, however, contains a further limitation on the user library, namely, that the copy may not be retained for longer than necessary to make the determination of whether or not to purchase, and the copy may not be used for any purpose other than this specific determination. In addition, the exemption for such institutions is applicable only when an identical copy of the work is not reasonably available in another form. The transaction costs imposed on accessing copyrighted works in the global technological framework for such institutions will simply outweigh the value of that access. As a result, it is likely that most libraries and institutions will continue to access copyrighted works in the traditional means. In effect, the DMCA gives with one hand what it takes away with the other.

260. See Litman, supra note 232, at 29 (1994) (suggesting that copyright office is the appropriate legal voice for the public interest). The DMCA does shift regulatory power to the Copyright Office. Given the substance of the law, however, this does not imply a shift towards the public interest.
262. Id. § 1201(d)(1).
263. Id. § 1201(d)(1)(A).
264. Id. § 1201(d)(1)(B).
The DMCA, by making it illegal to circumvent technology that a copyright owner uses to prevent access to the copyrighted work, does not discriminate between attempted uses that are consistent with the public welfare goal and those that are illicit. Fair use, which provides free access under limited conditions to the copyrighted work, is undercut by the DMCA whenever copyright owners use technological safe boxes to hide their works. In summary, the DMCA chills both the use of copyrighted works and the creation of enabling mechanisms to access such copyrighted works. More significantly, the DMCA patently alters the focus of copyright legislation and policy from the public interest to the private gain of copyright owners. It is difficult to discern any public interest goals implicit in the DMCA and any corresponding balance between interests of owners and users of copyrighted works. If, as the Clinton Administration asserts, the DMCA has a balancing mechanism, it is not yet apparent.

Finally, there may be some due process arguments to be made regarding the anticircumvention provision. In particular, it is almost impossible for the average copyright user to know if and under what circumstances a technological product, device, or service has only "limited commercial value" and whether it is "primarily designed or produced for the purpose of circumventing technological protection." Nevertheless, the DMCA makes it a violation to traffic in such technology without requiring intent as an element of liability.

265. Again, the invisible hand is invoked. Those in support of greater protection would argue that what is good for the creator of the work is good for the consumer. But as Say observed of a similar mercantilist argument:

What, then are the classes of the community so importunate for prohibitions of heavy import duties? The producers of the particular commodity, that applies for protection from competition, not the consumers of that commodity. The public interest is their plea; but self-interest is evidently their object. Well, but, say these gentry, are they not the same thing? Are not our gains national gains? By no means: whatever profit is acquired in this manner, is so much taken out of the pocket of a neighbour and fellow citizen; and if the excess charge thrown upon consumers by the monopoly could be correctly computed, it would be found, that the loss of the consumer exceeds the gain of the monopolist. Here then, individual and public interest are in direct opposition to each other; and since public interest is understood by the enlightened few alone, is it at all surprising that the prohibitive system should find so many partisans and so few opponents?

266. See Hearing, supra note 252; see also 17 U.S.C. § 1201(a)(2)(A). Several scholars have already pointed out the dangers of the "tax-codization" of copyright law, namely that citizens will now need lawyers to interpret the new law. See Litman, supra note 232.
2. The Proposed Database Bill

In 1988, the European Commission issued a “green paper.” This green paper framed important digital issues regarding protection of copyright owners. The first issue was a directive related to the legal protection of computer programs and databases. The European Union presented its database treaty proposal in Geneva at the 1996 diplomatic conference of a committee of experts on a possible protocol to the Berne Convention. In 1997, the European Union issued its database directive. This directive called for the creation of a new form of intellectual property protection for the contents of databases. In addition, the European Union included a reciprocity provision providing that databases would not be protected in the European Union unless legislation in the home country also provided for database protection. This reciprocity provision galvanized the United States to action in a bid to secure protection for U.S. database providers. Accordingly, the protection of databases was included as part of the United States agenda at the WIPO Treaty negotiations.

The protection of databases is again unprecedented in U.S. history and is, at least, in tension with prevalent theoretical justifications of the U.S. intellectual property system. In *Feist Publications v. Rural Telephone Service*, a utility company, whose subscriber list was copied by Feist, sued the publishing company that specialized in area-wide telephone directories for copyright infringement. The United States Supreme Court held that no copyright protection exists for facts. The Court acknowledged that compilations of facts, while copyrightable, nevertheless require originality. Copyright protection in such compilations is said to be “thin” because users may freely use the facts that are not copyrightable so long as the compilation with its requisite originality or creativity is not copied.


270. See id. at 350-51.

271. See id.
The Database Protection Bill raised significant concerns at the domestic level. In particular, there was concern from the National Committee of Sciences, the National Academy of Engineering, and the National Institute of Medicine about the implications of such a database proposal on basic research. These concerns were significant enough to thwart efforts to sign and conclude negotiation of an international database treaty. Currently, a database bill remains in the U.S. Congress. The DMCA, the Copyright Term Extension Act, and the specter of a database bill evoke Boyle's description of an "intellectual land grab." The apparent unceasing expansion of intellectual property laws impoverishes the public at least in the sense of curtailing the public domain and in imposing greater costs on access and use of copyrighted material. This result requires attention if we are to take seriously the Clinton Administration's desire to open the information superhighway to all U.S. travelers.

The globalization of information offers a vast array of opportunities for all, irrespective of race, creed, or national origin. For the first time, technology has the potential to neutralize inequities based on gender and race and to make such factors irrelevant in the calculation of opportunities available for economic advantage. However, copyright and its associated rights, together with other intellectual property laws, both national and international, will in fact prevent the full exploitation of the opportunities that globalization offers. There is a desperate need to reinvent existing models of what constitutes and contributes to public welfare, especially in light of the multiple, complex, overlapping, and sometimes inconsistent role that information plays in economic life. As one scholar put it, "[t]he economic life is the basis of social progress, but the economic environment which conditions this life is fast becoming an artificially created environment. In the creation of this environment there is a continually growing sphere for the conscious activity of the social group." It is important that developed and developing countries caught in the matrix of international agreements, and perhaps impelled by the feverish excitement over global information technologies, take care in evaluating what social and economic doctrines will be embedded in their domestic copyright systems. For the United States, the force of the recent tidal wave of

272. See Samuelson, supra note 106.
273. See supra note 6.
legislation strengthening intellectual property has, at a minimum, significantly retrenched the public welfare goals implicit in intellectual property policy, if not sacrificed them on the altar of globalization.\textsuperscript{276} It is indeed ironic that the very technology that has the potential of truly evening out the playing field is the same technology that may widen the gap between the "haves" and the "have-nots." It is even more ironic that a global effect of greater domestic protection is the standardization of disadvantages and of heightened intellectual property protection between people who are geographically, ideologically, culturally, and politically distinct.\textsuperscript{277}

III. THE GLOBALIZATION OF OWNERSHIP AND PUBLIC WELFARE

In the wake of the rapid growth in the use of global communication networks such as the World Wide Web, lawmakers were persuaded that the new technology made infringement of works easier and, therefore, strengthened rights were imperative to preserve this balance.\textsuperscript{278} This technology-based justification for greater rights does not, however, address two questions that are fundamental to copyright policy. First, will greater rights necessarily result in more creativity? Second, what costs are involved in giving greater rights and what social welfare gains are ultimately sacrificed? There is no question that the protection of intellectual property yields economic and social welfare gains. Even in an age of increasing protection for authors, U.S. policy ostensibly remains committed to enhancing public welfare through the talents of authors and inventors.\textsuperscript{279} This historic policy is responsible for the balance of interests that is inherent to copyright

\textsuperscript{276} The substantive expansionism evident in recent intellectual property laws are impelled and justified in persistent reference to the importance of remaining competitive internationally. In addition, for the United States, there is the constant specter of remaining in Europe's shadows. Consequently, once the European Directive expanding copyright term was passed, Congress immediately began to contemplate doing the same. See generally Senator Coble, supra note 268 (discussing legislative proposals before the 105th Congress). This growing tendency to respond, through legislation, to events outside of the United States can and should aptly be termed the "globalization of American intellectual property law."

\textsuperscript{277} See Aoki, supra note 3 (making the point that citizens of the Ivory Coast are beginning to share more in common with U.S. citizens with respect to the globalization of intellectual property rights).


\textsuperscript{279} A close examination of copyright history reveals the determination of the United States, very early on, to encourage the development of writing within the country. As a result, U.S. copyright policy at one time explicitly encouraged the piracy of European books with the express purpose of ensuring that the public had access to literature. There is some evidence that some European countries also encouraged piracy to facilitate access by their citizens to works of authorship. See generally SAM RICKETSON, THE BERNE CONVENTION FOR PROTECTION OF LITERARY AND ARTISTIC WORKS: 1886-1986, 18-20 (1987).
The recent laws proposing or granting increased copyright protection clearly are attributable to globalization. These proposals will continue to be challenged by scholars and others who see a significant threat, if not the entire demise, of this balance of interests.

It is evident that new legislation, in providing heightened levels of copyright protection, fails to address the economy of globalization. In other words, the legislative agenda, on the whole, assumes that the focus of the public welfare in a global era remains unchanged; simply providing even greater incentives for creativity satisfies welfare goals. This narrow view of public welfare is problematic for several reasons. Even if public welfare is satisfied simply by legislative measures to ensure a steady stream of works of authorship, it is unclear that in a global economy where information is readily available in large volumes, such authors or creators can recoup the value of the so-called incentive to create. Indeed, there is some evidence to suggest that the economy of globalization, stimulated by information, may operate to harm creators in their attempts to make a livelihood and not help them.

It is interesting to note that this recent wave of domestic legislation in the United States is aimed primarily at domestic users, even though the impetus for the legislation stemmed from international treaties. However, heightened protection at the domestic level will not automatically transfer across national borders, thus engendering a situation where non-U.S. citizens may enjoy the status quo of “minimality” established under the TRIPS Agreement, at least in the short-term, while U.S. citizens are subject to higher standards and, consequently, higher costs. Finally, the history of copyright protection shows that the concern for public welfare was not simply one of availability, but of the terms of availability, since the ultimate constitutional

280. According to Professor Chafee,
[C]opyright is a monopoly. Like other monopolies it is open to many objections; it burdens both competitors and the public. Unlike most other monopolies, the law permits and even encourages it because of its peculiar great advantages. Still, remembering that it is a monopoly, we must be sure that the burdens do not outweigh the benefits. So it becomes desirable for us to examine who is benefitted and how much and at whose expense.


281. See Litman, supra note 232.


283. See WIPO Copyright Treaty, supra note14.
objective is greater levels of creativity, and not creativity—no matter how great—by a select few. As a result, the copyright system had deliberate “leaks” to ensure that, as a whole, the means properly balanced out the objectives. One potential impact of plugging up the leaks through greater protection is a loss in the amount of works actually created, not an increase.

Clearly, the question of public welfare involves more than just the production of works of authorship. It involves terms of access as well as costs of access. In this sense, heightened protection in the form of the DMCA, for example, is a countervailing force to productivity in the global economy. In addition to the effect of recent statutes, there are daily reports of small entrepreneurs on the Internet who are strangled by copyright owners to the point that they are unable to remain active in this new space for economic activity. There are daily incidents of global businesses on computer websites that are threatened with lawsuits, or shut down technologically by service providers, on grounds that copyright owners complained of infringement. Public welfare is no longer policed as an objective of copyright but is now the subject of the global author’s technological autonomy and the rules of the copyright kingdom.

CONCLUSION

Greater economic integration on a global basis represents a paradox for countries seeking hegemonic presence in the global market. The international trade regime minimizes the prospects of utilizing policies to favor domestic industry. By adding to the international trade regime a system boasting of minimum, uniform requirements that heighten intellectual property protection, the United States effectively, if unintentionally, inextricably bound its domestic welfare to global welfare. Put differently, under a system that provides minimum standards of protection and precludes discrimination in favor of domestic firms, the United States, and other countries, have severely constrained the scope of government use of policy to effectuate stated domestic welfare goals. In a world where boundaries are firm (or relevant), it is possible, at least in theory, to distinguish between domestic and


286. See e.g., Weinstock, supra note 221; see also Reichman & Lange, supra note 3, at 25.
international concerns, and to adopt policies that promote the former over the latter. This efficacy is not easily managed in an integrated global economy. It is a tacit but powerful submission to globalization, something the United States would never expressly cede to, but which it has nevertheless adopted by its insistence on expansive, global intellectual property rights.

Some scholars have argued that globalization, because of its territorial seamlessness, has the potential, even if just minimally, to stabilize and improve living conditions all over the world. The asserted prospects for gain are far ranging. For example, with specific regards to India, Brazil, and other developing countries, one author concludes that there is gradual success "in reaping the fruits of the deeper relations they are establishing with the rest of the world" despite the costs they have had to pay. According to this school of thought, the policy choices of national governments to refrain from "top-down" regulation of information technologies such as the Internet—or to at least keep such regulation at a minimum—coupled with the practical limitations of overseeing millions of users and their various activities in cyberspace, have positive externalities. These externalities include: a potential democratizing effect in repressive regimes, particularly with regards to the globalization of information; greater economic gains from avoiding some artificial barriers in international trade through the globalization of commerce, including electronic commerce; and strategic gains in areas such as public health, resulting from a concerted multinational effort to deal with infectious diseases.

The social manifestations of globalization cannot, however, obscure its fundamentally economic and, ultimately, political character. While enabling the maximization of human and capital resources, globalization is also redefining economic status. There is little debate as to whether

287. See H.E. Fernando Henrique Cardoso, Social Consequences of Globalization: Marginalization or Improvement (visited Oct. 13, 1999) <http://www.brasil.emb.nw.dc.us/ fpt06gl.htm> (arguing "[i]t is true that globalization has produced a window of opportunity for more countries to join the mainstream of the world economy").
288. See id.
289. See id.
290. See id.
291. See id.
293. See, e.g., IAN CLARK, GLOBALIZATION AND FRAGMENTATION 6 (1997) (defining globalization as "a broad process of restructuring state and civil society").
globalization has the potential to increase welfare gains; liberal economic scholarship assumes increased welfare as a given. Rather, the debate is centered on whether such gains are an inevitable result of globalization, or whether gains are effectively secured only by adopting rules that address evidences of international market failure and other imbalances in the international trade system. The debate is a pivotal one for the regulation of information technologies, as such technology is viewed both as a cause and effect of globalization.

Historically, marginalization has referred to economically underdeveloped countries, racial and ethnic minorities, women in patriarchal societies, the population of impoverished inner cities, and others who are systematically denied access to economic resources or otherwise excluded from enjoying the full benefits of membership in a political economy. Today, the concept of marginalization should be expanded to include disparate numbers of individuals across racial, class, gender, and national boundaries who are excluded from the “information superhighway.” This exclusion is effected either directly, through lack of access to computers, or indirectly in the form of technological and/or legal restrictions to use of informational content such as copyright law. There is a burgeoning body of literature that examines the implications of the gap in the United States between the technological “haves” and the “have-nots.” Government concern over the ramifications of the technological divide has spawned policy initiatives from federal, state, and local governments in a concerted effort to ensure that, at least domestically, a new type of economic dislocation is not engendered. However, none of these initiatives involve reforming copyright law in favor of users. To the contrary, as resources are expended on providing computer access in schools and equipping citizens to effectively utilize the unprecedented amounts of information available on-line, the U.S. Congress has passed several bills providing even more significant control to copyright owners over the mass of information available in cyberspace. Why provide direct access if copyright


295. See BHAGWATI, supra note 44; see also BHAGWATI, THE WORLD TRADING SYSTEM AT RISK (1993) (suggesting an international consensus on artificial advantages in high-tech industries to supplement the world trade system). Bhagwati emphasizes the importance of a multilateral context, such as the GATT, as a preferable means of redressing imbalances in free trade in high-tech goods that result from artificial support. See id. at 44-47.
laws may operate to preclude, in whole or in part, the full benefits of information technology? Do these policy initiatives lead to the same purported objective, namely, the promotion of public welfare?

Throughout this Article, I have used the United States as my point of focus in discussing the welfare implications of heightened and integrated global rules for intellectual property protection. I have done so not only because the United States led the international efforts to heighten and integrate intellectual property, but because more than any other developed country, the United States has had a long, rich history of express utilization of intellectual property for the promotion of the public good. While what constitutes the public good may be contested, what is clear from recent legislation is that protection is increasingly weighted in favor of the economic interests of owners. This will require government intervention to counteract the effects of this protectionism on the marginalized sectors of society, and to ensure that heightened protection does not continue to enlarge the numbers of those who are marginalized. To the extent that those who are most adversely affected are the poor, uneducated, non-English speaking, women, and the elderly, the negative welfare effects will be felt disproportionately in least-developed and developing countries. As a result, globalization is unlikely to significantly ameliorate living conditions in these parts of the world (and within those sectors of the U.S. society), neither will it alter the pattern and structure of international economic relations that has existed since the age of empire.296 The welfare concerns of domestic copyright law are not consistent with the liberal trade model. Thus, as a theoretical matter, the trade-based justification for copyright law is unpersuasive. Public welfare remains a primary responsibility of the political State notwithstanding the pressures of globalization. It is a responsibility developing countries must not abandon, and that the United States should once again undertake to pursue within the specific context of intellectual property policy.

Of course, the TRIPS Agreement imposes significant limitations on what can be done directly to alleviate domestic effects of compliance with its terms.

296. Historian Eric Hobsbawn described the 19th century as the Age of Empire. See ERIC HOBSBAWN, THE AGE OF EMPIRE: 1875-1914 (1987). This was an epoch characterized by widespread political and economic conquest of non-European peoples. Despite the wave of political independence that swept through much of Africa and Asia in the early twentieth century, the colonial policies that were set in place continued to exert a powerful influence over the structure of international economic relations, with developing countries remaining at the periphery of the "community of States."
In this sense, it appears that the continental countries which, according to their intellectual property philosophy, have had little or no exceptions to the rights granted authors, have gained much ground in the historical battle between the droit d'auteur systems and the utilitarian copyright system of the United States. If the United States ever recognizes the implications for welfare within its own borders, it may lead to a less stringent application of TRIPS where legitimate national interests have been demonstrated. In any event, the discussion leads to several conclusions for developing countries.

First, developing countries must avoid extreme protectionist measures evident in developed country legislation implementing TRIPS and other international agreements. Second, each country must outline an industrial policy that is effectively coordinated with related macroeconomic policies, particularly education and science policies. Education is critical for building the nation's capacity to absorb, utilize, and adapt innovation to local needs. Third, developing countries must maximize the opportunities available under the TRIPS Agreement to tailor domestic intellectual property laws to their domestic circumstances. Further, models of public-private initiatives recently advocated by scholars297 should prove valuable for accessing innovation for specific industries identified as strategic to development of the country's industrial base. Above all, developing countries must address issues fundamental to economic growth such as strong government and political stability. Only in such an environment can domestic innovation flourish as individuals are enabled to identify and utilize resources and skills to meet specific development needs. Ultimately, nothing will have as significant an impact on global welfare as a dramatically improved economic viability of developing and least-developed countries.

For those at the margins, access to information and its associated technologies is both an economic and a social concern; restrictions to access undermine welfare at all levels, and further marginalize those who are not owners of the global economy's primary resources.298 Both technologically and legally, copyright owners control the terms of participation in the global economy. Public welfare has been subordinated to the idiosyncrasies of the global owner of intellectual property. Consequently, even though globalization minimizes the role of States, the effects of

297. See Reichman & Lange, supra note 3.
298. See Litman, supra note 232.
globalization—increasing the size and exacerbating the conditions of the margins—make State involvement an imperative.