Antitrust Regulability and The New Digital Economy:  
A Proposal for Integrating ‘Hard’ and ‘Soft’ Regulation

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I. 
Introduction: 
Antitrust in the Era of Late Capitalism

We live in an era in which many of the central ideas of the modern regulatory state no longer seem to have currency. Many in the business community believe that government regulation is no longer relevant for the emerging marketplaces of globalization.¹ Transnational capitalism and the development of information technologies are said to render nation-state regulation obsolete as transactions and capital move and respond to the ever increasing global signals. Transactions are said to travel beyond the geographic and political borders of the ‘legal-economic nexus’ that existed before there was any significant global awareness. Globalization market phenomena is understood as “dynamism and opportunity on a massive scale,” carried along by computers and digital circuits, creating a “woven world” of “communication, coordination, integration, and at a pace and scale that has far outrun the ability of any government to manage.”² Putting the rhetoric and zeal aside, there is no doubting that capital mobility has accelerated by international economic integration and digital information technology, and that a new form of global-market consciousness is at hand, a consciousness which some have associated with ‘postmodernism’³ or what Fredric Jameson has aptly called ‘late capitalism.’⁴

The terms ‘postmodernism’ or ‘late capitalism’ are concepts that Jameson and others associate with global capital restructuring brought about by new patterns of marketing and business behavior that no longer can be explained by reference to the history of markets and the economy
before information technology ("IT") and global market phenomena transformed our world order. In the economies that antitrust laws sought to regulate before IT industries and globalization were in important, business behavior was “rooted in a sophisticated understanding of the marketplace and the nature of competition in the relevant sphere.” There was, in other words, a ‘place’ that ‘located’ and helped to define behavior to be regulated by antitrust law.

Anti-competitive behavior is consequently understood in the law as inefficient behavior resulting from the exercise of a monopoly power in a relevant product and geographic market found in physical space. The physical spaces of markets, competitive behavior and monopolization have been disrupted by new forms of competitive behavior found in virtual reality. Physical spaces, control of physical production, marginal cost pricing, and other features of shaping the nature of markets and competition in the ‘old’ economy are no longer the prime movers of markets and competition in the new emerging economy that has developed as a result of IT—computers, software and the information networks that permit global communication. I am referring, of course, to the new markets operating digitally in cyberspace or the Internet (Net); what many are now calling the “information economy,” the “network economy” or simply the “new economy.”

A. The New Economy.

The new economy is the product of powerful IT products which have created global networks of communication where market power is increasingly becoming a function of network technology, and where the exercise of market power is permitted by Intellectual Property (“IP”) rights—Patent, copyright and Trademark. The combination of IT and IP generate increasing returns to scale at high initial fixed costs but with negligible marginal costs. The traditional assumption of decreasing returns to scale and marginal cost pricing, which has informed much of the legal analysis of antitrust
law thus no longer holds sway. What counts in the new economy is value-based pricing, consumer willingness to pay, IP ownership, the growing importance of standards and network effects, and increasing returns to scale.\(^9\) Consider, for example, how the VHS video format won the competitive battle with beta, the alternative video format. VHS beat beta, not because it had lower costs or because VHS manufacturers were more efficient than their beta rivals. VHS won because as more and more people bought VHS video machines a tipping point was reached where the ‘network’ of VHS users increased the value of the VHS format. As more people went with VHS, a network was created ensuring that more VHS machines would be made and bought in the market. Beta lost because it lost the battle over the control of the video network.\(^{10}\) The emerging video format market thus exhibited ‘network externalities’ created by people using VHS instead of beta, resulting in increasing returns of utility that benefitted VHS manufacturers. As more people choose the VHS format it was more valuable to have a VHS machine.

What is different about the new economy is that control of ownership rights to IP, brand name and, of course, the technology are the critical factors for determining market power. What creates exchange value in the new economy is product branding and ownership of IP rights which have become associated through advertising with a company’s name or image. The Trademark or Copyright has thus become an important commodity bought and sold. The effects of late capitalism can be found in the changes brought about by the restructuring caused by the pervasive penetration of electronic media and information technologies and the increasing importance of brand names and Trademark which have become the products bought and sold around the globe. Rosemary Coombe’s work on the cultural life of intellectual properties, for example, identifies the product brand name and the corporate Trademark as the ‘postmodern cultural good’ of our era.\(^{11}\) What renders brand
names and Trademarks as postmodern goods is that the value of these goods depend on advertising images that associate a real thing with what Coombe calls the ‘self-referential [imaginary] signs’ of postmodernism shaping the meaning of our culture.\textsuperscript{12}

What gives this new economy its postmodern character are the shifting cultural signs of image and digital text, where the only constraint is the architecture of the software programs and IP products which digitally mix the electronic messages and computations of virtual reality.\textsuperscript{13} Instead of real commodities with physical qualities and attributes, and real markets with geographic locations and physical boundaries, markets in virtual reality exist without physical borders and without geographic markings common of physical spaces. The endless cycles of competition based on what one commentator has called ‘Next Big Thing’ also gives the New Digital Economy its postmodern appeal.\textsuperscript{14}

The rapidity of innovation leading to the endless destruction of what had been a new idea and technology gives the economy its rootless and compulsive character, where enumeration of variations of change and modification endlessly combining the new with the old (Windows 95 replaced by Windows 98 replaced by Windows ME) places the new economy squarely within the aesthetics of postmodern art and culture. In an economy where competition is premised upon the development new technology, the motivating market impulses of a dynamic-future oriented outlook is always looking beyond the horizon to gauge the present, and history of the past is forgotten or thought to be irrelevant.\textsuperscript{15} The static legal/economic framework of analysis (the snapshot approach of the Chicago School) is no longer helpful for predicting and evaluating business behavior as market boundaries and definitions shift and change in response to technological change.
Firms that are not currently in the same market may soon discover that the market has been redefined by technology. The Internet markets of American Online (AOL), for example, may soon be redesigned by broadband technology, placing AOL in the same market as cable and entertainment of TimeWarner. The merger between AOL and TimeWarner may not have posed a serious threat to competition when the Antitrust Division examined the merger in light of its traditional static, horizontal merger analysis, but there is no doubt that the merger poses a serious potential danger to competition in the broadband markets of the future. When evaluated in light of dynamic analysis relevant to an ever-changing market of entertainment, the AOL TimeWarner merger poses a serious danger to potential competition in the emerging entertainment markets of the future. Hence, though AOL TimeWarner merger was not seen as a competitive threat by the antitrust enforcers who evaluated the pre-merger notification filings, it was clear to those in the IT markets that the product of that the new firm arising out of this merger would be dominant market player in the future markets of broadband technology.

The rhetoric of “free markets” which dominates the discourse in the new economy seeks to persuade policy makers that markets are free and government regulation is “un-free;” that privatization of governmental function is liberating, and regulation is not. Antitrust regulation is thus understood as a potential distortion of the free market activity. What is overlooked is the fact that globalization and IT are enabled by conscious governmental policies. Contrary to popular misconception, globalization is not ‘free trade.’16 IP products are, of course, protected by the IP law of nation-states. Free market rhetoric of the new economy tends to overlook the decidedly pro-monopoly policies granting economic and import relief to transnational corporate interests.17 It was, after all, governmental policy and a new breed of ‘de-regulatory regulation’ that was responsible.
for international trade accords and treaties such as the General Agreement on Trade and Tariffs (GATT) and the North American Free Trade Agreement (NAFTA) and global organizations like the World Trade Organization (WTO) which structure the free flow of capital in the global pursuit of profits. In the realm of public policy, however, one gets the impression that the clock had been turned back to the heady days of the 1920s, when the stock market was roaring (before the dot.com crash), and the leaders of government and business were marching in lockstep, preaching the virtues of laissez-faire markets. In such an environment, it is difficult to maintain faith in the regulatory premises of antitrust law even when those premises are as valid now as are in the old economy. What is need is a new understanding of how competition and monopolistic behavior arises in the technological-global market nexus.

The New Digital Economy is not immune to regulation; indeed, regulation is, as Lawrence Lessig has argued, already “a function of its design.” The design regulates behavior by limiting choice of standards; by determining who can and who can not gain access, and by controlling what can be done in virtual reality. The design regulates by specifying the structure of the network of the economy. Antitrust enforcers can regulate the “design” of this economy but only if they first understand the issues of ‘regulability’ implicated. In the new economy, issues of regulability will turn on the question of who owns and controls the software applications code of the network of the new economy. Lock-end effects and barriers to entry which abound in IT markets where a network design defines the market, and these obstacles to competition are facilitated by technology standards protected by IP rights. Ownership and control of IT products is therefore the critical factor for determining power to raise prices for a service or a product. Because switching costs to a different network are expensive, substitute IT products will fail to restrain the market power over prices. If
private regulation is permitted to continue to regulate the code of cyberspace then the ability of antitrust enforcers to regulate the digital economy will remain low. On the other hand, if government can gain control over the code then it will be in a much stronger position to regulate behavior in the digital economy. Until the regulatory challenge address issues of ownership of the code and the institutions and technology that produce the code, antitrust law and regulation will likely remain in a state of confused uncertainty.

B. Antitrust Regulability.

Antitrust regulability refers to the ability of public antitrust regulators to bring within the reach of the Sherman Antitrust Act the business practice and behavior to be regulated. Regulability is thus about the degree to which the law can be used to regulate monopoly behavior in the economy. Antitrust law seeks to regulate directly by controlling the behavior of those who are responsible for restraints of trade. Sometimes, the behavior to regulate is difficult to reach directly and so the government is forced to constrain behavior differently, say by indirect regulation by influencing the private behavior via tax incentives or by certifying the standards and conditions for competition. Lessig argues that this is the “picture of regulation” – the “regulator is always making a choice [about whether] to use the law directly or indirectly to some regulatory end.”

The regulatory approach to be selected will depend on the context of regulation. To the extent that behavior to be regulated can be brought with the reach of those who regulate, direct regulation of behavior may be the most effective modality of regulation. On the other hand, social norms of society also regulate behavior by ex post social sanctions. Regulation by social norms may be more effective in contexts where behavior is decentralized and dispersed and not easily regulated by a top-down command system of legal regulation. There is also regulation by the market which
relies upon supply and demand and the price system to regulate and discipline inefficient actors. The market as a regulatory system, of course, depends upon a background of legal rules and state regulation to enforce contract and property rights. Finally, as Lessig has noted, there is another form of regulation created by what he calls the “architecture” of the physical and virtual worlds. In the new economy, the architecture of the applications code of software programs limits access to the economy and hence it is yet another regulatory modality to be considered.

In the context of the new economy, all four modalities of regulation (law, market, social norms and architecture) are at work but all are not equally effective in regulating behavior. Because the architecture of the Code is privately owned and covered by IP rights, direct regulation of law is unlikely to be effective so long as the code privately owned. Hence, as Lessig has argued, “the most effective way to regulate behavior in cyberspace will be through the regulation of the code –direct regulation either of the code of cyberspace itself, or of the institutions (code writers) that produce that code.” And this is why the regulatory effort under the antitrust laws has run into trouble in the new economy – antitrust regulability has been frustrated by a technology that is privately owned and protected by IP rights. What’s more, because the code exists in machines around the world, the code may be out of the reach of any domestic antitrust enforcer. In the absence of a global competition policy and enforcement system, the code may not be something that antitrust enforcers can effectively bring within their reach. This does not mean that antitrust regulation is impossible; it may simply mean that a new regulatory modality may be needed to regulate market behavior effectively in the new economy.

There is thus reason to doubt whether the traditional regulatory antitrust approach developed for the ‘old’ economy of physical spaces and recently applied to the government’s monopolization
case against *Microsoft (Microsoft III)* will be effective in regulating competitive behavior in IT markets. The reason for this is not because the rules of law are the wrong rules for IT markets, as some have suggested, but rather because monopoly power of these markets may be beyond the reach of the traditional antitrust regulators who use law to directly regulate anti-competitive behavior. In the networks of the new economy monopoly is thought to be more “durable” and less resistant to traditional antitrust regulation. Antitrust and trade regulation law created for smoke stack industries of the nineteenth-century; shaped by judicial doctrines designed for an era when hardware rather than software governed commerce, and for a world based on physical spaces of geographic may be less relevant for a world that is increasing connected by technological change and a global information network.

In today’s technologically sophisticated digital economy, competition revolves around the efforts to maintain the legal protection afforded by IP law. Effective antitrust regulation must therefore be based on new integrative regulatory approaches which explicitly take into account the interaction between IP rights and competition policy. The current regulatory options of antitrust law, however, are cast in terms of ownership norms that force an either/or choice; either antitrust or IP law. But there will always be ways of considering integrative approaches which seek to harmonize the two regulatory approaches in ways that advance both innovation and competitive efficiency. Antitrust regulability in the new economy can not afford to ignore the tendency of the IP legal system in establishing and justifying monopoly at the expense of competition policy. Moreover, in the absence of a truly world-wide competition enforcement policy capable of grappling with the complexities of global information markets, traditional forms of antitrust regulation are seriously limited by their ability to develop a meaningful competitive policy against global monopoly and...
international cartel arrangements. Global economic interdependence has made the task of antitrust enforcement more difficult as extraterritorial and bilateral cooperation has failed to provide a meaningful antitrust response to provide a comprehensive competition policy for the kinds of market restraint that are now likely to arise with globalization and the new ‘digital’ Economy.

C. The Hard/Soft Distinction.

Until now antitrust enforcers have focused their energy on developing the ‘hard’ law of the nation-state as the principal means for developing a competition policy for the new digital economy. The approach of ‘hard’ law, however, has failed to provide a comprehensive competition policy for the IT economy mainly because problems of antitrust regulability prevent effective and comprehensive public law enforcement. There is, however, reason for believing that antitrust jurisprudence now possesses the tools needed to deal with new forms of anti-competitive harms based on technology which enables globalization. All that may be needed to make these tools relevant to the new forms of regulation that are now being created with the software technology running the global information networks of the new economy.

As Lessig’s ground breaking analysis of the Internet has revealed, software technology is a form of regulation that is now performing many of the functions heretofore performed by ‘hard’ law. One could thus think of the Code running personal computers and other information technology as the “soft law mechanisms” for regulating economic activity in cyberspace. ‘Soft’ law and regulation, unlike the ‘hard’ law of nation-states, is plastic and hence malleable because there is an infinite ways in which instructions can be arranged. ‘Hard’ law is relatively non-plastic and non-malleable. Judicial change is limited by judicial norms and doctrines like stare decisis and the democratic process is limited by the inertia of legislation. Hard law mechanisms of international,
regional and domestic organizations also operate through governmental process which is also limited by the sovereign reach of the government. On the international level, hard law is limited by entrenched issues of comity, disharmony and non-transparency.

'Soft' law, on the other hand, is more flexible and adaptive to change. The three modalities of soft regulation –market, norms and architecture –do not operate through nation-states or public officials, but rather function through private actors. In drawing from Lessig’s work on cyberlaw one could identity at least three different modalities of soft regulator mechanisms –markets, social norms and design (what Lessig calls architecture), relevant for analyzing antitrust regulability of the Net. Each of these soft law mechanisms are capable of changing and modifying regulatory ends of hard law thus frustrating the goals of hard law. On the other hand, each of these soft mechanisms of regulation can be separately or combined to supplement hard law so that direct regulation can do a better job of regulating behavior. Market forces constantly adapt to the changes of price and cost, and those changes can be manipulated through law. Social norms follow the dynamics of group behavior, and the behavior of groups can be shaped by the norms regulators seek to validate and reinforce. Architecture or design is freely adaptive by the owners and creators of the structure regulating behavior, but law can constrain design alternatives by regulating directly ownership rights to the architecture so that design will enhance competitive norms.

This suggests that ‘hard’ and ‘soft’ forms of regulation function as dialectic modalities. The ‘hard’ law of the state influences private behavior indirectly by shaping and controlling market behavior, social norms and design possibilities of architecture. ‘Soft’ law also indirectly influences ‘hard’ law by influencing policy and administrative enforcement decisions of enforcement actors. The effectiveness of different modalities of ‘hard’ and ‘soft’ regulation will nonetheless depend on
the regulatory context. Hard and soft regulatory mechanisms are thus related in the sense that they each depend on the other to be effective, but the two basic forms of modalities have advantages that, ‘hard’ and ‘soft,’ are best suited to particular contexts.

Understanding how issues of antitrust regulability arise within the different regulatory regimes of ‘hard’ law (command and control law at the international, regional and domestic levels) and ‘soft’ law (regulation that operates through private sector technology and behavior) may be helpful for rethinking how antitrust law can be redesigned to respond to trade restraint problems arising in the new global economy. Imaginative approaches which rely upon both ‘hard’ and ‘soft’ regulatory policies; for example Katherine Van Wezel Stone’s suggestion for linking the right to Trademark protection of brand names to labor standards protection under which the goods are produced (a melding of both ‘hard’ and ‘soft’ forms of regulation), may in fact provide a new method for protecting competition standards from being eroded by the technological-global market nexus of the new economy.

Critical examination of the new forms of private regulation enabled by the software technology of “Code” of cyberspace is also critical to any examination of antitrust regulability of anti-competitive behavior in cyberspace. Antitrust law competes with other forms of regulation in the new economy. What needs to be understood is that the ‘soft’ law of cyberspace has advantages that compete with the hard law of antitrust law. The competition between the ‘hard’ and ‘soft’ regulatory regimes of public and private law may ultimately determine the kind of competition policy that will govern the virtual markets of the new economy.

D. The Objective of this Article.
The goal of this Article will be to evaluate the merits and demerits of `hard' versus `soft' regulatory systems for devising a new antitrust policy for the new global economy and to suggest how regulatory alternatives can be devised from the melding of hard and soft systems of antitrust regulation. The Article thus examines the challenges of `hard' versus `soft' regulatory approaches for structuring antitrust and trade regulation law in the virtual world of the new digital economy and offers a proposal for integrating the hard regulatory law regime of antitrust with the soft regulatory regime of technological products protected by Intellectual Property law.

Parts II will explore the difficulty of enforcing `hard' antitrust and trade regulation law in the context of globalization. Part III will explore the difficulty posed by the `soft' regulatory regime of the Internet. The objective of Parts IV-VI will then be to identify three of the most pressing and difficult problems that render both `hard' and `soft' regulatory approaches less effective for dealing with trade restraint problems which typically arise with globalization and the Internet.

Part IV introduces what I will call the `iron law' of globalization: `Monopoly power is global, and antitrust is not global.' The iron law of globalization is derived from the idea that monopoly power is now global while antitrust and trade regulation law is local. The hard law of antitrust is local because in the new economy serious limitations posed by intellectual property and the nature of technology prevent antitrust regulations from reaching the power sources of technological monopolies. The iron law of globalization renders problems of second best the most serious and pressing problem for `hard' law of antitrust and trade regulation.

Part V focuses on the `soft' regulatory system created by the technology of the software programs of the `Code,' or as Lessig has recently put it the “law of the code.” By “law of the Code,” Lessig means the `soft' regulations of the privately owned computer programs that permit access
to the cyberspace where e-commerce takes place. The `soft’ law of the Code represents the single greatest threat to the ‘hard’ law of antitrust and trade regulation of nation-states because the Code is resistant to the kind of “top-down” hard regulation common to antitrust and trade regulation law.

Part VII examines the regulatory problems for both ‘hard’ and ‘soft’ law when competition is based on technology which competes with itself and therefore requires a more dynamic and robust understanding of markets. Part VIII will then offer some ideas for building competition policy into the new economy based on a new integrative approach to antitrust regulability that utilizes the advantages of hard and soft law tailored for the technological-market nexus of the new digital economy. Finally, the conclusion will venture some ideas about the future course of foreign and international antitrust and trade regulation law.

II. Antitrust and the New Technological-global Market Nexus.

We live in an increasingly ‘connected’ world. New York and London are no longer separated by ocean and land; they are connected by web addresses and complex networks of digital signals and computational operations of computer programs and silicon chips. In the markets found on the Net there are no boundaries or geography other than those created by the software Code. Net markets are thus measured in terms of “hits” on a home page, and market power is itself a product of access to a domain name associated with a product or service combined with the ability to collect information about visitors who come to the domain name.

Control of hardware, including plant and equipment is becoming increasingly unimportant, as technological entrepreneurs discover that hardware advantages can be subverted by gaining control of the software. Software control soon became the basis for creating a new form of ‘soft’ regulation. ‘Soft’ regulation operates through technology controlled by private sector
actors and therefore is the regulation of private global market forces. In the new economy, soft regulation now rivals the heretofore dominance of the ‘hard’ regulation of the nation-state.\textsuperscript{39} The new networks of e-commerce, linked globally by software programs, have constructed a new global economy based on a new software technology which operates on a global scale to structure a totally new form of ‘soft’ regulation.

**A. The New Digital Economy.**

The ‘new digital economy’ is what permits the cross-border interpenetration of economic activity of globalization regulated by the software programs privately owned and the private norms of economic behavior, facilitated and motivated by software technology. The phenomena of globalization is the spread of economic activity on a planetary scale which is no longer constrained by geography or the ‘hard’ law of nation-states. The Net is the principal vehicle for the spread of digital economic global activity. Telecommunications and computer technologies that are responsible for the Net enable firms to produce, distribute and market goods and services in the new electronic marketplaces of cyberspace. Digital commerce has established a system of global commerce that defines the contours of the ‘soft’ rules of competition. The rules themselves function digitally and interactively to create the global marketplace.

The idea of globalization, as reflected in the new informational technology of e-commerce, transcends the local frames of territory and geography of traditional antitrust law and regulation. Markets are no longer defined in terms of territory in real space; business free of geographical and territorial space limitations is now robustly global and non-territorial and relatively free of the kinds of ‘hard’ regulation that are found in international, regional and domestic legal systems. In this sense, economic activity is thought to be “free” of governmental economic constraint. This does mean that
government is no longer relevant; to the contrary the new economy could not function without the active support and intervention of governments in enforcing exchange relations, and in protecting the intellectual forms of property of the information technology itself.\textsuperscript{40}

\textbf{B. Soft Regulation: ‘Capitalism With the Gloves off.’}

What has been set ‘free’ in the new global order is the monopoly power of private economic interest. What has been restrained and rendered un-free is nation-state regulation. Nation states have been restrained by barriers created by the design of information technology and the global reach of such the behavior to be regulated. It is not that behavior in cyberspace is un-regulable as some have believed,\textsuperscript{41} rather it may only mean that the regulation of hard law is unsuited for the task at hand. What is significant about information technology is that it has been made possible by an information technology that was designed to remain neutral to the potential competition of new software platforms. The competitive neutrality of the Code establishes a technological regime for market activity that favors free and unrestrained global activity on the Net. When the Internet was built a design was adopted that was created for the purpose of maximizing as much intelligence as possible for the solution of problems or applications and that the network itself was designed to remain neutral on how the applications would be achieved. Network neutrality on access and to new platform applications has meant that the technical architecture of the Net has brought about a new non-discriminatory means for engaging global market activity.

Because the network is neutral to new applications, the Code promotes competition for different regulatory regimes of software technology. The malleability of software programs, allowing for an infinite variety of instructions and codes, has created a form of regulation which promotes what A. Michael Froomkin has called \textit{regulatory arbitrage} – users can pick and choose cyberspace
web sites and applications systems based on a choice between regulatory rules they like and those they dislike.\textsuperscript{42} Regulatory arbitrage enables private interests to influence the shape and contours of the soft law regulating the regulatory space at any given point in time. For this reason, soft regulation tends to gravitate to the dominant private interests in cyberspace. Competition is also stimulated by the differences between the hard law of different nation-states–private interests migrate to jurisdictions where hard law favors and promotes private interests. Network neutrality thus creates a structure of soft regulation that pits regulation against regulation thereby leading to a “race to the bottom” of maximum possible de-regulation.

Nation-states, of course, can not remain neutral; they must make policy choices about how they wish to manage economic affairs. The Net could not exist without nation-state regulation permitting its functioning and operation. Technologically sophisticated entrepreneurs rely upon intellectual property law to protect their investment in research and development and without the cooperation of nation-states, this important source of protection would not exist. IP issues frequently interact with antitrust issues especially in high tech markets like those of the Net.\textsuperscript{43} To the extent that consumer welfare and efficient resource allocation is seen to be the the underlying goal of both antitrust and IP, the two legal regimes of regulation can be accommodated.\textsuperscript{44} New IP rules, enforced by international conventions and protocols, attempt to protect property rights to the technology driving the new economy.

IP law, of course, is conducive to monopoly privilege and that privilege can be extended. IP law when used in conjunction with exclusive licenses can be an effective way to block potential competitors from the market. Prior to 1995, for example, Microsoft used “per processor” licensing agreements which calculated fees for its Windows operating system on the basis of the number of
computers manufactured. As a result of the license agreement OEM’s who were using the IP protected Windows system to pay two fees if they wanted to install a competitive alternative to Windows.\footnote{45} The tying issue raised by the government’s 1999 case brought against Microsoft bundling of its Explorer browser and Windows is yet another way IP law can be used to achieve anti-competitive purposes in software products. Because of network effects or increasing returns from multiple use of the network and IP protection, a tying arrangement between Windows and the Microsoft’s Explorer browser creates a potential barrier to entry on two levels: a barrier to the applications markets (potential software applications competitors must now provide a browser program as well to compete against Microsoft) and a barrier in the browser market (applications once selected as a standard becomes a \textit{de facto} standard for the browser market thereby creating a barrier to future competition in the browser market). Network externalities derived from dominant software applications system subject to IP protection creates serious barriers to entry potentially foreclosing competition of new technology.

Apart from governmental IP policies that protect exclusive rights to software technology, there are also trade policies that are equally effective in facilitating global market power of IT markets. The fact is that nation-states have long ago embarked on an open trade policy that mirrors the open source code technology of the software providers. Hence, the international movement toward privatization of governmental functions and free trade establishing a new deregulated international regime have fostered the development of market-oriented forms of regulations that strengthen the open source codes and open boarder trade practices. The protocols of international trade, and the economic and political organizations created to enforce those protocols –NAFTA, WTO, and non-governmental organizations NGO’s –have worked to establish rules of trade for
trading bloc countries and the rest of the world. Free trade rhetoric has worked to trump competing ideas based on the regulatory state model of government. The practical reality, however, is that trading blocs have never had “free trade” but have instead been constrained by new rules of trade created for trading bloc partners and everyone else. In such a context such as now exists in international trade, “free trade” has helped to bring about a trade policy that could be more realistically called “capitalism with the gloves off.”

“Capitalism with the gloves off” is capitalism without public interest considerations of regulation and without the normative requirements of democratic rights and organization. “It represents an era in which business forces are stronger and more aggressive, and face less organized opposition than ever before.” The celebration of ‘market values,’ as expressed within the rhetoric of globalization, argues in favor of a trade policy that would ‘take off the gloves’ technology and the market so that global economic and technological development would prosper. The movement toward privatization of governmental functions and the effort to enact so-called ‘free trade’ legislation can be seen as devices that were intended to ‘take the gloves off’ transnational businesses operating within international markets.

The consequence of taking off the gloves has been less competition and free trade and more ‘corporate mercantilism.’ As one report of the Organization for Economic Co-operation and Development (OECD) has concluded: “oligopolistic competition and strategic interaction among firms and governments rather than the invisible hand of market forces condition today’s competitive advantage and international division of labor in high-technology industries.” That finding is consistent with the findings of OECD reports showing that international trade is responsible for twenty to fifty-three percent of the increase in income inequality in the United States.
Whether the gloves are put back on will depend on whether the values and justifications of antitrust and trade regulation can overcome and supplement the current passion for ‘free global markets.’ The policy question for antitrust decision-makers is no longer how to promote free trade or a technical question about implementation but rather a normative question about how to devise rules of trade that will protect consumers and nation-states from the abuses of monopoly power in global and technological markets. The question is whether the existing norms of regulations are desirable or not in dealing with anti-competitive practices in the new economy.

It is worth remembering that in America at least, antitrust was born out of a political and legal movement that had been awakened by what Richard Hofstadter aptly called “an enduring American suspicion of concentrated power.” This suspicion arose out of the concern that private economic power was a threat not just to consumer self-interest but to democratic values and processes that were thought to be essential to American law and culture. If private economic power were ever to become the ultimate ‘ruler’ of what people wanted and get, then political sovereignty as well as consumer sovereignty would be threatened. Hence, capitalism with the gloves off may turn out to be capitalism without consumer sovereignty and without democratic values.

There has always been doubts, however, about the survivability of antitrust law in America. Hofstadter, for example, wondered if antitrust could survive in “an age in which the big corporation has become a way of life.” Doubts about the survivability of antitrust have deepened and amplified in the new economy created by globalization and the Internet. Globalization has worked to undermine the antitrust consensus. The Net, has in turn provided private interests with the technological ability to personalize and filter what consumers see, read and want thus creating an
enormously important new source of influence. Software technology has in these sense created a new form of awesome private power to give effect to the norms of free trade.

C. Competition and Software Technology: ‘High-Tech Capitalism.’

There are, in fact, many different ways to construct a market with the technology that has created the Net. The software codes allow one to use design techniques to build a space for shopping and transacting in a world that is no longer constrained by the constraints of real space. The ‘laws of economics’ which constrain the operation of physical spaces can be altered by the code in virtual spaces on the Net by the language built into the code itself. Consumer sovereignty is no longer just a function of one’s willingness to pay but is also dependent upon software programs that determine access to the market and the nature of the interaction, including increasing returns owing to the use of the network. The software programs that run PCs construct web sites and set out the conditions for market transactions and communications establish a network of consumption that work as a form of brand loyalty. The network as a brand preference creates more than just consumer preference for a software technology, it also forces the consumer to make an investment in the network itself which locks out competing IT product substitutes.\(^\text{54}\)

The structures of the ‘architecture,’ to use Lessig’s term,\(^\text{55}\) have in turn created a totally new method of private regulation of the market place of a new global economy that we now know as e-commerce. Antitrust policy makers and decision makers cannot ignore the anti-competitive implications of software technology structuring and controlling market activity on the Internet. It would be a mistake to assume, for example, that trade restraint problems relevant to hardware manufacturers (e.g., operating equipment manufacturers or OEMs) are the same for software manufacturers (e.g., applications programs, Net interfaces, browsers, etc.). The hard/soft distinction
applicable to regulation also applies to trade restraints. Barriers to entry, for example, may be constructed in fundamentally different ways depending on whether one is dealing with hardware or software technology. Because software is malleable the potential for creating barriers to entry is much more a problem than it would be in the case of the technologies used for the hardware.

The plasticity of software enables the software codes to be used to re-design and re-describe economic relations in many different ways, some of which can serve as barriers to entry in the same way that contract can be a barrier to entry. Software technology presents its own unique issues for antitrust and trade regulation law as the two most important cyberspace cases to date illustrate—the Microsoft antitrust case and the Napster copyright case. In both cases, the courts were faced with business practices that used software technology to redesign the market to avoid the constraints of real markets. In Microsoft, software allowed a major Net supplier of Code to escape from the competition of a middleware producers (Netscape and Java). In Napster, software technology allowed a new Net-business to easily escape from the constraints of intellectual property (IP) law applicable to real markets. It follows that we need to think more about the choices in design that are posed by the technologies that establish the networks of the Net in considering how and when to apply antitrust law to this new form of economic activity.

Filtering on the Net allows Net-businesses to manipulate the market in ways that are not possible in the real world. Cookie programs and other software programs that link customers to specific products and sites now permit Net-businesses to manipulate consumers in new ways. Filtering programs track customer purchases, collect credit information and link transactions to other Net sites with or without the users knowledge or permission. Filtering can be a means for perfecting consumer sovereignty by allowing consumers to get exactly what they want or it can be a means for
dividing markets, information exchanges and other supply and output restrictions that the antitrust laws were designed to curb.\textsuperscript{58}

Antitrust enforcers have yet to figure out the anti-competitive implications of filtering and information dissemination and control on the Net. Nor have policy makers come to grips with the fact that in the virtual world of \textit{e-commerce} it is the consumer’s \textit{attention} that is the ‘product’ traded in this market. As Cass Sunstein has recently written: “Consumers are actually a commodity, often ‘sold’ to advertisers in return for money; it is therefore advertisers and not consumers who pay”\textsuperscript{59} in the markets of \textit{e-commerce}. Monopolistic behavior on the Net must therefore be reconsidered in terms of behavior designed to manipulate consumers. Of particular significance is that information technology is already designed so that it can easily manipulated for anti-competitive purposes. The problem of \textit{network effects}, for example, is a design feature which currently works to create lock-in effects that operate as a barrier to competition. The competitive nature of technological change also creates opportunities for opportunism and anti-competitive behavior such as “\textit{vaporware}” (false software products publicity made to commit consumers to a system or standard). Applications barriers to entry which was relevant to the government’s 1994 antitrust suit brought against \textit{Microsoft} are also prime examples of how the architecture of software influences and permits anti-competitive behavior.\textsuperscript{60}

The experience of being in virtual reality is the experience of freedom of action. When on the Net, one can assume a different identity and act in ways that would be contrary to the rules of one’s community. Social norms of regulation therefore are evaded by recourse to the Net and new norms of behavior can be experienced. The “growing power of consumers to filter what they see” can be liberating, as Cass Sunstein has noted, but it also lead to individual and social harm.\textsuperscript{61}
Business also experiences new forms freedom in virtual reality that can lead to new forms of competitive behavior or new forms of predatory and exclusionary conduct.

The power to filter information, for example, potentially limits consumer choices and technological alternatives by reducing the degree of substitutability for products, services and technology. In market terms, filtering can bring about greater consumer sovereignty or it can lead to behavior that creates filtering barriers to entry, censorship blocks, and exchanges of information that can facilitate the exercise of monopoly power and make it difficult for competitor to enter a market. As in the case of markets of real spaces, filtering and information exchanges between competitors is a ‘two-edged’ sword that can lead to either more competition or more monopoly. Filtering on the net, however, creates a unique problem for antitrust enforcers because filtering is enabled by a technology that is itself resistant to regulation.

Technology is resistant to regulation in two fundamental ways. First, because technology is part of the innovative process it is constantly changing and adapting to constraints. Regulation is difficult because the subject of the regulation is constantly adapting and changing, requiring ever more regulation. Second, because the network is seamless, there is no way of capturing all regulators subjects. On the Net, the packet switching network, created by the Transmission Control and Internet Protocols (TCP/IP) allow data to be shared without a direct line of communication which means that the system of communication is decentralized and non-localized. The patch-switch network is a nightmare for anyone seeking to control the users of the network. As soon as users are identified in one space, they can easily escape to other spaces or domains. Regulating Net users is like trying to herd a large group of cats.
Direct regulation of the Net through law is also difficult because the Code and its underlying technology is privately owned. So long as the architecture is owned and designed to serve private interests, soft law of the Code and the market will be the principal regulators of the digital economy. Hard law and social norms will be less effective in influencing the preferences and behavior in the economy. Net suppliers can create their own rules that govern their domain sites and these rules, created by their privately owned software programs, and thus establish the regulatory conditions of their market spaces. This means that there will be spaces where there is considerable freedom but also pockets of constraint. As Lessig has explained: “In some places life is fairly free, in other places controlled, and the difference between them is simply a difference in the architecture of control –that is, a difference in code.”

One could think of the different regulatory rules of cyberspace as establishing different ‘cultures’ with different soft regulations. The code permits users to move freely from culture to culture allowing one to pick cultures that enable one to live according to the norms of another place. Users can create competing regulatory cultures and thus enable one to escape from the norms of real life to those of virtual reality or vice versa by merely switching a computer on or off. The escape to cyberspace can be liberating if one lives in a highly restricted environment with unacceptable norms. On the other hand, cyberspace can lead to a new form of economic and social conduct that the laws of real space seek to prescribe.

D. Implications for Proponents of the ‘Hard’ Law of Antitrust.

There is a rich body of ‘hard’ antitrust law that can be utilized to deal with problems of monopoly and oligopoly in the new global economy. Much of the regulatory effort to date has been devoted to solving the regulatory challenge posed by globalization of markets. The question is how
to make antitrust law of the nation-state effective in an ever increasing global economy. It is now well established, as Areeda and Turner once summarized the essential point in 1978, that “conduct, whether at home or abroad, can be reached by our antitrust laws when it affects competition within the United States or export competition from the United States.” It is also the case that bilateral cooperation agreements and international protocols on antitrust policy have served to bring a measure of harmony and transparency necessary for the development of global competition policy as found with the FTC and Department of Justice’s 1995 International Guidelines. However, as Areeda and Turner, also noted, one of the “first key issues” involving foreign antitrust and trade regulation law “arises from the fact that everything affects everything in an interdependent world economy.”

Economic interdependence was a thorny problem in 1978 when Areeda and Turner pinned their observation, but the problem has become even more thorny in the new global economy created by globalization and the Internet. One can, for instance, ‘go to the beach’ and make commodity trades or buy a new automobile or anything else one would normally do in a real marketplace. As a result of the new information technology, “everything [does] affects everything” including the most mundane experiences of everyday life. In an ever increasing connected world, one must wonder if antitrust and trade regulation law is adequate for the task at hand especially given that the range of anti-competitive problems posed by global information technology have yet to be fully understood. Exterritorial jurisdiction and bilateral cooperation seeking antitrust harmonization and transparency seem ineffective in dealing with the conflicts and challenges of global competition arising out of the technological-global market nexus.
In 1978, of course, the Net was not up and running and globalization as an idea was still germinating. Today, the Net is a new global market place where the old constraints of geography and government seem not to apply. E-commerce is today one of the fastest growing commercial activities in the economy and the nature of this commerce is yet to be understood. Today, the “fundamentals” of the New Deal regulatory state which justified governmental regulation of markets now appear “impoverished” or “boorish” in the context of the new global economy as it now exists on the Net.71

Moreover, in the context of e-commerce and globalization, issues of regulability loom large when considered in light of the most difficult challenges for designing a new antitrust regulatory policy for the new global economy. There are several important reasons for questioning the regulability of antitrust in the new economy. First, globalization diminishes the level of nation-state regulation by rendering domestic regulation relatively impotent regarding economic activity which takes place outside the boundaries of the nation-state. Second, globalization encourages regulatory competition between nation-states thereby setting in force ‘races to the bottom’ where nation-states with the least regulation have competitive advantages. Third, because the ‘architecture’ of the technology of the Net is based on a packet switching network,72 users can route around blockages and restrictions, such as regulation, rendering the regulatory effort ineffective. Finally, in the absence of harmonization and transparency necessary for the development of a comprehensive global antitrust policy, there is simply no way to bring aspects of the new economy within the reach of antitrust regulation. Because the Internet is difficult to regulate and because globalization phenomena have intensified and spread with the use of technology, issues of regulability render existing antitrust law and policy problematic and uncertain.
Finally, because software technology is the subject of intellectual property there are different legal policies favoring exclusivity of use and monopoly applicable to the ‘soft’ law of the Code that may render it resistant to antitrust regulation. To the extent that intellectual property law, and specifically Trademark and Copyright, provides legal protection to the software code the owners of such property rights will have the property right to exclude others from the network and this power can create durable monopoly power, especially in the case of network standards.\textsuperscript{73} Trademark and Copyright protection also complicates the attempt of antitrust courts to provide an effective antitrust remedy.\textsuperscript{74} It may not make sense to grant owners of intellectual property rights as an incentive to create such property only to take away the rewards once exclusion is found to give way to monopoly power. On the other hand, the question of “sufficient incentive” to create such property opens the door to antitrust inquiry into the harm that can arise when the right has been abused.\textsuperscript{75} The balance to be struck may not always be an easy one to maintain, especially when the product is technology, and the technology is all about establishing the ground work for the development of capitalism with the gloves off.

Even if the right balance between antitrust and IP law were to be struck and even if there were also a global consensus on competition policy, there would still be the problems posed by the indirect and subtle nature of soft regulation. The most pressing problem is that soft regulation tends to be silent and non-transparent. It is not immediately apparent that the market or architecture of the Code is regulating behavior. When one buys a PC it comes prepackaged with the Windows operating system. When one enters the home page one might not realize that a cookie program is collecting personal information about you to be later sold in the market for a price. Because the opportunities for non-transparent regulation are “multiplied” in cyberspace,\textsuperscript{76} there will always be an infinite
number of ways to constrain behavior on the Net. The lack of transparency is therefore an important issue for public regulators.

Transparency is an important regulatory value. We expect that when government regulates behavior its objectives will be clear and known. If we do like the reasons for regulation then we can seek to have the regulation changed by legal or democratic process. Transparency is thus an essential constraint on public regulation and the absence of transparency creates the danger that regulators will abuse their regulatory powers. To the extent that the government or private interests can hide their motives for regulation in the architecture of the Code there will be danger that a silent form of non-democratic regulation will be allowed to grow and challenge the democratic policies that necessitate transparency. The real danger then is that soft forms of regulation, whether designed by private or public interests, will undermine the values of a democratic government.

III. Limits of Antitrust Regulability.

One of the ways that soft forms of regulation threatens the existing modes antitrust regulation is that it creates a silent form of social norm regulation which seeks to persuade that government regulation is repugnant to freedom. Non-transparency hides the fact that private interests are now regulating the markets of the new economy. When one enters the Net it is not apparent that the Code constrains choice in a multitude of subtle ways. The experience of freedom to roam virtual reality is belied by the fact of ever present constraint of the architecture of the code in creating the pathways and the filters restrain what one can do on the Net. The constraints of architecture can regulate behavior in subtle ways. Lessig cites as an example the bridges that Robert Moses built to the beaches in Long Island rendered the beaches accessible unless one needed a public form of transportation like a bus which the bridges were intentionally not built to accommodate. The poor
were thus excluded from the beaches of Long Island by the architecture of the bridges and that exclusion was a consequence of regulation. The exclusion created by the architecture of the bridges was effective even though the policy of exclusion was never articulated by Moses or any public official.\textsuperscript{79} Cyberspace is even more capable of hiding its exclusions and regulations in the secret code of the software.

Regulatory motives are hidden not just in the architecture of the design of the code that determines access rights but also in the culture of the Net itself which is aimed at convincing its users that the Code is about freedom, not restraint. The rhetoric of the Internet thus tries to persuade us that the Code is free when in fact it is constrained by its language, design, and protocols. The rhetoric of the Internet, like that of globalization, has weakened the rhetorical base of the regulatory state, and the international regime of competition policy. In a world dominated by the rhetoric of free markets it becomes easy to ignore the regulatory consequences of technology and markets. In such a world it is difficult to hold on to the policy justifications for antitrust regulation of the new economy.

The arguments that once sustained the antitrust movement seem exhausted in the face with the new realities of the new economy where nation-state power and influence is on the decline.\textsuperscript{80} Even the old debates about the need for antitrust regulation seem exhausted. The so-called new antitrust movement associated with Chicago School of antitrust has helped to undermine antitrust regulation first by eroding the public interest rationale which had set forth democratic values as a reason for regulating monopoly power, and second by immunizing monopoly power from antitrust regulation whenever it could be shown that the challenged practice promotes economic efficiency.\textsuperscript{81} The efficiency analysis of the Chicago School has also worked to undermine confidence in foreign
antitrust and trade regulation law over the new global economy. Antitrust regulation is thus thought by some to be an anomaly in the new economy created by globalization and the Internet.

Some believe that antitrust is itself harmful to global competition. As Eleanor Fox and Lawrence Sullivan have noted: “[t]he argument was and is sometimes made that the antitrust laws harm American competition in international markets and therefore that the laws should be changed or not enforced.”82 The often heard fear behind this argument is that American firms in the global market place must be free of the restraints of antitrust and trade regulation law in order to compete against firms that do not face similar legal restraints such as Asian firms. Asian cartels constrict distribution channels against imported goods and these constraints on international trade may necessitate coordinated responses from competitors. If American and Western European traders are prevented from engaging in coordinated responses to Asian cartels then Asian firms will have a competitive advantage in Asian markets without having to suffer a disadvantage in foreign markets. Cartels that protect monopoly prices in domestic markets can be used to leverage monopoly power in other markets by financing below cost pricing and other predatory practices.83

Not everyone enjoys or wants the free market values of the new economy, as the recent public demonstrations against the WTO illustrate. The gap between the rich and poor created by the ‘digital divide’ has widened as the technology divide between the West and the Third World has deepened.84 Moreover, because capital is mobile and fluid in the global economy, and labor is not, working standards are difficult to maintain and enforce. Because immigration restrictions and cultural ties prevent labor from moving from nation to nation, wage standards become a factor that global manufacturers consider in locating their plants and corporate headquarters.
Outsourcing to countries that have low wages has been an effective strategy used by transnational corporations in America to weaken trade union bargaining and to undermine wage standards of workers. These labor effects on wages have been further entrenched by the new economy. A new contingent work force has been created as Silicon valley firms move increasing away from permanent work forces to part-time workers, volunteers, contract workers and independent contractors. In doing so, software developers have sought to avoid the regulation of U.S. labor and pension law so that they can remain flexible and competitive in the new global economy. In breaking free of New Deal-type regulation, technological entrepreneurs have been able to consolidate their power at the expense of labor. The ground has thus been set for the development of monopoly power and there is already signs that big business and big money is taking over the new economy as illustrated most recently by the American-Online (AOL)-TimeWarner merger. If competition is to develop, competitive policy and antitrust enforcement will be necessary to insure that integrated global capital markets and technological information systems remain free and open for new ideas, products and services. The problem for antitrust enforcers is that global economic activity creates serious limitations to antitrust regulability.

Economists recognize that the extraterritorial practice of international monopolies and cartels frequently result in discriminatory pricing and the re-exportation restrictions which can frustrate market arbitrage and thus prevent the competitive law of one price from operating. American monopolistic interests, in response to such practices, complain that antitrust and trade regulation will keep them from remaining competitive and efficient in global markets. Single firm monopoly power in the domestic markets market will thus have an incentive to dump the output from surplus capacity in foreign markets when faced with competition from abroad –a traditional “bugaboo” of
international trade policy. Anti-dumping laws and agreements authorized and enforced by GATT which exporters agree to raise their prices and/or reduce their export volume may, on the other hand, only further entrench the monopoly behavior. Antitrust enforcers are thus faced with a choice about antitrust. They can either enforce domestic antitrust law against foreign restraints of trade or they can attempt to bring about greater harmonization and transparency of a uniform global competition policy. Interests of international sovereignty and principles of international comity, however, are the major obstacles for realizing the benefits of either choice.

A. Limits of Extraterritorial Jurisdiction.

In the United States, antitrust enforcement agencies have relied upon extraterritorial jurisdiction and bilateral cooperation agreements or organizations to implement a foreign competition policy. Bilateral cooperation is an extremely inapt tool for harmonizing a global antitrust policy for reasons that are obvious. Bilateral cooperation does not include all trading partners and “huge differences remain between nations in both the substance and philosophical foundations of national laws.” The unwillingness to cede national sovereignty is the problem. And, in the case of the United States, sovereignty is the major obstacle to compromise and adaption to foreign ideas and values Act. As Professor Scherer has explained: “The sovereignty issue is particularly sensitive in the U.S., both because the US is jealous of its leading role in world affairs, and because the real or perceived impact of foreign competition on the wages and welfare of many American workers, especially less-skilled workers, has evoked much anxiety.”

Extraterritorial jurisdiction of the Sherman Antitrust Act has been similarly limited by related concerns. In the leading Supreme Court decision on extraterritorial jurisdiction, Hartford Fire Insurance Co. v. California, the Court in a five to four decision rejected the “rule of reason”
approach which sought to harmonize the comity defense to foreign antitrust jurisdiction. In attempting to ‘wipe the slate clean,’ the Hartford Court adopted a ‘purpose and effects’ jurisdictional test to determine the extraterritorial scope of the Sherman Act. Justice Souter for the majority concluded that United States antitrust jurisdiction over a foreign party was justified when the conduct of that party satisfies the intent and effects of damaging competition in a United States market. Justice Scalia in dissent argued that the question of extraterritorial application of the Sherman Act was a matter of legislative intent, not jurisdictional reach. Hence, for Scalia the question that must be answered in each case is a statutory question concerning whether Congress intended the antitrust legislation to apply to a given set of facts. However, even Scalia recognized that the Sherman Antitrust Act had extraterritorial application, subject to the long held ‘comity’ concerns that an “act of congress ought never to be construed to violate the law of nations if any other possible construction remains.”

Neither Justice Souter’s “purpose and effects’ test nor Justice Scalia’s legislative intent test, however, prevent consideration of the comity factor in post-Hartford foreign antitrust enforcement actions. The comity factor is “a form of judicial diplomacy” which shows deference to the sovereign law of foreign nations. The comity factor has had the result of creating a rather conflicting policy of foreign antitrust regulation—extraterritorial reach of antitrust under the ‘purpose and effects test’ extends abroad whenever U. S. markets are impacted but not when the competitive harm involves a foreign market. Interest balancing under Hartford Fire has allowed the lower federal courts to engage in a “campaign of guerilla warfare to allow a more robust role to comity while paying lip service to the holding of Hartford Fire and its key concept of a ‘true conflict.’” That comity remains a factor is made clear by the fact that the DOJ and the FTC factor comity issues into
their exercise of prosecutorial jurisdiction under the Department of Justice International Enforcement Guidelines.\textsuperscript{101}

\textbf{B. Limits of Global Competition Policies and Institutions.}

Many thoughtful observers have thus argued that it is time for a global competition policy which some believe would harmonize competition policy and put an end to the kind of monopolistic distortions of international trade just described. The antitrust laws of nation-states will either have to be harmonized and enforced or made more transparent by predictable and clear rules of foreign antitrust enforcement.\textsuperscript{102} And yet, we are a long way from achieving the goal of harmonization or transparency in antitrust law. The only way to have meaningful global competition policy would require the adoption of a multi-nation competition code based with a worldwide institution enforcement structure to enforce a global competition and global antitrust regulatory policy. Professor Fredric M. Scherer is one of the leading advocates of such a proposal\textsuperscript{103} but even he realizes that the unwillingness of any nation-state to cede national sovereignty to supranational organizations is a “deal breaker” preventing any serious consideration of the proposal.\textsuperscript{104}

\textit{1. Limitations of Harmonization—European Union, Asia, NAFTA and Mercosur.}

The European Community (EC) antitrust extraterritorial enforcement policy is not that different from that of the United States. EC antitrust follows a version of the ‘purpose and effects test’ of \textit{Hartford} which limits foreign antitrust jurisdiction over non-European Union (EU) defendants much in the same way that the test limits United states jurisdiction over foreign defendants.\textsuperscript{105} The purpose and effects test to the extent it forces judicial examination of the impact on domestic markets as it does in the United States and the European Community makes more difficult harmonization and transparency of rules needed for global competition.  

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substantive grounds, United States and European Union competition policy, though similar in principle, creates significant conflicts whenever there is a disagreement on international trade policy. For example, since E.U. competition policy has been crafted to protect and service the common market, there always remains the possibility that the interests of the common market might be better served by different antitrust rules and policies. Consumer welfare which is a primary concern in the U.S. is not the primary concern in the E.U. International trade and industrial policy relevant to the common market can at times take precedent over the goals of antitrust recognized in the U.S. In the European Council (EC) of Ministers votes are cast by country by country, thus creating the voting and decision-making based on regional interests. Regional trading issues consequently become the primary concern of the E.U.

Asia, however, has a completely different philosophy of trade. Cartel and monopoly are the favored means Asian countries, including Japan and China, seem to favor in accommodating their economic relation with those of the global marketplace. Several countries in Asia along with the Pacific Coast nations of the Americas have formed the Asian Pacific Economic Cooperation (APEC) which is a loose federation created for purposes of bringing greater economic integration to the Pacific Rim. However, the APEC organization is still in its infancy, and given China’s unwillingness to join any effort to provide legal as well economic integration, it is doubtful whether economic cooperation will be effective in Asia.

So long as the Pacific Rim remains control by government sponsored cartels, there will never be a consistent global competition policy. Diplomatic pressures can only do so much; and in the case of China, diplomacy is unlikely to be effective in nudging one of the most important trading nations to adopt the West’s Rule of law, let alone antitrust rules. Hence, even if the E.U. were more...
compatible with the U.S., there will still be the continent of Asia remaining steadfast in its desire to foster cartels and monopoly.

The effort to bring economic integration to North and South America under NAFTA and Mercosur (the Common Market of South America) has been limited by the trading bloc system which has worked to pit insiders against outsiders and thus blocking efforts to create greater global uniformity and harmony in trade policy. Trade has thus been structured by rules of trade that reflect the regional interests of trading blocs. Trading blocs establish a “map of the boundaries and entities of trade, a new definition of insiders and outsiders, new decision-making bodies, and new rules of trade,”108 all of which frustrate any movement toward harmony in competition policy.

2. Limits of Legal Process.

Practical problems of legal process have also limited and restrained United States antitrust enforcement agencies efforts in seeking to bring about transparent rules of competition by uniform foreign antitrust enforcement or better choice of laws. The United States governments antitrust case against the De Beers-General Electric international diamond cartel,109 which failed because the prosecution was unable to compel three key European citizens to provide relevant testimony in court to prove a horizontal price-fixing conspiracy, illustrates the problem. The De Beers diamond cartel represents to this day why extraterritorial jurisdiction is not likely to lead to a robust foreign competition policy, comity issues notwithstanding.

In order to successful prosecute foreign antitrust cases, antitrust enforcement agencies must be able to subpoena foreign witness and compel foreign discovery of evidence located in a foreign country. In the absence of foreign cooperation it will be difficult for the Antitrust Division or the FTC to launch a serious foreign antitrust enforcement program. The International Antitrust
Enforcement Assistance Act of 1994, which allows United States antitrust agencies to share confidential information with foreign competition policy authorities, is not likely to simulate cooperation needed to prosecute future cases especially if as in the case of the De Beers organization, foreign defendants have lucrative businesses in nations that tolerate cartel activities. As Professor Scherer has asked: “Would one national cartel authority assist another nation’s authority in a competition policy case when the subject enterprise threatens to withdraw its production and employment from the first nation, or to deprive independent producers in the first nation of needed raw materials or components?” Professor Scherer’s response to his own question is that “cooperation is unlikely.” As he wittily put it: “Courage in such matters is almost as scarce as gem-quality diamonds.”

3. Limits of Transparency.

Any effort to bring about transparency will be difficult to achieve given the conflicting interests nations have about their own legal process for bringing hiding regulatory regional purposes and values in justifying trade regulation. Regional interests in protecting the Common Market of the E.U. thus become embedded within the E.U.’s competition policy. Antitrust regulation of E.U. consequently hides its unique regional protective interests in way it understands and enforces regulatory norms of competition. Since, the judicial process frequently determines substance in the law, there is reason to doubt the any effort to bring about transparency as a means for creating a global antitrust policy can be evaded by judicial decision making.

Global cyberspace creates even more possibilities for hiding the regulatory motives of regulation. Architecture of the Code and the silent forces of supply and demand of markets create their own regulatory regime which is non-transparent in the sense that the motives for regulation are
never in open. The fact that technology and the laws of markets hide their motives for regulation make it difficult for antitrust policy makers to fashion a transparent policy based on law. To the extent that government begins to regulate the architecture of technology or markets then the problem of transparency will be a significant policy issue for policy makers. Hidden regulation may be an effective means for regulating behavior, but it also raises the questions of democratic accountability of the regulators. The question of whether regulation should be transparent, however, is still up for grabs.  

V. The ‘Iron Law’ of Globalization: Monopoly Power is Global, Antitrust is Not.

The new economy that is now found on the Net is the product of the nexus created by the intersection of global information technology and global commerce. In this sense, the new economy is made possible by a technological-market nexus which is global in design and purpose. The connection providers –the firms that provide the hardware and software to run the Internet –as well as the advertising industry and Net suppliers which generates the revenue to make the connections profitable, are the new dominant players in this new economy. The convergence to an ever increasing large and diversified firm size, as demonstrated by the AOL-Time Warner merger, means that the Net may soon be, if it is not already, dominated by global media oligopoly. Connectivity created by the technological-market nexus has permitted transnational corporations like AOL-Time Warner to create their own global informational and distribution systems predicated on links between entertainment industries and information communication technologies of the Net and cable to give rise to a completely new form of global media business. The development of broadband networks which links data, voice or video at high speeds of transmission on the Net has the potential
of fundamentally transforming the communications industry within the next few years. Who ever has control over broadband will be in the position of dominating this industry throughout the globe.

**A. The Global/Technological Constraint on Harmonization.**

What is “new” about the global monopolies that support Internet commerce is that they use the technological-market nexus to exercise their power on a global basis. In other words, the new information technology which enables global commerce is itself the mechanism that both creates and facilitates the exercise of monopoly power. The essential point made by Lawrence Lessig is that the architecture of the technology, or “Code,” has created rules of regulation that are privately owned and enforced. The private ‘codes of regulation’ are what permit and facilitate the exercise of monopoly power. The private regulation of the Code is the ‘soft’ law of the software technology and should be understood as an alternative form of regulation created by the private global economic activity made possible by the technology of the Net. The question for policy makers is not whether to regulate the soft regulation of the Net (it is already regulated); the only real question is who will do the regulation—government or private interests and what kind of regulation will be utilized—‘soft’ or ‘hard.’

Soft regulation offers many options for regulation. Consider, for example, how the architecture of the Net has already changed from a totally “open-system” to an ever increased constrained and secure system which restricts access to certain information. As Lessig has explained, “[t]he challenge for commerce on the early Net was to develop architectures that, while sharing in the network advantages of the Internet, would restore some of the security that commerce requires.” Hence, new encryption software, patterned after Netscape’s secure socket layer (SSL) protocol has been developed to secure credit card information and other information necessary for
Development of these new security protocols have, however, permitted merchants to use the information for competitive purposes. Cookies programs that collect and store such information from electronic transactions have been used to give firms like Amazon.com a competitive edge over their rivals by allowing for both “click and shop” purchases and a new resource (customer information) that can be sold like any other commodity. Control of the protocol and the software program enables private interests to gain market share thereby creating the potential for monopoly power.

The potential for global monopoly power is great so long as the software codes used to establish the standards for Internet communication are privately held. Once they become the standard in the market, either because they are deemed by users as “superior” or because they are the first to be used the standards are de facto codes that are entrenched and thus difficult to dislodge through competitive practice alone. Once coupled with market power, de facto software standards pose a serious anti-competitive danger to global commerce. For example, as long as Microsoft’s Windows operating system controls approximately ninety percent of the systems running on PC’s, then Microsoft controls all other operating systems that would interface with its program. Monopoly power over applications in effect creates an “applications barrier to entry.” The secret code of the application program interface embedded within the Window’s software program becomes a barrier to all other programs that would interface with Windows, such as Netscape’s browser program or Sun MicroSystems’ Java operating program that permits programers to write software to run on any operating system or hardware. As long as Microsoft can maintain its power and control over the APIs, making software design difficult, it will be in the position to reap all the network effects that owe to a single firm network monopoly of global dimension.
As the Code itself has become commercial, and as a smaller number of large transnational corporations like Microsoft and AOL-TimeWarner become dominant in the new economy, more global monopoly and oligopoly will be created. It is still too early to known who will be the dominate global players because the technology itself is still too fast moving to permit even a giant like Microsoft to feel secure about its dominant position. Every day it seems a new technology is announced –new digital cable boxes, new and more powerful Palm Pilots and amazing new PlayStations and X-boxes--promising to replace the PC itself as the platform of choice to gain access to the new global economy. The competition of technology, however, is itself motivated by the incentive to gain control over yet another new standard or platform for gaining entry to the new market. Whether Microsoft is replaced by an ever bigger rival like AOL-TimeWarner is not terribly important, though worthy of concern.

The United States antitrust laws remain a powerful restraint on domestic monopoly power, but not in the case of global monopolies. As the previous discussion has already noted, antitrust still remains domestic and local in its scope. In the case of software codes, however, there is also the obstacle posed by the pro-monopoly policies of intellectual property laws of patent and copyright which protect the Code from governmental regulation under the Antitrust laws. Intellectual property law has in fact served as a “legal barrier” to the application of the antitrust laws. One of the most relevant antitrust doctrines that might be useful for dealing with problems of “applications barriers to entry” issues, for example, the essential facility doctrine, would justify antitrust regulation of intellectual property because the IP rights would be the source creating the essential facility and the doctrine would be triggered by the monopoly power authorized by intellectual property rights.
Lipsky and Sidak have argued that “Microsoft would have a powerful argument that a per
se taking of its property would result from any injunction by the court mandating Microsoft to give
Netscape access to the Windows platform.”21 Without access, however, Netscape’s browser is left
with a declining market share. It is unclear whether the courts or agencies would take Lipsky and
Sidak’s taking argument seriously.

More ominous to competition policy, is the law of Intellectual Property which creates a
serious obstacle to antitrust enforcement of software monopolies. One major consequence of the
nexus created between global information technology and global commerce is that the social policies
that are necessary for inducing research and development of new technologies and thus encourage
monopoly advantage come up against the public policies of antitrust which are aimed at eradicating
those very advantages. Patent and copyright laws which provide intellectual property protection to
software and hardware technologies create a policy nightmare for antitrust enforcers who are already
overcome by the problem of dealing with new forms of global monopoly that is beyond the reach
of antitrust legislation.

The most pressing problem for antitrust enforcers then is that monopoly power of ownership
of IT products weakens the traditional modalities of antitrust regulation. As a result of the new nexus
between technology and global markets, monopoly power can now be exercised globally. Monopoly,
like capital itself, is now fluid; capable of moving form place to place whenever relocation suits the
needs of the monopolist. What regulates power is the technology of the software programs which
are protected by intellectual property laws and international protocols. Because geography and the
borders of sovereignty mark the limits of antitrust’s reach, and because cooperation between nation-
states is so difficult, antitrust and trade regulation law remains local.
Harmonization is essential for the future development of antitrust and trade regulation law in the new economy. Harmonization must be undertaken both domestically (in the case of intellectual property laws and deregulation policies of the Chicago school of antitrust economics) and internationally (in the case of different philosophies and legal regimes of trade policy law now exiting between nation-states). But even if harmonization were attained both domestically and internationally, and a world-wide competition canon could be agreed too, it does not follow that the new global economy would in fact be better off. The lessons of the General Theory of second-best suggest that the investment in global antitrust enforcement may turn out to be second-best strategy to doing nothing. As Lipsey and Lancaster demonstrated in their analysis of the “general theory of second best,” monopoly regulation is an ‘all-or-nothing proposition.’ Either all monopoly though out the planet must be eliminated or all enforcement against particular instances of monopoly power should be eliminated altogether.

B. The Theory of Second Best Writ Large.

The Theory of Second Best is in this sense a bleak theory for antitrust enforcers, and many enforcement policy makers have thus ignored the theory for good reason. It is a bleak theory because it requires a complicated enforcement effort must be aimed at eliminating only as much dead weight loss caused by monopoly that is feasible. Many antitrust theorists have simply ignored the Theory of Second Best believing that the advantages of eliminating instances of monopoly to outweigh second-best outcomes. In theory, if one could make an appropriate trade-off, eliminating monopoly only when such would increase efficiency and leave monopoly alone when enforcement would decrease efficiency. But, the Theory of Second Best is both hard to ignore and difficult to manage once the enforcement effort moves to the global level.
The Theory of Second-best teaches that attaching monopoly in one sector of the economy, without doing anything about monopoly in other sectors, may be a second-best trade off to leaving monopoly unregulated. There is simply no guarantee that remedying separate market failures caused by monopoly will improve efficiency. Indeed, as Peter J. Hammer has recently noted, “the counterintuitive proposition that remedying isolated market failures could actually make outcomes worse becomes possible.” The insights to be gleaned from the General Theory of Second Best should provide pause to anyone who believes that piecemeal foreign antitrust enforcement or global enforcement policy will bring about Pareto-efficient results in global markets. The Theory offers sobering news for anyone who may think that a world-wide competition policy is the solution to restraints of trade in the new world economy.

Problems of second-best are intensified in the new economy because when we move to a world-wide market analysis of a network, where everything affects everything in the interdependent network of the global economy. Moreover, because the technology itself competes with itself and is constantly changing and adapting to competitive change, there is necessarily a need to engage the dynamic analysis of general equilibrium analysis where everything is subject to change and where everything is interconnected. Cybercascades and tipping points would shift preferences of consumers thereby necessitating, at least in principle, that inter-market trade offs be considered, and general equilibrium analysis be used.

The General Theory of Second Best thus poses a serious challenge to anyone thinking of developing a new global anti-monopoly policy to deal with global monopoly power. If we are to take policy in favor of market competition seriously and render it meaningful for the developing global market place then there needs to be a way of moving the antitrust regulatory policy beyond the
problem of the second best and beyond the local level. One way would to do this would be to focus antitrust attention on the most pressing anti-competitive dangers and ‘hot spots’ on the Net. Bottlenecks, choke holds, and technological barriers to entry that prevent competitor from gaining entry to the marketplace should be the prime candidates for antitrust regulation in the new global economy. The problem of Second Best has never been a reason for eliminating barriers to entry in the marketplace of real markets, and the Theory should not be used as an excuse for eliminating similar barriers to entry in the marketplaces of virtual markets. Another way to deal with global problems of Second Best would be to develop a fair competition policy that would be both comprehensive and effective in responding to global monopolies.

The antitrust doctrine of essential facilities would seem to be a prime candidate for constructing a new global fair competition policy. Duties of fair competition need not be viewed as an interference with IP rights to the Code since IP law has never been seen as protecting behavior that undermines consumer sovereignty or efficient resource allocations. An apt analogy for dealing with competition harms on the Net might be found in United States v. Terminal Railroad Association, the 1912 Supreme Court decision involving Jay Gould’s Terminal in St. Louis, Missouri. Essential facilities doctrine would require new modalities of regulation designed to deal with the tension created between IP law and antitrust and the unique structure of networks.

The crucial feature of IP law is that ownership becomes the means for the exercise of monopoly power. Network effects in turn allow the function of ownership of the design of the network to entrench that monopoly power far beyond would could be justified by what is necessary to protect the incentives to innovate. The ability of government to regulate will thus depend on the Net will thus depend on whether soft or hard law ‘regulates’ the key ownership rights to the
network. The essential facility doctrine of antitrust law provides the framework for building a new regulatory design for the Net based on the idea that the Net is an essential facility for the exercise of the soft law mechanism that enforce the monopoly power of private actors.

What the essential facilities doctrine offers is a legal framework for integrating ‘hard’ and ‘soft’ law mechanism along a common regulatory objective. Ownership rights to the network would impose upon the owner the duty to share access rights on fair and reasonable terms. One could thus analogize the Net to a computer airline reservation system which gives competitive advantages to dominant competitors.\(^{127}\) The applicability of the essential facility doctrine to the Net has been recognized by Abbott B. Lipsky, Jr. and J. Gregory Sidak, but they conclude that constitutional problems raised by the regulation of private property are an obstacle.\(^{128}\) On the other hand, monopoly power if unchecked is itself a danger to the democratic process that the constitution was designed to protect. Monopoly power over an essential facility of communication thus poses grave dangers to the constitutional freedoms of private property and free speech which Lipsky and Sidak argue limit antitrust regulability of networks. If the constitutional freedoms of private property trump antitrust values then property and ownership privilege may some day threat the constitutional legitimacy of government itself.

What is important about the essential facility doctrine of antitrust is that it provides the opportunity to meld hard and soft law in new ways for getting at the abuses of monopoly power resulting from control of technology. The doctrine creates a new regulatory framework for regulating market behavior and social norms in ways that are conducive for the development of technology and networks. The doctrine creates a legal framework enforced by public officials for adapting the design of the architecture of the Net to better comport with norms of the hard law mechanisms of antitrust.
For example, in recognizing that the ownership of the applications standards of the network can be used as a barrier to prevent entry, the doctrine of essential facilities brings to bear fair competition norms that would prevent ownership privilege from be used to choke future competition. The doctrine would help to bring about greater transparency in the existing soft law mechanism now regulating the Net. A ‘global Code of fair competition’ or ‘fair competition practice’ protocol patterned after the agency model of the Federal Trade Commission could be recognized as an international protocol in all trade agreements, including those that enforce IT and IP rights. In the absence of greater harmony and transparency in enforcement, however, global competition policy remains a prisoners to the iron law of globalization: Monopoly will remain global and antitrust and trade regulation law will not be global.

VI. The Soft Law of Code is the Situs of Regulation and the Code is Difficult to Regulate.

It is seems that e-commerce will be the dominant form of commercial activity in the future. E-commerce is also challenging some of the most cherished fundamentals about the way markets are thought to operate. The markets of e-commerce, for example, involve new forms of behavior and different ideas about human motivation. Search modes and computer savvy are as important as consumer tastes and preferences. A customer who has a particular taste for one brand will not be able to realize his or her desires if the web address for that brand cannot be found on the Net. Search engines can help guide the e-consumer, but the code of the search engine will be as important to ultimate consumption as is taste and preference. Understanding search strategies of potential customers, as well as information gained from cookies and other filtering programs may be equally as important as traditional forms of advertising in generating demand for an e-products and services.

The technologies that make the Internet possible –the packet switching network, and tools
like the lap-top personal computer, and military-grade cryptography –render the command and control strategies of American antitrust law cumbersome if not useless. The packet switching network makes it relatively easy for anyone to route around blockage; and tools allow for anonymous and easy access to markets which render government regulation fruitless, and cryptography is now state of the art allowing Internet users to avoid detection and control. To antitrust regulators, the virtual marketplace of the Internet is what A. Michael Froomkin once called a “modern-day hydra” —“every attempt to block access to material on the Internet, indeed anything short of an extraordinarily restrictive access policy, can be circumvented easily.”

Markets of e-commerce are thus like the immortal head of the multi-headed mythical beast ‘hydra’ that would grow back every time it was severed from the body of the beast.

This does not mean that e-commerce cannot be regulated. As Lawrence Lessig has argued, regulation of the Net is essential if commerce is to develop and the only question is who will effectuate the regulation –government or private interests. If we accept Lessig’s analogy of Code as law, then it becomes clear that the Code is itself a regulatory authority that specifies the rules or designs the “architecture” of market activity on the Net. One could thus think of the Code as the regulating law of e-commerce. Like the laws of supply and demand of real markets, the Code specifies how supply and demand functions. What freedoms exist in either real or virtual markets depends on whether the ‘laws’ or the code of the marketplace are constrained or controlled by either private or public interests.

Competition norms have flourished in the privately owned technologies that have created the global information systems and structures of global trade. Regulator norms emanate from decentralized patterns of behavior structured by the software programs that determine access and
establish the rules for electronic commerce. The software programs have created soft regulation gives users the ability to route around unfavorable regulatory regimes. Regulatory competition encouraged by the software creates an internal economic private dynamic that prevents hard law of the regulatory state from establishing a universal normative position. Hence, Net culture regards regulation as a “bug” or “virus” that must be routed around, and freedom of action is its most central “feature” built into the source codes of the software programs that run the system. The technology of the Net is thus designed to give effect to the sensibility of ‘freedom from unwanted regulation’ and this sensibility is built into the architecture of the Code itself.131 There is, in other words, a built in bias of software technology that helps to shape norms that run contrary to the norms of antitrust.

In the past year, new software programs have been created to track where people are on the Net through real-time analysis of Net traffic, a technique called geolocation.132 These software programs would in theory allow the user to track the country, the state and in some cases even the city from which a Net user is located. The software can also be used with keyword filters block access to Web pages thereby erecting an electronic fence around a space on the Net. Cyber zoning may now be possible allowing nation-states to regain control of the Net so that regulation can once again be used to shape norms and behavior on the Net. Privacy experts argue that new software technology such as electronic butlers and machine-to-machine protocols that would allow an individual’s browser and a selected Web site to negotiate privacy standards, or Platform for Internet Content Selection or PICS which are filters (protocols for rating and filtering content on the Net), or Fair Information Practice Rules or FIPs in licensing agreements, which could be used to regulate for privacy purposes.133
Whether the Net can be regulated by either the new software technology or new default rules built into the software code or license agreements will depend on whether software regulation is capable of regulating the kind of behavior now practiced in cyberspace. Cass Sunstein, for example, writes about the phenomenon of *cybercascades*, a term he has invented to describe how information on the Net can quickly travel and have widespread and entrenched effects on beliefs and norms in society.\textsuperscript{134} Sunstein notes how “there is even a ‘tipping point’ phenomenon, creating a potential for dramatic shifts in opinion.”\textsuperscript{135}

As a result of cascades and tipping points, large groups of people can come to believe something, whether or not it is true or valid, merely because other people believe it is true and valid. This may be what the Net has been doing with free market ideology; free market ideas about the technology have traveled around the globe, creating widespread and entrenched opinion about the virtues of deregulation and nation-state decline, resulting in *cybercascades* of opinion that are openly hostile to state regulation. The potential for norm regulation by private interest creates a challenge to the hard law of antitrust which lack the tools to engage in serious norm regulation of the software technology and the norms that technology encourages and reproduces in the new global economy.

Private interests can now use the Net to route around governmental regulation; locate within jurisdictions that protect the intellectual property of their products, and they can do this while they promote new social cascades for norms that run contrary to antitrust.\textsuperscript{136} The ‘technology’ of the Internet industry is, after all, intellectual property ‘manufactured’ by a human creative process which is itself difficult to control or restrain and is always looking for ways to protect its own self-interest. Because “consumer attention” is the “commodity” to be bought and sold the technology itself now has all the advantages when compared to those of the regulatory state. When one looks to the

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dynamic of the interaction created by the technology one sees within the architecture of the Code. A huge ideological filtering device aimed at giving private Net users the power to avoid the kind of public values that have heretofore justified antitrust regulation. The Net was after all “born in a research project in the Defense Department,” where survivability from foreign Nuclear attack was an important feature to be developed, and therefore it should not be surprising that Net culture would be opposed to all attempts to constrain Net activity.

Even if antitrust were to apply to the Net, there would have to be new rules for dealing with the unique nature of cyberspace markets. Remember, for example, that in the virtual “space” of the Net the user can control and design their own marketplaces that run on the rules the user has created for his or her virtual reality. The normal rules of how objects are thought to interact in ‘real space’ thus do not apply to cyberspaces and this is what gives users a degree of freedom that has heretofore never been seen. One can redefine the “rules” of real space and thus create a totally new world on the net, and this awesome power to create alternative realities is what gives the Internet its ‘aura’ of freedom. It also makes issues of regulability much more difficult.

On the Net, the idea of ‘free market’ means freedom to route around and filter out obstructions and blockages that restrain a system application from ‘ruling’ within its domain so that users can do what ever they might like to do. In the marketplace of virtual reality, the normal laws of supply and demand can be redesigned so that utility that a user derives from the Net is dependent on repeated uses of the network. In economics, the concept of “network effects” helps to explain how utility of one consumer increases when additional users also consume the same good. “Metcalfe’s Law” states that “for computers, the value of participation on a network grows exponentially with the size of the network.” Freedom of the user is thus influenced and shaped
to adopt the network system. Strong network effects in the software programs used to run the Internet like Microsoft’s *Windows* operating system, for example, were claimed by the Antitrust Division in the 1995 tying suit against Microsoft. Network effects were said to play a dominant role in explaining Microsoft’s dominance of the operating systems market. Network effects can thus fundamentally distort market functions so that what may appear to be “free” is in fact subtly controlled by those in command of the Code.

**VII. Software Technology Competes with Itself: Dynamic versus Static Regulation.**

There is reason to also question whether large firm size is even relevant to the kind of competition that firms face in the new economy. Because innovation and technology is the primary competitive force in the new economy, large firm size and dominant position in a technology may be a disadvantage. Network effects or network externalities may increase utility through multiple use of a particular network system and thus insulate technology from future technological competition to a degree, but when technology shifts to a totally new network system, for example, from telecommunications to cable, or from narrowband to broadband, then network effects will no insulate an existing technology from competition.

In the new information economy, technology is the principle basis for competition. To be successful, technologists like Microsoft must constantly have an eye on the future. Monopoly positions created by technological standards can be quickly eroded as new standards and new technologies redesign and restructure the industry. Microsoft’s effort to be the dominant provider of software computer applications systems is placed in jeopardy by handheld devices such as Palm Pilots, which do not rely upon the Windows CE system. Sony’s next generation of PlayStation offers its own platform to the net, as cable systems now do with set-top boxes. Broadband Internet cable
access promises high-speed Net capability with television sets. Cellphones are now capable of surfing the Net. Microsoft’s monopoly position in software PC applications may be a short run advantage and unless Microsoft remains competitive in the technology it may find itself the holder of an obsolete technology.

When competition is waged with technology, firms must remain dynamic and committed to future forms of competition arising out of innovation and new technology. The dynamic nature of technological competition will necessarily require policy makers to also take a dynamic view of competition policy. Competition policy, however, is currently not dynamic. Judges and policy makers adopt the approach of partial equilibrium economic analysis which evaluate competition by taking a static, snap-shot picture, of a single business or industry. The static nature of partial equilibrium analysis is backward looking: facts and circumstances are frozen in time and much of the inquiry of the antitrust case then looks backward to piece together a history of the event by considering the chain of events and behavior responsible for the alleged restraint of trade. The analysis is almost exclusively concerned with the interaction between direct competitors in a relevant product and geographic market. In failing to take into account the dynamic nature of technological competition, the ‘hard’ law of antitrust fails to take into account how various new technological markets are evolving.

The information technology of the new global economy requires a dynamic and inter-industry analysis. Fast moving innovations in a new markets must be understood in order to understand the evolution of competition based on technology. Snapshot looks at existing markets of a particular industry will fail to take into account how future competition can arise to transform the market. What is frequently ignored is what is how technological markets function and how technological
competition is in fact waged. The vertical merger of American Online and TimeWarner, where the a dominant Internet provider merged with an equally dominant cable and entertainment provider may not, under a static intra-industry analysis appear to present a substantial threat to market competition, and still be a threat to competition in the evolving future market created by links between broadband cable, the Net and the entertainment industry.

Hard law, shaped by a static analysis and limited by the confines of legislative commands and the doctrine of case precedent is a blunt instrument for dealing with fast moving changes of new technology. The static frame of a case record, constrained by the law of evidence and process, narrows the legal issues and legal frame of analysis to discrete snapshots of time. Legislative supremacy principles in turn require antitrust decision makers to limit their inquiry to the text of a statute. Policy analysis developed from the Chicago School of antitrust economic reinforces the static and narrow frame of inquiry of hard law by insisting on a static and partial economic analysis and de-legitimates antitrust when it seeks to address rapidly evolving markets.146

High tech markets of the new economy are in fact intellectual property markets as a result of Trademark, Copyright and Patent protection. The hard law of IP law creates a further limitation on antitrust regulation of technological competition. The hard law of IP is more future oriented in that IP law seeks to protect and stimulate the development of future technology by granting exclusive property rights to the results of innovative activity. IP markets therefore require a more balanced and future oriented outlook than accorded under conventional antitrust doctrine. It is thus difficult to achieve harmony or transparency in competition policy in IP markets, even when the frame of analysis is raised from the domestic, to the regional or international level. Hard law thus imposes
serious limitations and conflicts for the development of a consistent competition policy for the new technological forms of competition characteristic of technological and IP markets.

VIII. Melding Hard and Soft: A Proposal for Integrating the New Forms of Regulation.

Katherine Van Wezel Stone, David M. Trubeck and Jeffery Rothstein have recently argued the case for transcending the hard/soft dichotomy of regulation in advancing proposals for a new form of global labor legislation.147 Because capital is mobile and labor is not, globalization phenomena have eroded the hard-won labor standards and workplace rights in Western countries. Increased capital mobility and diminished regulability of nation-states have triggered races to the bottom, prisoner dilemmas, and regulatory arbitrage that has lowered labor standards.148 Van Wezel Stone, developing ideas about hard and soft regulation, has recently proposed that new forms of effective regulation to protect labor rights in global labor markets can be developed by the effort to “transcend the hard-soft dichotomy” of public and private regulatory systems.149

In the case of labor standards, the proposal for an integrated hard-soft regulations does not seek to regulate labor standards directly, but instead “attempts to reshape the regulatory framework for voluntary action.”150 The goal is to “rewrite the rules of economic life in a way that embeds voluntary efforts in a protective regulatory framework.”151 For example, one idea that is propounded by Van Wezel Stone is that transnational labor regulation should be created by a new synthesis melded from labor rights and intellectual property rights. Hence, transnational firms that rely upon Trademark and Copyright to market and promote their products and services should be subject to IP protection by the international trading system only so long as the products were produced under existing labor standards.152 Hence, Van Wezel Stone argues that international regulation of labor

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standards should be redefined so that labor standards are made an aspect of international protection for intellectual property.

Van Wezel Stone’s labor standards proposal would allow for parties to challenge a firm’s entitlement to IP protection on the basis of “poor labor standards the firm employs.” Alternatively, she argues that a “party seeking to gain intellectual property rights [should be required] to demonstrate that it meets some minimum level of labor standards in its facilities.” The basic reason for bundling labor standards with IP law is premised on the notion that property is a “bundle of rights” one of which involves the right to produce in the global marketplace. The property right to produce in the global marketplace should, in Van Wezel Stone’s view, be conditioned upon the satisfaction of the minimum social norms that essential for establishing a humane and just social contract for the global community. According to Van Wezel Stone, it would not be “unreasonable for the state to condition (property rights) protection with an obligation to produce under fair conditions in the global labor market.”

Van Wezel Stone’s proposal transcends the hard-soft dichotomy because it relies upon both hard and soft regulation to enforce and maintain minimum international labor standards. Hard law of IP is thus bundled with soft law of private sector actors who use IP rights to create and enforce their technology and trade networks. The soft regulation thus uses non-state or non-state like institutions to regulate conduct. The hard law of IP law does use state or state-like institutions to regulate, but IP law also facilitates soft regulation indirectly by recognizing property right protection to trademark, copyright and patent. By embedding minimum labor standards into IP law, hard law ‘rewrites’ the rules of private economic activity which serve to establish the regulation of ‘soft’ law.
Without Copyright and Trademark protection, the advantages of ownership of information technology would be lost. Competitors would be free to enter the field, copy the technology, and take a free ride on the technology developed by others. Professor Van Wezel Stone notes how the likeness of Mickey Mouse has been used to create a vast global empire of products which are identified with Mickey’s image. The same phenomena can be seen to be at work in the case of the Microsoft’s Windows Code; the Windows icons are now so commonplace as a result of Microsoft’s licensing agreements with OEMs that it has become associated in the minds of some consumers with the hardware itself. Hence, Windows and computers are now cognitively in the same category such that hardware and software is now regarded to be one and the same in the marketplace. Network effects in this way are reinforced by the IP protection for the Trademark and Copyright to the software itself.

In the spirit of Van Wezel Stone-Trubeck-Rothstein effort to devise a new international regulatory framework by transcending the hard-soft dichotomy, a similar effort could be made to transcend the hard-soft regulations of competition in the new global economy. Such an effort would thus involve the development of new regulatory competition policies that are designed to use voluntary activity underlying soft forms of regulation to reinforce the competitive norms and policies of hard regulation. The idea would be to find ways to integrate ’hard’ and ’soft’ regulatory mechanism of regulation so that public and private modalities of regulation would be reshaped to provide greater harmony and transparency with the competitive policy of the hard law of nation-states and nation-state institutions.

One idea, based on Professor Van Wezel Stone’s proposal for global labor markets would be to use the IP laws of nation-states and the international protocols that enforce those rights to indirectly shape private conduct in global markets in conformity with the norms of competition
policy of hard law. The right to IP protection would thus be linked to the basic competitive norms found with the domestic and regional communities applicable to the markets where firms are found. Global competition policy would thus be enforced via voluntary conduct of private parties who as a price for gaining IP protection are required to adhere to minimum standards of competition policy established by domestic, regional and international states and institutions of the world.

The integration of the soft regulation of IP property with the hard regulation of antitrust combined with a global fair competition policy that recognized that freedom from monopoly power is both a human value and an essential norm for protecting democracy would offer a potential new ground for bringing greater harmony and transparency to international and regional competition policy. An alternative of the same basic approach would permit a party to challenge a firm’s entitlement to IP protection on the basis of monopolistic practices that have arisen as a result of the exercise of IP protection. An anti-monopoly exception to IP protection could be devised as a defense to infringement actions. If IP protection is misused in ways that run counter to competitive norms embedded within global competition standards then the bounds of the IP proprietor grant would have exceeded.

Mandatory and default rules could be devised could be used to supplement IP law in ways that further encourage voluntary compliance with competitive norms. For example, rules prohibiting information exchanges in tight oligopolies or mandatory prohibitions against tying and bounding of IP property in heavily monopolized markets could be embedded within IP law by judicial decision or legislative action to ensure that IP protection is not used to further the spread of monopoly in global producer markets. Default rules that are used in the commercial context as gap-fillers to contractual arrangement could be used so that IP subject to licensing agreement would contain a
“good faith” obligation that IP rights not be exercised to intentionally harm a competitor for anti-competitive purposes. Information exchanges could be prohibited if IP material is involved whenever it is shown that the exchange would lessen competition in the evolving IP market. Failure to satisfy the duty of good faith compliance would be grounds for loss of IP protection.

An alternative suggestion, one that would raise serious issues of transparency, would be to build within the soft law of the Code a software technology that guards against anti-competitive behavior. Developing the insights of Michel Foucault one could imagine the future possibility of nation-state authority being exercised through the private “capillaries” of the software codes of the new information economy. Imagine, for example, a new software filtering system that operates like an electronic butler to prevent access to the market whenever competitive-favoring behavior is violated. In the privacy context, for example, suggestions for filtering systems which are designed in light of “fair information practices” and Platform for Internet Content Selection (PICs) have been offered to protect the privacy of data on the Net. Melding government regulation with the soft law of the Net may be the future path for regulation in the new economy as suggested by Cyberspace theorists begin to contemplate issues of privacy on the Net.

The dangers created by non-transparency, however, creates a serious policy question for all forms of soft regulations that rely explicitly on design or architecture, even those that are used by government regulators, as Lessig’s example of Robert Moses’ design of the bridges to the beaches in Long Island illustrates. The question that needs to faced and resolved is whether democratic values of transparency can coexist with soft forms of regulation created by markets and technology. Without transparency, soft regulation creates a serious conflict with the public values that nation-state regulation seeks to advance. In the case of antitrust enforcement policy, transparency should
be as important to policy makers as is the traditional policy value of promoting the economic interests of competition and efficiency in the economy. The anti-democratic potential of regulatory power can be as dangerous to the public interests as monopoly. Issues of antitrust regulability thus necessitate democratic concerns that have historically justified antitrust regulation of monopoly power, and one would hope that democratic values would be the most important factor considered in choosing between different regulatory modalities of regulation.

The effort to transcend the hard-soft dichotomy of regulation ought to be motivated by the goal of building a new global regulatory system adequate to meet the challenges of the marketplaces created by the technological-global market nexus so that age old values of Antitrust are honored. We are now just coming to recognize that a new form of regulation exists and governs economic activity in the new economy. Soft mechanisms of regulation have until now been left to evolve in response to purely private interests. The effort to transcend the hard-soft dichotomy is aimed at bringing soft mechanism of regulation back into line with the public purposes underlying the hard law and policy of antitrust and trade regulation. The effort to integrate hard and soft regulation, the old and the new forms of competition policy, will be complex and fraught with difficulty. The effort however cannot be made until serious consideration be given to the possibility of developing a new set of competition regulatory policies which integrate the best features of ‘hard’ and ‘soft’ regulation.

IX. Conclusion.

The story of globalization and the Internet is a story about how private interests have broken free from the restraint of nation-state regulation. The integrated World Wide Web of the Net has shrunk the world, creating a new planetary cyberspace for the interplay of global economic activity. The technology of the new economy developing on the Net and its connectivity between users is
thought to be immune from nation-state regulation.\textsuperscript{161} The architects of the Net — the software developers and the equipment manufacturers — are the masters of the new economy and appear to now control the economy and thus dominate world markets and opinion.\textsuperscript{162} For antitrust enforcers the challenge created by the new global economy is a challenge that questions antitrust regulability. To meet the challenge antitrust enforcers and policy makers must better understand how regulation now functions in the evolving marketplaces of globalization. Hard and soft regulatory systems are now in competition for control of the major issues and subjects of regulation. Because soft regulation is a creature of private interests and private institutions, soft mechanisms of control will likely weaken the existing norms of competition policy. In order to strengthen and harmonize antitrust regulation of nation-states it may be necessary to develop a new regulatory strategy based on the goal of integrating hard and soft regulation on the basis of a harmonious and transparent competition policy designed for the high tech IT markets of the future.
Notes

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2. Yergin & Stanislaw, Commanding Heights, supra note 1, at14.


6. In United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966), the Supreme Court concluded that the offense of monopolization under section 2 of the Sherman Act required proof of possession of monopoly power in a relevant product and geographic market and the “willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.” Id. Monopoly is
understood as the power to control prices or to exclude competition. See United States v. E.I. du Pont de Nemours & Co., 351 U.S. 563 (1966). In the absence of direct evidence of acts of monopolization, courts look to market share percentages to measure monopoly power. 351 U.S. at 391.

7. Id. at 1623.

8. Id. at 1628-31.

9. Id.


11. COOMBE, CULTURAL LIFE OF INTELLECTUAL PROPERTIES, supra note 3, at 55-62.

12. Id. at 55-62. The effects of such advertising has created what Coombe regards as the ‘coca-Cola-ization’ of culture (Coca-Cola is the “Real Thing!”). Id. at 57.


15. See FREDRIC JAMESON, POSTMODERNISM OR THE CULTURAL LOGIC OF LATE CAPITALISM (1991) (describing how the concept of postmodernism arises from an “attempt to think the
present historically in an age that has forgotten how to think historically in the first place.” *Id.* at xi.

16. Katherine Van Wezel Stone, *To The Yukon and Beyond: Local Laborers in a Global Labor Market*, 3 J. SMALL & EMERGING BUS. L. 93 (1999). As Professor Van Wezel Stone has noted, “globalization must not be confused with free trade.” *Id.* at 100. Free trade rhetoric has nonetheless influenced policy making in the global context because policy makers continue to believe that free trade leads to economic improvements. In this sense, we are all “Ricardians” in the sense that comparative advantage and free trade continue to make sense in a world where trading blocks and world organizations like the WTO which govern relations between trading blocks and the rest of the world. *Id.* Ricardo and Adam Smith would not regard such arrangements as free trade; they would instead see that a new economic arrangement of trade has been created with new rules of trade based on conscious governmental policy.

17. *Id.* at 67.


19. The recent *dot.com* crash on the market may in fact signal that we are now passing on to a new regulatory period much in the same way that the 1929 stock market crash signaled the beginning of the new regulatory state of the New Deal.

20. I have used this term to describe the changes brought about in culture by the nexus created between global information technology and global commerce. *See* Minda, *Globalization of Culture*, supra note 1, at 626-35. The “key features’ of the technological-market nexus are: (1) The increasing importance of transnational corporations in the economy; (2) Decline in the importance of national production to profits; (3) Emergence of the information economy; (4)
Corresponding decline of a “Production Economy;” (5) Economic power resulting the ability to manipulate information and a network rather; (6) Decreasing relevance of the nation-state as the source of power and influence to regulate the economy. *Id.* at 627.


22. *Switching Costs* can be significant in IT markets. Such costs may include “the cost of acquiring new equipment or technology; the transaction cost of switching suppliers (including search costs); the cost of learning to use new equipment and functioning in the new technological environment; consumer uncertainty about the quality of untested brands; foregone benefits of loyalty programs, such as frequent flyer programs; and psychological brand loyalty.” Note, *supra* note 5, at 1632.

23. *See* Lessig, *Cyberlaw*, *supra* note 13, at 514 (arguing that “the most effective way to regulate behavior in cyberspace will be through the regulation of the code—direct regulation either of the code of cyberspace itself, or of the institutions (code writers) that produce the code.” *Id.*)

24. This is the regulatory approach favored by the Federal Trade Commission which has the responsibility under Section 5 of the F.T.C. Act to regulate “unfair methods of competition.” For a general discussion of indirect modalities of regulation, see *Lessig, Code*, *supra* note 13, at 49-51.

25. *Id.* at 513 (emphasis in original).

26. *Id.* The four modalities of regulation discussed in this paragraph are derived from Lessig. *See id.* at 507 and authorities cited therein.

27. “By ‘architecture’ I mean the physical world as we find it, even if ‘as we find it’ is simply how it has already been made.” *Id.* at 507.
28. Id. at 514.


Microsoft I & II involved the 1995 consent decree and the contempt charge. See United States v. Microsoft, 147 F.3d 935 (D.C. Cir. 1998).

30. The most recent antitrust litigation brought against Microsoft, is merely one of the first major government cases to consider the relevance of the Sherman Act of 1890 in the context of the new economy. The Antitrust Division Chief who directed the government’s antitrust case against Microsoft, Joel I. Klein, saw the litigation as a test case for establishing the applicability of the traditional tools of monopolization to trade restraint problems arising in the New Information Economy. See Joel I. Klein, “Rethinking Antitrust Policies for the New Economy Address Before the Haas/Berkeley New Economy Forum” (May 9, 2000), available at http://www.usdoj.gov/atr/public/speeches/4707.htm. See also Note, supra note 5, at 1633 n.67.

Klein’s view reflects the consensus view of those who believe that the existing array of antitrust tools are adequate to the task of enforcing pro-competitive behavior in high technology industries. See Daniel L. Rubinfeld, “Competition, Innovation, and Antitrust Enforcement in Dynamic Network Industries, Address Before the Software Publishers Association” (Mar. 24, 1998) at http://www.usdoj.gov/atr/public/speeches/1611.htm. However, the antitrust litigation against Microsoft was brought in the midst of a culture driven by the rhetoric of free markets and the baseline of that rhetoric has made it difficult to maintain faith in traditional antitrust analysis. Market dominance in IT markets is justified by the strong versions of free market ideology.

31. See, e.g., Note, supra note 5, at 1623 (arguing that the new economy warrants a “revision of the present approach to Section 2 analysis in an IT context”).
32. See LESSIG, CODE, supra note 13.

33. Id. at 507.

34. Because the fundamentals of “regulability,” as Lawrence Lessig has put it, necessarily entail the “the capacity of government to regulate behavior within its proper reach,” LESSIG, CODE, supra note 13, at 19; it would follow that in assessing the proper for antitrust law in the new economy one would want to first know if behavior in that economy can be brought within the reach of antitrust enforcement.

35. See Van Wezel Stone, Global Labor Market, supra note 16, at 130 (arguing that intellectual property protection, which now grants a grantee the right to produce in the global marketplace, should entail a corresponding duty to produce under fair conditions in a global labor market).

36. Antitrust enforcers must therefore consider how the law of cyberspace is now competing with antitrust law to regulate the New Economy. See LESSIG, CODE, supra note 13; Lessig, Cyberlaw, supra note 13.

37. The new imageries of global “closeness,” “interconnections,” “networks” and “woven world” which are now part of the discourse of globalization seek to persuade us that our understanding of the world requires new and different frames of analysis and outlook. See Minda, Globalization of Culture, supra note 1, at 599-600.

38. See LESSIG, CODE, supra note 13.


42. A. Michael Froomkin, *The Internet as a Source of Regulatory Arbitrage, in* *Boarders in Cyberspace: Information Policy and the Global Information Infrastructure* 129, 142 (Brain Kahin & Charles Nesson eds., 1997). See also Minda, *Globalization of Culture, supra* note 1, at 628.


44. *Id.* at 801.

45. The “per processor” licensing agreements for Microsoft’s Windows software was prohibited by a consent decree. See *United States v. Microsoft Corp.*, 1995-2 Trade Cases ¶ 71, 096 (D.D.C. 1995).

46. As Professor Van Wezel Stone has made the point: “Trading blocs are not free trade; they are instead a new map of the boundaries and entities of trade, a new definition of insiders and outsiders, new decision-making bodies, and new rules of trade.” Van Wezel Stone, *Global Labor Market, supra* note 16, at 100.

47. See Robert W. McChesney, *Introduction to Chomsky, Profits Over People, supra* note
18, at 8-9.

48. *Id.* at 9. As Professor McChesney has explained, “capitalism with the gloves off” was what some critics called Nazi fascism before the war, “meaning that fascism was pure capitalism without democratic rights and organizations.” *Id.* McChesney says that fascism was “vastly more complex than that;” but that Neoliberal political ideology that sustains free market thinking today is very much “capitalism with the gloves off.” *Id.* at 8.


52. *Id.* at 205.


56. The importance of considering how technology may create different kinds of barriers to entry in hardware and software markets was emphasized by Lawrence Lessig in his talk at the recent
57. It also follows that we must also think about the unique challenges posed by a technology that permits global market activity on the Net. The growing need for a truly global competition policy is one of the greatest challenges now posed by the new information technology.

America’s antitrust enforcement policy has attempted to deal with global trade restraints through the exercise of extraterritorial jurisdiction over international restraints of trade that spill over national boarders. Bilateral cooperative agreements and mutual legal assistance treaties allowing for mutual assistance in criminal law enforcement matters between United States and other nation-states have sought to extend antitrust enforcement cooperation with extraterritorial assertions of domestic antitrust jurisdiction. See ANITRUST ENFORCEMENT GUIDELINES FOR INTERNATIONAL OPERATIONS §§ 2.91, 2.92, U.S. Department of Justice and The Federal Trade Commission (April, 1995).

58. Cass Sunstein has recently argued that filtering raises troubling questions for democratic process because the egocentric behavior motivated by Net use fragments community thereby preventing the shared republic experiences that are necessary for a healthy democracy. See CASS SUNSTEIN, REPUBLIC.COM (2001). Sunstein did not consider the antitrust implications of filtering. Antitrust decisions that maybe relevant to filtering include: United States v. Topco Associates, 405 U.S. 596 (1972) (horizontal market division); Continental T.V., Inc. v. GTE Sylvania Inc., 433 U.S. 36 (1977) (vertical market division); United States v. Container Corp. of America, 393 U.S. 333 (1969) (information exchange); Hartford-Empire Co. v. United States,

59. SUNSTEIN, REPUBLIC.COM, supra note 58, at 18.


61. SUNSTEIN, REPUBLIC.COM, supra note 58, at 22.

62. See Froomkin, Regulatory Arbitrage, supra note 42, at 129, 130.

63. LESSIG, CODE, supra note 13, at 20. What distinguishes different Web sites on the Net are the “differences in the regulations effected through the code.” Id.

64. Id. at 21.

65. See LESSIG, CODE, supra note 13. Lessig provides the examples of a “a gay teen in Iowa [who leaves] the norms of Iowa through a gay chat room on America Online” and “a child predator [who escapes] the norms of ordinary society and engages a child in online sex.” Id. (footnotes omitted). Lessig calls “the first escape liberating, the second criminal.” Id. at 22. In the case of markets, escape to cyberspace could also be either ‘liberating’ (increasing diversity of the Net leading to greater market freedom) or ‘anti-competitive’ and potentially criminal under the antitrust laws (motivated by an intent and purpose to monopolize the market).


67. Id.

68. By ‘new economy’ I refer to the policies and processes made possible by the free flow of capital and an informational technology that permits instant communication on a global basis. The new economy could be thought of as “capitalism with the gloves off” because the new
economy represents “an era in which business forces are stronger and more aggressive, and face
less organized opposition than ever before.” McChesney, supra note 47, at 8-9.
69. My own thinking on globalization phenomena was influenced by an experience on South
Beach in Miami where I overheard a beach goer make a day trade for a container of wine sailing
from Milan, Italy. My brief encounter with the day trader on South Beach presented a vivid
example of how globalization was transforming our most common every day experiences.
Hence, “[y]ou can go to the beach, get a tan, and at the same time conduct business affecting
people and events all over the globe.” See Minda, Globalization of Culture, supra note 1, at 580.
For a more up beat reaction description of globalization phenomena made possible by the new
global economy and currency, see Barbara Garrison, Money Makes the World Go
Around: One Investor Trades Her Cash Through the Global Economy, From
Brooklyn to Bangkok and Back (2001).
70. For my own effort to explain the source of doubt about antitrust regulation in the new global
economy, see Minda, Antitrust At Century’s End, supra note 51. The Sherman Act, of course,
covers restraints of trade or monopolization of “commerce . . . . with foreign nations,” and the
reach of the Federal Trade Commission Act extends to “unfair methods of competition used in
export trade against competitors engaged in export trade, even though the acts constituting such
unfair methods are done without the territorial jurisdiction of the United States. See 40 Stat. 517
(1918), 15 U.S.C.A. § 64 (1977). See also Branch v. FTC, 141 F.2d 31 (7th Cir. 1944); Phillip
Areeda & Donald F. Turner, Antitrust Law ¶¶ 234, 255 (1978). The application of the
antitrust laws to foreign commerce has thus always been a factor in regulating American
competition policy.
71. Minda, *Globalization of Culture, supra* note 1, at 599.

72. The packet switching system is the result of the Transmission Control and Internet Protocols (TCP/IP) which are the common communication standard allowing for networking between computers. *See Froomkin, Regulatory Arbitrage, supra* note 42, at 129, 130.

73. *See Lemley & McGowan, Network Economic Effects, supra* note 60, at 479, 523. It is quite possible that ‘reverse engineering’ (the process of working backward to determine how software was made) might allow a competitor to copy the functional components of a software code and build a competing system without violating the Copyright laws, though legal doubts remain. *Id.* at 523-27. The law regarding reverse engineering is still uncertain in the case of software codes. Lemley and McGowan reported in 1998 that “[w]hile it is now almost universally accepted that reverse engineering a computer program in order to obtain access to its unprotectable functional elements and application program interfaces (APIs) does not violate the copyright laws, virtually none of the cases establishing this principle were decided before 1992.” *Id.* at 528. It is worth noting that Microsoft has begun to use the patent laws to protect its APIs and other interface technology instead of copyright presumably because patent law has no reverse engineering defense. *Id.* at 528-29 n.212. *See 35 U.S.C. § 271(a) (1994).*

74. Judge Jackson in ruling on the remedial phase of the 1999-2000 government antitrust case against Microsoft specifically opted for a divestiture remedy that creates two separate entities—Applications and Operations—so that Intellectual Property rights applicable to each operation could be transferred. United States v. Microsoft Corp., 97 F. Supp. 2d 59 (D.D.C. 2000). The question of remedy will be one of the principle issues that will ultimately be decided by the Supreme Court.

76. See Lessig, Cyberlaw, supra note 13, at 543.

77. See id. at 541-43.

78. Id. at 542-43.


80. See, e.g., Yergin & Stanislaw, Commanding Heights, supra note 1, at 13.

81. Id. at 1768-69.


83. In Matsushita Electric Industries Co. v. Zenith Radio Corp., 475 U.S. 574 (1986), the Supreme Court had before it the claim of U.S. television manufacturers alleging that their Japanese rivals had conspired to charge unduly low prices in the United States in order to leverage their market advantage in Japan to eliminate the competition of U.S. firms. The Court in a five-four decision affirmed the granting of summary judgment for the defendant Japanese firms on the ground that the alleged claim of foreign predation was implausible. On the other hand, the Court also noted in its opinion that its decision would have been different if the petitioners had raised a plausible explanation of predation and reason to conspire, then there would have been a “triable issue of conspiracy.”


85. See Jennifer Middleton, Contingent Workers in a Changing Economy: Endure, Adapt, or

86. See Vizcaíno v. Microsoft Corp., 120 F.3d 1006, (9th Cir. 1997), cert. denied, 118 S. Ct. 899 (1998).


88. Id.

89. Id. As Professor Scherer has noted: “When multiple sellers consent to such export restraints, they must find some way to divide up shares of their reduced output and to enforce agreed-upon prices—in other words, to form what amounts to an export cartel.” Id. On the other hand, “if the firms do not assume these collective responsibilities, the government of the exporting nation must step in as de facto cartel master.” Id. (footnote omitted).


91. Scherer, International Trade, supra note 87, at 361.

92. Id.


94. See SULLIVAN & GRIMES, LAW OF ANTITRUST, supra note 43, at 970-74.

95. Id. at ¶ 18.2, 970-78.

96. 509 U.S. at 796.

97. Id. at 817-21.

98. Id. at 814-15, quoting & citing Murray v. The Charming Betsy, 2 Cranch 64 (1804) (Marshall, C.J.).


101. As Sullivan and Grimes have noted, the DOJ’s Antitrust Guidelines for International Operations, published in 1995, permit the DOJ to consider the Comity issue in the guise of considering the factor analysis of section 3.2 of the guidelines. SULLIVAN & GRIMES, LAW OF ANTITRUST, supra note 43, at 983-84.

102. Id. at 969.


104. Id. at 361.


106. SULLIVAN & GRIMES, LAW OF ANTITRUST, supra note 43, at 996.

107. Id.

108. Van Wezel Stone, *Global Labor Market*, supra note 16, at 100. Professor Van Wezel Stone notes that “in the last twenty years, as trading blocs have been formed or fortified, the nations involved have changed their relationship to those other nations within the same bloc from relations governed by diplomacy and by-unilaterally promulgated trading rules to relations governed by bureaucratic and quasi-democratic devices of representation and administration.” Id.


112. *Id.* at 364.

113. *Id.*

114. For the arguments for why transparency should be required, see A. Michael Froomkin, *It Came from Planet Clipper: The Battle Over Cryptographic Key “Escrow,”* 1996 U. CHI. LEGAL F. 15. See also Lessig, *Cyberlaw,* supra note 13, at 543.


116. *Id.* at 39.

117. *Id.*

118. Software standards are set by an International non-governmental organization known as the Internet Engineering Task Force (IETF), which has a voluntary membership and therefore lacks enforcement power to regulate. The IETF thus reproduces the same open, decentralized and unstructured nature of the Internet itself. See Froomkin, *Regulatory Arbitrage,* supra note 42, at 129, 130. See also Minda, *Globalization of Culture,* supra note 1, at 602.

119. The essential facility doctrine was originally fashioned to break Jay Gould’s “choke hold” over a railroad terminal. See United States v. Terminal Railroad Association, 224 U.S. 383 (1912). Private property rights over the terminal gave Gould complete control over railroad traffic moving through St. Louis, Missouri. The Supreme Court recognized that because Gould had monopoly control over an essential facility to other competitors, Gould was had an antitrust duty to provide reasonable access to the facility. The governing principle known as the ‘essential facility doctrine’ has provided an alternative antitrust policy that assumes that monopoly may be necessary for the provision of a service or product (analogous to a natural monopoly) such that the only meaningful competitive remedy would be the recognition of a duty to deal with
competitors on fair and reasonable terms.


121. *Id.* at 1227-28. Lipsky & Sidak’s argument is based on the Supreme Court’s decision in *Loretto v. Manhattan CATV Corp.*, 458 U.S. 419 (1982), wherein the Court held that a governmental taking of private property would be effected by physical invasions of property even when there is but “a minor but permanent physical occupation of an owner’s property.” *Id.* at 1228-29, quoting 458 U.S. at 421.


125. Consider, for example, the enforcement effort that would be needed to overcome second-best problems in the case of global antitrust enforcement. Even if one were to assume that intramarket second-best concerns could be factored into a partial equilibrium analysis; an analysis that most antitrust enforcers implicitly adopt whenever they examine a single well-defined market in isolation, one would have to construct a framework for evaluating the second-best
effects within a market, while ignoring those of remote inter-markets. Second-best trade-offs would then be possible, at least in theory, allowing decision makers to rely on the more manageable partial equilibrium analysis of monopoly. As Oliver Williamson and Peter Hammer have recently argued, an antitrust defense of intra-market second best tradeoffs would then seem to make sense, thereby justifying the use of partial equilibrium analysis in antitrust disputes. See Williamson, Market Restraints, supra note 123, at 986-88; Hammer, Market Failures, supra note 122. Both Williamson and Hammer are critical of Lawrence Sullivan’s use of the Theory of Second Best to critique antitrust efficiency analysis and partial equilibrium analysis of microeconomic theory. See Lawrence Sullivan, Book Review, 75 COLUM. L. REV. 1214, 1219-20 (1975) (arguing that the problem of second best undermines antitrust efficiency analysis).

The complexities of second-best analysis of global markets would present a herculean challenge to global antitrust enforcers. Second-best tradeoffs, even when limited to intra-industry comparisons would, at least under Williamson and Hammer’s theory, require a world-wide intra-market analysis. Global intra-industry tradeoffs would, however, ultimately call for an inter-market rather than the intra-market analysis since everything is connected to everything on the World Wide Web. This would mean that antitrust enforcers would be forced to consider the more difficult method of general equilibrium analysis which everyone agrees would doom the effort of antitrust enforcers from making meaningful second-best tradeoffs.


128. Lipsky & Sidak, Essential Facilities, supra note 120, at 1194, 1223-48 (arguing that the Takings Clause of the Fifth Amendment and the free speech clause of the First Amendment forbid mandatory access remedies in a case like Microsoft).

129. See infra Part VIII. I realize that critics would argue that my proposal envisions the development of a public interest standard for a new form of public regulation of the Net. See Lipsky & Sidak, Essential Facilities, supra note 120, at 1224-25 (arguing that the essential facilities doctrine as applied to the Microsoft case would legally transform the Windows platform into a kind of public utility or common carrier, to be regulated in the public interest). On the other hand, IP law gives Windows a degree of artificial protection that enables private property to be exercise as a quasi-form of public regulation. Why come down on the side of private public utilities when Sherman Act was intended by its drafters to disallow private monopoly power to be exercised as a form of public power?

130. Froomkin, Regulatory Arbitrage, supra note 42, at 129.

131. See Lessig, Code, supra note 13.

132. A recent New York Times piece by Lisa Guernsey, 11010111Welcome to the Web. Passport, Please? Information May Want to Be Free, but Courts and New Software Could Impose National Boarders, Circuits, G1 (Mar. 15, 2001), claims that geolocation software technology will soon give nation-states the power to bring geography back into the Net so that regulation will be more feasible and more like that of real spaces.

133. See Lessig, Code, supra note 13, at 160-61 (arguing for property rules favoring privacy
filters); Paul M. Schwartz, Beyond Lessig’s Code for Internet Privacy: Cyberspace Filters, Privacy Control and Fair Information Practices, 2000 Wis. L. Rev. 743 (arguing for new regulatory rules or FIPs for fair treatment of personal information).

134. Sunstein, Republic.com, supra note 58, at 80-84.

135. Id. at 81.

136. Routing around unfriendly regulation is what A. Michael Froomkin has called a form of regulatory arbitrage; that is, a technological system that allows users to pick and choose jurisdictions to do business in bases on a choice between regulatory rules they like and those they dislike. See Froomkin, Regulatory Arbitrage, supra note 42, at129,142. Norm regulation via cybercascades and tipping points could be thought of as a form of normative arbitrage.

137. Lessig, Code, supra note 13, at 4.


139. Id. at 9-23.

140. See Lemley & McGowan, Network Economic Effects, supra note 60, at 479, 500.

141. Id. at 484, citing George Gilder, Metcalf’s Law and Legacy, Forbes ASAP, Sept. 13, 1993, at S158.


144. Especially, when commitment to a particular technology prevents the firm from adapting to new technologies and innovations. See, e.g., Clayton M. Christensen, The Innovators
DILEMMA: WHEN NEW TECHNOLOGIES CAUSE GREAT FIRMS TO FAIL (1997). But see Fredric M. Scherer, Big Blue: IBM’s Use and Abuse of Power, in COMPETITION POLICY, DOMESTIC AND INTERNATIONAL 120 (F.M. Scherer ed., 2000) (arguing that monopoly power calls into question the validity of arguments based on ‘superior’ products or technology).

145. See Lemley & McGowan, Network Economic Effects, supra note 60.

146. The limiting frame of static antitrust analysis championed by the Chicago School when applied to trade restraint problems of the new economy was in fact the subject of a recent New York Times expose. See Seth Schiesel, Bringing Competition Policy Into the Age of the Internet, NEW YORK TIMES, Dec. 25, 2000, at C1.


150. Id. at 127.

151. Id.

152. Id. at 130.

153. Id.

154. Id.
155. *Id.*

156. *Id.* at 129.

157. *See Michel Foucault, Discipline And Punishment: The Birth Of The Prison* 168 (Allan Sheridan trans., 1977). For my attempt to use the insight of Foucault to understand globalization phenomena, see Minda, *Globalization of Culture, supra* note 1, at 620-26 (“One could say that the new digital discourse of the global marketplace has the effect of hardwiring the sovereignty and power of the nation-state into the technologies and ideologies of globalization itself by way of the codes of globalization, such that this non-sovereign power is ‘disciplinary power,’ to use Foucault’s term.” *Id.* at 625.). *See also James Boyle, Foucault in Cyberspace: Surveillance, Sovereignty, and Hardwired Censors, 66 U. Cinn. L. Rev. 177* (1997).

158. For a review of the literature and a proposal for using PICs to protect information privacy on the Net, see Schwartz, *Internet Privacy, supra* note 133, at 748-86.

159. *See, e.g., id.*

160. *See supra* note [74] and accompanying text.


162. Privatization and globalization, working together, have transferred democratic decision-making on policy from the public arena of the nation-state to the master of the new economy who can use their global information systems to tame public interest movements like antitrust and to replace the regulatory rhetoric with a new rhetoric of free markets and private power. Hence, free trade agreements facilitating world trade and capital mobility operate without public supervision or control. *See Chomsky, Profits Over People, supra* note 18, at 132-34.