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THE REALITY OF BYTES: REGULATING ECONOMIC ACTIVITY IN THE AGE OF THE INTERNET

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Abstract: By utilizing both a backward and forward looking perspective, this Article develops a model conducive to better understand the Internet's legal implications on economic regulation. The model is also intended to help legislators and regulators adapt their legal and regulatory frameworks to the Internet. This Article canvasses and builds upon the burgeoning development of Internet law. It suggests that the Internet's impact on economic regulation is best understood by classifying its effects into four categories, each of which requires a different regulatory response. It also considers potential solutions for adapting economic regulation to the Internet. This Article concludes that no single suitable solution or analogy remedies the regulatory challenges posed by the Internet. Rather, as in real space, a combination of approaches is necessary to create an effective regulatory framework.

"Most laws were conceived in and for a world of atoms, not bits . . . national law has no place in cyberlaw."[1]

Nicholas Negroponte, *Being Digital*

"The agency [Securities Exchange Commission (SEC)] is not hostile to the technology, to the Internet . . . But there are securities laws on the books that have been put there for good reason, and it is our job to make sure they are followed and enforced."[2]

Steven Wallman, former SEC Commissioner

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1. Nicholas Negroponte, *Being Digital* 237 (1995).

2. Andrew Klein, *Wallstreet.com*, Wired, Feb. 1998, at 88, 94.

I. INTRODUCTION

From its rather humble beginnings as a quick and inexpensive means of communication between scientists, few could have predicted the Internet's explosive growth over the past four years.[3] In a span of less than 1500 days, terms such as "email," "World Wide Web," and "cyberspace" have become staples of our everyday vocabulary. Companies such as Yahoo! and Netscape have arisen from nowhere to trade at billion dollar valuations.[4] Indeed, the nearly limitless power of the Internet—as a communication, commerce, information, and entertainment tool—has sparked the imagination of millions and thrust itself into the very forefront of political and corporate agendas.[5]

Although the Internet has left few aspects of daily life untouched, its commercial importance is particularly noteworthy. As soon as the business community embraced this virtual marketplace, companies moved quickly to establish an online presence. In a few short years, success stories have

3. *See infra* Part II. For a more detailed discussion of the Internet's origins, see Katie Hafner & Matthew Lyon, *Where Wizards Stay Up Late: The Origins of the Internet* (1996).

4. *The Herring Tech* 250, Red Herring, Apr. 1998, at 130, 131–33.

5. Although estimates vary, a November, 1997 poll estimated that 66 million Americans had ventured on the Internet, including 50 million Americans who had used the World Wide Web. *The Charts*, Yahoo! Internet Life, Mar. 1998, at 36, 36.

become commonplace: Dell Computer selling as much as six million dollars of computer equipment a day from its Web site and anticipating that fully half of its customer transactions will be conducted over the Web by the year 2000;[6] online travel agent Microsoft Expedia booking 100 million dollars worth of travel in its first full year of operations;[7] major computer software retailer Egghead Software closing all of its physical locations in favor of a virtual store;[8] and Amazon.com selling books to over a million and a half customers during its brief existence.[9] From the three million online stock traders who exchanged approximately 120 billion dollars worth of securities in 1997[10] to the over three billion dollars in business-to-business sales by networking equipment leader Cisco Systems that same year,[11] the age of electronic commerce has arrived.

Never envisioned or designed for a marketplace quite like that which has emerged, the commercial regulatory framework trails somewhat behind. In certain respects this lag between an ever-evolving economic climate and the legal rules that govern it is both appropriate and necessary. As the full impact and shape of the virtual marketplace unfold, law, by necessity, must adopt a "technology neutral" approach that responds to technological changes rather than forces technology to respond to the law.

The experience of the past four years has laid much of the groundwork for the virtual marketplace, although several critical issues remain unresolved. These issues include the development of a standardized, secure payment system;[12] and an encryption policy that allows for widespread use of digital signatures and encrypted messaging, but simultaneously meets the needs of privacy advocates and law enforcement officials.[13] With several

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6. Alex Gove, *The Dell Curve*, Red Herring, Mar. 1998, at 30, 32.

7. *Up Front*, Inter@ctive Week, Feb. 9, 1998, at 7, 7.

8. Connie Guglielmo, *Egghead Eyes Net Sales Only*, Inter@ctive Week, Feb. 2, 1998, at 8, 8.

9. *Amazon.com Announces Financial Results for Fourth Quarter and 1997 Year End* (visited Feb. 6, 1998) <http://www.amazon.com/exec/obidos/subst/misc/1997-fourth-quarter-press-release.html/1313-8439948-897641> [hereinafter *Amazon*].

10. Lisa Kalis & Rob Turner, *The New E-vangelists*, Smart Money, Feb. 1998, at 111, 112.

11. Tom Steinert-Threlkeld, *'Tis Season for E-Commerce Boom*, Inter@ctive Week, Dec. 22, 1997, at 18.

12. *See* Nikki Goth Itoi, *Promises, Promises*, Red Herring, Feb. 1998, at 78 (discussing efforts to develop such system).

13. *See* A. Michael Froomkin, *Flood Control on the Information Ocean: Living with Anonymity, Digital Cash, and Distributed Databases*, 15 J.L. & Com. 395 (1996) (discussing encryption, anonymity and use of digital signatures and cash); *see also* Hal Abelson et al., *The Risks of Key Recovery, Key Escrow, and Trusted Third Party Encryption* (May 21, 1997) (visited June 11, 1998) <http://www.cdt.org/crypto/risks98/> (analyzing risks raised by encryption); *Decoding the Crypto Debate*, Effector (Oct. 10, 1997) (visited Apr. 30, 1998) <http://www.eff.org/pub/EFF/Newsletters/

years of experience behind them, regulators are now better positioned to move beyond the learning and investigation stage and proceed with a more assertive approach to regulating the Internet.

By utilizing both backward and forward looking perspectives, this Article develops a model conducive to better understand the Internet's legal implications and useful to assist legislators and regulators in adapting responsive legal and regulatory frameworks in response. This Article argues that the Internet will heavily impact certain economic sectors but leave other sectors relatively untouched. As a result, claims that the Internet is rendering existing regulatory structures obsolete are exaggerated. Assuming that the underlying policies are appropriate, many regulations need only piecemeal alterations rather than wholesale rewriting.

Part II of this Article provides an overview of the history and technology behind the Internet. On the Internet, actors and activities do not always lend themselves to regulation in the same manner as in real space; therefore, a basic understanding of what underlies the transmission of email, the accessing of Web sites, and the development of security and encryption standards, is critical to appreciating fully what legal actions the current technological framework will allow. The current structure of the Internet, for example, is largely geographic independent, creating significant jurisdictional and enforcement concerns.

Part III of the Article canvasses the burgeoning development of Internet law. Although a relative newcomer to the legal scene, the Internet has in a very short period of time produced a remarkable quantity of court cases, legal scholarship, and governmental reports. Two clearly identifiable and distinct stages manifest themselves in the thinking of the judiciary, scholars, and government with regard to the development of Internet law.

The first stage, which spanned from late 1994 to the end of 1996, was marked by numerous attempts to analogize the Internet to other legal systems, activities, and places. These attempts, frequently characterizing the Internet as "like this or that," reflected a desire to come to grips with a new phenomenon and adopt an analogy that would enable the existing legal system to adapt itself easily (or not so easily, in some instances) to the Internet by implementing well-established legal doctrine.

EFFector/effect10.10> (reviewing encryption debate between privacy and law enforcement officials); *Electronic Frontier Foundation Web Site* (visited Apr. 30, 1998) <http://www.eff.org> (tracking issues affecting online free speech); Kenneth W. Dam, *The Role of Private Groups in Public Policy: Cryptography and the National Research Council*, Occasional Papers from the Law School, University of Chicago, No. 38 (Nov. 1996) (assessing competing interests in cryptography policy).

Beginning in early 1997, a subtle change in thinking emerged. Led by the courts, the analysis of Internet law ceased to focus primarily on analogizing the Internet and began to focus on the nature and quality of the activity taking place on the Internet. As understanding of Internet activities developed, so did an appreciation of the wide variety of activities that take place online. Accordingly, the Internet became something quite distinct from other activities, an entity to which a wide range of legal doctrines might apply, depending upon the particular circumstances.

Part IV of the Article builds on this new paradigm for analyzing activity on the Internet by focusing particularly on the Internet's impact on economic regulation. It argues that the principles behind economic regulation, including informational inequalities in the marketplace and the desire to shift costs to those parties that can best afford to bear them, remain unchanged. It examines whether the Internet changes our traditional notions of economic regulation and the current regulatory structure. The Internet will impact a wide range of economic sectors, but its effect will vary considerably between sectors. In particular, the Internet's impact is best understood by classifying its effects on economic regulation into the following four categories, each of which will require a different regulatory response. The first category, the Internet as a medium, occurs when the Internet is used to transmit information concerning an activity, but does not alter the activity or its regulation. The second category, the Internet as a catalyst, occurs when the Internet increases the quantity of activity but only minimally impacts its regulation. The third category, the Internet as change, occurs when the Internet increases the quantity of activity and alters the traditional regulatory paradigm. The fourth category, the Internet as administration, occurs in the administration of the network itself and thus constitutes both a new activity and a new regulation.

Part V of the Article considers potential solutions for adapting economic regulation to the Internet. This Article concludes that no single suitable solution or analogy will remedy the regulatory challenges posed by the Internet. Rather, as in real space, a combination of approaches will be necessary to create an effective regulatory framework.

II. THE TECHNOLOGY AND HISTORY OF THE INTERNET

Although few Internet users concern themselves with how their email is transported across the globe, how clicking on a hyperlink results in a new page appearing on their computer screen, or even from where the Internet suddenly emerged into public consciousness, the Internet's history and technology is of considerable importance to those who regulate it. With the

exception of satellite broadcasting, whose challenges bear a striking resemblance to those posed by the Internet,[14] most new media and modes of communication, including radio, television, and facsimile transmission, were relatively adaptable to existing regulatory frameworks. The importance of these technologies grew gradually, enabling regulators to understand the technology and ensure that their laws and regulations were suitable under changing circumstances. The rapid rise of the Internet, combined with unique technological features, complicates the regulatory approach.

Frequently characterized as a network of networks,[15] the Internet grew out of two concerns: the high cost of computing and the potential vulnerability of the U.S. communications network to nuclear attack.[16] Founded in 1958 by President Eisenhower, the Advanced Research Projects Agency (ARPA) was created to consolidate some of the country's most advanced research.[17] In the 1960s, the agency found that there was a significant shortage of costly computer equipment. In particular, researchers working on similar issues at different institutions were all requesting their own computers. Bob Taylor, director of ARPA's Information Processing Techniques Office (IPTO), noted the rising costs and wasted duplication and suggested developing electronic linkages between computers to enable researchers to pool their efforts and make more efficient use of precious computer resources.[18] The ARPA cost concerns coincided with security concerns voiced at the RAND Corporation regarding the vulnerability of the national communications network. RAND researchers noted that the

14. In a 1983 article that echoes much of the discussion surrounding the effect of the Internet, Anne Branscomb canvassed the effects of satellite transmission on regulatory structures and found that:

> The very existence of information technology is threatening to nation states. A satellite "footprint" has great difficulty honoring national boundaries. The beam can remain within the national territorial limits only over land masses that are geographically isolated, like Australia, or vast, like the Soviet Union or the People's Republic of China. Computers do not question the motives of their masters. Thus, information wars are brewing over how governments and private industries will develop these computerized information systems and what kinds of political and social systems will evolve in response to their existence.

Anne W. Branscomb, *Global Governance of Global Networks: A Survey of Transborder Data Flow in Transition*, 36 Vand. L. Rev. 985, 987–88 (1983).

15. Dan L. Burk, *Federalism in Cyberspace*, 28 Conn. L. Rev. 1095, 1097 (1996) ("The Internet has been called a network of networks, local computer systems hooked to regional systems hooked to national or international high-capacity 'backbone' systems.").

16. Hafner & Lyon, *supra* note 3, at 41, 55.

17. *Id.* at 20.

18. *Id.* at 41.

country's ability to launch a counterstrike against an attack depended upon the operational survival of the national long-distance networks.[19]

The design of the initial network, dubbed ARPANET, reflected these joint concerns and helps explain the structure and limitations of today's Internet. The first distinguishing characteristic of ARPANET was the use of a distributed network. Responding to the need for a network that could withstand nuclear attack, the distributed network model avoided using a central command. The network consisted of numerous stand alone computers or nodes, each connected to a neighboring node, with the graphical appearance of a fish net or spider web.[20] The distributed model ensured that a single message could take many different routes to get from point A to point B. If part of the network was incapacitated, a message could still travel through an alternate route.

The second distinguishing characteristic of the network was the use of fractured messages, later known as packet switching.[21] Packet switching broke single messages into a series of smaller blocks or packets. When a message was sent, the computer created a series of packets, each containing a final address, which would be transported using different routes and then reassembled at their final destination.[22] Along the way, each node would use packet switchers to direct the packet toward its destination, using whichever path was quickest based on current data traffic patterns. This approach added security to avoid interception of the entire message and allowed for network resources to be more efficiently allocated by maximizing use of the various routes.[23]

In 1968, the consulting firm of Bolt Beranek and Newman (BBN) was commissioned to develop packet switchers called Interface Message Processors (IMPs).[24] Within two years, ARPANET was a reality with IMPs installed at four institutions: UCLA, Stanford, UC Santa Barbara, and the University of Utah.[25] The network grew at a pace of roughly one new node

19. *Id.* at 55.

20. *Id.* at 58.

21. *Id.* at 59–60.

22. *Id.* at 60–61.

23. *Id.* at 61.

24. Barry M. Leiner et al., *Internet Society (ISOC) All About the Internet: A Brief History of the Internet* (visited Feb. 13, 1997) <http://www.isoc.org/internet-history/brief.html>.

25. *Id.*

per month in the early 1970s with additional IMPs installed at institutions on both coasts including MIT, Harvard, and Carnegie Mellon.[26]

The transformation of ARPANET into today's Internet began with the development of the Transmission Control Protocol/Internet Protocol (TCP/IP) networking protocol in 1972.[27] Prior to TCP/IP, networks such as ARPANET could only communicate internally.[28] The TCP/IP protocol, universally adopted in 1983, enabled different networks to interchange data without making any internal changes to the network.[29] The protocol used global addressing, which allowed computers to find network addresses by numeric address with no correlation to geographic location.[30]

Foreshadowing the potential uses of the modern-day Internet, email and site information quickly became the network's most popular uses. In fact, a 1973 ARPA study found that three quarters of network traffic was email, a major surprise given the original purpose of resource sharing.[31] An IPTO study later in the decade concluded:

> The largest single surprise of the ARPANET program has been the incredible popularity and success of network mail. There is little doubt that the techniques of network mail developed in connection with the ARPANET program are going to sweep the country and drastically change the techniques used for intercommunication in the public and private sectors.[32]

Early users of the network began to look for news and other information online. As early as 1973, the Stanford node was connected to the Associated Press newswire, which attracted visitors throughout the network.[33] In response to the growing availability of resources, an industry publication, *ARPANET News*, began to include a "Featured Site" series in which system managers from host computers could describe what was available at their site.[34]

The new network resembled today's Internet in certain respects, but network security was not one of them. In the early 1970s, a computer

26. Hafner & Lyon, *supra* note 3, at 166.
27. Leiner, *supra* note 24.
28. *Id.* at 227.
29. *Id.* at 248.
30. *Id.*
31. Hafner & Lyon, *supra* note 3, at 194.
32. *Id.* at 214 (quoting IPTO study).
33. *Id.* at 227–28.
34. *Id.* at 230.

scientist at Stanford's Artificial Intelligence Lab created a "FINGER" command that allowed users to identify the last time another user had logged on to the network and whether the user had read his or her mail.[35] When some users began to express privacy concerns, the command was altered to enable users to prevent others from using FINGER to access such information. Viewed through today's prism of widespread concern for online privacy,[36] it is somewhat ironic that the creator of the altered command was strongly criticized as being "spineless" and "socially irresponsible" for limiting the network's openness.[37]

The Internet might have remained the province of scientists and the academic community were it not for Tim Berners-Lee, a researcher at the CERN atomic research center in Switzerland.[38] Weary of the trial and error process of finding information on the CERN network, in 1989, Berners-Lee proposed a series of software and network protocols that created the power to browse and navigate among documents by point-and-click commands of the mouse.[39] The new protocol, called Hyper-Text Markup Language (HTML) used hyperlinks to enable users to click on highlighted text and immediately "jump" to a new document. By applying the hyperlinks protocol to the Internet, users could transparently jump between documents on the same computer or on a computer located at the other end of the world—hence the label, World Wide Web.[40]

The final critical innovation in the Internet's growth came in 1993 with the development of advanced (for the time) Web browsing software. Although Web browsers, which enable computers to read HTML, began circulating around the Internet soon after the appearance of the World Wide Web, most were quite primitive and inaccessible to the average computer user.[41] Marc Andreessen, a University of Illinois student, worked at the National Center for Supercomputing Applications (NCSA) to develop a browser with widespread appeal.[42] The result was Mosaic, a browser far more stable and advanced than its predecessors, which allowed

35. *Id.* at 216.

36. *See* Connie Guglielmo & Will Rodger, *Can Net Privacy Coexist with E-Commerce?*, Inter@ctive Week, Dec. 15, 1997, at 66.

37. Hafner & Lyon, *supra* note 3, at 216.

38. J. Neil Weintraub, *Introduction* to Robert H. Reid, *Architects of the Web: 1,000 Days that Built the Future of Business* xxiii (1997).

39. *Id.* at xxiv.

40. *Id.*

41. *Id.* at xxv.

42. Robert H. Reid, *Architects of the Web: 1,000 Days that Built the Future of Business* 7 (1997).

incorporation of images onto the Web (until that point the Web had been text only).[43] Mosaic employed an intuitive graphical interface that allowed users to easily scroll up and down pages, return to previously viewed pages, and more easily jump between hyperlinks.[44] Mosaic, available on the UNIX, Windows, and Macintosh operating systems within a year, quickly became the most commonly used Web browser, igniting interest in the Internet that continues to grow unabated.[45]

The Internet has grown from the initial four host computers to nearly thirty million host computers in 240 countries and territories, with an annual growth rate of forty to fifty percent.[46] In the United States alone, there are an estimated sixty-six million Internet users, fifty million of whom have used the World Wide Web.[47] Although the Internet now supports audio, video, and software enhancements such as Java, the underlying structure remains relatively unchanged from its initial design as a communication and resource sharing tool for the scientific community.

This initial design, featuring an open, distributed network, packet switching, and a universal communications protocol, is responsible for both the power and limitations of the Internet. A regulatory structure designed to operate effectively in the virtual environment must take this design into account. Regulators constrained by current technologies should consider the Internet's gradual technological changes, including the development of HTML and the Web browser, and appreciate that today's Internet may not be tomorrow's Internet. As the founders of the Internet themselves admitted in a recent paper:

> One should not conclude that the Internet has now finished changing. The Internet, although a network in name and geography, is a creature of the computer, not the traditional network of the telephone or television industry. It will, indeed it must, continue to change and evolve at the speed of the computer industry if it is to remain relevant.[48]

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43. *Id.* at 8.

44. *Id.*

45. In early 1994 Andreessen and several other developers left NCSA and joined Mosaic Communications Corporation, now known as Netscape Communications Corporation. *Id.* at 20–23.

46. James Glave, *Dramatic Internet Growth Continues*, Wired News (Feb. 16, 1998) (last visited July 17, 1998) <http://www.wired.com/news/technology/story/10323.html>.

47. *The Charts*, *supra* note 5.

48. Leiner, *supra* note 24.

III. LEGAL THOUGHT ABOUT REGULATING THE INTERNET: 1994–1998

As the Internet blossomed from a network for scientists and academics into a network embraced by the general public, it began to garner the attention of the legal community. Although few courts adjudicated Internet-related cases in 1994, by late 1995 and 1996 disputes arising from Internet-based activity began to appear frequently on court dockets. Scholarly papers and government-issued reports soon followed, as scholars and regulators grappled with the question of how to adapt the legal system to the Internet.

This part of the Article reviews the development of legal thought on Internet lawmaking, focusing first on judicial activity and following with an assessment of scholarly and governmental work in the area. The evolving thought on these issues is of considerable interest since it plays a significant role in developing the model for evaluating Internet economic regulation.[49]

A. The Judicial View

On the heels of the release of the Mosaic browser in 1993, interest in the Internet grew at an unprecedented pace, with the number of Internet users and host computers doubling every month.[50] Commerce did not play a major role in this growth because many companies, including technology leaders like Microsoft, dismissed the Internet's importance. They anticipated minimal interest in the network's interactivity, given the technological limitations of low bandwidth.[51] Instead, the Internet was the province of thousands of individual users who labeled their domain "cyberspace."[52] For many, cyberspace presented the opportunity to create

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49. *See infra* Part IV.

50. Negroponte, *supra* note 1, at 233.

51. As Bill Gates, founder of Microsoft, admits in the revised edition of his book *The Road Ahead*:

> When the Internet really took off, we were surprised, fascinated, pleased. Seemingly overnight people by the millions went onto the Internet, demonstrating that they would endure a lot more in the way of shortcomings than we had expected. . . . I can't tell you exactly when this point-of-no-return was reached, but by late 1995 we had crossed the threshold.

Bill Gates, *The Road Ahead* x–xi (rev. ed. 1996).

52. The term "cyberspace" is widely attributed to William Gibson, who coined the term in his science fiction novel *Neuromancer*. Gibson described cyberspace as "a consensual hallucination experienced daily by billions. . . . A graphic representation of data abstracted from the banks of every computer in the human system." Reid, *supra* note 42, at 173; *see also* David R. Johnson & Kevin A. Marks, *Mapping Electronic Data Communications onto Existing Legal Metaphors: Should We Let Our Conscience (and Our Contracts) Be Our Guide?*, 38 Vill. L. Rev. 487 (1993) (discussing ability of term "cyberspace" to fit variety of legal metaphors).

a new "place," where traditional governmental laws would give way to self-regulation and laws that applied solely in cyberspace.[53]

Notwithstanding the self-regulatory desires of these users, it did not take long before legal cases began appearing on court dockets. Reflecting the generally non-commercial nature of the Internet, these cases tended to involve criminal or tort matters.[54] Given the newness of the Internet, courts seemed somewhat unsure about how to apply existing law to cyberspace.

Two 1995 decisions illustrate the judiciary's uncertainty. In *It's In The Cards v. Fuschetto*,[55] a Wisconsin case involving allegedly defamatory statements posted on a computer bulletin board, the court avoided making any ruling on the effect of the computer network, noting that:

> The magnitude of computer networks and the consequent communications possibilities were non-existent at the time the statute was enacted. Applying the present libel laws to cyberspace or computer networks entails rewriting statutes that were written to manage physical, printed objects, not computer networks or services. Consequently, it is for the legislature to address the increasingly common phenomenon of libel and defamation on the information superhighway.[56]

Similarly, in *Stratton Oakmont, Inc. v. Prodigy Services Co.*, a case involving allegedly libelous statements posted on a computer bulletin board, the court found that the Internet "is a developing area of the law (in which it appears that the law has thus far *not* kept pace with the technology) so that there is a real *need* for some precedent."[57]

Within a year, lack of precedent on Internet law would no longer be an issue. The year 1996 proved to be a watershed year in Internet jurisprudence, as courts throughout the United States, as well as some non-U.S. courts, began to encounter regularly Internet-related cases. Unlike in the *Fuschetto* and *Stratton Oakmont* decisions, the courts by this time had at least some appreciation of what the Internet entailed, and they were willing to consider how the Internet should impact existing legal doctrine.

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53. For an early review of some of the possibilities, see I. Trotter Hardy, *The Proper Legal Regime for "Cyberspace,"* 55 U. Pitt. L. Rev. 993 (1994).

54. *See, e.g.*, United States v. Thomas, 74 F.3d 701 (6th Cir. 1996) (federal obscenity charges concerning operation of computer bulletin board); It's In the Cards, Inc. v. Fuschetto, 535 N.W.2d. 11 (Wis. Ct. App. 1995) (defamation on computer bulletin board).

55. 535 N.W.2d 11.

56. *Id.* at 14.

57. No. 31063/94, 1995 WL 805178, at *1 (N.Y. Sup. Ct. Dec. 11, 1995).

With little else to guide them, however, courts (and scholars) routinely attempted to analogize the Internet to other legal systems, activities, and places. What followed was a series of cases in which the Internet was equated to "this" legal system or "that" particular activity. The courts rarely analyzed the underlying activity; they preferred to apply existing legal doctrine to the Internet as a whole, with the actual activity in question treated as a secondary consideration, if at all.

Inset Systems, Inc. v. Instruction Set, Inc., an April 1996 Connecticut District Court case, one of the most influential Internet cases of the year, typified the approach found in many decisions.[58] Inset Systems, a Connecticut company, brought a trademark infringement action against Instruction Set, a Massachusetts company, arising out of its use of the Internet domain name, "Inset.com."[59] Instruction Set used the domain name to advertise its goods and services on the Internet, a practice to which Inset objected since it was the owner of the federal trademark "Inset."[60] The legal question before the court was one of jurisdiction: Did Instruction Set's activity, in this case the establishment of a Web site, properly bring it within the jurisdiction of Connecticut by falling under the state's long-arm statute and by meeting the minimum contacts standard established by the U.S. Supreme Court in *World-Wide Volkswagen Corp. v. Woodson*?[61]

The court concluded that it could properly assert jurisdiction, basing its decision on Instruction Set's use of the Internet.[62] Likening the Internet to a continuous advertisement, the court reasoned that Instruction Set had purposefully directed its advertising activities toward Connecticut on a continuous basis by its establishment of the Web site; therefore, Instruction Set could reasonably have anticipated being haled into court there.[63]

The court's decision was problematic for several reasons. First, its conclusion that anyone who creates a Web site is purposefully directing activity toward every jurisdiction stretched the meaning of "purposefully

58. 937 F. Supp. 161 (D. Conn. 1996).

59. *Id.* at 162–63. Internet domain names, which have become a ubiquitous part of commercial advertising, enable users to access Web sites simply by typing in a name such as "www.inset.com" in their Web browser. The "www" portion of the address identifies that the site is part of the World Wide Web; the "Inset" portion is usually the name of a company or other identifying words; and "com" identifies the type of institution, in this case a company. Domain names, the subject of several other litigated cases, are administered in the United States by a government-appointed agency, Network Solutions, Inc. (NSI) and are distributed on a first come, first served basis.

60. *Id.*

61. 444 U.S. 286 (1980).

62. *Inset*, 937 F. Supp. at 164–65.

63. *Id.* at 165.

directing" activity to its outer limits. Second, the court did not engage in any analysis of the Internet itself but merely analogized the Internet to a more traditional media form, in this case a continuous advertisement, and applied the existing law. If legally correct, the implications of its reasoning—that in effect *every court anywhere* could assert jurisdiction on the basis that a Web site is directed toward that jurisdiction—could stifle future growth of the Internet. Potential Internet participants would be forced to weigh the advantages of the Internet against the possibility of being subject to every legal jurisdiction in the world.

Third, the court did not assess Instruction Set's actual activity on the Internet. In fact, the court acknowledged that Instruction Set did not maintain an office in Connecticut or have a sales force or employees in the state. For this court, the mere *use* of the Internet was sufficient to establish jurisdiction.[64] A more complete analysis of the underlying facts would have included an assessment of precisely what was happening on the Internet. Was Instruction Set selling products directly to people in Connecticut through its Web site? Was it providing a service directly through its Web site? Was it actively soliciting the participation of potential users by encouraging correspondence? Approximately how many Connecticut users actually accessed the Web site?[65] Asking these questions would have provided the court with a much stronger basis for asserting that Instruction Set had purposefully directed its activity toward Connecticut. It also would have provided a framework under which all Internet activity would not be viewed as equivalent.

With the *Inset* precedent established, many similar cases soon followed. In *Maritz, Inc. v. Cybergold, Inc.*, an August 1996 case, the court again faced the question of personal jurisdiction in the context of a trademark

64. *Id.* at 164.

65. Determining the physical location of visitors to a Web site is not an exact science. In fact, depending upon the user's Internet service provider (ISP), in some instances it may be practically impossible to make such a determination. For example, where the user arrives from a national provider, such as America Online, its address will simply be its name@aol.com. The email address does not indicate physical location. Notwithstanding the practical difficulty in determining location, such a determination is not impossible. Given the cooperation of all parties facilitating the connection (user's phone company, local ISP, national ISP), the electronic trail left behind is sufficient to determine location in many cases. In the majority of situations, however, the courts or the parties may be unwilling to undertake such a difficult and time consuming investigation. Furthermore, the number of visits may be manipulated because an interested party could simply visit and revisit a site numerous times, thereby yielding an inaccurate picture of the site's true impact on a jurisdiction.

infringement action.[66] Citing with approval the *Inset Systems* decision, the court struggled for an effective analogy for the Internet.[67] It noted that:

> [T]he nature and quality of contacts provided by the maintenance of a website on the internet are clearly of a different nature and quality than other means of contact with a forum such as the mass mailing of solicitations into a forum . . . or that of advertising an 800 number in a national publication.[68]

Unable to arrive at an effective analogy, the court concluded that there was a conscious decision to transmit advertising information to all Internet users and that such knowledge was sufficient for the assertion of personal jurisdiction.[69]

Based on the *Inset* and *Maritz* decisions, in which the courts found that a Web site amounted to purposeful direction of activity, several other courts found that Internet activity could be directed at a particular jurisdiction. For example, in *Playboy Enterprises, Inc. v. Chuckleberry Publishing, Inc.*, the publisher of *Playboy* magazine brought an action to enforce an existing order prohibiting the publisher of *Playmen*, an Italian magazine, from distributing its magazine in the United States.[70] Tattilo, the publisher of *Playmen*, established a Playmen Web site that was available to users in the United States.[71] The court ruled:

> [The site could be] viewed as an 'advertisement' by which Tattilo distributes its pictorial images throughout the United States. That the local user "pulls" these images from Tattilo's computer in Italy, as opposed to Tattilo "sending" them to this country, is irrelevant. By inviting United States users to download these images, Tattilo is causing and contributing to their distribution within the United States.[72]

Similarly, in *EDIAS Software International v. BASIS International, Ltd.*, a November 1996 case involving defamatory statements posted on a Web site, an Arizona District Court ruled that the Web site was directed toward

66. 947 F. Supp. 1328 (E.D. Mo. 1996).
67. *Id.* at 1332.
68. *Id.* at 1333.
69. *Id.*
70. 939 F. Supp. 1032 (S.D.N.Y. 1996).
71. *Id.*
72. *Id.* at 1044.

Arizona because that state was the principal place of business of the party being defamed.[73]

United States courts were not alone in analogizing the Internet to other types of activity. *Shetland Times v. Wills* was a Scottish dispute involving an aspect of the Internet often taken for granted: the use of hypertext to link between Web sites.[74] *The Shetland Times* was a print newspaper that featured a Web site containing an electronic version of the paper. *Shetland News* was an electronic publication featuring various news items including headlines taken from *The Shetland Times* Web site accompanied by a hypertext link. Made aware of this practice, *The Shetland Times* brought an action against *Shetland News* for copyright infringement. The presiding judge granted an interim interdict prohibiting the practice, treating the Web site in question as a cable program for the purposes of national legislation.[75] Although ultimately settled out of court,[76] the case provided a further example of the varying means by which courts struggle to understand the Internet.

Although several cases are consistent with the *Inset* approach,[77] *Bensusan Restaurant Corp. v. King*[78] stands out as an important exception. "The Blue Note" was a small Columbia, Missouri club operated by Richard King.[79] King promoted his club by establishing a Web site that included information about the club, a calendar of events, and ticketing information.[80] New York City was also home to a club named "The Blue Note," operated by Bensusan Restaurant Corporation.[81] The New York Blue

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73. 947 F. Supp. 413, 420 (D. Ariz. 1996).

74. Opinion of Lord Hamilton in the case Shetland Times Ltd. against Dr. Jonathan Wills and Another (Oct. 24, 1996) (unreported decision of Ct. of Session, Edinburgh) (visited Dec. 2, 1996) <http://www.shetland-news.co.uk/opinion.html>.

75. *Id.*

76. Jonathan Wills, *Shetland Times Internet Case Settled Out of Court*, Shetland News & Mag. (Nov. 11, 1997) (visited Mar. 19, 1998) <http://www.shetland-news.co.uk/headline/97nov/settled/settled.html>.

77. *See, e.g.*, Heroes, Inc. v. Heroes Found., 958 F. Supp. 1, 5 (D.D.C. 1996) (holding that defendant purposely availed himself of privilege of conducting business in District by soliciting donations on Internet home page always available to District residents and by soliciting donations in local District newspaper); Panavision Int'l v. Toeppen, 938 F. Supp. 616 (C.D. Cal. 1996) (finding that resident who registered California business trademark as domain name for his web site purposely availed himself of privilege of conducting activity in California and was subject to personal jurisdiction in California for trademark infringement action).

78. 937 F. Supp. 295 (S.D.N.Y. 1996), *aff'd* 126 F.3d 25 (2d Cir. 1997).

79. *Id.* at 297.

80. *Id.*

81. *Id.*

Note enjoyed a worldwide reputation as a leading jazz club and Bensusan owned a federal trademark in the name, "The Blue Note."[82] King was familiar with the New York Blue Note. He included a disclaimer on his Web site that stated: "The Blue Note's Cyberspot should not be confused with one of the world's finest jazz club[s][sic] [the] Blue Note, located in the heart of New York's Greenwich Village. If you should find yourself in the big apple give them a visit."[83]

Within a couple of months of the establishment of King's Blue Note Web site, Bensusan brought a trademark infringement and dilution action in New York federal court.[84] Once again, the court faced the question of personal jurisdiction in the context of a trademark action arising out of activity on the Internet. The court, however, departing from the analysis in the *Inset* line of cases, considered the specific uses of the Web site in question. It noted that King's Web site was rather passive in nature—a New York resident would have to take several affirmative steps to bring any infringing product into the state.[85] Tickets could not be ordered online, so that someone wishing to make a purchase would have to telephone the box office in Missouri.[86] Moreover, because the Missouri club did not mail tickets, purchasers would have to travel to Missouri to obtain tickets.[87] Given this level of passivity, the court ruled that the Web site was not causing any infringing activity in New York.[88] In fact, the court held that "[t]he mere fact that a person can gain information on the allegedly infringing product is not the equivalent of a person advertising, promoting, selling or otherwise making an effort to target its product in New York."[89]

The *Bensusan* decision, affirmed by the Second Circuit in September 1997,[90] was an important step in the development of a deeper legal analysis

82. *Id.*

83. *Id.* at 297–98 (quoting King's Web page).

84. *Id.* at 298.

85. *Id.* at 299.

86. *Id.*

87. *Id.*

88. *Id.*

89. *Id.*

90. Bensusan Restaurant Corp. v. King, 126 F.3d 25 (2d Cir. 1997). The Second Circuit likened applying established trademark law to the Internet to trying to board a moving bus, but nevertheless found that the established doctrines of personal jurisdiction were supported by the district court decision. *Id.* at 27.

of Internet activity.[91] Although the decision did not attempt to reconcile the *Inset* line of cases, it provided the groundwork for a new line of cases.[92]

By the end of 1996, the majority of Internet-related decisions evidenced little genuine understanding of activity on the Internet. Most courts were unconcerned with the jurisdictional implications of their rulings and instead favored an analogy-based approach in which the Internet was categorized *en masse*. The *Bensusan* decision ran counter to this trend and in early 1997 a new approach emerged. Led by the decision in *Zippo Manufacturing Co. v. Zippo Dot Com, Inc.*,[93] courts gradually began to appreciate that Internet activity was as varied as that in real space and that all-encompassing analogies simply would not work in this new medium.

Zippo Manufacturing was a Pennsylvania-based manufacturer of the well-known "Zippo" brand of tobacco lighters.[94] Zippo Dot Com was a California-based Internet news service that used the domain name

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91. A 1995 case foreshadowed this approach but did not receive much attention in any of the 1996 and 1997 cases. United States v. Baker, 890 F. Supp. 1375 (E.D. Mich. 1995), *aff'd sub nom.*, United States v. Alkhabaz, 104 F.3d 1492 (6th Cir. 1997). The *Baker* case was a criminal action involving the email transmission of threats to injure or kidnap. Baker was a University of Michigan student who sent a private email to a person in Canada in which he graphically described the torture, rape, and murder of a woman, who was given the name of Baker's classmate. In addressing the implications of the Internet on this case, the court avoided using a broad analogy, choosing instead to focus on the particular actions in this case as it found that:

> The Internet makes it possible with unprecedented ease to achieve world-wide distribution of material, like Baker's story, posted to its public areas. When used in such a fashion, the Internet may be likened to a newspaper with unlimited distribution and no locatable printing press—and with no supervising editorial control. But Baker's email messages, on which the superseding indictment is based, were not publicly published but privately sent to Gonda. While new technology such as the Internet may complicate analysis and may sometimes require new or modified laws, it does not in this instance qualitatively change the analysis under the statute or under the First Amendment.

Id. at 1390.

92. *See, e.g.*, Hearst Corp. v. Goldberger, No. 96 Civ. 3620, 1997 WL 97097 (S.D.N.Y. Feb. 26, 1997) (relying heavily upon *Bensusan* analysis in refusing to assert personal jurisdiction in trademark infringement matter involving domain name "Esqwire.com"). The *Goldberger* court carefully reviewed Internet case law to that point, noted its disagreement with several decisions. *See, e.g.*, Maritz v. Cybergold, Inc., 947 F. Supp. 1328 (E.D. Mo. 1996); EDIAS Software Int'l v. BASIS Int'l Ltd., 947 F. Supp. 413 (D. Ariz. 1996); Panavision Int'l v. Toeppen, 938 F. Supp. 616 (C.D. Cal. 1996); Inset Systems v. Instruction Set, 937 F. Supp. 161 (D. Conn. 1996). The *Goldberger* court cautioned that:

> Where, as here, defendant has not contracted to sell or actually sold any goods or services to New Yorkers, a finding of personal jurisdiction in New York based on an Internet web site would mean that there would be nationwide (indeed, worldwide) personal jurisdiction over anyone and everyone who establishes an Internet web site. Such nationwide jurisdiction is not consistent with traditional personal jurisdiction case law nor acceptable to the court as a matter of policy.

Hearst Corp., 1997 WL 97097, at *1.

93. 952 F. Supp. 1119 (W.D. Pa. 1997).

94. *Id.* at 1121.

"Zippo.com" to provide access to Internet newsgroups.[95] Zippo Dot Com offered three levels of subscriber service: free, original, and super.[96] Subscribers desiring the original or super level of service were required to fill out an online application form and submit a credit card number through the Internet or by telephone.[97] Zippo Dot Com's contacts with Pennsylvania occurred almost exclusively on the Internet since the company had no offices, employees, or agents in the state.[98] Zippo Dot Com had some success in attracting Pennsylvania subscribers because at the time of the action, approximately 3000, or two percent, of its subscribers resided in that state.[99] Once again, the issue before the court was one of personal jurisdiction arising out of a claim of trademark infringement and dilution.[100]

Rather than using Internet analogies as the basis for its analysis, the court focused on prior, somewhat limited Internet case law.[101] The court's examination of the case law, which used the *Bensusan* decision[102] for inspiration, yielded the following conclusion:

> With this global revolution looming on the horizon, the development of the law concerning the permissible scope of personal jurisdiction based on Internet use is in its infant stages. The cases are scant. Nevertheless, our review of the available cases and materials reveals that the likelihood that personal jurisdiction can be constitutionally exercised is *directly proportionate to the nature and quality of commercial activity that an entity conducts over the Internet.* This sliding scale is consistent with well developed personal jurisdiction principles. At one end of the spectrum are situations where a defendant clearly does business over the Internet. If the defendant enters into contracts with residents of a foreign jurisdiction that

95. *Id.*

96. *Id.*

97. *Id.*

98. *Id.*

99. *Id.*

100. *Id.*

101. The *Zippo* court relied on, but did not discuss CompuServe, Inc. v. Patterson, 89 F.3d 1257 (6th Cir. 1996). Although the *Zippo* court refers to the decision as an Internet case, in fact, the activity in question did not involve use of the Internet. Rather, Patterson used CompuServe's proprietary network to distribute certain shareware programs. Accordingly, Patterson's contacts with Ohio, CompuServe's headquarters and the location of the litigation, were confined to an off-line contractual agreement and the posting of shareware on a CompuServe server that was available to users of its proprietary network (not Internet users at large).

102. Bensusan Restaurant Corp. v. King, 937 F. Supp 295 (S.D.N.Y. 1996), *aff'd*, 126 F.3d 25 (2d Cir. 1997).

> involve the knowing and repeated transmission of computer files over the Internet, personal jurisdiction is proper. At the opposite end are situations where a defendant has simply posted information on an Internet Web site which is accessible to users in foreign jurisdictions. A passive Web site that does little more than make information available to those who are interested in it is not grounds for the exercise [of] personal jurisdiction. The middle ground is occupied by interactive Web sites where a user can exchange information with the host computer. In these cases, the exercise of jurisdiction is determined by examining the level of interactivity and commercial nature of the exchange of information that occurs on the Web site.[103]

The court's critical finding was that the jurisdictional analysis in Internet cases should be based on the nature and quality of the commercial activity conducted on the Internet. Arguably, before *Zippo*, the jurisdictional analysis was based upon the mere use of the Internet itself, a finding that might produce a somewhat inappropriate analogy and application of legal doctrine unsuited to the circumstances. In the aftermath of the *Zippo* decision, when the court used its analysis to find that jurisdiction was proper due to Zippo Dot Com's subscription sales to state residents,[104] legal analysis of the Internet underwent a significant shift.

The year 1997 featured many Internet-related cases, most of which cited *Zippo* with approval and used a more appropriate jurisdictional analysis.[105]

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103. *Zippo*, 952 F. Supp. at 1124 (citations omitted) (emphasis added).

104. *Id.* at 1119.

105. There were at least five exceptions to this trend. First, a trademark infringement case involved the use of the domain name "AltaVista." Digital Equip. Corp. v. Altavista Tech., Inc., 960 F. Supp. 456 (D. Mass. 1997). The court in *Digital* incompletely canvassed the Internet case law as it relied upon the *Inset* line of cases to find jurisdiction: Maritz v. Cybergold, Inc., 947 F. Supp. 1328 (E.D. Mo. 1996); EDIAS Software Int'l v. BASIS Int'l, 947 F. Supp. 413 (D. Ariz. 1996); Panavision Int'l v. Toeppen, 938 F. Supp. 616 (C.D. Cal. 1996). The *Bensusan* decision was characterized as finding that the Web functioned like a local newspaper under the particular circumstances. *Digital*, 960 F. Supp. at 472.

Second, a court considered both the *Inset* and *Zippo* lines of cases and emphatically agreed with the *Inset* interpretation of the jurisdictional effect of a Web site. Telco Communications v. An Apple A Day, Inc., 977 F. Supp. 404, 406 (E.D. Va. 1997).

Third, in an Internet gambling case the court cited *Maritz* and *Inset* with approval in finding minimum contacts. Minnesota v. Granite Gate Resorts, Inc., 468 N.W. 2d 715, 719 (Minn. Ct. App. 1997). The Minnesota court, comparing the Internet to broadcast and direct mail solicitation, found that a gambling company operating entirely outside of the state nevertheless targeted local consumers through its use of a Web site. *Id.* at 719–21.

Fourth, in a trademark infringement action the court cited *Maritz* and *Inset* with approval in finding jurisdiction on the basis of the existence of a Web site and advertising in a trade journal. Quality Solutions, Inc. v. Zupanc, 993 F. Supp. 621, 623 n.2 (N.D. Ohio 1997).

In *Cybersell, Inc. v. Cybersell, Inc.*, a December 1997 Ninth Circuit decision, the issue before the court was whether the use of an allegedly infringing service mark on a Web site was sufficient grounds for asserting personal jurisdiction.[106] Both Cybersell Arizona, the owner of the "Cybersell" federal service mark, and Cybersell Florida provided Internet marketing and consulting services.[107] Cybersell Florida's presence in Arizona was limited to a Web site advertising its services and inviting interested parties to contact it for additional information.[108] The court's analysis followed the *Zippo* approach in trying to ascertain the nature and quality of Cybersell Florida's Web-based activity. As part of its analysis, the court considered the passive nature of the site, the fact that no Arizonans except for Cybersell Arizona actually visited the site,[109] and the absence of any evidence that an Arizonan entered into contractual relationships with Cybersell Florida.[110] Considering these factors and noting its approval of the *Zippo* court's summation of the law, the Ninth Circuit concluded that it could not properly assert jurisdiction in this matter.[111]

Several other cases also favorably cited *Zippo*, including *Resuscitation Technologies, Inc. v. Continental Health Care Corp.*[112] Resuscitation

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Fifth, IA, Inc., v. Thermacell Techs., Inc., cited *Inset*, *Maritz*, and *Zippo* with approval in finding jurisdiction. 983 F. Supp. 697, 700–01 (E.D. Mich. 1997).

106. 130 F.3d 414 (9th Cir. 1997).

107. *Id.* at 415. Interestingly, the principals behind Cybersell Arizona were Laurence Canter and Martha Siegel, attorneys infamous among Web users as the first Internet "spammers" or junk emailers.

108. *Id.* at 419.

109. The validity of this conclusion is questionable given the difficulty in accurately ascertaining the physical location of all visitors to a Web site. *See supra* note 65.

110. Cybersell, Inc. v. Cybersell, Inc., 130 F.3d 414, 419 (9th Cir. 1997).

111. *Id.* at 420.

112. No. IP 96-1457-C-M/S, 1997 WL 148567, at *3 (S.D. Ind. Mar. 24, 1997); *see also* Mallinckrodt Med., Inc. v. Sonus Pharm., Inc., 989 F. Supp. 265, 272 (D.D.C. 1998) (using active/passive distinction in determining jurisdiction); SF Hotel Co. v. Energy Invs., Inc., 985 F. Supp. 1032, 1034 (D. Kan. 1997) (quoting with approval *Zippo* analysis of three types of Web sites); Transcraft Corp. v. Doonan Trailer Corp., 45 U.S.P.Q.2d 1097, 1102 (N.D. Ill. 1997) (same); Superguide Corp. v. Kegan, 987 F. Supp 481, 486 (W.D.N.C. 1997) (citing *Resuscitation Technologies* with approval, asserting jurisdiction over Internet contacts on assumption that large number of persons from its jurisdiction visited and used commercial services found at Web site in question); Hasbro, Inc. v. Clue Computing, Inc., 45 U.S.P.Q.2d 1170 (D. Mass. 1997) (favoring stream of commerce approach, though ultimately finding jurisdiction based on active nature of Web site in question including in-state customers, willingness to provide services regardless of location, and fact that in-state residents had accessed Web site); Weber v. Jolly Hotels, 977 F. Supp. 327, 333 (D.N.J. 1997) (quoting with approval *Zippo* analysis of three types of Web sites); Gifford v. Bruce Strumpf, Inc., Civ. No. 97-70-B, 1997 U.S. Dist. LEXIS 11876, at *5 (D. Me. Aug. 7, 1997), *aff'd*, No. 97-2005, 1998 WL 60406 (1st Cir. Feb. 10, 1998) (citing *Hobby Lobby* with approval and ruling that "[t]he mere posting on the Internet of information that is accessible to non-resident users is insufficient, without more, to confer personal jurisdiction"); Smith v. Hobby Lobby Stores, Inc., 968 F. Supp. 1356, 1365 (W.D. Ark. 1997) (quoting

Technologies (RTI), a fledgling Indiana medical device start-up company in need of capital, established a Web site with the hope of attracting potential investors.[113] Joseph Falkson, a principal in Continental Health Care, saw the Web site while searching for investment opportunities, and the two parties proceeded to negotiate investment terms.[114] Several months into the negotiations, most occurring over email, the parties broke off talks.[115] In the aftermath, RTI brought legal action seeking a declaratory judgment that the arrangement between the parties was not contractual in nature.[116]

Again the issue facing the court was one of personal jurisdiction: Was Indiana the proper jurisdiction for the case since Falkson was an out-of-state resident who never once entered Indiana during the negotiations?[117] The court relied heavily on the approach found in *Zippo*, noting that "this notion of transacting business over the Internet involves examining the level of interactivity, and the commercial nature of the exchange of information that occurs."[118] The court concluded that Indiana was the proper jurisdiction for the case, reasoning that the high level of interactivity, specifically the ongoing commercial discussions over the Internet had a definite focus in Indiana.[119]

Two final cases illustrate how far the judicial approach to the Internet has advanced in the span of a few short years. First, in *E-Data Corp. v. Micropatent Corp.*,[120] the same court responsible for the *Inset* decision[121] remarkably altered its approach to Internet analysis. In this patent infringement action, E-Data, a Utah corporation, claimed that several companies, including Micropatent and West Stock, were violating a patent on an invention that enabled users to reproduce information found in tangible items such as books and recordings.[122] West Stock, a Seattle-based company, operated a Web-based stock photography service that allowed

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with approval *Zippo* analysis of three types of Web sites); Agar Corp. v. Multi-Fluid, Inc., 45 U.S.P.Q.2d 1444, 1447 (S.D. Tex. 1997) (same).

113. *Resuscitation Techs.*, 1997 WL 148567, at *1.

114. *Id.*

115. *Id.* at *2.

116. *Id.* at *3.

117. *Id.* at *2.

118. *Id.* at *4.

119. *Id.* at *4–5.

120. 989 F. Supp. 173 (D. Conn. 1997).

121. Inset Sys., Inc. v. Instruction Set, Inc., 937 F. Supp. 161 (D. Conn. 1996).

122. *Id.* at 174–75.

purchasers to select and download electronically a photograph as well as license and pay for its use, all through the Internet.[123]

Neither E-Data nor West Stock had any ties to Connecticut—presumably the plaintiff chose the state due to its proclivity for asserting jurisdiction in Internet cases. The court in this case, however, disappointed the plaintiff by assessing the facts in a far different manner than it had done previously. In particular, the court cast doubt on the *Inset* decision, accepting the active versus passive Web site distinction but ruling that a Connecticut user had to find West Stock's Web site, access it, and browse the information contained thereon.[124] Although the court considered this an "active" site, there is a strong argument that these characteristics were no more active than the "passive" site found in the *Inset* case. Rather, what made the West Stock site an active site was the ability to conduct commercial transactions online. The *Zippo* court would have characterized this feature as having a nature and quality sufficient to exercise jurisdiction, not the features highlighted by the Connecticut court.

The court also considered evidence of actual effects within the state as part of its analysis, a welcome change from its approach in the *Inset* decision.[125] In a footnote, the court indicated that the "plaintiff has made no factual showing, despite the opportunity for jurisdictional discovery, that any of West Stock's Internet advertising actually reached Connecticut, i.e., that any Connecticut resident ever accessed West Stock's Web site to view or use."[126] The use of actual visits as a factor in the court's analysis stands in complete opposition to the court's view on the matter in *Inset*, where it held that the mere availability of the Web site to Connecticut residents was sufficient to assert jurisdiction.[127]

While the *E-Data* decision illustrates the near complete reversal in thinking with regard to Web jurisdictional issues, *People v. Lipsitz*, a consumer fraud decision, demonstrates the judiciary's increasing familiarity and comfort with the Internet and its relation to traditional legal doctrine.[128] The case involved a magazine selling scam in which the defendant was accused of using the Internet to sell magazine subscriptions that never

123. *Id.* at 175.

124. *Id.* at 176.

125. *See supra* notes 62–65.

126. *Id.* at 176 n.2.

127. *Id.* at 164.

128. 663 N.Y.S.2d 468 (N.Y. Sup. Ct. 1997).

arrived, or were delayed or shortened if they arrived.[129] In responding to the defendant's claim that the court had no jurisdiction over activities transpiring on the Internet, the court stated:

> [F]or Internet consumer fraud claims, the Internet medium is essentially irrelevant, for the focus is primarily upon the location of the messenger and whether the messenger delivered what was purchased . . . [t]o place a realistic context on these matters and leave behind the rarefied air of cyberspace, the issues raised here would [be] the same if each involved consumer individually sued in the Staten Island Small Claims Court. . . . The claims are of local concern, as recognized by the nationwide system of state consumer protection laws. There is no compelling reason to find that local legal officials must take a "hands off" approach just because a crook or con artist is technologically sophisticated enough to sell on the Internet.[130]

The court's confidence in dealing with the Internet can be contrasted with the *Fuschetto* and *Stratton Oakmont* decisions discussed earlier, where the courts were hesitant to apply traditional legal rules to the new technology.[131]

Just as the Internet has grown at a remarkable rate over the past four years, so too has the judiciary's understanding and appreciation of the Internet. The judiciary's approach to the Internet has evolved from one of trepidation (*Fuschetto, Stratton Oakmont*)[132] to one of incomplete understanding (*Inset Systems, Maritz*)[133] to one of relative sophistication (*E-Data, Lipsitz*).[134] In fact, the development of Internet case law yields a critical lesson for understanding the regulation of economic activity in the age of the Internet: the Internet is not a single medium that can be succinctly characterized or analogized. Rather, as the *Zippo* case and its progeny illustrate,[135] the Internet is many different things in many different situations, and an effective regulatory framework depends upon grasping the nature and quality of those different activities. That lesson, which took the courts several years to learn, similarly eluded many scholars as they endeavored to tackle the issue of regulating the Internet.

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129. *Id.* at 470.

130. *Id.* at 475.

131. *Supra* notes 55–57 and accompanying text.

132. *See supra* notes 55–57 and accompanying text.

133. *See supra* notes 62–69 and accompanying text.

134. *See supra* notes 120–31 and accompanying text.

135. *See supra* notes 93–105.

B. *The Scholarship*

The growth and development of scholarly interest in Internet regulation mirrors quite closely the judicial experience. The early years of cyberspace, 1994–1995, yielded only a few scholarly pieces on the topic, with several simply describing the potential power of the new medium.[136] By 1996, the Internet had begun to capture the imagination of many scholars as articles regularly began appearing in law journals, bar association publications, and on the Web.[137] In fact, an online law journal, the *Journal of Online Law*, hosted by the College of William & Mary, became the first of several electronic journals devoted to cyberlaw issues.[138]

One of the earliest articles to evidence a genuine understanding of the Internet was a 1995 piece by Lawrence Lessig,[139] now of the Harvard Law School. Lessig argued that the Internet should not impact constitutional law, at least not initially. Lessig warned would-be regulators and lawmakers:

> My point is about timing—when the balance should be drawn. There are many who now see the extraordinary expressive and associational potential that cyberspace offers. Most, however, do not. If the many prove correct, the most will eventually see the same—as the space becomes more common, as their children become transformed by it, as life takes root within it. But this seeing will take time. It will require that individuals gain an experience with this new space that gives them the sense of what this new space is. Only when this experience is common should we expect to be in a position to understand its significance. When the technology, when the experience, when the life in cyberspace presses us, only then should

136. *See, e.g.*, Eugene Volokh, *Cheap Speech and What it Will Do*, 104 Yale L.J. 1805 (1995). For an interesting early perspective on how the Internet and digitization might change the way law is accessed and used, see Ethan Katsh, *Law in a Digital World: Computer Networks and Cyberspace*, 38 Vill. L. Rev. 403 (1993).

137. *See also, e.g.*, Dale M. Cendali & James D. Arbogast, *Net Use Raises Issues of Jurisdiction*, Nat'l L.J., Oct. 28, 1996, at C7; William J. Cook, *Four Internet Jurisdiction Cases Break Rule of Thumb*, Chi. Law., Oct. 1996, at 75, 76; Wendy R. Leibowitz, *High Tech is Reshaping Legal Basics*, Nat'l L.J., Sept. 23, 1996, at A1; Richard Raysman & Peter Brown, *Resolving Jurisdiction and Venue Issues on the Internet*, N.Y.L.J., Sept. 10, 1996, at 3, 3; W. Scott Petty, *Domain Name Dispute Policy Evolves to Address Trademark Issues in Cyberspace*, Intell. Prop. Today, Oct. 1996, at 8, 8.

138. The first articles in the Journal of Online Law (JOL) began appearing on the Web in 1995. The journal can be found at <http://warthog.cc.wm.edu/law/publications/jol> (last visited May 2, 1997). Other journals followed JOL's lead. *See* Journal of Information, Law and Technology <http://elj.warwick.ac.uk/elj/jilt/>; Journal of Technology Law and Policy <http://grove.ufl.edu /~techlaw/>; Virginia Journal of Law and Technology < http://scs.student.Virginia.EDU/~vjolt/>.

139. Lawrence Lessig, *The Path of Cyberlaw*, 104 Yale L.J. 1743 (1995).

> we expect law to understand enough to resolve these questions rightly.[140]

Notwithstanding Lessig's warning, numerous scholarly attempts to provide answers to how to regulate the Internet ensued.[141] The approach used most frequently by most scholars was, once again, the analogy.[142] In what might be characterized as a trial and error approach, many papers endeavored to demonstrate how and why the Internet was most like a specific legal doctrine or legal system or why the law simply should not apply at all.[143] In a flurry of articles published in late 1995 and 1996, various authors suggested that the Internet was similar to the following situations or legal paradigms:

- *national advertising*, as contacts with a jurisdiction are limited to a communication media;[144]
- *800 telephone numbers*, as contacts with a jurisdiction are via a communication media that is accessible from a series of forums and can be used to receive commercial orders for goods or services;[145]
- *environmental litigation*, because, like instances of environmental pollution placed into the environment without prior knowledge of its destination, data on the Internet travels in unforeseen paths;[146]
- *unsupervised retail stores* in which the customers complete the commercial transactions themselves and the retailer merely makes the product available;[147]
- *admiralty law*, because, like the high seas, no state may claim sovereignty over the Internet;[148]

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140. *Id.* at 1752.

141. *See infra* text accompanying notes 144–52.

142. This is not to suggest that there is anything inherently wrong in using analogies to better understand legal issues. In fact, legal reasoning frequently depends upon the use of analogies. However, as discussed further in Parts IV and V, *infra*, applying a universal analogy to something as complex as Internet activity is destined to fail. Rather, individual activities themselves must be scrutinized on their own terms. Once this stage of legal analysis is complete, narrower, more focused analogies may be employed to better understand the application of legal doctrine.

143. *See infra* text accompanying notes 144–51.

144. Richard S. Zembek, Note, *Jurisdiction and the Internet: Fundamental Fairness in the Networked World of Cyberspace*, 6 Alb. L.J. Sci. & Tech. 339, 368–70 (1996).

145. *Id.* at 371–76.

146. *Id.* at 376–80.

147. William S. Byassee, *Jurisdiction of Cyberspace: Applying Real World Precedent to the Virtual Community*, 30 Wake Forest L. Rev. 197, 211 (1995).

148. Matthew R. Burnstein, Note, *Conflicts on the Net: Choice of Law in Transnational Cyberspace*, 29 Vand. J. Trans. L. 75, 103–05 (1996) (suggesting that just as law of flag has

- *lex mercatoria*, the medieval law merchant collection of customary rules and practices used by traveling traders in medieval Europe and Asia,[149] because the law merchant rules were enforceable in virtually all commercial countries, yet existed apart from the local commercial legal framework;[150]
- *outer space law*, because, like space, the Internet is transnational, yet non-national and not easily demarcated into jurisdictions;[151]
- *Antarctica law*, another example of a transnational, yet non-national area in which the nations of the world have reached agreement on public international law issues.[152]

In addition to employing Internet analogies, many scholars suggested that traditional notions of national legal regulation simply would not work on the Internet. At one end of the spectrum were scholars such as David Post and David Johnson, who together argued that cyberspace was cut off from the rule-making institutions of the physical world.[153] The authors argued that geographic, physical borders are a necessary pre-condition for effective and legitimate lawmaking because rules are enforced and legitimated by the general public within those borders.[154] The Internet undermines this dynamic since it operates independent of real space and has no identifiable borders. Given this dilemma, Post and Johnson advocated conceiving of cyberspace as a separate "place," governed by its own legal framework.[155] The sole border would be one dividing the virtual from the physical; by entering cyberspace, a person would literally cross a border.[156] The authors called for a decentralized, self-regulatory model in which the users of the Internet created rules best suited to their needs.[157]

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traditionally played important role in resolving maritime disputes, location of Internet service provider (ISP) might serve as cyberspace equivalent).

149. *Id.* at 108.

150. *Id.* The authors proposing this approach suggested that a cyberspace equivalent would allow quick resolution of disputes and creation of a legal framework uniquely suited to the complexities of the Internet. *Id.* at 109–10; Hardy, *supra* note 53, at 1019–21.

151. Burnstein, *supra* note 148, at 110–11.

152. *Id.* at 111–12.

153. David G. Post & David R. Johnson, *Law and Borders: The Rise of Law in Cyberspace*, 48 Stan. L. Rev. 1367 (1996); *see also* John T. Delacourt, *The International Impact of Internet Regulation*, 38 Harv. Int'l L.J. 207 (1997) (favoring self-regulation model).

154. Post & Johnson, *supra* note 153, at 1368–70.

155. *Id.* at 1378.

156. *Id.* at 1378–80.

157. Post and Johnson revisited and enhanced their proposal for rulemaking in cyberspace in David R. Johnson & David G. Post, *And How Shall the Net be Governed? A Mediation on the Relative Virtues*

Many others observing the legal problems raised by the borderless nature of the Internet proposed somewhat less radical solutions. Several scholars called for the negotiation of an international treaty that would remedy the conflict of laws disputes sure to arise from conflicting national legal frameworks.[158] Skeptics of an international solution pointed to the glacial pace of such negotiations as well as concerns regarding the organization which could effectively administer an international agreement.[159]

Some scholars, including Robert Dunne, Trotter Hardy, and Llewellyn Gibbons, suggested using contractual principles to regulate the Internet. Their recommendations included the development of an Internet code of conduct that would be attached to users' Internet service provider (ISP) agreements,[160] or, alternatively using the ISPs themselves as contractual gatekeepers.[161] In addition to its usefulness in formulating rules, the contract could also serve an adjudicative role, in the sense that private courts created by contract could act as the arbiters in disputes arising out of cyberspace.[162]

Two new trends also emerged in the legal scholarship of 1997. First, the scholarship gradually began to reflect the judicial trend toward analysis of the nature and quality of Internet activity. For example, one article on personal jurisdiction and the Internet concluded that "in seeking to maintain the 'notions of fair play and substantial justice' associated with personal jurisdiction, courts must perform a fact-intensive investigation involving all relevant factors of the defendant's contact with the forum."[163] Articles

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of Decentralized, Emergent Law, in *Coordinating the Internet* 62 (Brian Kahin & James Keller eds., 1997). *See also* David G. Post, *Anarchy, State and the Internet: An Essay on Law-Making in Cyberspace*, 1995 J. Online L. Art. 3 (discussing advantages of allowing Internet users to make rules).

158. *See, e.g.*, Alexander Gigante, *Ice Patch on the Information Superhighway: Foreign Liability for Domestically Created Content*, 14 Cardozo Arts & Ent. L.J. 523 (1996). In a variation on the international treaty approach, Patrick Crago analyzed the regulatory power of European Union and suggested that a regional organization was best suited to regulate activity on the Internet. Patrick G. Crago, Note, *Fundamental Rights on the Infobahn: Regulating the Delivery of Internet Related Services Within the European Union*, 20 Hastings Int'l & Comp. L. Rev. 467 (1997).

159. Johnson, *supra* note 157, at 70–73.

160. Robert L. Dunne, *Deterring Unauthorized Access to Computers: Controlling Behavior in Cyberspace Through a Contract Law Paradigm*, 35 Jurimetrics J. 1, 11–14 (1994).

161. Hardy, *supra* note 53, at 1028–32.

162. Llewellyn J. Gibbons, *No Regulation, Government Regulation, or Self-Regulation: Social Enforcement or Social Contracting for Governance in Cyberspace*, 6 Cornell J.L. & Pub. Pol'y 475, 532–34 (1997). For a more detailed look at arbitration in cyberspace, see George H. Friedman, *Alternative Dispute Resolution and Emerging Online Technologies: Challenges and Opportunities*, 19 Hastings Comm. & Ent. L.J. 695 (1997); and Henry H. Perritt, Jr., *Jurisdiction in Cyberspace*, 41 Vill. L. Rev. 1, 94–100 (1996).

163. David Thatch, Comment, *Personal Jurisdiction and the World-Wide Web: Bits (And Bytes) of Minimum Contacts*, 23 Rutgers Computer & Tech. L.J. 143, 177 (1997); *see also* Charles H.

assessing the specific impact of the Internet on activities such as securities and banking law concluded that the arrival of the Internet did not necessarily mandate a complete revision of existing laws but mere "relatively modest updating and streamlining."[164] Second, the influence of technology on the power to regulate captured the attention of several scholars. Lawrence Lessig argued that "code . . . regulates behavior in cyberspace."[165] He explained:

> The code, or the software that makes cyberspace as it is, constitutes a set of constraints on how one can behave in cyberspace. The substance of these constraints vary, but they are experienced as conditions on one's access to cyberspace. In some places, one must enter a password before one gains access; in other places, one can enter whether identified or not. In some places, the transactions that one engages produce traces that link the transactions (the mouse droppings) back to the individual; in other places, this link is achieved only if one wants. In some places, one can select to speak a language that only the recipient can hear (through encryption); in other places encryption is not an option. The code or software or architecture or protocols set these features; they are features selected by code writers; they constrain some behavior by making other behavior possible, or impossible. They too are regulations.[166]

Lessig's argument, developed in several other articles,[167] highlights technology's influence on the regulatory framework.[168] Lessig even suggests that the *technology can be the regulatory framework.*[169]

Fleischer, *Will the Internet Abrogate Territorial Limits on Personal Jurisdiction?*, 33 Tort & Ins. L.J. 107 (1997).

164. John C. Coffee, Jr., *Brave New World?: The Impact(s) of the Internet on Modern Securities Regulation*, 52 Bus. Law. 1195, 1233 (1997); *see also* Amelia H. Boss & Jane Kaufman Winn, *The Emerging Law of Electronic Commerce*, 52 Bus. Law. 1469, 1491 (1997) ("Existing principles of commercial law can and will be adapted to meet the new demands of these [electronic commerce] business practices."); Catherine Lee Wilson, *Bank on the Net: Extending Banking Regulation to Electronic Money and Beyond*, 30 Creighton L. Rev. 671 (1997).

165. Lawrence Lessig, *The Constitution of Code: Limitations on Choice-Based Critiques of Cyberspace Regulation*, 5 Commlaw Conspectus 181, 183 (1997).

166. *Id.*

167. Lawrence Lessig, *Constitution and Code*, 27 Cumb. L. Rev. 1 (1996–97); Lawrence Lessig, *Reading the Constitution in Cyberspace*, 45 Emory L.J. 869 (1996); Lawrence Lessig, *The Zones of Cyberspace*, 48 Stan. L. Rev. 1403 (1996).

168. Lessig, *The Constitution of Code*, *supra* note 165, at 184.

169. *Id.*

Joel Reidenberg also recognized the power of technology, suggesting that traditional American and European approaches to regulatory policymaking were ineffective when applied to the Internet.[170] He asserted that "a network governance paradigm must emerge to recognize the complexity of regulatory power centers, [and] utilize new policy instruments such as technical standardization to achieve regulatory objectives."[171]

Reidenberg expanded his thesis in a 1998 article in which he argued that technology imposes rules upon information flows, creating a "Lex Informatica," a modern day version of the medieval Lex Mercatoria.[172] Reidenberg cited technical solutions to disputes involving Internet content, data privacy, and copyright, as three examples of how technology may enable policymakers to formulate rules through the configuration of the Internet rather than via more traditional regulatory approaches.[173]

C. *Government Reports*

Government activity in the area of Internet regulation took somewhat longer to emerge than Internet case law and scholarship, which had become increasingly prevalent by 1996. With few exceptions,[174] it was not until the summer of 1997, several years after the start of the Internet craze, that policy papers and position statements began to surface. In fact, a flurry of releases over a five month span yielded position papers and general declarations from Japan,[175] the United States,[176] the European Union,[177] Australia,[178] and Canada.[179] All five papers were concerned primarily with

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170. Joel R. Reidenberg, *Governing Networks and Rule-Making in Cyberspace*, in *Borders in Cyberspace* 84 (Brian Kahin & Charles Nesson eds., 1997).

171. *Id.* at 100.

172. Joel R. Reidenberg, *Lex Informatica: The Formulation of Information Policy Rules Through Technology*, 76 Tex. L. Rev. 553, 554–55 (1998).

173. *Id.* at 557–68.

174. A notable exception was the Department of the Treasury, *Selected Tax Policy Implications of Global Electronic Commerce* (Nov. 1996) (visited Apr. 30, 1998) <http://www.treas.gov/taxpolicy/internet.html>.

175. Ministry of International Trade and Industry (Japan), *Towards the Age of the Digital Economy* (May 1997) (visited Apr. 30, 1998) <http://www.miti.go.jp/intro-e/azz8100e.html>.

176. The White House, *A Framework for Global Electronic Commerce* (July 1997) (visited Apr. 30, 1998) <http://www.doc.gov/ecommerce/framewrk.htm>.

177. Global Information Networks, *Ministerial Declaration* (July 1997) (visited Apr. 30, 1998) <http://www2.echo.lu/bonn/final.html>.

178. Information Industries Taskforce (Australia), *The Global Information Economy: The Way Ahead* (July 1997) (visited Apr. 30, 1998) <http://www.dist.gov.au/itt/golds/html/execsumm.html>.

electronic commerce, that, not surprisingly, the governments viewed as a positive development worthy of encouragement. If skeptics were looking for some deep disagreements over the general principles to facilitate electronic commerce, they did not find it among this group of policy papers. For example, the fundamental principles as stated in the United States's *Framework for Global Electronic Commerce* included private sector leadership; avoidance of undue governmental restrictions; enforcement of a predictable, minimalist, consistent, and simple legal environment for commerce; recognition of the unique qualities of the Internet; and facilitation of electronic commerce on a global basis.[180] The European Union declaration, released one week after the U.S. framework, used similar phraseology, calling for, among other things, a key role for the private sector, the development of a clear and predictable regulatory framework, and the recognition of the special characteristics and fundamentally transnational nature of the Internet.[181]

Although the government papers were largely in accord on a very general level, policy on the appropriate regulatory role for government was less uniform. The United States took by far the most hands-off approach: the paper called for industry self-regulation where appropriate, avoidance of new and unnecessary regulations, private sector leadership in standards development, and private sector participation with intergovernmental agreement negotiation.[182] While the Australians also called for a non-regulatory, market-oriented approach,[183] the European Union suggested that the public sector play an active part in ensuring that the Internet achieved its full potential.[184] The Union's *Ministerial Declaration* advocated application of general legal frameworks to online networks and stressed the need for international co-operation to deal with specific legal issues such as taxation.[185] The Japanese took the most international approach, arguing that electronic commerce would be impeded without global cooperation.[186]

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179. Industry Canada, *Preparing Canada for a Digital World* (Sept. 1997) (visited Apr. 30, 1998) <http://strategis.ic.gc.ca/SSG/ih01650e.html>.

180. The White House, *supra* note 176.

181. Global Information Networks, *supra* note 177.

182. The White House, *supra* note 176.

183. Information Industries Taskforce (Australia), *supra* note 178, at 71.

184. Global Information Networks, *supra* note 177.

185. *Id.*

186. Ministry of International Trade and Industry (Japan), *supra* note 175.

Unfortunately, with only a few exceptions,[187] the papers suffered from a lack of specificity due in large measure to their aspirational tone. Little effort was made to identify precisely what changes were needed to facilitate electronic commerce or exactly how the Internet would alter existing regulations. In many respects, the initial government efforts were similar to the early judicial pronouncements and scholarly works on the Internet in that they were too general in nature and needed greater attention to the actual activity on the Internet.

Toward the end of 1997, government reports began to move in the same direction as the courts and scholarship. The Organization for Economic Co-operation and Development (OECD) released two papers in November 1997 that identified specific activities and issues that needed to be addressed.[188] *Dismantling the Barriers to Global Electronic Commerce*, prepared in advance of a roundtable discussion between business and government in Turku, Finland, noted the impact of electronic commerce on digitized economic activity such as health, finance, and education.[189] It highlighted the need for international co-operation to enforce consumer protection laws, the difficulties of applying traditional taxation methods to electronic commerce, and the potential for technology to solve some problems that render the law powerless.[190] Similarly, *Electronic Commerce: The Challenges to Tax Authorities and Taxpayers*, prepared for the same roundtable, included a detailed analysis of the precise impact of electronic commerce on the various modes of taxation such as customs duties, income taxes, and value added tax schemes.[191]

The OECD papers provide some indication of what future government reports on the Internet and electronic commerce are likely to contain.[192]

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187. The Canadian paper, for example, specifically identified the need to clarify the applicability of federal and provincial laws of general application to the Internet and advocated new measures to maintain support for Canadian media content. Industry Canada, *supra* note 179.

188. OECD, *Dismantling the Barriers to Global Electronic Commerce* (1997) (visited May 1, 1998) <http://193.51.65.78/disti/sti/sti/it/ec/prod/dismantl.htm> [hereinafter *Dismantling*]; OECD, *Electronic Commerce: The Challenges to Tax Authorities and Taxpayers* (1997) (on file with author) [hereinafter *Challenges*].

189. *Dismantling*, *supra* note 188, at 3.

190. *Id.* at 13–15.

191. *Challenges*, *supra* note 188, at 15–29.

192. Another recent example comes from the European Commission, which, in a February 1998 communication, suggested that international coordination was a necessary prerequisite for the development of an effective global electronic marketplace. European Commission Legal Advisory Board, *Globalisation and the Information Society: The Need for Strengthened International Coordination*, ¶2.1 (1998) (visited Apr. 30, 1998) <http://www2.echo.lu/legal/en/infosoc/infosoc.html>.

General statements on the importance of electronic commerce and the desirability of a hands-off approach may be useful for garnering newspaper headlines, but they do little to advance an effective regulatory framework that works equally well in real and virtual spaces.

While academics and policymakers debate the merits of Internet regulation, it is increasingly apparent that, popular or not, regulation is inevitable.[193] Notwithstanding the White House policy paper advocating private sector leadership, the rapidly increasing number of legislative and regulatory initiatives at the federal and state government levels is testament to the fact that the Internet will eventually be as regulated as other sectors of society. In 1997 alone there were at least six bills presented before Congress dealing with online privacy issues,[194] two addressing Internet taxation,[195] three focusing on encryption,[196] and two grappling with intellectual property.[197] Moreover, state legislatures have been enacting Internet legislation concerning such far ranging issues as digital signatures,[198] state employee access to the Internet,[199] and indecent content prohibitions.[200] National and state regulators, such as the SEC and the National Association of Insurance Commissioners, have begun the process of dealing with online securities and electronic commerce issues.[201] Internationally, the European Union has been active in the data privacy

193. For a review of recent federal activity, see Nicholas W. Allard & David A. Kass, *Law and Order in Cyberspace: Washington Report*, 19 Hastings Comm. & Ent. L.J. 563 (1997).

194. These include: Data Privacy Act of 1997, H.R. 2368, 106th Cong.; Communications Privacy and Consumer Empowerment Act, H.R. 1964, 106th Cong.; Federal Internet Privacy Protection Act of 1997, H.R. 1367, 106th Cong. (1997); Social Security Information Safeguards Act of 1997, H.R. 1331, 106th Cong. (1997); Social Security On-line Privacy Protection Act of 1996, H.R. 1287, 106th Cong. (1997); Consumer Internet Privacy Protection Act of 1997, H.R. 98, 106th Cong. (1997).

195. The Internet Tax Freedom Act, S. 442, H.R. 1054, 106th Cong. (1997); Tax-Free Internet Act of 1997, H.R. 995, 106th Cong. (1997).

196. Secure Public Networks Act, S. 909, 106th Cong. (1997); Promotion of Commerce On-Line in the Digital Era (Pro-CODE) Act of 1997, S. 377, 106th Cong. (1997); Security and Freedom Through Encryption (SAFE) Act, H.R. 695, 106th Cong. (1997).

197. Digital Copyright Clarification and Technology Education Act of 1997, S. 1146, 106th Cong. (1997); On-Line Copyright Liability Limitation Act, H.R. 2180, 106th Cong. (1997).

198. *See, e.g.*, Utah Digital Signature Act, Utah Code Ann. §§ 46-3-101 to 46-3-504, (1993 & Supp. 1997).

199. *See, e.g.*, Restrictions on State Employee Access to Information Instructure, Va. Code Ann. §§ 2.1-804 to 2.1-806 (Michie 1995 & Supp. 1997). The statute was recently declared unconstitutional in Urofsky v. Allen, Civ. No. 97-701-A, 1998 WL 86587 (E.D. Va. Feb. 26, 1998).

200. *See, e.g.*, N.Y. Penal Law § 235.21(3) (McKinney 1989 & Supp. 1998).

201. For a complete list of securities law initiatives, see Internet Docket, Internet Compliance Alert, Feb. 23, 1998, at 11.

arena,[202] Australia has been active in the securities arena,[203] and Singapore has been active in the content arena.[204]

The gradual development of the judicial, scholarly, and governmental approaches to the Internet—marked by movement away from generalities and the failure to appreciate the diverse activity on the Internet, and movement toward more specific consideration of the nature and quality of Internet activity—bodes well for future action in this area. However, in order to avoid a piecemeal approach to Internet economic regulation, a model for better understanding how the Internet impacts economic activity is needed.

IV. DEVELOPING A MODEL FOR UNDERSTANDING THE INTERNET'S EFFECT ON ECONOMIC REGULATION

Internet regulation is now a fact of life. Building upon the path forged by the judiciary, scholars, and government, this part of the Article develops a model that identifies the forms of economic regulation that the Internet is likely to impact. The Internet's effect on economic regulation can be classified into four categories.

In the first category, the Internet as a medium, the Internet serves simply as a medium, resulting in no real change in the activity or in its regulation. For example, in the case of workplace harassment occurring through computerized messages, the Internet may serve as the mode of delivery but has minimal effect on applicable labor laws. In such a case, the Internet facilitates activity and does not quantitatively change the activity.

In the second category, the Internet as a catalyst, the Internet acts as a catalyst to increase the quantity of economic activity but not its regulation. For example, as businesses race to sell their products on the Internet, the popularity of electronic commerce as a vehicle for the sale of any and all products is expected to blossom. For products sold solely in tangible form, including clothing, food, and pharmaceuticals, the Internet may represent an exciting commercial opportunity, but, for the most part, it does not pose a threat to the existing regulatory structure.

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202. Council Directive 95/46/EC of 24 October 1995 on the Protection of Individuals With Regard to the Processing of Personal Data and on the Free Movement of Such Data, 1995 O.J. (L 281) 31.

203. Australia Securities Commission, *Policy Statement 107: Electronic Prospectuses* (visited Apr. 30, 1998) <http://www.asc.gov.au/frames/208.html>.

204. Singapore Broadcasting Authority, *Class Licence* (visited May 1, 1998) <http://www.sba.gov.sg/SBA_Home.nsf/HTML\Policy\Polclass?Open>.

In the third category, the Internet as change, the Internet serves as a force for change by increasing both the quantity of economic activity and the manner in which such activity is regulated. This category poses the most significant threat to existing regulatory structures because many laws premised upon the traditional way of doing business are no longer suitable in this new environment. For example, many services, including banking, securities, insurance, law, and health care, have traditionally been regulated through licensing that mandates the physical presence of the service provider. By enabling service providers to render services in a strictly virtual setting, the Internet allows service providers to effectively "enter" a jurisdiction but avoid any direct or physical contact with the jurisdiction while providing services to a local recipient.

Similarly, the conversion of certain goods from atoms to bits—that is, the ability to transport products solely via the Internet—has significant implications for the regulatory framework for such digitized products. Products such as music, books, and videos, which traditionally required the physical form of a CD-ROM, paper, or cassette, are now transferable as digital products through the Internet. These products by-pass any customs inspection, and the geographic indeterminacy of the Internet makes levying taxes and identifying the location of buyer and seller considerably more difficult. Digitized products may also render ineffectual other laws and regulations, such as content restrictions and intellectual property regimes, because authorities are frequently unable to enforce them.

In the fourth category, the Internet as administration, the Internet itself, rather than the underlying activity, is the subject of regulation. Because the technological structure of a network impacts all Internet users, regardless of geographic location, Internet administration frequently involves issues of international concern. For example, the administration of domain names has been the subject of litigation worldwide as authorities have been seeking to develop international standards of allocation and dispute resolution.

While the Internet may change the manner in which commerce is conducted, it will not alter the state's interest in regulating such activity. The rationales for regulating commercial activity—shifting costs to those parties who can best afford to bear the external costs created by the activity, addressing market imperfections such as informational inequalities, and

implementing social regulation such as worker rights—remain unchanged in the age of the Internet.[205]

Although few would contend that a state, as sovereign, lacks the legal right to impose its regulatory framework on Internet activity, some argue that, given the Internet's structural design, it is unfair to do so.[206] Imposing regulatory costs by establishing a licensing requirement on an out-of-state entity that operates within the jurisdiction solely on the Internet could be perceived as an unfair cost allocation because the out-of-state entity has no physical presence in the state and does not benefit from effective representation in the political process. However, that same entity is the beneficiary of the state's legal system inasmuch as it relies upon it to enforce payment for transactions, uphold trademark rights, and maintain a pro-competitive marketplace environment. Considering the benefits an entity may enjoy from operating in a particular jurisdiction, it is justifiable for that entity to absorb the costs imposed upon it to continue operating therein.

Market imperfections such as informational inequalities have not disappeared with the advent of technology and the Internet. Securities regulation is based largely on a model that assumes regulatory intervention is necessary to alleviate informational inequalities.[207] As Paul Mahoney points out:

> [T]he purpose of securities regulation is to reduce or eliminate informational asymmetries between ordinary investors, on the one hand, and issuers and securities professionals, on the other.
>
> A technological innovation that provided all traders with simultaneous access to most firm-specific information would have enormous consequences for market efficiency and the role of informed trading . . . .
>
> The history of technological innovations, however, holds very little promise that IT can create a world of homogeneously informed traders. In fact, technology can as easily increase as decrease informational asymmetries.[208]

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205. For a helpful review of regulatory theory, see Anthony Ogus, *Regulation: Legal Form and Economic Theory* (1994); and Marcia Lynn Whicker, *Controversial Issues in Economic Regulatory Policy* (1993).

206. Post & Johnson, *supra* note 153, at 1376.

207. Joel Seligman, *The Obsolescence of Wall Street: A Contextual Approach to the Evolving Structure of Federal Securities Regulation*, 93 Mich. L. Rev. 649, 649 (1995).

208. Paul G. Mahoney, *Technology, Property Rights in Information, and Securities Regulation*, 75 Wash. U. L.Q. 815, 836 (1997).

The need to maintain regulation, such as securities regulation, is therefore unchanged by the Internet and may take on even greater importance.

Given that recent history suggests lawmakers and regulators will involve themselves in Internet activities, and assuming the need for at least some regulation of the Internet, this Article's focus must shift toward ascertaining precisely which activities and regulations the Internet does or will impact. The four categories discussed below provide a framework for analyzing the effects of the Internet that may serve as a first step in developing a modern regulatory structure capable of meeting the challenges posed by the Internet. Their identification and examination reveal both the extent and the limitations of the Internet's impact on the law while providing regulators with a model with which the law can be amended or left untouched, as needed.

A. The Internet as a Medium

Whether it is the increased dissemination of information or the near universal use of networked computers in the workplace, the Internet's impact on daily life can hardly be overstated. Yet, the Internet has not changed everything. In fact, many sectors of the economy may be aware of the Internet's presence only tangentially because the Internet may have no ascertainable impact on their regulatory environment.

Labor law is one such sector. The numerous laws and regulations governing the modern workplace, including collective action rights, minimum wage requirements, workplace safety standards, and affirmative action hiring policies have nothing to do with the Internet and therefore require no change. The Internet does impact some aspects of labor law. For example, a recent case involved an employee who received several racist emails at work.[209] The employee relied upon workplace harassment legislation for recourse,[210] calling into question an employer's duties in such a situation. The Internet in this case was only a medium for the delivery of the harassing messages. Application of the law was unaffected by the use of the Internet since the law was designed to operate whether the harassment took place in person, by phone, by mail, or now, through the

209. Owens v. Morgan Stanley & Co., Inc., No. 96 CIV. 9747, 1997 WL 793004 (S.D.N.Y. Dec. 24, 1997).

210. *Id.* at *2.

Internet. Although the Internet facilitated the offending activity, it did not impact the regulatory framework.[211]

Similarly, the Internet is likely to leave environmental regulation unchanged.[212] Although the Internet may affect environmental initiatives through widespread dissemination of environmental regulation information, sending email messages or browsing the Web can hardly be described as an environmental hazard. Further, were two individuals to use email to conspire to create an environmental hazard, the Internet's role in such activity would be limited to being the delivery medium of such information, leaving application of relevant environmental laws unaffected by this use of the Internet.

These types of activities, along with other highly regulated sectors such as agriculture, energy, and transportation, are largely unaffected by the Internet. Contrary to the hype, the Internet does not and will not render all economic regulation obsolete. Indeed, there is a very significant portion of each state's regulatory framework that the Internet does not impact, except by virtue of its use as a medium to transmit information.

B. The Internet as a Catalyst

Michael Dertouzos, director of MIT's Laboratory for Computer Science, outlines the impact computing and the Internet will have on our daily lives in the future, describing a world in which shopping via computer is the norm, with everything from groceries to cars available with the click of a mouse.[213] Although the vision ostensibly seems to be that of the far-off future, in fact, much of it is grounded in today's reality.

Indeed, electronic commerce today involves the sale of tangible products ranging from groceries[214] to automobiles.[215] Using the Internet as their

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211. For more on the impact of harassment law on cyberspace, see Eugene Volokh, *How Harassment Law Is Restricting Cyberspace Access* (visited Mar. 10, 1998) <http://www.law.ucla.edu /faculty/volokh/harass/cyberspa.htm>.

212. *See* Henry H. Perritt, Jr., *Is the Environmental Movement a Critical Internet Technology?*, 8 Vill. Envtl. L.J. 321 (1997).

213. Michael L. Dertouzos, *What Will Be: How the New World of Information Will Change Our Lives* (1997).

214. NetGrocer, an online grocery store, sells 2,500 grocery items online with overnight shipping via Federal Express. The company estimates the U.S. market for non-perishable grocery items at over $250 billion and expects sales to reach $78 million in 1998. *NetGrocer Quenches Thirst for At-Home Sales*, Stores, Jan. 1998, at 25, 25.

215. Auto-By-Tel is one of several online car sale sites that refer potential buyers directly to local area car dealerships. Jerome-Duncan, Inc. v. Auto-By-Tel, 966 F. Supp. 540, 541 (E.D. Mich. 1997).

storefront, large companies such as Amazon.com sell millions of books worldwide[216] while smaller companies such as Manhattan Custom Tackle, a fishing supply store, capitalize on the Internet boom, receiving fully half their revenue from online stores.[217] For these entities, the Internet has become a catalyst for increased sales revenue and an integral component of everyday business.

While this type of electronic commerce has clearly impacted both the retail and manufacturing business of many entities, its effect on the legal and regulatory system is far less pronounced. The sale of tangible products has minimal legal impact on the traditional buyer-seller dynamic. Notwithstanding the online character of the transaction, the sale of such products requires physical transportation from seller to buyer, maintaining the traditional customs inspection, taxation levies, and easy identification of both buyer and seller. The geographic indeterminacy of the Internet and the ease with which transactions involving digitized products may elude traditional regulatory frameworks have no effect in the tangible product context. National and regional regulations, like limitations on the sale of products such as liquor, pharmaceuticals, or other regulated products, will generally be sufficiently flexible to accommodate sales consummated on the Internet and then physically delivered to a place within the jurisdiction.[218]

In some instances, however, the growth of these types of sales may stretch to their limit certain regulations pertaining to the delivery of products. For example, the sale of tangible products across national borders frequently mandates compliance with customs clearance regulations as well as the payment of any applicable importation or sales taxes.[219] Many states' regulatory frameworks make it difficult to accommodate a large increase in sales of this nature. In fact, the OECD recently found that:

> The cost of international parcel delivery is several times higher than delivery over a comparable distance in a competitive national market such as the United States, and slower and less convenient as well. This is due to government red tape, the cumbersome collection of taxes and duties, and difficulties in returning goods . . . . The cost of processing parcels within a country and internationally

216. *Amazon*, *supra* note 9.

217. Elizabeth Gardner, *'Build It Yourself' is Motto of Sites Selling Everything from Golf Clubs to CDs to Bicycles*, Internet World, Mar. 2, 1998, at 13, 15.

218. The U.S. FDA, which regulates the importation of drugs, has increased its surveillance of incoming drugs, detaining packages of unapproved substances. Stacy Lu, *World Medical Community Frets over Unregulated Medicine Sales on Web*, N.Y. Times, Mar. 23, 1998, at D3.

219. *See, e.g.*, *Dismantling*, *supra* note 188, at 22.

> is largely a reflection of the regulatory structure in effect and the economies of scale enjoyed by operators. Moreover, regulatory structures can work against achieving economies of scale. The liberalisation of parcel delivery markets is an important factor in lowering parcel rates. Given the intermodal nature of parcel delivery (e.g. road freight/air transport/road freight), regulatory reform should be extended to all segments of the delivery industry.[220]

The OECD's findings suggest that the effect of the sale of tangible goods via the Internet on existing regulatory structures will be confined primarily to those regulations designed to facilitate such transactions. The regulations pertaining to the sale of the specific products will usually be unaffected because the physical dynamics of the transaction are unchanged. However, the regulations pertaining to the delivery of those same products may be impacted since those rules were not designed for a world in which borderless electronic commerce would become as common as a trip to the corner store. Within this category of activity, therefore, the Internet is a catalyst for increased economic activity. Its effect on existing regulatory structures, however, is confined chiefly to amending current border regulations to accommodate increased product flows.

C. The Internet as Change

The Internet's potential to fundamentally change the way some businesses are conducted threatens a traditional regulatory framework premised on certain truths that may no longer be valid. The Internet has the power to do much more than simply ease the dissemination of information or increase product flows. The transformation of the economic sectors discussed in this third category has powerful consequences for regulators, laws, and regulations. This change is most evident in two broad sectors of activities: the provision of services and the sale of intangible products. Both of these sectors, which form an increasingly important part of the world's economy, have traditionally been subject to onerous national regulations, and, in the age of the Internet, may render existing regulatory frameworks ineffective or even obsolete.

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220. *Id.*

1. The Provision of Services

Service providers, such as bankers, securities dealers, lawyers, and health care professionals, have traditionally required a physical presence within which to provide their services. Rendering those services generally necessitated the service provider's entry into the recipient's jurisdiction or, alternatively, the recipient's entry into the jurisdiction of the service provider. The legal framework for the provision of these services typically involved some form of licensing requirement, premised upon the service provider's physical presence within the jurisdiction.

The Internet radically alters this paradigm by enabling service providers to establish a virtual presence within every jurisdiction in the world without physically entering the jurisdiction. Further, if one's business involves the provision of information (such as the legal profession, consulting services, or advertising) or the sale of intangibles (such as securities, insurance, or cash), a Web site can actually become the vehicle for delivering those services.

The Internet impacts several service sectors heavily. The securities market, a technology-intensive, global industry, is well positioned to take advantage of the Internet's strengths.[221] The Internet holds the possibility of true global trading with securities purchasers and sellers connected through the Internet. In recent years, the Internet has witnessed attempts to market and distribute securities directly to the public through Internet initial public offerings (IPOs)[222] and the creation of secondary trading facilities in lightly traded securities.[223] At the same time, the Internet poses a challenge to traditional securities regulation: with international access, activity on the Internet is simultaneously subject to numerous regulatory schemes with no clear solution regarding which regulatory agency may claim jurisdiction.[224] Moreover, the risk of fraud, as well as activities by unregulated entities on

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221. For more on the impact of the Internet on the securities industry, see Joseph F. Cella III & John Reed Stark, *SEC Enforcement and the Internet: Meeting the Challenge of the Next Millennium*, 52 Bus. Law. 815 (1997); Coffee, *supra* note 164; Alexander C. Gavis, *The Offering and Distribution of Securities in Cyberspace: A Review of Regulatory and Industry Initiatives*, 52 Bus. Law. 317 (1996); Christina K. McGlosson, Comment, *Who Needs Wall Street? The Dilemma of Regulating Securities Trading in Cyberspace*, 5 Commlaw Conspectus 305 (1997).

222. Klein, *supra* note 2, at 88.

223. John Schaeffer, President & CEO, Real Goods Trading Corp., Address at Cybertrading USA 97 Conference (May 5, 1997) (on file with author).

224. Coffee, *supra* note 164, at 1227–32.

the Internet, is multiplied given the difficulty of enforcing anti-fraud securities regulations.[225]

The banking sector, most visible on the Internet by offering online banking to their retail customers,[226] is also greatly impacted by the Internet. Several virtual banks have set up shop on the Internet offering traditional bank services, including bank accounts, personal loans and mortgages, and other services, without establishing physical branches.[227] Once again, however, the Internet creates regulatory challenges as well as opportunities. For example, the Canadian banking regulatory framework is premised on a physical presence requirement for banks.[228] However, Canadian officials admit they have little regulatory power over banks that violate Canadian law, and they are therefore presently reviewing all aspects of their regulatory framework.[229]

The potential for fraud is another very real concern for banking regulators with limited enforcement powers. This concern became reality in the summer of 1997 when an off-shore bank operating on the Internet simply disappeared.[230] The European Union Bank, an Antigua-based bank operating on the Internet, enabled clients anywhere in the world to open accounts, transfer money, write checks, and obtain credit cards.[231] The Bank's founders were two Russian individuals, one of whom was arrested in the United States and accused of embezzling more than $8 million from

225. *Id.* at 1201.

226. *See generally*, Wilson, *supra* note 164. For more about the impact of the Internet on the banking sector, see Richard L. Field, *1996: Survey of the Year's Developments in Electronic Cash Law and the Laws Affecting Electronic Banking in the United States*, 46 Am. U. L. Rev. 967 (1997); Michael A. Fixler, Note, *CyberFinance: Regulating Banking on the Internet*, 47 Case W. Res. L. Rev. 81 (1996); and P. Michael Nugent, *Cross-Border Transmission of Financial Information: The Cyberbanking Concerns*, Banking Pol'y Rep. 31 (Mar. 4–18, 1996).

227. In 1995 the Security First Network Bank became the first bank to sell its services exclusively over the Internet. Mel Duvall, *Net Bank to be Acquired*, Inter@ctive Week, Mar. 16, 1998, at 7, 7. The bank was recently purchased by the Royal Bank of Canada as a means of increasing its presence in the U.S. market. *Id.*

228. Discussion Paper, Task Force on the Future of the Canadian Financial Services Sector (June 1997) (visited July 7, 1998) <http://finservtaskforce.fin.gc.ca>.

229. *Ottawa Proposes Removing Barrier to Foreign Banks*, Globe & Mail (Toronto), Sept. 27, 1997, at B7.

230. *See generally* Larry Rohter, *New Bank Fraud Wrinkle in Antigua: Russians on the Internet*, N.Y. Times, Aug. 20, 1997, at A4 (discussing protection of consumers from fraud).

231. *Id.*

a Moscow bank.[232] After receiving warnings from several regulators about the dangers of the EU Bank, the bank and its founders vanished.[233]

The insurance industry, projected to sell $2.4 billion worth of automobile and home insurance premiums on the Internet by the year 2000, has reaped the benefits of the Internet.[234] Internet insurers anticipate realizing cost savings exceeding twenty percent by selling insurance online.[235] The Internet, however, poses significant regulatory concerns because insurance is regulated on a state-by-state basis.[236]

The Internet has also altered the health care industry, which has the capability of reinventing the doctor-patient relationship through the use of telemedicine.[237] Telemedicine has the potential to serve patients in isolated areas and to increase collaboration among medical professionals. However, it too suffers from regulatory barriers because state-by-state licensing frequently prohibits physicians from providing medical services without an in-state license, even where the physician is licensed in another jurisdiction.[238]

The legal services industry has used the Internet to establish virtual law offices to service existing clients and to develop marketing efforts to attract new clients.[239] Bar associations in states such as Texas and Iowa have begun to grapple with the issue of whether Web sites constitute advertising within

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232. *Id.*

233. *Id.*

234. Paul M. Hummer, *Legal Issues in Electronic Commerce in the Insurance and Reinsurance Industry*, 64 Def. Couns. J. 246, 247 (1997).

235. *Id.*

236. *Id.* at 249.

237. For more on the impact of the Internet on telemedicine, see Douglas D. Bradham et al., *The Information Superhighway and Telemedicine: Applications, Status, and Issues*, 30 Wake Forest L. Rev. 145 (1995); Christopher Guttman-McCabe, Comment, *Telemedicine's Imperiled Future? Funding, Reimbursement, Licensing and Privacy Hurdles Face a Developing Technology*, 14 J. Contemp. Health L. & Pol'y 161 (1997); and Kathleen M. Vyborny, *Legal and Political Issues Facing Telemedicine*, 5 Annals Health L. 61 (1996).

238. Vyborny, *supra* note 237, at 66.

239. For more on the impact of the Internet on the legal services industry, see Mark Hankins, *Ambulance Chasers on the Internet: Regulation of Attorney Web Pages*, 1 J. Tech. L. & Pol'y 3 (1996) (visited Apr. 30, 1998) <http://journal.law.ufl.edu/~techlaw/1/hankins.html>; J.T. Westermeier & Leonard T. Nuara, *Ethical Issues for Lawyers on the Internet and the World Wide Web*, Computer Law., Mar. 1997, at 8, 8; and Mitchel L. Winick et al., *Attorney Advertising on the Internet: From Arizona to Texas—Regulating Speech on the Cyber-Frontier*, 27 Tex. Tech. L. Rev. 1487 (1996).

the context of bar association regulations and whether any law firm's Web site falls within their jurisdiction.[240]

The ability to practice law without the benefit of a physical presence was recently addressed by the California courts when a California-based client sued a New York-based law firm for malpractice.[241] Considering what it means to "practice law," the court noted that:

> The primary inquiry is whether the unlicensed lawyer engaged in sufficient activities in the state, or created a continuing relationship with the California client that included legal duties and obligations.
>
> Our definition does not necessarily depend on or require the unlicensed lawyer's physical presence in the state. Physical presence here is one factor we may consider in deciding whether the unlicensed lawyer has violated section 6125, but is by no means exclusive. For example, one may practice law in the state in violation of section 6125 although not physically present here by advising a California client on California law in connection with a California legal dispute by telephone, fax, computer, or other modern technological means. Conversely, although we decline to provide a comprehensive list of what activities constitute sufficient contact with the state, we do reject the notion that a person automatically practices law 'in California' whenever that person practices California law anywhere, or 'virtually' enters the state by telephone, fax, email, or satellite. . . . We must decide each case on its own individual facts.[242]

As law firms worldwide gravitate to the Internet and realize the potential to practice law in a virtual environment, courts will face this scenario with increasing frequency.

The Internet has heavily impacted the advertising and marketing industry, which is frequently subject to national regulations within the context of promoting regulated products. For example, both the Food and Drug Administration (FDA) and the Federal Trade Commission (FTC) regulate the promotion of pharmaceutical products.[243] The Internet poses

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240. Westermeier & Nuara, *supra* note 239, at 9–10. Questionable conduct on the Internet caused the disbarment of Laurence Canter, one of the principals in the Cybersell case. The Tennessee Board of Professional Responsibility disbarred Canter because he sent unsolicited commercial email to thousands of Internet users in 1996. *In re* Laurence A. Canter, Docket No. 95-831-O-H, (Tenn. 1997) (visited Mar. 19, 1998) <http://www.jmls.edu/cyber/cases/canter.html>.

241. Birbrower v. Superior Court, 949 P.2d 1 (Cal. 1998).

242. *Id.* at 5–6 (citations omitted).

243. Peter S. Reichertz, *Legal Issues Concerning the Promotion of Pharmaceutical Products on the Internet to Consumers*, 51 Food & Drug L.J. 355, 356 (1996).

new concerns about complying with marketing requirements such as the prohibition on the marketing of products not approved for sale to U.S. consumers.[244]

The travel industry is using the Internet to cut costs through direct sales to the consumer[245] and electronic ticketing. Consumer protection agencies face an uncertain regulatory climate in their effort to enforce travel fraud regulations to operators outside of their jurisdictions.[246]

The sin industries, namely sex and gaming, are among the Internet's biggest.[247] The sex industry accounts for approximately ten percent of all retail business on the Web.[248] The gaming industry, meanwhile, is surging ahead, predicting an estimated $600 million in bets in 1998.[249] Although regulators and legislators are working to develop an effective regulatory framework for these Internet activities,[250] a Justice Department spokesman recently admitted, "International Internet gambling? We can't do anything about it . . . . That's the bottom line."[251]

As review of these key sectors illustrates, the Internet directly impacts many of the world's most lucrative and important service industries, resulting in serious implications for regulators. This change in the service provider landscape is both new and dramatic. Just a few years ago the newly agreed upon General Agreement on Trade in Services (GATS) noted that services can be traded in four different modes: cross border provision, commercial presence through capital investment, movement of customers to the providing jurisdiction, or movement of the service provider to the importing jurisdiction.[252] At that time, most services were using a

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244. *Id.* at 361.

245. *Tremble, Everyone*, in *Survey of Electronic Commerce: In Search of the Perfect Market*, Economist, May 10, 1997, at 10, 11.

246. Dee Pridgen, *How Will Consumers Be Protected on the Information Superhighway*, 32 Land & Water L. Rev. 237, 247–51 (1997).

247. For more on the Internet's impact on the sin industries, see Harley J. Goldstein, *On-Line Gambling: Down to the Wire?*, 8 Marq. Sports L.J. 1 (1997); Nicholas Robbins, *Baby Needs a New Pair of Cybershoes: The Legality of Casino Gambling on the Internet*, 2 B.U. J. Sci. & Tech. L. 7 (1996); and Seth Gorman & Antony Loo, Comment, *Blackjack or Bust: Can U.S. Law Stop Internet Gambling?*, 16 Loy. L.A. Ent. L.J. 667 (1995).

248. Paul Franson, *The Net's Dirty Little Secret: Sex Sells*, Upside, Apr. 1998, at 78, 80.

249. Steven Crist, *All Bets Are Off*, Sports Illustrated, Jan. 26, 1998, at 82, 85.

250. For example, Senator Jon Kyl of Arizona recently introduced the Internet Gambling Prohibition Act of 1997, which, if passed, would make it illegal to bet via the Internet. Tom W. Bell, *Internet Gambling Faces Losing Odds*, Times Union (Albany, N.Y.), Jan. 6, 1998, at A7.

251. Crist, *supra* note 249, at 85.

252. *General Agreement on Tariffs and Trade-Multilateral Trade Negotiations (The Uruguay Round): General Agreement on Trade in Services*, 33 Int'l Legal Materials 44, Part I, Art. I(2).

commercial presence or movement of the service provider mode; the Internet now allows for the provision of many services using cross border provision that, not surprisingly, is both cheaper and quicker.[253]

2. *The Sale of Intangible Products*

The Internet has transformed the sale of intangible products, including software, music, videos, and information contained in books, magazines, and other periodicals. Before the rise of the Internet, these products were sold primarily in tangible form. Even software, a product that is itself a compilation of digital information, was generally sold tangibly in disc or CD-ROM format. The Internet altered this dynamic by enabling sellers to transmit their products directly to the consumer, anywhere in the world, quickly and inexpensively.

The implications on the economic regulatory framework of selling bytes rather than books most keenly effect three types of legal regulation. The first type of legal regulation impacted by digitization of the Internet governs the content of books, music, or videos by prohibiting the display or sale of content deemed offensive, dangerous, or inappropriate. The Internet allows for easy circumvention of such prohibitions, rendering them ineffectual. For example, the publication of a book that claimed that, toward the end of his life, former French President Francois Mitterand was unable to exercise the functions of his office yielded a court order prohibiting the book's dissemination.[254] Before the book was removed, however, from store shelves, a copy appeared on the Internet in digital format, rendering the court order virtually meaningless.[255] Similarly, after the music television station MTV decided to cease broadcasting a music video deemed offensive due its portrayal of women being beaten, the video appeared on a music video Web site.[256] Although the latter example is not one of regulatory evasion, clearly similar technologies could be used to evade governmental content prohibitions.

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253. *Telecommunications, Business Facilitation and Trade Efficiency*, Issue Paper prepared by UNCTAD Secretariat, U.N. Conference on Trade and Development, U.N. Doc. TD/B/COM.3/EM.3/2, at 16 (1997).

254. Jane C. Ginsburg, *Copyright Without Borders? Choice of Forum and Choice of Law for Copyright Infringement in Cyberspace*, 15 Cardozo Arts & Ent. L.J. 153, 153 (1997).

255. *Id.* at 153–54.

256. Margaret Kane, *Banned Music Video Finds Web Home*, ZD Net News (Dec. 23, 1997) (last visited July 17, 1998) <http://www.zdnet.com/zdnn/content/zdnn/1223/266094.html>.

The second type of legal regulation impacted by digitization is the world's intellectual property laws. The relative ease of making perfect copies of digital information such as software programs threatens the effectiveness of intellectual property law.[257] The World Intellectual Property Organization (WIPO) has been very active in this regard, hosting a diplomatic conference in December, 1996 to consider proposals to update intellectual property laws to meet the challenges posed by the Internet.[258] The United States has not yet ratified the resulting agreement into domestic law. Moreover, the updated laws may have only minimal effect on violations. Recent reports suggest that copyright violations are on the rise, due in large measure to the ease of distribution facilitated by the Internet.[259]

The third type of legal regulation impacted by digitization is taxation. Although tangible goods can be easily identified as they cross borders, intangible goods present significant problems to taxation authorities for several reasons.[260] First, the buyer and seller are often difficult to identify in transactions that occur in cyberspace, particularly given the ease of anonymity on the Internet. Second, the location of the transaction is often difficult to identify given the geographic indeterminacy of the Internet. Third, tax regulators frequently lack enforcement powers to compel disclosure of information pertaining to Internet transactions where at least one party is located off-shore. Fourth, electronic commerce often does not leave a "paper trail," complicating tax investigation even further. Although in certain respects these problems are nothing new (tax authorities have

257. For more on the Internet's impact on copyright law, see Ginsburg, *supra* note 254, at 167–68; Jane C. Ginsburg, *Extraterritoriality and Multiterritoriality in Copyright Infringement*, 37 Va. J. Int'l L. 587 (1997); Michel A. Jaccard, *Securing Copyright in Transnational Cyberspace: The Case for Contracting with Potential Infringers*, 35 Colum. J. Transnat'l L. 619 (1997); Mark A. Lemley, *Dealing With Overlapping Copyrights on the Internet*, 22 Dayton L. Rev. 548 (1997); Michael F. Morano, Note, *Legislating in the Face of New Technology: Copyright Laws for the Digital Age*, 20 Fordham Int'l L.J. 1374 (1997).

258. For more on the WIPO negotiations, see Pamela Samuelson, *The U.S. Digital Agenda at WIPO*, 37 Va. J. Int'l L. 369 (1997).

259. Sue Zeidler, *Illegal Copying Grows on the Internet, Study Shows*, Wired News (Mar. 6, 1998) <http://www.yahoo.com/headlines/980306/wired/stories/piracy_1.html>.

260. For more on the Internet's impact on taxation, see James D. Cigler et al., *Cyberspace: The Final Frontier for International Tax Concepts?*, 7 J. Int'l Tax'n 340 (1996); Christina R. Edson, *Quill's Constitutional Jurisprudence and Tax Nexus Standards in an Age of Electronic Commerce*, 49 Tax Law. 893 (1996); Steven J. Forte, *Use Tax Collection on Internet Purchases: Should the Mail Order Industry Serve as a Model?*, 15 J. Marshall J. Computer & Info. L. 203 (1997); R. Scot Grierson, *State Taxation of the Information Superhighway: A Proposal for Taxation of Information Services*, 16 Loy. L.A. Ent. L.J. 603 (1995); and Edward A. Morse, *State Taxation of Internet Commerce: Something New Under the Sun?*, 30 Creighton L. Rev. 1113 (1997).

battled tax evaders for years), the Internet magnifies the problems by increasing the volume of transactions capable of avoiding taxation.

D. The Internet as Administration

The fourth category, the Internet as administration, concerns regulation of the Internet itself, not the underlying activities discussed in the prior categories. This form of regulation, frequently international in scope, is by its nature new and without direct precedent. Regulators include both governments and Internet groups such as the Internet Assigned Numbers Authority (IANA), Internet Architecture Board (IAB), Internet Engineering Task Force (IETF), Internet Society (ISOC), and International Ad Hoc Committee (IAHC), which are combining efforts to develop internationally accepted technical standards.[261]

Domain name administration is the most obvious example of this category of Internet regulation. In recent years, domain name disputes have become an international phenomenon. In addition to cases such as *Zippo*[262] and *Inset*,[263] both U.S. trademark disputes arising from domain name usage, domain name dispute cases have arisen in the United Kingdom,[264] Germany,[265] Italy,[266] and New Zealand.[267] Governments, including the United States and the European Union, have also turned their attention to

261. Alexander Gigante, *Blackhole in Cyberspace: The Legal Void in the Internet*, 15 J. Marshall J. Computer & Info. L. 413, 426–33 (1997).

262. Zippo Mfg. Co. v. Zippo Dot Com, Inc., 952 F. Supp. 1119 (W.D. Pa. 1997); *supra* notes 93–104 and accompanying text.

263. Inset Sys., Inc. v. Instruction Set, Inc., 937 F. Supp. 161 (D. Conn. 1996); *see also supra* notes 58–65 and accompanying text.

264. Marks & Spencer v. One In A Million, (High Ct. of Justice, Ch. Div. 1997) (visited Mar. 19, 1998) <http://www.nominet.org.uk/news/judgment2.html>; Prince, P.L.C. v. Prince Sports Group, Inc., CH-1997-P-No. 2355 (High Ct. of Justice, Ch. Div. 1997) (visited Mar. 19, 1998) <http://www.nominet.org.uk/judgment2.html#>.

265. Epson v. Engelke, 340 0 191/96 (D.C. Düsseldorf 1997) (visited Mar. 19, 1998) <http://www.nominet.org.uk/judgment2.html#>; braunschweig.de Domain Name Challenge, Computerrecht 1997, 414 (High Court Braunschweig 1997) (visited Mar. 19, 1998) <http://www.nominet.org.uk/judgment2.html#>; heidelberg.de Domain Name Challenge, Computerrecht 1996, 354; Az. 7 O 60/96 (D.C. Manheim 1996) (visited Mar. 19, 1998) <http://www.nominet.org.uk/judgment2.html#>.

266. Il Foro Italiano, S.r.l. v. Solignani (Tribunale di Modena, 1996) (visited Mar. 19, 1998) <http://www.nominet.org.uk/judgment2.html#>.

267. Cadbury v. Domain Name Co. (New Zealand) (visited Mar. 19, 1998) <http://www.nominet.org.uk/judgment2.html#>.

the issue, developing competing proposals for overhauling the distribution of domain names worldwide.[268]

As the Internet develops further, this category is likely to increase in significance because administration of the Internet impacts all online activity. Beyond domain names, governments and international agencies will be called upon to develop standards pertaining to certification, encryption, bandwidth, and other technical issues yet unknown. Resolution of these issues, more so than those in any other category, requires an international perspective.

V. CONCLUSION: THE REALITY OF BYTES—A MULTI-FACETED SOLUTION

This Article began with quotations[269] of two distinctly different visions of Internet law. Nicholas Negroponte, founding director of MIT's Media Lab, suggests that national law is an inappropriate model for the Internet, whereas Steven Wallman, a former SEC Commissioner, takes an opposite approach, noting that national laws are on the books and must therefore be enforced. The best approach lies somewhere between these two visions.

Experience with Internet regulation reveals that a "one size fits all" solution will not work. An effective regulatory framework mandates scrutinizing specific activities that take place on the Internet, not the Internet itself. The use of analogies favored by the judiciary, scholars, and government during the Internet's infancy does not effectively address the complexity of activity and its resulting legal ramifications.

The Internet's impact on different economic sectors varies considerably—leaving some sectors relatively untouched, some with increased activity within a regulatory framework that remains intact, and some with a revolutionary shift in both activity and its regulation. When the Internet functions as a medium, a major regulatory response may not be necessary. Similarly, when the Internet functions as a catalyst, a targeted, limited regulatory response is appropriate. The radical changes created by the Internet when it functions as an agent of change mandates a fundamental re-examination of regulation.

Activity on the Internet is as complex and varied as activity in real space, and as such, its regulatory framework must reflect that complexity. Real

268. *See, e.g.*, Will Rodger, *Domain Name Plan 'Too U.S.-Centric'*, Inter@ctive Week, Mar. 16, 1998, at 40, 40.

269. *See supra* text accompanying notes 1–2.

space regulation consists of a variety of regulations: a mosaic of self-regulation; local, state, and national regulation; international agreements where international consensus exists; international agreements pledging co-operation where states agree to respect their regulatory differences but provide enforcement assistance; and effects-based regulation where jurisdiction is asserted despite tenuous ties to the regulating state. The Internet's regulatory structure is likely to develop in a manner not unlike real space regulation with a patchwork collection of local, state, national, and international regulations accompanied by self-regulation initiatives.

Internet self-regulation, such as voluntary codes of conduct, may potentially serve as an important source for regulating activity online. For example, many leading companies have launched data privacy protection initiatives.[270] Seeking to assure consumers of the safety of electronic commerce, they are pledging to limit strictly the dissemination of personal data.[271] Similarly, while awaiting an Internet equivalent to the junk fax law,[272] many users have resorted to technology based self-regulation techniques, such as "mail bombing," to dissuade the purveyors of unsolicited email, frequently referred to as "spammers," from sending widespread unsolicited email.[273]

As a review of current attempts to apply real space regulation to the Internet reveals, the effectiveness of these regulations depends largely upon the activity in question. Because in many instances the Internet does not significantly alter either the activity or the regulation, local, state, and national regulation would be appropriate. In other instances, however, regulators must tread carefully, because the Internet may render some regulations obsolete.

The Internet poses two different types of challenges for national, state, and local regulations. The first involves sector-specific problems such as securities laws that did not contemplate electronic distribution of information,[274] banking laws premised on a physical presence,[275] and customs regulations unable to cope with increased volume due to the

270. Christine Varney, Address at the Conference on Computers, Freedom and Privacy '98 (Feb. 19, 1998) (on file with author).

271. *Id.*

272. For details on spam legislative activities, see *The Coalition Against Unsolicited Commercial Email* (last visited Mar. 20, 1998) <http://www.cauce.org>.

273. *See* Leslie Goff, *Meet the Spammers*, Computerworld, Mar. 9, 1998, at 89.

274. Coffee, *supra* note 164, at 1198–99.

275. *See* Discussion Paper, *supra* note 228.

popularity of electronic commerce.[276] All of these require sector-specific solutions.

The second type of problem involves law enforcement, due particularly to the absence of a physical presence, physical goods, or identification of the physical location on Internet. Enforcement concerns tend to cut across virtually all sectors of the economy but are particularly pronounced with respect to the provision of services and sale of intangible goods on the Internet. Reaching a suitable solution will require compromise at both the local and international levels.

Regulators must be cognizant of the limitations on their regulatory reach at the local level. They must therefore craft regulations that meet their policy needs, but simultaneously adhere to the technological structure and limitations of the Internet. In certain respects this is no different than regulations in real space. For example, state advertising regulations, such as prohibitions on gaming advertisements, frequently vary with respect to the content permitted in certain advertising.[277] National advertisers encountering these regulations use disclaimers limiting the scope of their advertising to jurisdictions without such limitations.[278]

The use of an "opt out" or disclaimer approach on the Internet is already gaining acceptance among some regulators.[279] Several securities regulators have taken the lead in this regard by implicitly acknowledging that they are unable to assert jurisdiction over all securities-related activity that transpires online. Pennsylvania's approach is typical:

> In August 1995, Pennsylvania issued a discretionary order providing an exemption from registration for offerings made on the Internet. The order exempts the offer, but not the sale, of securities by an issuer that does not intend to offer and sell securities in Pennsylvania . . . . The exemption is self-executing provided that an issuer meets three conditions specified in the order. First, the exemption is conditioned upon an issuer indicating, through either direct or indirect language,

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276. *Dismantling*, *supra* note 188.

277. For a good review of advertising law in the personal jurisdiction context, see Keith H. Beyler, *Personal Jurisdiction Based on Advertising: The First Amendment and Federal Liberty Issues*, 61 Mo. L. Rev. 61 (1996).

278. *See* Peter J. Strand, *Advertising Online in Online Law* 347, 356 (Thomas J. Smedinghoff ed., 1996).

279. The most recent example of this approach came in March, 1998 with the SEC's Interpretation Release. Securities Exchange Commission, *Statement of the Commission Regarding Use of Internet Web Sites to Offer Securities, Solicit Securities Transactions or Advertise Investment Services Offshore*, (Mar. 23, 1998) (visited May 1, 1998) <http://www.sec.gov/rules/concept/33-7516.htm>.

> that no offer or sale of the securities is intended to take place in Pennsylvania .... Second, the exemption is conditioned on an issuer, or anyone on behalf of the issuer, not directing an offering of securities to any person in Pennsylvania. The final condition of the order is that no sales of an issuer's securities must be made in Pennsylvania as a result of the Internet offer.[280]

In some instances a regulator may be unwilling to adopt an "opt out" approach. In such cases, an international agreement may be the best solution. In real space, international agreements such as the WIPO accord[281] come to fruition as a result of mutual self-interest and widespread agreement on regulatory principles. Where countries are unable to agree on the regulatory specifics, they sometimes decide to provide assistance with the enforcement of national law. For example, in 1985, Canada and the United States entered into a *Mutual Legal Assistance Treaty* in which both countries agreed to assist each other in law enforcement matters pertaining to antitrust regulation and other matters.[282]

Applying both of these international approaches to Internet regulation will often be the most sensible approach. Many regulatory concerns, including computer crime,[283] digital signature standards,[284] cryptography frameworks,[285] and digital monetary systems,[286] as well as those issues arising out of the Internet as administration category, are shared across national boundaries and are therefore well suited to an international accord that harmonizes worldwide standards. International agreements are particularly appropriate in the context of technical standards because such

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280. Gavis, *supra* note 221, at 356.

281. *See supra* text accompanying notes 257–59.

282. Spencer Weber Waller, *National Laws and International Markets: Strategies of Cooperation and Harmonization in the Enforcement of Competition Law*, 18 Cardozo L. Rev. 1111, 1115–16 (1996).

283. *See* John T. Soma et al., *Transnational Extradition for Computer Crimes: Are New Treaties and Laws Needed?*, 34 Harv. J. on Legis. 317 (1997).

284. *See* A. Michael Froomkin, *The Essential Role of Trusted Third Parties in Electronic Commerce*, 75 Or. L. Rev. 49 (1996); Randy V. Sabett, *International Harmonization in Electronic Commerce and Electronic Data Interchange: A Proposed First Step Toward Signing on the Digital Dotted Line*, 46 Am. U. L. Rev. 511 (1996); Brian W. Smith & Timothy E. Keehan, *Digital Signatures: The State of the Art and the Law*, 114 Banking L.J. 506 (1997); Jane Kaufman Winn, *Open Systems, Free Markets and Regulation of Internet Commerce*, 72 Tulane L. Rev. 1177 (1998).

285. *See* Stewart A. Baker, *Decoding OECD Guidelines for Cryptography Policy*, 31 Int'l Law. 729 (1997); John K. Halvey, *The Virtual Marketplace*, 45 Emory L.J. 959 (1996).

286. *See* Brian W. Smith & Ramsey J. Wilson, *How Best to Guide the Evolution of Electronic Currency Law*, 46 Am. U. L. Rev. 1105 (1997); Randall W. Sifers, Note, *Regulating Electronic Money in Small-Value Payment Systems: Telecommunications Law as a Regulatory Model*, 49 Fed. Comm. L.J. 701 (1997).

standards facilitate market growth and enable technology to play a significant role in the regulatory framework itself.[287] In fact, international activity in these areas is well underway.[288]

Alternatively, when dealing with issues that are not universally agreed upon, such as gaming, international agreements pledging enforcement co-operation will be the most suitable approach. Such agreements would make it more difficult for parties to engage in regulatory arbitrage—gravitating to jurisdictions with the most favorable regulatory climate—because enforcement capabilities would cross national borders.[289] Representatives of eight major industrialized nations—the United States, Canada, Britain, France, Germany, Italy, Japan, and Russia—provided a recent example of such an accord when they agreed to increase enforcement powers in combating computer crime.[290]

In real space, when international negotiations fail to reach agreement, some countries adopt an "effects-based" approach by which they assert jurisdiction over parties physically located outside their jurisdiction but whose activities are felt within the jurisdiction. United States securities and antitrust regulators have, at times, been particularly fond of this approach.[291] Not surprisingly, regulators have also demonstrated a willingness to employ an effects-based approach in relation to Internet activity. In particular, securities regulators have filed complaints against foreign-based individuals for activities conducted online,[292] the FTC has aggressively targeted fraud regardless of location,[293] the FDA has attempted to stop shipments of

287. Mark A. Lemley, *Antitrust and the Internet Standardization Problem*, 28 Conn. L. Rev. 1041, 1042–43 (1996).

288. *See supra* Part IV.D.

289. A. Michael Froomkin, *The Internet as a Source of Regulatory Arbitrage*, in *Borders In Cyberspace* 129, 142 (Brian Kahin & Charles Nesson eds., 1997).

290. James Vicini, *Eight Nations Take Steps to Fight Computer Crime*, Reuters Online, Dec. 11, 1997 (on file with author).

291. Paul G. Mahoney, *Securities Regulation By Enforcement: An International Perspective*, 7 Yale J. on Reg. 305, 320 (1990); Spencer Weber Waller, *The Internationalization of Antitrust Enforcement*, 77 B.U. L. Rev. 343, 375–76 (1997).

292. Cella & Stark, *supra* note 221, at 841.

293. Robert Pitkofsky, Chairman of the FTC, stated that:

> [T]he Commission has taken the offensive against fraud on the Internet through a three-pronged strategy that emphasizes targeted law enforcement action, complemented by education of consumers and new Internet entrepreneurs, both of whom may be venturing into cyberspace for the first time. . . . The Commission has brought over 25 law enforcement actions against defendants whose alleged illegal practices used or involved the Internet.

unregulated substances into the United States by working with the country of origin,[294] and FBI has issued arrest warrants against offshore gambling operations.[295]

The development of a complex Internet regulatory system that mirrors the complexity of real space will not occur overnight. It is only now, several years after the rise of the Internet into the public consciousness, that we are witnessing the emergence of models (such as the one proposed herein) that seek to understand how the Internet impacts economic regulation. Real space regulations evolved over a period of many years and, notwithstanding the hyper-speed with which the Internet operates, it will take many years for the establishment of a comparable framework on the Internet. In the course of that development, however, regulators would do well to heed the words of the White House policy paper that argued: "Governments can have a profound effect on the growth of commerce on the Internet. By their actions, they can facilitate electronic trade or inhibit it. Knowing when to act and—at least as important—when not to act, will be crucial to the development of electronic commerce."[296]

Prepared Statement of FTC on "Internet Fraud" before the Subcomm. on Investigations of the Governmental Affairs Comm., U.S. Senate, Feb. 10, 1998 (visited Mar. 19, 1998) <http://www.ftc.gov/os/9802/internet.test.htm>.

294. Lu, *supra* note 218.

295. Will Rodger, *FBI Targets Offshore Betting Sites*, Inter@ctive Week, Mar. 9, 1998, at 10, 10.

296. The White House, *supra* note 176.