12-1-2006

Safer (Cyber)Sex with .XXX: The Case for First Amendment Zoning of the Internet

Patty Chan

Recommended Citation
Available at: https://digitalcommons.lmu.edu/lir/vol39/iss4/7
I. INTRODUCTION

In City of Renton v. Playtime Theatres, Inc., the U.S. Supreme Court upheld a zoning ordinance that allowed the city of Renton, Washington, to confine adult entertainment to specific locations within the city. The Court gave government officials greater latitude in regulating adult entertainment when they dealt with the harmful side effects, or "secondary effects", claimed to have derived from such businesses. This ensuing judicially created secondary-effects doctrine has led to the concept of "First Amendment
Although local governments have successfully zoned the physical location of adult-entertainment establishments, the federal government has not had similar success in restricting adult material in cyberspace. Thus far, the Supreme Court has declared unconstitutional every attempt by Congress to regulate Internet pornography.

However, the federal government may soon be able to regulate such material on the Internet. The 2005 United Nations (UN) World Summit on the Information Society (WSIS) recently confirmed that the Internet Corporation for Assigned Names and Numbers (ICANN), a California based non-profit corporation, will continue to manage the Domain Name System. The UN’s decision is


5. The terms “adult material” and “pornography” will be used interchangeably in this article. According to the Attorney General, “pornography” is defined as “material [that] is predominantly sexually explicit and intended primarily for the purpose of sexual arousal.” ATTORNEY GEN.’S COMM’N ON PORNOGRAPHY, ATTORNEY GENERAL’S COMMISSION ON PORNOGRAPHY: FINAL REPORT (1986), available at http://www.porn-report.com (follow “Introduction” hyperlink).

In this article, “adult entertainment” includes nude dancing, adult bookstore, adult mini-motion-picture-theater, adult motion picture theater, and adult cabaret. See Damach, Inc. v. City of Hartford, 239 F.3d 155, 156 (2d Cir. 2000). “Adult cabaret” is defined as “a nightclub, bar, restaurant, or similar establishment that regularly features live performances that are characterized by the exposure of specific anatomical areas or by specified sexual activities.” Id. Moreover, “cyberporn” includes “[h]ard core pictures, movies, online chat, and even live sex acts [that] can be downloaded and viewed by virtually anyone through the Internet.” Kerby Anderson, The Pornography Plague, LEADERSHIP U, http://www.leaderu.com/orgs/probe/docs/pomplag.html (last visited Apr. 4, 2006).


December 2006] SAFER (CYBER)SEX WITH .XXX 1301

significant because whoever controls the Domain Name System possesses considerable influence over the Internet. The Domain Name System holds the “root zone file,” storing approximately 300 approved “top-level domains”, including generic domains like “.com” and “.info,” and two-letter country codes like “.uk” and “.us”.

Moreover, although ICANN is an independent private corporation, the federal government possesses significant influence over ICANN, and according to the UN and other nations, the federal government truly controls the Domain Name System. For example, a few months before the UN conference, ICANN approved an “.xxx” top-level domain that was purportedly designed for adult websites. Soon after its announcement, ICANN postponed implementing the “.xxx” domain due to several national governments, especially the U.S. government, objecting that the new

head_1 [hereinafter Poulsen, Control of Net].


9. Poulsen, Control of Net, supra note 7.

10. See, e.g., id. (quoting Ambassador David Gross, head of the U.S. delegation to WSIS, stating that the UN’s confirmation “preserved the unique role of the United States government in ensuring the reliability and stability of the [I]nternet”); Kevin Poulsen, Net Dust Storm Blows into Tunis, WIRED NEWS, Nov. 15, 2005, http://www.wired.com/news/politics/0,1283,69586,00.html [hereinafter Poulsen, Net Dust Storm] (stating that despite ICANN’s elected president and international board, the U.S. government still holds the reins).

11. See, e.g., Press Release, ICM Registry, ICANN Approves “.xxx” Sponsored Top-Level Domain Application (June 1, 2005), http://www.icmregistry.com/ICMPressRelease.pdf (indicating ICM Registry, Inc. has met ICANN’s criteria and will soon be entering into technical and commercial negotiations to generate the “.xxx” top-level domain for “adult oriented websites”); see also Verisign, Inc. v. Internet Corp. for Assigned Names & Nos., No. CV 04-1292 AHM, 2004 WL 2095696, at *1 (C.D. Cal. Aug. 26, 2004) (explaining that the Internet is comprised of numerous top-level domains, and some are generic top-level domains like .com, .net, .gov, and .biz while others are country code Top-Level Domains such as .uk and .us); ICANN, Universal Acceptance of All Top-Level Domains, http://icann.org/topics/TLD-acceptance (last visited Apr. 9, 2006) (providing a current list of all top-level domains).
domain legitimized pornography and fostered its growth.\textsuperscript{12}

However, pornographic websites have continued to grow even without the proposed “.xxx” domain. In 2005, the U.S. pornography industry grossed $12 billion.\textsuperscript{13} Moreover, 4.2 million pornographic websites currently make up twelve percent of all Internet websites and generate $2.5 billion, or four percent, of worldwide pornography industry revenues.\textsuperscript{14} As a result of their pervasive presence, Internet users, including children, are likely to stumble onto a pornographic site while searching for innocuous information.

The London School of Economics and Political Science concluded a study in 2004 on the experiences of children and their parents with the Internet in the UK.\textsuperscript{15} The study revealed that more than half of children between the ages of nine and nineteen have encountered pornography online.\textsuperscript{16} Close to forty percent of these children encountered online pornography while doing something else or searching for other material.\textsuperscript{17}

This article analyzes whether the U.S. government could constitutionally establish “First Amendment Zoning” of the Internet and force all U.S.-based pornographic websites to use a top-level domain such as “.xxx”. Part II discusses the rise of ICANN and then compares the virtual world of the Internet to the physical world, establishing that the Domain Name System is a zonable “space”. Part III then explores how ICANN would implement zoning regulations over this space and whether the U.S. government’s control over ICANN subjects it to First Amendment restraints under the “state action doctrine”. This section also compares the


\textsuperscript{14} Id.


\textsuperscript{16} Id. at 2.

\textsuperscript{17} Id.
constitutional issues implicated by regulating pornography on the Internet with First Amendment Zoning measures found in traditional land-zoning laws. In particular, this section describes why such regulations are constitutional when applied to the Internet. Finally, Part IV considers whether the government should impose First Amendment Zoning of online pornography.

II. THE DOMAIN NAME SYSTEM AS A ZONABLE SPACE

A. The Internet and the Rise of ICANN

The Internet began as two small government-funded networks. One of these early networks was the first in the world to implement a “packet switching” communication system, whereby information is broken into small packets and routed across the Internet through a series of switches called routers. With such a system, Internet users could link with multiple machines, share the link, and parse information for independent and separate routing. The process of breaking down and reassembling information became known as the Transmission Control Protocol (TCP), while the process of routing such information to its correct destination was referred as Internet Protocol (IP), or together, as TCP/IP.

To ensure that information is routed to the appropriate location,

18. The two networks were the Advanced Research Projects Agency Network (ARPANET) and the National Science Foundation Network (NSFNET). See Island Online, Inc. v. Network Solutions, Inc., 119 F. Supp. 2d 289, 292 (E.D.N.Y. 2000). The government funded both systems, with ARPANET receiving its principal funding from the Department of Defense and NSFNET deriving its financial support from a government agency called the National Science Foundation (NSF) along with other federal, private, and academic agencies. See id.; Michael Hauben, Part I: The History of ARPA Leading up to the ARPANET, http://www2.dei.isep.ipp.pt/docs/arpa--1.html (last visited Feb. 14, 2006).


21. See Wikipedia, supra note 19; Reno v. ACLU, 521 U.S. at 850.

TCP/IP assigns a unique number or "IP address" to every computer connected to the Internet around the world.\textsuperscript{23} IP addresses eventually evolved into the Domain Name System, where difficult-to-remember numeric IP addresses were associated with recognizable alphabetic names.\textsuperscript{24} For example, rather than four numbers separated by periods (called dots), such as "192.0.34.65", the alpha system allowed users to access the same site by typing "www.icann.org".\textsuperscript{25} In this example, the domain name is "icann.org", the top-level domain is "org", and the secondary-level domain is "icann".\textsuperscript{26}

As the Internet grew, the Department of Commerce eventually assumed responsibility over registering domain names.\textsuperscript{27} In 1998, after the U.S. government decided that Internet governance should be consistent across state and international borders,\textsuperscript{28} the Department of Commerce began searching for ways to accomplish this objective. As part of this search, the Department of Commerce decided upon the creation of a private non-profit corporation to assume responsibility over the Domain Name System.\textsuperscript{29}

\begin{footnotesize}
\begin{itemize}
\item[23.] Island Online, Inc., 119 F. Supp. 2d at 292.
\item[25.] Id.
\item[26.] See Island Online, Inc., 119 F. Supp. 2d at 292.
\item[28.] See Matthew Edward Searing, "What's in a Domain Name?" A Critical Analysis of the National and International Impact on Domain Name Cybersquatting, 40 WASHBURN L.J. 110, 131 (2000).
\end{itemize}
\end{footnotesize}
negotiations, the Department of Commerce selected ICANN to assume management of the Internet.  

ICANN’s responsibilities include managing the Internet space allocation, protocol identifier assignment, the Domain Name System, and other technical coordination functions. Although ICANN president Paul Twomey asserts that ICANN does not “control” the Internet, ICANN makes significant regulatory decisions about the Internet, especially in regards to the Domain Name System. A watchdog group that closely monitors ICANN noted that “control over the [Domain Name System] confers substantial power over the Internet[, such as the ability to] decide[] what new families of ‘top-level’ domain names can exist (e.g., new suffixes like “.xxx” or “.union”) and how names and essential routing numbers will be assigned to websites and other Internet resources.” However, to ensure that the “nearly 250,000 interconnected private networks act as a single Internet [sic] in the eyes of a billion users,” ICANN depends on the cooperation of the global Internet community.  

This global Internet community consists of national governments, international treaty organizations, private businesses and organizations, and skilled individuals. In fact, the ICANN Board includes internationally diverse directors who establish and develop Internet policy. Moreover, the president of ICANN directs an international staff spread over three continents. 

By recognizing all members of the global community as

31. ICANN, Welcome to ICANN!, http://www.icann.org/new.html (last visited Apr. 9, 2006).
33. See ICANN, A Unique, Authoritative Root for the DNS, July 9, 2001, http://www.icann.org/icp/icp-3.htm; see also ICANN, supra note 24 (listing ICANN’s recent accomplishments that involve the Domain Name System).
34. See ICANN Watch, supra note 8.
35. Net and Politicians, supra note 32.
36. ICANN, supra note 32.
37. Id.
38. Id.
interested parties, ICANN uses a “multi-stakeholder” approach to encourage global community members to participate in ICANN’s three supporting organizations and two advisory committees and to help shape its policies. For example, ICANN’s Governmental Advisory Committee maintains an open membership for all governments and consists of more than 100 member governments that provide close counsel to ICANN’s Board of Directors. As a result, ICANN finds itself balancing the interest of both the Department of Commerce and members of the global community in managing the Internet.

B. Juxtaposing Physical and Virtual Worlds

Many similarities exist between the physical world and the virtual world of the Internet. Similar to a sprawling metropolis, the Internet is made up of an organization of networks, consisting of several private organizations, universities, and government agencies. In fact, in 1993, about 40,000 networks and 20 million users comprised the Internet. Recent statistics indicate a significant increase to approximately 972 million users worldwide or a little more than fifteen percent of the 6.4 billion people in the world. Just as smaller cities and towns are access points for individuals to different services, regional networks provide and maintain Internet access within a geographic area. Moreover, similar to

40. See ICANN, supra note 31 (providing links to more information about the three supporting organizations (Address Supporting Organization; Country Code Domain Name Supporting Organization; and Generic Names Supporting Organization) and the two advisory committees (At-Large Advisory Committee and Governmental Advisory Committee)).
41. See Net and Politicians, supra note 32.
42. LAQUEY, supra note 27 (follow “Chapter 1: Peeling Back the Layers: Differences between Networks” hyperlink) (discussing the private ISPs and commercial online services that provide access to the Internet).
43. Id.
46. BRENDAN P. KEHOE, ZEN AND THE ART OF THE INTERNET: A
transportation channels like freeways or air routes, high-speed long-distance connections called “backbones” carry Internet traffic across the country and the world.\(^4\)

A central component of the Internet is the Domain Name System. This system is essential to complete actions such as displaying Web pages.\(^4\)\(^8\) Similar to real property that are identified by unique postal addresses, each “Web site” resides on the Internet, taking up “Web space” and possessing a unique IP address and domain name.\(^4\)\(^9\) As noted by Justice Sandra Day O’Connor, “Cyberspace undeniably reflects some form of geography; . . . Web sites . . . exist at fixed ‘locations’ on the Internet.”\(^5\)

Every computer that accesses the Internet must possess a unique IP number.\(^5\)\(^1\) Generally, to access the Internet, an ordinary person contracts with an Internet Service Provider (“ISP”).\(^5\)\(^2\) ISPs are businesses or organizations that offer access to the Internet.\(^5\)\(^3\) ISPs are similar to landlords because they rent out a connection or an IP address to individual people.\(^5\)\(^4\)

Similarities between the physical and virtual worlds can also be

---

47. See generally LAQUEY, supra note 27 (describing how the U.S. government through the National Science Foundation initiated a nationwide backbone, which connected many mid-level networks that in turn connected universities and other organizations).


49. Webhosting Glossary, Webspace (or Web Space), http://www.webhosts4free.com/definitions/webspace.php (last visited Feb. 17, 2006) (defining “web space” as data storage space used to host websites and data files on a computer).


52. Id.


found within the addressing functionality. In order to view a particular website, a user enters a website's address or Uniform Resource Locator (URL), such as “www.icann.org”, into a web browser. Because the computers that run the Internet cannot understand the alphanumeric domain names, a domain name like “icann.org” must first be matched to its true numeric IP address, such as “192.0.34.65”.

A web browser then completes the necessary process of checking name servers, which are computers responsible for tracking IP address changes and translating between IP numbers and domain names, in order to retrieve the appropriate website information.

Similar to hierarchical protocols for identifying real property, e.g., street, city, state, and country, domain names operate on a similar hierarchy. The Domain Name System hierarchy begins with the root-level domain, followed by the top-level domain, secondary-level domain, and sub-domains. For example, reading from right to left, “www.wikipedia.org.” has the root-level domain of “.”, top-level domain of “.org”; secondary-level domain of “wikipedia”, and the subdomain of “www”.

Further similarities between the physical and virtual worlds can be seen when comparing characteristics of a city to that of a domain name. Just as parts of a city are designated residential or commercial, domain names and in particular the top-level domain indicates important information about the website. For example, the “.com” domain is a top-level domain indicating that the site pertains to commercial businesses. In contrast, the “.gov” domain indicates that the site information is reserved for all governmental entities in

60. Id.
Similarities between virtual and physical world can also be found in the several organizations that facilitate domain name registration. For instance, as part of its Domain Name System managing duties, ICANN contracts with different Internet "registries" and "registrars." Similar to commercial services that record real property deeds, Internet registries are private companies that maintain directories and record all names registered within a top-level domain. Verisign, Inc. is the only registry for ".com" and ".net" domains and maintains the domain names under those top-level domains. Likewise, ICM Registry, Inc. would be the future registry for the highly contested ".xxx" domain. Registries generally do not work with individual users, instead providing direct services only to registrars. Registrars, on the other hand, work directly with people and businesses, resembling real estate agents because they are private companies that sell Internet domain names (such as "yahoo.com") to the general public.

With the Internet's virtual world analogous to real world constructs, it seems logical for the Supreme Court to extend certain laws that regulate real world communities to the virtual communities on the Internet. Indeed, the U.S. Supreme Court has already held

61. ICANN, FAQs, http://www.icann.org/faq/#regrules; see also Wikipedia, .gov, http://en.wikipedia.org/wiki/.gov (noting that at one time, the .gov domain was reserved only for the federal government).

62. ICANN is also responsible for the governance of the authoritative root server. See U.S. GEN. ACCOUNTING OFFICE, OFFICE OF THE GEN. COUNSEL, supra note 27, at 4, 6, 15–16 (stating that the government has authority to transfer to ICANN the government’s control over the authoritative root server at the top of the domain name system). Because ICANN maintains the root zone files that direct IP number queries to other top-level domain zone files or domain name system databases, ICANN ultimately affects speed and consistency on the Internet. Id. at 6.


65. Press Release, ICM Registry, supra note 11.


68. See Daniel Benoliel, Law, Geography and Cyberspace: The Case of
that First Amendment protections apply on the Internet. The following section will analyze whether land-zoning laws can be applied to the virtual world and the First Amendment implications of zoning the Internet.

III. THE CONSTITUTIONALITY OF FIRST AMENDMENT ZONING OF INTERNET PORNOGRAPHY

The First Amendment establishes that "Congress shall make no law . . . abridging the freedom of speech." The Supreme Court has held such freedoms include pornography, with the exceptions of obscenity and pornography involving children in actual production. Beyond these categories, local governments have succeeded at regulating adult-entertainment establishments with land-zoning ordinances. While such restrictions appear to regulate speech based on its content, the Court upheld such land-zoning restrictions

---

70. U.S. CONST. amend. I § 2.
71. See, e.g., Ashcroft v. ACLU, 542 U.S. 656 (2003); New York v. Ferber, 458 U.S. 747 (1982); Miller v. California, 413 U.S. 15 (1973). Obscenity and pornography are not synonyms. Obscenity is a form of "hard core" pornography. As explained in Miller, the Supreme Court defined "obscenity" as material that "the average person, applying contemporary community standards’ would find . . . appeals to the prurient interest; . . . depicts or describes, in a patently offensive way, sexual conduct specifically defined by the applicable state law; and . . . taken as a whole, lacks serious literary, artistic, political, or scientific value.” Id. at 24. The Court concluded that only those who sell "materials depict[ing] or describ[ing] patently offensive ‘hard core’ sexual conduct” would be subject to prosecution. Id. at 27.

In contrast, the Supreme Court held in 1982 in New York v. Ferber, that child pornography is not subject to the Miller test. 458 U.S. at 764. The court defined "child pornography” as works that visually depict sexual conduct of children under a state specified age. Id. Although the Court gave the states more flexibility to regulate child pornography, the court in Ferber prohibited only the use of children in the production of pornography and not their depiction. Id. at 764–65. See also Ashcroft v. Free Speech Coalition, 535 U.S. 234, 249–50 (2002) (distinguishing between actual and virtual child pornography).

72. See generally Prygoski, supra note 4 (discussing various cases involving city zoning ordinances targeting adult-entertainment establishments).
on the basis of the so-called secondary-effects doctrine.\footnote{73} 

Under the secondary-effects doctrine, governments do not regulate such establishments because of their content, such as the messages or forms of expression of adult entertainment. Instead, the regulations are based on the establishments' impacts, such as the negative side effects of generating crime and prostitution and causing property values to decline.\footnote{74} This reasoning seems to contradict the traditional interpretation that laws are content-neutral only when the restriction on speech does not consider the content of the speech itself.\footnote{75} 

Unlike the traditional content-neutral analysis, the secondary-effects doctrine allows governments to employ land-zoning ordinances that specifically target adult-entertainment establishments.\footnote{76} Even Justice Rehnquist noted that such land-zoning ordinances regulate "theaters that specialize in adult films differently from other kinds of theaters."\footnote{77} By concentrating on the secondary effects, courts view such land-zoning ordinances as content-neutral and hold such laws to a lower constitutional standard of intermediate scrutiny rather than to the strict scrutiny standard used for content-based regulations.\footnote{78} 

The following section will first determine whether ICANN is a state actor. Then, it will review the key adult-entertainment zoning

---

73. City of Renton v. Playtime Theatres, Inc., 475 U.S. 41, 46-47 (1986) (stating that "restraining speech on the basis of its content presumptively violate[s] the First Amendment. . .[but] so-called 'content-neutral' time, place, and manner regulations are acceptable").
75. Prygoski, supra note 4, at 83.
76. Hudson Jr., supra note 74.
77. City of Renton, 475 U.S. at 47.
cases from which the secondary-effects doctrine arose and discuss how such laws can be similarly extended to the Internet.

A. ICANN as a State Actor

The U.S. government has delegated management of the Internet to ICANN. As a result, one may think ICANN is a private entity with the power to zone the Internet without constitutional restraint.79 However, ICANN’s designation as a non-profit corporation is not determinative of its legal status.80 Because the line between public and private action is unclear,81 courts must examine whether ICANN


81. Perkins v. Londonderry Basketball Club, 196 F.3d 13, 18 (1st Cir. 1999). It should be noted several critics have indicated that the cases are often inconsistent and may overlap. See ERWIN CHEMERINSKY ET AL., CONSTITUTIONAL LAW 405–06 (2001) (naming some of the reasons for inconsistency: (1) “the government always has the power to regulate private behavior,” (2) “the government is involved, to some extent, in almost every activity,” (3) “[t]he inconsistencies . . . reflect social realities” of courts applying an expansive state action doctrine between the late 1940s through the 1960s and a more narrow definition afterwards, (4) “[t]he inconsistenc[ies] . . . reflect[ed] the reduced need to rely on the Constitution to reach private racial discrimination,” and (5) “the Court [was] just not clear as to which exception it [was] discussing”). See also, Donna M. Nagy, *Playing Peekaboo with Constitutional Law: The PCAOB and Its Public/Private Status*, 80 NOTRE DAME L. REV. 975, 981 (2005) (stating that “constitutional law scholars have described the Supreme Court’s state action doctrine as incoherent and a ‘conceptual disaster area’”).
is a state actor based on the totality of circumstances and the government's involvement. As the following analysis will show, the factors involved in ICANN's decision to postpone approval of the "xxx" top-level domain and the U.S. government's decision to retain policy oversight over ICANN should constitute state action.

With the state action doctrine, courts employ the following tests to determine if ICANN is a state actor: the symbiotic relationship test, the nexus test, the traditional public function test, or the joint action test. ICANN needs to meet only one of these tests to be deemed a state actor. Of the four tests, the first two are most applicable to ICANN if it attempted to zone the Internet.

1. The Symbiotic Relationship Test

Courts have held that a corporation is a state actor when the government and the private party are so entangled to appear as if they are acting in concert. This is known as the symbiotic relationship test. A court should find a symbiotic relationship exists between the U.S. government and ICANN.

First, the U.S. government continues to hold considerable influence over ICANN due to its involvement in the organization's creation, especially because the government contracts with ICANN and maintains ongoing policy oversight over ICANN's operations.

82. See Brentwood Acad., 531 U.S. at 295 ("What is fairly attributable [to the state] is a matter of normative judgment, and the criteria lack rigid simplicity."); see also Perkins, 196 F.3d at 18 (stating that courts must review each case by "sifting facts and weighing circumstances [so that] the nonobvious involvement of the State in private conduct [can] be attributed its true significance" (quoting Burton v. Wilmington Parking Auth., 365 U.S. 715, 722 (1961))).
83. Air Line Pilots Ass'n, Int'l v. Dep't of Aviation, 45 F.3d 1144, 1149 (7th Cir. 1995).
84. See Brentwood Acad., 531 U.S. at 302–03 (holding that the determination of state actor under one criterion is sufficient even when the other criteria of state action may not be satisfied).
85. Wickersham v. City of Columbia, 371 F. Supp. 2d 1061, 1079 (W.D. Mo. 2005) (stating that when the circumstances confuse people and give the appearance of state action, the reality is that generally such is the case).
As a result, a symbiotic relationship exists between the two because the U.S. government sets the legal standards that circumscribe ICANN.87

In transferring management of the Domain Name System to ICANN, the Department of Commerce entered into three agreements with ICANN. These agreements included a 1998 Memorandum of Understanding (MOU) for a joint Domain Name System project.88 The MOU required ICANN to work together with the government to “jointly design, develop, and test the mechanisms, methods, and procedures” to facilitate the transfer.89 However, in recognizing ICANN as the technical manager of the Internet, the U.S. government also affirmed its continued role in providing oversight to policy decisions that affect the Domain Name System and in approving changes to the files that lists the names and numeric IP addresses for all top-level domains.90

Courts have held a symbiotic relationship exists when the control of the Domain Name System, the IP addressing process, and the network protocol development process but required the Department of Commerce’s approval on major decisions); Keith Regan, US to Keep Control of Internet Services, E-COMMERCE TIMES, July 1, 2005, http://www .ecommercetimes.com/story/44357.html (stating that the U.S. Government has “kept policy control, approving through ICANN and its hand-chosen registrars the million of domain names allowed to be established”).


88. U.S. GEN. ACCOUNTING OFFICE, OFFICE OF THE GEN. COUNSEL, supra note 27, at 15 (stating the other two agreements were a joint agreement to study the root server system and a sole source contract to perform certain technical functions relating to the coordination of the Domain Name System).

89. Id. at 16. ICANN also inherited the same implied antitrust immunity that the government expressly granted. See PGMedia, Inc. v. Network Solutions, Inc., 51 F. Supp. 2d 389, 405 (S.D.N.Y. 1999), aff’d sub. nom. Name.Space, Inc. v. Network Solutions, Inc., 202 F.3d 573 (2d Cir. 2000) (upholding the antitrust immunity of Network Solutions, Inc., a private party that the government contracts with to manage the Domain Name System).

government does not completely relinquish control over a project.\footnote{See Dobyns, 667 F.2d at 1226–27 (finding that a branch of the State Department was ultimately responsible for the purportedly government-transferred project; several government personnel remained and worked on the mission; the government indemnified the private corporation’s employees; and most significantly, the government retained disciplinary power over the private corporation’s employees); see also Air Line Pilots Assoc., Int’l v. Dep’t of Aviation, 45 F.3d 1144, 1149 (7th Cir. 1995) (holding that an interdependent relationship existed between the city and a private company when the city had authority to reject advertisements at its discretion; paid for display lighting and construction-related relocations; provided office and storage space at no charge to the private company; had authority to review and order termination of the private company’s employees; and was entitled to 60% of all revenue received by the private company).}

Here, the U.S. government maintains a financial interest in ICANN because the organization facilitates the growth of technology and increases U.S. productivity.\footnote{PAMELA SAMUELSON & HAL R. VARIAN, THE "NEW ECONOMY" AND INFORMATION TECHNOLOGY POLICY 7–8, July, 18 2001, available at http://www.sims.berkeley.edu/~pam/ (follow “Papers” hyperlink; then follow “The New Economy and Information Technology Policy”); Nancy J. Victory, Assistant Sec’y for Commc’n & Info., Nat’l Telecomms. and Info. Admin., Keynote Speech at the GBDe Sherpa Meeting (July 11, 2002), http://www.ntia.doc.gov/ntiahome/speeches/2002/gbde07112002.htm.} In addition, the U.S. government has a strong political interest in overseeing the approval process of top-level domains like “.xxx” to appease its constituents.\footnote{Kevin Poulsen, Worst Tech Moments 2005, WIRED NEWS, Dec. 27, 2005, http://www.wired.com/news/technology/0,69918-0.html [hereinafter Poulsen, Worst Tech Moments].} The U.S. government further showed its political interest in ICANN by opposing UN proposals to reassign the Domain Name System to a multinational agency.\footnote{Poulsen, Control of Net, supra note 8. See also ICANN Watch, supra note 7 (stating interest in the Domain Name System stems from the fact that the Domain Name System confers substantial power over the Internet, allowing what new families of “top-level” domain names can exist—e.g., new suffixes like “.xxx” or “.union”—and how names and essential routing numbers will be assigned to websites and other Internet resources).} These UN proposals stem from the belief that the U.S. government controls ICANN, and ICANN functions much like a U.S. governmental organization such as the Federal Communications Commission in its regulatory conduct.\footnote{Jonathan Weinberg, ICANN, "Internet Stability," and New Top-level...}
The postponement of the "xxx" domain further reveals the extent of the U.S. government's control. This postponement was the result of government officials on ICANN's Governmental Advisory Committee. The officials convinced the committee chairman to request additional time for governments to consider the "xxx" top-level domain. The committee chairman and the Department of Commerce both submitted such a request, postponing and possibly ending the lengthy and expensive process that would have otherwise ended with the adoption of the "xxx" domain.

Domains, in COMMUNICATIONS POLICY AND INFORMATION TECHNOLOGY: PROMISES, PROBLEMS, PROSPECTS 3 (Lorrie Faith Cranor & Shane Greenstein eds. 2002).

96. Exec. Order No. 12,046 §§ 2-4, 2-5, 43 Fed. Reg. 13,349 (1978), and NTIA's statutory authority, 47 U.S.C. § 901(c)(3) (amended 2005), set forth NTIA's responsibility for facilitating and contributing the full development of competition, efficiency and free flow of commerce. See U.S. GEN. ACCOUNTING OFFICE, OFFICE OF THE GEN. COUNSEL, supra note 27, at 20 (stating the Department of Commerce reserves the right to participate in ICANN's open meetings and on ICANN's Governmental Advisory Committee). While the Department of Commerce maintains that it does not participate in any decision making on ICANN at these meetings, the government holds great influence over ICANN. Id. Under ICANN's bylaws, the Governmental Advisory Committee provides nonbinding advice on ICANN activities related to governmental concerns, especially regarding ICANN's policies and laws or international agreements. See ICANN, Bylaws for Internet Corporation for Assigned Names and Numbers, http://www.icann.org/general/archive-bylaws/bylaws-19apr04.htm (last visited Feb. 14, 2006).

97. Letter from Mohamed Sharil Tarmizi, Chairman, Gov't Advisory Comm., to Internet Corp. for Assigned Names and Nos. Bd. of Dirs. (Aug. 12, 2005), available at http://www.icann.org/correspondence/tarmizi-to-board-12aug05.htm. See infra, Part IV, for a discussion about the policy reasons underlying the U.S. government's current opposition to the implementation of "xxx".


2. The Nexus Test

ICANN is also a state actor under the nexus test. Under this test, a close relationship must exist between the government and the private party at issue such that any actions of the latter are attributed to the government. Under this analysis, courts focus on whether the government exercised coercive power over the private party or provided the party express or implied encouragement. In the instant matter, ICANN’s delay in approving the “.xxx” top-level domain evidences a close nexus between ICANN and the federal government. First, the U.S. government has the authority and political interest to delay the “.xxx” top-level domain.

A government report hints that the U.S. government has authority to unilaterally block approval of the “.xxx” top-level domain. In fact, the U.S. government revealed that it actually determines which top-level domains are approved when it affirmed its “historic role in authorizing changes . . . to the authoritative root zone file.”

The U.S. government’s political interests are revealed in its strong response to its political constituents’ concerns. After all, the request to suspend the already approved “.xxx” top-level domain resulted from “[t]he Department of Commerce [having] received nearly 6,000 letters and e-mails from individuals expressing concern about the impact of pornography.” These letters were sent by the

---

102. See, e.g., Air Line Pilots Assoc., Int’l v. Dep’t of Aviation, 45 F.3d 1144, 1150 (7th Cir. 1995) (finding the requisite state action when the city had complete discretion to veto contracts based on the advertisement content even though the private company had been the last party to refuse the association’s message and the impossibility of determining which party really decided not to display the message given that both the city and the advertising company wanted to avoid displaying the message).
103. McCullagh, supra note 12.
104. National Telecommunications and Information Administration, supra note 90.
105. See id.
106. Id.
Conservative Petitions\textsuperscript{107} and Family Research Council.\textsuperscript{108} Both organizations are politically conservative organizations that support the Bush Administration.\textsuperscript{109}

In fact, the federal government's coercive power can be seen in ICANN's prior decision to proposals for an "xxx" top-level domain. In November 2000, ICANN originally rejected the "xxx" top-level domain.\textsuperscript{110} In response, Congressional representatives criticized ICANN, demanding approval of the "xxx" top-level domain.\textsuperscript{111} As a result, five years later, ICANN changed course and approved the "xxx" top-level domain.\textsuperscript{112} However, in the summer of 2005, ICANN once again responded to government pressures by delaying "final approvals" of the "xxx" domain.\textsuperscript{113}

Therefore, not only had this proposal for an "xxx" top-level domain been before ICANN five years earlier, but the "xxx" top-level domain was publicly debated for 18 months with ICANN.


\textsuperscript{109} Regina Lynn, Bush, Pornographers Bash XXX, WIRED NEWS (2005), http://www.wired.com/news/culture/0,1284,68640,00.html; Press Release, Internet Governance Project, supra note 99 ("Concern about the US intervention is particularly strong in this case [regarding NTIA's recent intervention in the "xxx" proceeding] because of the open acknowledgment in the NTIA's letter of the influence of an organized campaign by domestic religious groups devoted to content regulation of the Internet.").

\textsuperscript{110} McCullagh, supra note 12.

\textsuperscript{111} Id.

\textsuperscript{112} Press Release, ICM Registry, supra note 11.

\textsuperscript{113} McCullagh, supra note 12.
actively soliciting views and providing opportunity for anyone concerned to present their views. Since the implementation of the “.xxx” top-level domain once again being postponed, a court should find that ICANN is a state actor and an instrument of the federal government.

Although the U.S. government currently opposes the implementation of an “.xxx” domain due to political and policy issues, political climates change and policy issues may be resolved over time. Therefore, if the U.S. government decides to once again support the implementation of the “.xxx” domain, the following will examine the secondary-effects doctrine that arises from adult-entertainment zoning cases and whether it can be similarly applied to the Internet without violating the First Amendment.

B. Traditional Land-Zoning Laws

Most governments have enacted zoning ordinances that either dispersed adult-entertainment establishments throughout the city or confined them to certain locations. In Young v. American Mini Theatres, Inc., the U.S. Supreme Court upheld a zoning ordinance that regulated such establishments in the city of Detroit, Michigan and established the first case to espouse the secondary-effects doctrine. The City’s zoning ordinance required adult theaters to be dispersed from residential neighborhoods and other similar adult-business establishments. In upholding Detroit’s ordinance and dismissing the claims challenging the ordinance as content-based, the Court held that the City’s purpose in preventing secondary effects,

114. Letter from Stuart Lawley to Paul Twomey, supra note 99.
115. See discussion infra Part IV.
116. See, e.g., McCullagh, supra note 12 (noting that in November 2000, legislators lambasted ICANN for rejecting “.xxx” and demanded its approval).
117. Hudson Jr., supra note 74.
119. Hudson Jr., supra note 74.
120. Young, 427 U.S. at 52 (detailing ordinances that amended a former “Anti-Skid Row Ordinance” and required that an adult theater must remain 500 feet from any residential area and 1,000 feet from any two other adult-entertainment establishments, such as other adult theaters, adult bookstores, cabarets, bars, hotels and motels, pawnshops, pool halls, public lodging houses, secondhand stores, shoeshine parlors, and taxi dance halls).
such as crime, justified the regulation.\textsuperscript{121}

In another similar zoning case, the Supreme Court in \textit{City of Renton v. Playtime Theatres, Inc.}\textsuperscript{122} evaluated a city ordinance that confined adult-entertainment establishments to certain areas within the city of Renton, Washington.\textsuperscript{123} Specifically, the City’s zoning ordinances prohibited adult theaters from being located within a certain distance of any residential neighborhood, church, park, or school.\textsuperscript{124} In upholding the regulations, the Court held that the City’s ordinance was content-neutral because its focus was to prevent the harmful secondary effects created by adult theaters and not the theater’s film content or message.\textsuperscript{125}

The Court then found that Renton’s ordinance satisfied the two-prong test for content-neutral laws. Under this test, the law must (1) serve a substantial governmental interest and (2) leave reasonable alternative avenues of communication.\textsuperscript{126} The Court reasoned that the City’s ordinance satisfied the two-pronged content-neutrality test. First, the ordinance pertained to an important and substantial governmental interest because its aim was to preserve the quality of the communities surrounding the adult theaters.\textsuperscript{127} Although the City based its secondary-effects argument on the experiences of Seattle and other cities, the Court held that an independent study was not necessary so long as the city demonstrated such evidence was reasonably believed to be relevant to the City’s problems.\textsuperscript{128}

Second, the Court held that adult theaters had reasonable alternative avenues of communication even though the Renton ordinance left only “520 acres, or . . . five percent” of the city open for use as adult theatres.\textsuperscript{129} The Court disregarded the theaters’

\begin{itemize}
\item \textsuperscript{121} \textit{Id.} at 71 n.34.
\item \textsuperscript{122} 475 U.S. 41 (1986).
\item \textsuperscript{123} \textit{Id.} at 45.
\item \textsuperscript{124} \textit{Id.} at 43 (prohibiting adult theaters from being located within 1,000 feet of any “residential zone, single- or multiple-family dwelling, church, park, or [within one mile of any] school”).
\item \textsuperscript{125} \textit{Id.} at 48.
\item \textsuperscript{126} \textit{Id.} at 50.
\item \textsuperscript{127} \textit{Id.} (holding “a city’s ‘interest in attempting to preserve the quality of urban life is one that must be accorded high respect’” (quoting Young v. Am. Mini Theatres, Inc., 427 U.S. 50, 71 (1976))).
\item \textsuperscript{128} \textit{Id.} at 51–52.
\item \textsuperscript{129} \textit{Id.} at 53.
\end{itemize}
claims that no commercially viable adult theater sites were left within the 520 acres, holding that the First Amendment was not concerned with economic impact.\textsuperscript{130}

Since the Supreme Court has upheld traditional land-zoning laws regulating the location of adult-entertainment establishments, the following will examine whether the resulting secondary-effects doctrine can similarly be applied to regulate pornographic sites on the Internet.

\textbf{C. Applying Physical Zoning Laws to the Virtual World}

Legislation relegating pornography websites to certain locations on the Internet may survive constitutional scrutiny as a content-neutral restriction under the secondary-effects doctrine. Under the secondary-effects doctrine, the government has the constitutional authority to implement First Amendment Zoning of pornographic websites by justifying the regulation as a restriction of their negative side effects, not of their content. With a substantial interest in regulating pornography to address negative secondary effects, the government could reasonably force all pornographic sites onto the "\texttt{.xxx}" top-level domain.

Just as local governments have regulated adult-entertainment establishments by designating permissible locations within a city, the federal government can similarly concentrate pornographic sites to a specific area on the Internet without violating the First Amendment. Much like adult-entertainment establishments that are scattered throughout a city lacking land-zoning regulations, pornographic websites are currently dispersed with different secondary-domain names at various top-level domains such as "\texttt{.net}", "\texttt{.biz}", and "\texttt{.com}". An owner of an adult-entertainment establishment could also own a similar pornographic website. For example, Larry Flynt owns both a Hustler adult-entertainment establishment located in California and a HustlerClubs website on the Internet.\textsuperscript{131} Just as the Hustler adult-entertainment establishment has a unique Los Angeles postal address, the HustlerClubs website possesses a unique domain

\textsuperscript{130} \textit{Id.} at 53–54.

name—“HustlerClubs.com”—with a secondary-domain of “hustlerclubs” and a top-level domain of “.com”.

Under the secondary-effects doctrine, governments can pass land-zoning ordinances that restrict adult-entertainment establishments like Hustler to certain areas of a city. Under the same doctrine, the government should also be able to pass legislation requiring the HustlerClubs website to centralize its websites to a particular location on the Internet, i.e., to register with the “.xxx” domain. For such regulation to survive First Amendment scrutiny, the government must show its zoning legislation is content-neutral, furthers a substantial governmental interest focused on regulating the negative effects of pornographic websites, and offers reasonable alternative channels of communication.

1. Secondary Effects

As described above, the Internet is a “virtual community” made up of different IP addresses representing governmental, business, and educational organizations and ordinary users. Just as every computer on the Internet has a unique IP address, the associated domain name must also be unique with a distinctive secondary-domain associated with an identifying top-level domain. As a result, the government could argue that pornographic websites scattered throughout the Internet with top-level domains of “.com”, “.net”, and “.biz” may have negative secondary effects that impact the welfare and quality of others in the virtual Internet community, specifically other organizations or users of the same top-level domain.

A major problem with applying the secondary-effects doctrine to websites is that the adverse secondary effects typically associated with traditional adult-entertainment establishments are not readily

133. Id. at 46–47.
134. See Fortner, supra note 51 (stating that the Internet’s members include “universities, other research institutions, government facilities, and many corporations [as well as] numerous different kinds of computers”).
135. Id.
apparent with pornographic websites. Therefore, traditional secondary effects such as decreased property value and increased crime and prostitution that result from an adult-entertainment establishment may not justify website regulation. While many studies concede that repeated exposure to pornography increases sex crimes and leads people to aggression, misogyny, pedophilia, chauvinism, sexual problems, marital dissatisfaction, infidelity, divorce, promiscuity, and addiction, the Court does not consider such effects as secondary. Rather, such effects are primary, indicating people’s reaction to the content of the speech. In other words, a listener’s reaction to certain speech is a direct impact rather than a side effect and would not be the type of secondary effect discussed in Renton.

138. See generally id. (noting that zoning codes “cannot be applied to a location that does not, itself, offer adult entertainment to the public”).
However, some secondary effects may be constitutionally viable. Consider the following possible secondary effects: (1) pornography diminishes the value of other secondary-domains located on the same top-level domain; or (2) pornographic websites increase crime by promoting computer "viruses", or computer programs that automatically download onto an unsuspecting user's computer without consent to harm the computer. The first possibility of decreased value of other websites may be too unquantifiable to be a persuasive secondary effect because lost revenues are difficult to measure. However, with recent advancements in technology, the second possibility is a viable justification.

Internet fraud and other computer crimes have kept pace with the Internet's growth. In 2004, the Internet Crime Complaint Center, formerly known as the Internet Fraud Complaint Center, received 207,449 complaints, increasing the 124,509 complaints logged in 2003 by two-thirds. Of the 2004 totals, nearly half were committed over the Internet or similar online services. While a majority of fraud cases occurred via electronic mail (E-mail) contact, nearly twenty-four percent of the 2004 reported cases occurred via contact with a web page. For example, scammers have employed methods like "page-jacking," where Internet users are diverted to an illegitimate Web site and tricked to believe they reached their intended website. Another method is known as "mouse-trapping,"

143. Id.
145. NAT'L WHITE COLLAR CRIME CTR. & FED. BUREAU OF INVESTIGATION, IC3 2004 INTERNET FRAUD—CRIME REPORT 3 (2005), available at http://www nw3c.org/ (follow "Research: Papers, Publications, Reports" hyperlink; then follow "Reports" hyperlink; then follow "IC3 2004 Internet Fraud Report" hyperlink; then fill out registration information; then click the "Continue" button).
146. Id.
147. Id.
148. THE PRESIDENT'S WORKING GROUP ON UNLAWFUL CONDUCT ON THE INTERNET, THE ELECTRONIC FRONTIER: THE CHALLENGE OF UNLAWFUL
where Internet users are unable to leave a website.149

"Cybersquatting," or the act of obtaining domain names and then selling them to the rightful trademark owner at an extremely high price, has also been deemed a type of online extortion.150 At the end of 1999, Jupiter Communications estimated ninety-eight percent of the words in the English language were registered as domain names.151 About 1 million domains are up for renewal each month, and the improper commercial exchange of domains is quite lucrative.152 For owners of domain names that are not trademarked, these owners quickly lose their websites when such sites are untimely renewed, and they unfortunately discover their websites converted into pornographic websites.153

Most frequently, owners of pornographic websites employ a deceptive technique called "typo-squatting." Under this method, the pornographic website owners register domain names that are very similar to other companies and entities but for a slight variation in

---

spelling. These “typo” domain names are registered with “deliberate missing-dot typos, character omission typos, character permutation typos, character replacement typos, and character insertion typos.” Thus, by mistyping a website’s secondary-domain name or top-level domain name, Internet users may find themselves visiting a pornographic site.

An infamous pornographic website—now sanitized and under new ownership—was “whitehouse.com”. This site boasted 85 million visitors from 1997 to 2004 and likely surprised many Internet users who were searching for the U.S. President’s website, “whitehouse.gov”. With a few incorrect keystrokes, Internet users may find themselves not on “Google.com,” but on “Booble.com,” a powerful search engine dedicated to pornographic websites.

Children are at least as susceptible to these scams as adults. In searching for the popular teen magazine “Seventeen,” teenagers may innocently mistype the correct web name “Seventeen.com” by adding an additional letter like “s” or “n” to the secondary-domain name and stumble onto a pornographic website. Another example is “www.cheerleading.com”, which legitimately sells cheerleading apparel for girls. However, by typing in “cheerleaders” or mistyping and switching the “a” and “e”, children will find themselves on a pornography site.

With these “typo” domain names, “typo-squatters” generate revenue by monitoring the number of clicks in their false website and

157. Id.; Whitehouse.com For Sale, supra note 152.
serving advertisements for high-traffic websites.\textsuperscript{160} Advertising dollars may derive from competitors and from advertising related products or services of the mimicked website.\textsuperscript{161} Despite the financial gains achieved by these methods, the U.S. government has since determined that "typo-squatting" is illegal. In 2000, John Zuccarini, who possessed more than 5,500 "typo" domains, became the first person charged, fined, and later imprisoned for directing children to pornography with his "typo-squatting."\textsuperscript{162}

Another method used to increase traffic to pornographic websites involves the "Trojan horse," or computer programs that seem benign but can actually cause serious damage to computers, and "viruses," or programs that replicate themselves and harm computers.\textsuperscript{163} These digital infections can contaminate computers simply by users stumbling on a compromised website.\textsuperscript{164}

While information is not available about whether such viruses stemmed from pornographic websites, certain Trojan horse programs

\begin{flushleft}
\textsuperscript{161} Naraine, \textit{supra} note 155.
\end{flushleft}
and viruses have been found to directly benefit pornographic sites. For example, the “Troj/Delf-IT” program remains inactive on an Internet user’s computer until it encounters certain words from a website’s title, such as “beauty,” “outdoor,” “domination,” and “spanked.” Over fifty phrases and words trigger the program, and many of the words seem to be specially triggered if the Internet user was already visiting a pornographic site. Once the Trojan horse is triggered, it then downloads code and redirects the Internet user’s browser to other pornographic sites.

Other Trojan horses similarly force Internet users onto pornographic websites. The program “Trojan.Exlife” steals the user name and E-mail address of unsuspecting users and registers them to a pornographic website. Similarly, “Trojan.Gurepirls” steals E-mail addresses and registers the stolen addresses on a pornographic site and then requests users to pay for access to the site. Lastly, “Troj/TCXMedi-C” alters computers so that the computer will run a Trojan horse program at start-up and secretly download pornographic images from a website onto users’ computers.

Viruses also replicate themselves and may wreak havoc on an Internet user’s computer. For example, the “VBS/Conf-A” virus repeatedly loads an Internet user’s browser onto a pornographic website. While no direct evidence links viruses and Trojan horse programs to pornographic websites, strong circumstantial evidence indicates that owners of pornographic websites may have had a hand

166. Id.
167. Id.
171. Brain, supra note 163.
in these devices. Sophos, a UK-based global computer security company, reports such programs are deliberately designed to increase traffic and revenue to pornographic sites with results that can only benefit pornographic website owners.

Even if the evidence against owners of pornographic websites remains circumstantial, the U.S. government may not necessarily require direct evidence in supporting their secondary-effects argument as shown in Renton. After all, the Renton court did not demand the government prove its secondary-effects argument; the Renton analysis would only require that the evidence regarding pornographic websites and the problems they cause be reasonably related. However, by strengthening the connection between criminal activity and pornographic websites, the government will be better able to advance its argument that secondary effects from online pornography are similar to, or even the same as, the ones that the Court permitted under the Renton ordinance.

2. Substantial interest

After establishing that secondary effects exist, the government can claim that it has a sufficiently substantial interest in regulating the negative effects of pornography on the Internet. The Renton court recognized the government’s interest in preventing crime. Just as the city of Renton had an interest in protecting the quality of life in its communities, the U.S. government could similarly argue that it has an interest in protecting the virtual communities on the Internet from the secondary effects of pornographic websites.

173. See Porno Trojan Horse, supra note 165.
174. SOPHOS, COMPANY PROFILE (2006), http://www.sophos.com/sophos/docs/eng/marketing_material/sophos_company-profile_cpus.pdf (indicating “20 years’ experience and consolidated anti-virus, anti-spyware and anti-spam expertise” and “products protect[ing] over 35 million users in more than 150 countries from viruses, spyware, Trojans, phishing, spam, and email policy abuse”).
175. See Porno Trojan Horse, supra note 165.
177. Id.
178. See id. at 49–50.
179. See id. at 50.
Computer related crimes result in significant costs.\(^{180}\) In 2004, computer crimes cost businesses an estimated $17 billion.\(^{181}\) Costs stemming from computer viruses alone estimated to $55 million in damages.\(^{182}\) Identified as one of the fastest-growing criminal activities in the world, computer crimes include fraud, extortion, and virus attacks.\(^{183}\) In 2004, the Internet Crime Complaint Center received 103,959 complaints of fraud that totaled $68.14 million, with an average of $219.56 per complaint.\(^{184}\) In December 2005, an antivirus software company estimated the existence of over 114,000 different kinds of computer viruses, Trojan horses, and other computer threats.\(^{185}\) Another antivirus software company recorded 10,248,989 infections worldwide in the second quarter of 2005, a 22% increase from the first quarter.\(^{186}\) Infections can cause thousands of dollars in lost data and loss of confidential information as well as lost productivity.

Of the 300 organizations surveyed, thirty-six percent responded that their computers were down for one hour or less after a virus attack, while the median downtime was 21 hours.\(^{187}\) The average recovery time was about 20 days, with average costs estimated at a


tember 2004 issue of MONEY magazine) (last visited Apr. 4, 2006).

\(^{182}\) Id.

\(^{183}\) BBC News, supra note 180.

\(^{184}\) NAT'L WHITE COLLAR CRIME CTR. & FED. BUREAU OF INVESTIGATION, supra note 145, at 3.


median of $10,000 and an average of $120,000 in direct costs.\textsuperscript{188}

Given the financial and social costs imposed on individuals and businesses, the government will be able to demonstrate its substantial interest in regulating computer crimes. Moreover, according to the \textit{Renton} court’s assertion, the government need not conduct an independent study.\textsuperscript{189} The government has an interest sufficient enough to satisfy this prong of the content-neutral test, whether it relies on crime prevention or productivity loss.

3. Reasonable alternatives

Lastly, even if the regulation promotes a substantial government interest, it must also provide reasonable alternative channels of communication for the dissemination of the speech.\textsuperscript{190} Requiring that pornography be located on a dedicated top-level domain like “.xxx” would likely meet this standard.

Just as the Renton ordinance affected only those theaters producing the unwanted secondary effects,\textsuperscript{191} legislation that requires pornographic websites be located at a “.xxx” top-level domain should also be found reasonable. Such legislation is narrowly tailored to affect only pornographic websites that cause unwanted secondary effects.

Moreover, the government may impose restrictions so long as the public is able to retain reasonable access to the expression.\textsuperscript{192} Moving the pornographic websites onto a “.xxx” top-level domain ensures that the public will retain access to such sites. Typing in “.xxx” is no more cumbersome than typing in “.com.” Although it would also cost $60 to register each domain name on “.xxx”\textsuperscript{193} and such a move may produce lower profits than on another top-level domain like “.com,” the U.S. Supreme Court has indicated that the First Amendment is not interested about the commercial viability of

\begin{footnotes}
\item[188] See id.
\item[190] See id. at 50.
\item[191] Id. at 52 (holding that the Renton ordinance was “narrowly tailored” and affected only those theaters that produced the unwanted secondary effects).
\item[192] Id. at 53.
\end{footnotes}
such a move or about getting a bargain price for such sites.  

IV. POLICY CONCERNS ABOUT REGULATING INTERNET PORNOGRAPHY

With the profitability of online pornography and the growing number of pornographic websites, the pornography industry's self-regulation has resulted in inconsistent outcomes. Further, it has prompted some Internet users to call for government intervention, spurred mostly by a desire to protect children from online pornography. However, there are many reasons to keep the Internet free from government regulation, reasons that even outweigh the risks of exposing children to online pornography.

The primary argument against zoning the Internet is that zoning discourages free speech. Therefore, Internet zoning could cause the direct and indirect censorship of information on the Internet.

Zoning entails some agency, usually a governmental body, asserting control over the discourse when making a determination about the speech. That sort of system is ripe for abuse. For example, governments could attempt to control or eliminate information on the Internet. Around the world, governments have attempted to ban what they deem to be disruptive messages on the Internet.

194. See City of Renton, 475 U.S. at 53–54.
199. Id. at 198 (stating that “once political paternalism in one area becomes the new model of speech regulation, it will be difficult to stop that model from expanding into every other area of First Amendment jurisprudence”); Timofeeva, supra note 197, at 220.
In addition to the direct censorship of information that governments deem to be a threat, such government regulation would indirectly censor the Internet by making information inaccessible and increasing the overall cost of Internet activities.\footnote{201} When Internet developers comply with such regulations, costs for Internet development will likely increase.\footnote{202} With rising costs, smaller Internet developers may not be able to afford to broadcast their message.\footnote{203} Furthermore, development costs will likely be passed to Internet users, inhibiting access to the Internet.\footnote{204}

Legislation proposed in 2004 in Australia provides an estimate of costs associated with zoning the Internet.\footnote{205} That legislation required ISPs to impose mandatory filtering in order to protect children from Internet pornography.\footnote{206} The initiative was estimated to cost AU$45 million (approximately US$33.7 million)\footnote{207} per year to implement and AU$33 million (approximately US$24.7 million)\footnote{208} per year to maintain.\footnote{209} Not only would such an initiative drive smaller ISPs out of business, but Internet users were expected to pay an additional AU$7 to AU$10 (approximately US$5 to US$7)\footnote{210} per year to cover the proposal.\footnote{211} The Australian government rejected the proposal a few months later.\footnote{212}

Australia's mandatory filtering proposal also revealed other
issues that could arise were the U.S. government to zone the Internet; for example, the ineffectiveness of government regulation as a solution. Due to the multi-national nature of the Internet, different countries will likely disagree about decency and morality and about what sort of content should be regulated. Without agreement between different nations, Internet users would be able circumvent Internet restrictions simply by searching on overseas sites with less or no Internet regulations.

Even if all pornographic websites were confined to a "xxx" top-level domain, the government would struggle with the technology to prevent owners of pornographic websites from creating links or "com" domain names that immediately redirected Internet users to a corresponding "xxx" website. For example, the "Guba.com" website offers free adult video downloads in addition to its ordinary selection of videos. By typing in the Uniform Resource Locator "www.guba.net," Internet users are immediately transported to the corresponding "www.guba.com" website.

Moreover, ICANN currently does not have the administrative processes or procedures to enforce the Internet in such a capacity. First, ICANN relies on private parties to bring violations to its attention. For example, ICANN provides an arbitration process to handle trademark disputes between parties over domain names, but the trademark owner must invoke the policy by filing a complaint to an appropriate court or to an approved dispute resolution service.

215. Heitman, *supra* note 205. ICANN sets the terms and conditions under which generic top-level domains must abide. See Wikipedia, *supra* note 57 (providing a list of generic top-level domains). However, foreign governments can impose their own rules to their own country's top-level domain (also known as the country code top-level domain). See id. (providing a list of country code top-level domains).
218. *Id.*
provider. Parties must also submit a request to ICANN to delegate and to change (i.e., "redelegate") a top-level domain. Second, although it accepts registrar complaints, ICANN does not resolve any issues between the individual domain name owners and the registrars with whom they registered their domain name.

If the U.S. government unilaterally attempted to shut down or seize the corresponding "com" website, such actions would likely constitute a government taking and trigger a host of other legal ramifications well beyond the scope of this paper.

Moreover, the threat of the U.S. government imposing unilateral restrictions would have international repercussions. As the 2005 UN WSIS Conference demonstrated, other countries are already wary about the way in which ICANN has secured the U.S.'s control of the Internet. Any action that the U.S. takes regarding the Internet will be greatly scrutinized and used to reignite arguments for Internet control to be transferred to a multinational agency.

As a result, even though the U.S. government action may pass constitutional muster to zone the Internet under the secondary-effects doctrine, the socio-political and technical issues associated with taking such action make implementation unlikely anytime soon.

V. CONCLUDING REMARKS

On May 10, 2006, ICANN's board of directors reversed its prior decision to establish an "xxx" top-level domain, ending ICM Registry's six-year attempt with a 9-5 vote. This decision comes at a time when an impending labor crisis is demanding that children explore computers, including the Internet.

220. Id.
221. ICANN operates the Internet Assigned Numbers Authority, which receives, investigates, and reports all requests for delegation and redelegation of top-level domains. See, e.g., INTERNET ASSIGNED NOS. AUTH., ICANN, IANA REPORT ON THE REDELEGATION OF THE .CX TOP-LEVEL DOMAIN (2006), http://www.iana.org/reports/cx-report-07mar06.pdf.
222. See InterNIC, InterNIC Registrar Problem Reports, http://reports.internic.net/cgi/registrars/problem-report.cgi (last visited Mar. 21, 2006).
225. Poulsen, Control of Net, supra note 7.
An ominous 2005 report indicates over 50 percent of workers with science, technology, engineering and math degrees are currently older than 40 years of age and therefore nearing retirement from the workforce. In order for the U.S. to stay globally competitive, an information technology trade organization is advocating that the U.S. government increase the number of professionals in these fields, from approximately 430,000 to 860,000 within the next 10 years. As a result, the U.S. government has to find ways to encourage children to understand and explore computers, which includes the Internet.

It is no wonder that schools are expending more dollars per student on technology under programs like the federal “No Child Left Behind Act.” However, along with the increasing importance the Internet plays in people’s lives is the growing concern about online pornography, which represents the medium’s seedier side. Just as dangers exist in the real world, the virtual world is home to similar threats. As this article suggests, the government may be able to zone the Internet without violating the First Amendment with the secondary-effects doctrine reinforced in Renton. The government currently has a compelling argument that pornographic sites increase the likelihood of such secondary effects as crime and computer viruses that threaten virtual communities. Thus, even if ICANN is deemed a state actor, ICANN would be able to force all pornographic material onto a specific top-level domain under the secondary-effects doctrine.

However, even though the government may be able to zone the Internet without violating the First Amendment, the socio-political and technical realities may prove that the Internet is immune to any government regulation, including First Amendment zoning. As

228. Id. at 1.
230. See Wagner, supra note 195.
forecasted by Tim Berners-Lee who is the inventor of the World Wide Web, a more apt analogy for the Internet of the future may be the human mind where the only boundaries are that of the mind’s imagination.

Patty Chan*

231. The World Wide Web “is often mistakenly used as a synonym for the Internet itself, but the Web is actually something that is available over the Internet, just like e-mail and many other Internet services.” See Wikipedia, World Wide Web, http://en.wikipedia.org/wiki/World_Wide_Web (last visited July 30, 2006).


* Juris Doctor Candidate, May 2007, Loyola Law School; B.A., English and East Asian Studies, University of California, Santa Barbara. I am eternally grateful to Professor Karl Manheim for inspiring and supervising the development of this Note. Special thanks to my editor Shauna Curphey for keeping me on track and to all the staff and editors of the Loyola of Los Angeles Law Review for their hard work. Many thanks to my mentors Harvey and Hope Schechter, who suggested I look into Loyola Law School. I would also like to thank my family, especially my parents Jimmy and Pi-Leng Chan, for their love and support. Most of all, I thank my loving husband, James Pao, Jr., whose unwavering support and patience made all of this possible.