

**SAFER (CYBER)SEX WITH .XXX:
THE CASE FOR FIRST AMENDMENT
ZONING OF THE INTERNET**

I.	INTRODUCTION.....	1299
II.	THE DOMAIN NAME SYSTEM AS A ZONABLE SPACE	1303
	A. <i>The Internet and the Rise of ICANN</i>	1303
	B. <i>Juxtaposing Physical and Virtual Worlds</i>	1306
III.	THE CONSTITUTIONALITY OF FIRST AMENDMENT	
	ZONING OF INTERNET PORNOGRAPHY	1310
	A. <i>ICANN as a State Actor</i>	1312
	1. The Symbiotic Relationship Test.....	1313
	2. The Nexus Test	1317
	B. <i>Traditional Land-Zoning Laws</i>	1319
	C. <i>Applying Physical Zoning Laws to the Virtual</i>	
	<i>World</i>	1321
	1. Secondary Effects.....	1322
	2. Substantial Interest	1329
	3. Reasonable Alternatives.....	1331
IV.	POLICY CONCERNS ABOUT REGULATING INTERNET	
	PORNOGRAPHY.....	1332
V.	CONCLUDING REMARKS.....	1335

I. INTRODUCTION

In *City of Renton v. Playtime Theatres, Inc.*,¹ 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.² 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.³ This ensuing judicially created secondary-effects doctrine has led to the concept of “First Amendment

1. 475 U.S. 41 (1986).

2. *Id.* at 54.

3. *Id.* at 47–48.

Zoning.”⁴ 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.⁵ Thus far, the Supreme Court has declared unconstitutional every attempt by Congress to regulate Internet pornography.⁶

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.⁷ The UN’s decision is

4. See, e.g., Philip J. Prygoski, *Content Neutrality and Levels of Scrutiny in First Amendment Zoning Cases*, 25 WHITTIER L. REV. 79, 80 (2003) (referring to zoning cases that involve ordinances targeting adult theaters and bookstores as “content-neutral” regulation).

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 book store, 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/pornplag.html> (last visited Apr. 4, 2006).

6. See, e.g., Elizabeth E. Blakey, *Selected U.S. Internet Law Summaries: Legislative Attempts to Regulate Online Pornography*, INTERNET BUS. L. SERVICES, http://www.uslaw.ibls.com/uslaw/docs_right.asp?langid=0&sec=DOC&doc=06FA8DCD-10EB-484D-BF14-761993EEC417 (last visited Feb. 14, 2006) (stating that legislative attempts to regulate online pornography have been generally held unconstitutional under the First Amendment).

7. Kevin Poulsen, *U.S. Maintains Control of Net*, WIRED NEWS, Nov. 17, 2005, http://www.wired.com/news/politics/0,1283,69592,00.html?tw=wn_top

significant because whoever controls the Domain Name System possesses considerable influence over the Internet.⁸ 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”.⁹

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.¹⁰ For example, a few months before the UN conference, ICANN approved an “.xxx” top-level domain that was purportedly designed for adult websites.¹¹ 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*].

8. ICANN Watch, ICANN for Beginners, <http://www.icannwatch.org/icann4beginners.shtml> (last visited Apr. 9, 2006).

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.¹²

However, pornographic websites have continued to grow even without the proposed “.xxx” domain. In 2005, the U.S. pornography industry grossed \$12 billion.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.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.¹⁵ The study revealed that more than half of children between the ages of nine and nineteen have encountered pornography online.¹⁶ Close to forty percent of these children encountered online pornography while doing something else or searching for other material.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

12. *Approval of ‘.xxx’ Domain Delayed a Month*, MSNBC.COM, Aug. 17, 2005, <http://www.msnbc.msn.com/id/8973683>; Declan McCullagh, *Bush Administration Objects to .xxx Domains*, CNET NEWS.COM, Aug. 15, 2005, http://news.com.com/2100-1028_3-5833764.html.

13. Jerry Ropelato, *Internet Pornography Statistics*, TOPTENREVIEWS, 2005, <http://internet-filter-review.toptenreviews.com/internet-pornography-statistics.html>.

14. *Id.*

15. SONIA LIVINGSTONE & MAGDALENA BOBER, UK CHILDREN GO ONLINE: SURVEYING THE EXPERIENCES OF YOUNG PEOPLE AND THEIR PARENTS (2004), available at <http://www.lse.ac.uk/collections/children-go-online/UKCGOsurveyreport.pdf>.

16. *Id.* at 2.

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.¹⁸ One of these early networks was the first in the world to implement a “packet switching” communication system,¹⁹ whereby information is broken into small packets and routed across the Internet through a series of switches called routers.²⁰ With such a system, Internet users could link with multiple machines, share the link, and parse information for independent and separate routing.²¹ 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.²²

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).

19. Wikipedia, ARPANET, <http://en.wikipedia.org/wiki/ARPANET> (last visited Feb. 14, 2006); *see also* *Reno v. ACLU*, 521 U.S. 844, 850 (1997).

20. Wikipedia, Packet Switching, http://en.wikipedia.org/wiki/Packet_switching (last visited Feb. 14, 2006); *see* Wikipedia, Routing, <http://en.wikipedia.org/wiki/Routing> (last visited Feb. 14, 2006).

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

22. *See* Howard Gilbert, *Introduction to TCP/IP*, PC LUBE & TUNE, Feb. 2, 1996, <http://pclt.cis.yale.edu/pclt/COMM/TCPIP.HTM>.

TCP/IP assigns a unique number or “IP address” to every computer connected to the Internet around the world.²³ IP addresses eventually evolved into the Domain Name System, where difficult-to-remember numeric IP addresses were associated with recognizable alphabetic names.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”.²⁵ In this example, the domain name is “icann.org”, the top-level domain is “.org”, and the secondary-level domain is “icann”.²⁶

As the Internet grew, the Department of Commerce eventually assumed responsibility over registering domain names.²⁷ In 1998, after the U.S. government decided that Internet governance should be consistent across state and international borders,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.²⁹ After some

23. *Island Online, Inc.*, 119 F. Supp. 2d at 292.

24. ICANN, ICANN Information, <http://www.icann.org/general/> (last visited Feb. 14, 2006).

25. *Id.*

26. *See Island Online, Inc.*, 119 F. Supp. 2d at 292.

27. *See id.* at 293. Initially, Jon Postel managed the IP addresses in a project funded by the Department of Defense. U.S. GEN. ACCOUNTING OFFICE, OFFICE OF THE GEN. COUNSEL, DEPARTMENT OF COMMERCE: RELATIONSHIP WITH THE INTERNET CORPORATION FOR ASSIGNED NAMES AND NUMBERS 35 (2000), available at <http://www.gao.gov/new.items/og00033r.pdf>. This project later became known as the Internet Assigned Numbers Authority. *See Island Online, Inc.*, 119 F. Supp. 2d at 292. However, with the expansion of the Internet, a distributed Domain Name System replaced Postel’s centrally managed list. *See* TRACY LAQUEY, A BEGINNER’S GUIDE TO GLOBAL NETWORKING (2d ed. 1994), available at <http://archives.obs-us.com/obs/english/books/editinc/> (follow “Chapter 2: Internet Concepts” hyperlink; then click the Arrow button) (discussing the Domain Name System); *Island Online, Inc.*, 119 F. Supp. 2d at 292.

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).

29. Management of Internet Names and Addresses, 63 Fed. Reg. 31,741, 31,749–50 (June 10, 1998), available at http://www.ntia.doc.gov/ntiahome/domainname/6_5_98dns.htm.

negotiations, the Department of Commerce selected ICANN to assume management of the Internet.³⁰

ICANN's responsibilities include managing the Internet space allocation, protocol identifier assignment, the Domain Name System, and other technical coordination functions.³¹ Although ICANN president Paul Twomey asserts that ICANN does not "control" the Internet,³² ICANN makes significant regulatory decisions about the Internet, especially in regards to the Domain Name System.³³ 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."³⁴ 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.³⁵

This global Internet community consists of national governments, international treaty organizations, private businesses and organizations, and skilled individuals.³⁶ In fact, the ICANN Board includes internationally diverse directors who establish and develop Internet policy.³⁷ Moreover, the president of ICANN directs an international staff spread over three continents.³⁸

By recognizing all members of the global community as

30. See U.S. GEN. ACCOUNTING OFFICE, OFFICE OF THE GEN. COUNSEL, *supra* note 27, at 8.

31. ICANN, Welcome to ICANN!, <http://www.icann.org/new.html> (last visited Apr. 9, 2006).

32. See *The Net and Politicians Don't Mix*, BBC NEWS, Nov. 16, 2005, <http://news.bbc.co.uk/2/hi/technology/4438664.stm> [hereinafter *Net and Politicians*].

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 31.

37. *Id.*

38. *Id.*

interested parties,³⁹ 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.⁴⁰ 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.⁴¹ 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,⁴² universities, and government agencies.⁴³ In fact, in 1993, about 40,000 networks and 20 million users comprised the Internet.⁴⁴ 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.⁴⁵ 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.⁴⁶ Moreover, similar to

39. *Net and Politicians*, *supra* note 32.

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.*

44. David Crocker, *Making Standards the IETF Way*, 1 STANDARDVIEW 48, 48 (1993), available at <http://www.isoc.org/internet/standards/papers/crocker-on-standards.shtml>.

45. *See* Internet World Stats, Internet Usage Statistics—The Big Picture, <http://www.internetworldstats.com/stats.htm> (updating statistics as of December 31, 2005).

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.⁴⁷

A central component of the Internet is the Domain Name System. This system is essential to complete actions such as displaying Web pages.⁴⁸ 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.⁴⁹ As noted by Justice Sandra Day O’Connor, “Cyberspace undeniably reflects some form of geography; . . . Web sites . . . exist at fixed ‘locations’ on the Internet.”⁵⁰

Every computer that accesses the Internet must possess a unique IP number.⁵¹ Generally, to access the Internet, an ordinary person contracts with an Internet Service Provider (“ISP”).⁵² ISPs are businesses or organizations that offer access to the Internet.⁵³ ISPs are similar to landlords because they rent out a connection or an IP address to individual people.⁵⁴

Similarities between the physical and virtual worlds can also be

BEGINNER’S GUIDE TO THE INTERNET (1st ed. 1992), *available at* http://www.cs.indiana.edu/docproject/zen/zen-1.0_toc.html.

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).

48. Marshall Brain, *How Domain Name Servers Work*, HOWSTUFFWORKS, <http://computer.howstuffworks.com/dns.htm/printable> (last visited Feb. 14, 2006).

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

50. *Reno v. ACLU*, 521 U.S. 844, 890 (1997) (O’Connor, J., concurring in the judgment in part and dissenting in part).

51. Brad Fortner, “Hands On” Internet Course Notes, Section A—Internet Basics, <http://www.rcc.ryerson.ca/profdev/handson/internet/basics.htm> (last visited on Feb. 17, 2006).

52. *Id.*

53. Wikipedia, Internet Service Provider, http://en.wikipedia.org/wiki/Internet_Service_Provider (last visited Feb. 14, 2006).

54. Internet.com Webopedia, ISP, <http://www.webopedia.com/TERM/I/ISP.html> (last visited Feb. 17, 2006).

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".⁵⁵ 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.⁵⁶

Similar to hierarchical protocols for identifying real property, e.g., street, city, state, and country, domain names operate on a similar hierarchy.⁵⁷ The Domain Name System hierarchy begins with the root-level domain, followed by the top-level domain, secondary-level domain, and sub-domains.⁵⁸ For example, reading from right to left, "www.wikipedia.org." has the root-level domain of ".";⁵⁹ top-level domain of ".org"; secondary-level domain of "wikipedia", and the subdomain of "www".⁶⁰

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

55. Brain, *supra* note 48.

56. See Marshall Brain, *How Web Servers Work*, HOWSTUFFWORKS, <http://computer.howstuffworks.com/web-server.htm/printable> (last visited Feb. 17, 2006).

57. See Wikipedia, Domain Name System, http://en.wikipedia.org/wiki/Domain_Name_System (last visited Mar. 26, 2006) (describing the parts of a domain name and how the Domain Name System works).

58. Wikipedia, Subdomain, <http://en.wikipedia.org/wiki/Subdomain> (last visited Mar. 26, 2006).

59. Wikipedia, Root Nameserver, http://en.wikipedia.org/wiki/Root_nameserver (stating that the root domain is "generally implied rather than explicit").

60. *Id.*

the U.S.⁶¹

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.”⁶² 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.⁶³ Verisign, Inc. is the only registry for “.com” and “.net” domains and maintains the domain names under those top-level domains.⁶⁴ Likewise, ICM Registry, Inc. would be the future registry for the highly contested “.xxx” domain.⁶⁵ Registries generally do not work with individual users, instead providing direct services only to registrars.⁶⁶ 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.⁶⁷

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.⁶⁸ 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.

63. *Dotster, Inc. v. Internet Corp. for Assigned Names and Nos.*, 296 F.Supp.2d 1159, 1160 (C.D. Cal. 2003).

64. ICANN, ICANN-Accredited Registrars, <http://www.icann.org/registrars/accredited-list.html> (last visited Mar. 26, 2006).

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

66. *See* Verisign, Naming Services FAQs, http://www.verisign.com/information-services/naming-services/page_001083.html#01000003.

67. *Dotster, Inc.*, 296 F.Supp.2d at 1160.

68. *See* Daniel Benoliel, *Law, Geography and Cyberspace: The Case of*

that First Amendment protections apply on the Internet.⁶⁹ 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.”⁷⁰ The Supreme Court has held such freedoms include pornography, with the exceptions of obscenity and pornography involving children in actual production.⁷¹ Beyond these categories, local governments have succeeded at regulating adult-entertainment establishments with land-zoning ordinances.⁷² While such restrictions appear to regulate speech based on its content, the Court upheld such land-zoning restrictions

On-line Territorial Privacy, 23 CARDOZO ARTS & ENT. L.J. 125, 147 (2005).

69. *Reno v. ACLU*, 521 U.S. 844, 870 (1977).

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.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.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.⁷⁵

Unlike the traditional content-neutral analysis, the secondary-effects doctrine allows governments to employ land-zoning ordinances that specifically target adult-entertainment establishments.⁷⁶ Even Justice Rehnquist noted that such land-zoning ordinances regulate "theaters that specialize in adult films differently from other kinds of theaters."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.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").

74. David L. Hudson, Jr., *First Amendment Ctr., Secondary-Effects Doctrine*, http://www.firstamendmentcenter.org/Speech/adultent/topic.aspx?topic=secondary_effects_topic (last visited Feb. 17, 2006). *See, e.g., City of Renton*, 475 U.S. at 51 (indicating experts testified that adult theaters adversely impacted neighborhood children and community improvement efforts, contributing to neighborhood blight).

75. Prygoski, *supra* note 4, at 83.

76. Hudson Jr., *supra* note 74.

77. *City of Renton*, 475 U.S. at 47.

78. Clay Calvert & Robert D. Richards, *Stripping Away First Amendment Rights: The Legislative Assault on Sexually Oriented Businesses*, 7 N.Y.U. J. LEGIS. & PUB. POL'Y 287, 295–96 (2004) (stating that the doctrine allows the government in effect to sanitize a facially content-based action and subject it to a lower standard of review).

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

79. The U.S. Constitution does not generally restrict the action of private actors, including the activities of private corporations like ICANN. See Paul Schiff Berman, *Cyberspace and the State Action Debate: The Cultural Value of Applying Constitutional Norms to "Private" Regulation*, 71 U. COLO. L. REV. 1263, 1266 (2000) ("Having its genesis in an 1883 Supreme Court decision overturning Reconstruction-era civil rights legislation, the state action doctrine . . . rests on the observation that most constitutional commandments proscribe only the conduct of governmental actors."). For the purposes of this article, the term "state action" encompasses all levels of the government: national, state, and local. *Alliance for Cmty. Media v. F.C.C.*, 10 F.3d 812, 818 n.4 (D.C. Cir. 1993) *rev'd on other grounds sub nom.* *Denver Area Educ. Telecomm. Consortium v. F.C.C.*, 518 U.S. 727 (1996).

80. *Brentwood Acad. v. Tenn. Secondary Sch. Athletic Ass'n*, 531 U.S. 288, 296 (2001) (stating that courts apply the state action doctrine to determine if private actors are in fact acting as state actors regardless of their official legal characterization).

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 CHERMERINSKY 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 inconsisten[cies] . . . reflect[] 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.⁸² 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.⁸³ ICANN needs to meet only one of these tests to be deemed a state actor.⁸⁴ 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.⁸⁵ 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.⁸⁶

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).

86. U.S. GEN. ACCOUNTING OFFICE, OFFICE OF THE GEN. COUNSEL, *supra* note 27, at 4, 15; see also Center for Democracy and Technology, A Primer on ICANN, <http://does-not-exist.net/icann-primer/ICANNprimer.htm> (last visited Feb. 17, 2006) (indicating that under the MOU, ICANN assumed operational

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”).

87. See *Dobyns v. E-Systems, Inc.*, 667 F.2d 1219, 1226–27 (5th Cir. 1982) (stating that government in setting legal standards evinces state action under the symbiotic relationship test).

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).

90. National Telecommunications and Information Administration, *Domain Names: U.S. Principles on the Internet’s Domain Name and Addressing System*, http://www.ntia.doc.gov/ntiahome/domainname/USDNSprinciples_06302005.htm (last visited July 29, 2006).

government does not completely relinquish control over a project.⁹¹ Here, the U.S. government maintains a financial interest in ICANN because the organization facilitates the growth of technology and increases U.S. productivity.⁹² 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.⁹³ 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.⁹⁴ 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.⁹⁵

91. 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).

92. 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 Comm’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>.

93. 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*].

94. Poulsen, *Control of Net*, *supra* note 7. See also ICANN Watch, *supra* note 8 (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).

95. 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.⁹⁶ The officials convinced the committee chairman to request additional time for governments to consider the “.xxx” top-level domain.⁹⁷ The committee chairman and the Department of Commerce both submitted such a request,⁹⁸ postponing and possibly ending the lengthy and expensive process that would have otherwise ended with the adoption of the “.xxx” domain.⁹⁹

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”.

98. Letter from Michael Gallagher, Assistant Sec’y for Commc’n & Info., Dep’t of Commerce, to Dr. Vinton Cerf, Chairman of the Bd., Internet Corp. for Assigned Names and Nos. (Aug. 15, 2005), *available at* <http://www.icann.org/correspondence/gallagher-to-cerf-15aug05.pdf>.

99. Press Release, Internet Governance Project, Statement Opposing Political Intervention in the Internet’s Core Technical Administrative Functions (Aug. 23, 2005), *available at* <http://dcc.syr.edu/miscarticles/statement-xxx.pdf>; Letter from Stuart Lawley, Chairman of the Bd., ICM Registry, to Paul Twomey, Chief Executive Officer, Internet Corp. for

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.¹⁰⁰ Under this analysis, courts focus on whether the government exercised coercive power over the private party or provided the party express or implied encouragement.¹⁰¹ In the instant matter, ICANN's delay in approving the ".xxx" top-level domain evidences a close nexus between ICANN and the federal government.¹⁰² 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.¹⁰³ 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."¹⁰⁴

The U.S. government's political interests are revealed in its strong response to its political constituents' concerns.¹⁰⁵ 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."¹⁰⁶ These letters were sent by the

Assigned Names and Nos. (Aug. 15, 2005), *available at* <http://www.icann.org/correspondence/lawley-to-twomey-15aug05.pdf>.

100. Jackson v. Metro. Edison Co., 419 U.S. 345, 351 (1974).

101. Blum v. Yaretsky, 457 U.S. 991, 1004 (1982).

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 Petitions¹⁰⁷ and Family Research Council.¹⁰⁸ Both organizations are politically conservative organizations that support the Bush Administration.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.¹¹⁰ In response, Congressional representatives criticized ICANN, demanding approval of the ".xxx" top-level domain.¹¹¹ As a result, five years later, ICANN changed course and approved the ".xxx" top-level domain.¹¹² However, in the summer of 2005, ICANN once again responded to government pressures by delaying "final approvals" of the ".xxx" domain.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

107. See Conservative Petitions, Managed by Response Unlimited, <http://www.responseunlimited.com/datacard.lasso?list=1617> (last visited Apr. 9, 2006); Conservative Petitions, FAQ, <http://www.conservativepetitions.com/petitions.php?action=faq> (last visited Apr. 9, 2006). Conservative Petitions "harnesses Internet technology to help conservative Americans . . . let those in charge know what [they] think. [The site provides] news and information about crucial issues [and] . . . [provides] petitions that voice . . . concerns to the people who need to hear it—all in one convenient location." Conservative Petitions, Welcome Page, <http://www.conservativepetitions.com/petitions.php> (last visited Apr. 9, 2006).

108. See Family Research Council, <http://www.pfaw.org/pfaw/general/default.aspx>. The Family Research Council is a non-profit organization that believes "that God is the author of life, liberty, and the family" and "promotes the Judeo-Christian worldview as the basis for a just, free, and stable society." Family Research Council, About FRC, http://www.frc.org/get.cfm?c=ABOUT_FRC (last visited Apr. 9, 2006).

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.").

110. McCullagh, *supra* note 12.

111. *Id.*

112. Press Release, ICM Registry, *supra* note 11.

113. McCullagh, *supra* note 12.

actively soliciting views and providing opportunity for anyone concerned to present their views.¹¹⁴ 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,¹¹⁵ political climates change and policy issues may be resolved over time.¹¹⁶ 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.¹¹⁷ In *Young v. American Mini Theatres, Inc.*,¹¹⁸ 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.¹¹⁹ The City’s zoning ordinance required adult theaters to be dispersed from residential neighborhoods and other similar adult-business establishments.¹²⁰ 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.

118. 427 U.S. 50 (1976).

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.¹²¹

In another similar zoning case, the Supreme Court in *City of Renton v. Playtime Theatres, Inc.*¹²² evaluated a city ordinance that confined adult-entertainment establishments to certain areas within the city of Renton, Washington.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.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.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.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.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.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.¹²⁹ The Court disregarded the theaters'

121. *Id.* at 71 n.34.

122. 475 U.S. 41 (1986).

123. *Id.* at 45.

124. *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").

125. *Id.* at 48.

126. *Id.* at 50.

127. *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))).

128. *Id.* at 51-52.

129. *Id.* at 53.

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.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.

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 “.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 “.net”, “.biz”, and “.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.¹³¹ Just as the Hustler adult-entertainment establishment has a unique Los Angeles postal address, the HustlerClubs website possesses a unique domain

130. *Id.* at 53–54.

131. See Wikipedia, Hustler, <http://en.wikipedia.org/wiki/Hustler> (last visited July 29, 2006); Wikipedia, Larry Flynt, http://en.wikipedia.org/wiki/Larry_Flynt (last visited July 29, 2006).

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.¹³² 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.¹³³

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.¹³⁴ Just as every computer on the Internet has a unique IP address,¹³⁵ the associated domain name must also be unique with a distinctive secondary-domain associated with an identifying top-level domain.¹³⁶ 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

132. *See City of Renton v. Playtime Theatres, Inc.*, 475 U.S. 41 (1986).

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.*

136. *See* InterNIC, InterNIC FAQs—The Domain Name System: A Non-Technical Explanation—Why Universal Resolvability is Important, <http://www.internic.net/faqs/authoritative-dns.html> (last visited July 29, 2006).

apparent with pornographic websites.¹³⁷ 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.¹³⁸ 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,¹³⁹ the Court does not consider such effects as secondary. Rather, such effects are primary, indicating people's reaction to the content of the speech.¹⁴⁰ 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*.¹⁴¹

137. David L. Hudson, Jr., First Amendment Ctr., What's on the Horizon, http://www.firstamendmentcenter.org/speech/adultent/horizon.aspx?topic=adultent&SearchString=voyeur_dorm (last visited Feb. 14, 2006).

138. See generally *id.* (noting that zoning codes "cannot be applied to a location that does not, itself, offer adult entertainment to the public").

139. See, e.g., *Why the Government Should Care about Pornography: The State Interest in Protecting Children and Families, Hearing Before the Subcomm. on the Constitution, Civil Rights and Property Rights of the S. Comm. on the Judiciary*, 109th Cong. 7, 11 (2005) (statements of Pamela Paul, Author of PORNIFIED: HOW PORNOGRAPHY IS TRANSFORMING OUR LIVES, OUR RELATIONSHIPS AND OUR FAMILIES (2005) and of Jill C. Manning, Sociologist, Brigham Young University); ATTORNEY GEN.'S COMM'N ON PORNOGRAPHY, *supra* note 5; Victor B. Cline, *Pornography's Effects on Adults and Children*, MORALITY IN MEDIA, <http://www.obscuritycrimes.org/clineart.cfm> (last visited Apr. 9, 2006); Ryan Singel, *Internet Porn: Worse than Crack?*, WIRED NEWS, Nov. 19, 2004, <http://www.wired.com/news/technology/0,1282,65772,00.html> (last visited Apr. 9, 2006); Studies on the Effect of Pornography, <http://www.netspeed.com.au/ttguy/refs2.htm> (last visited Apr. 9, 2006). But cf. Milton Diamond & Ayako Uchiyama, *Pornography, Rape, and Sex Crimes in Japan*, 22 INT'L J.L. & PSYCHIATRY 1 (1999) (arguing that an increase in the availability of pornography in Japan, the United States, and other nations actually *decreased* the number of sexual crimes); Daniel Linz, Neil M. Malamuth & Katherine Beckett, *Civil Liberties and Research on the Effects of Pornography*, in PSYCHOLOGY AND SOCIAL POLICY 149 (Peter Suedfeld & Philip E. Tetlock eds., 1992) (concluding that insufficient data exists to justify a legal policy position to control or censor pornography).

140. *Reno v. ACLU*, 521 U.S. 844, 868 (1997).

141. *Boos v. Barry*, 485 U.S. 312, 321 (1988).

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.¹⁴² 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.¹⁴³ However, with recent advancements in technology,¹⁴⁴ 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.¹⁴⁵ Of the 2004 totals, nearly half were committed over the Internet or similar online services.¹⁴⁶ 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.¹⁴⁷ 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.¹⁴⁸ Another method is known as “mouse-trapping,”

142. Christopher T. Furlow, *Erogenous Zoning on the Cyber-Frontier*, 5 VA. J.L. & TECH. 7, 19–24 (2000).

143. *Id.*

144. See Michael Kanellos, *FAQ: Forty Years of Moore’s Law*, CNET NEWS, Apr. 1, 2005, http://news.com.com/FAQ+Forty+years+of+Moore+Law/2100-1006_3-5647824.html.

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

CONDUCT INVOLVING THE USE OF THE INTERNET app. B-3 (2000), *available at* <http://www.usdoj.gov/criminal/cybercrime/unlawful.htm>; Internet.com, Page-jacking, <http://www.webopedia.com/term/p/pagejacking.html> (last visited Apr. 9, 2006).

149. Internet.com, Mousetrapping, <http://www.webopedia.com/TERM/m/mousetrapping.html> (last visited Apr. 9, 2006).

150. Internet.com, Cybersquatting, <http://www.webopedia.com/TERM/C/cybersquatting.html> (last visited Feb. 17, 2006); Nolo, Cybersquatting: What It Is and What Can Be Done About It, <http://www.nolo.com/article.cfm/objectID/60EC3491-B4B5-4A98-BB6E6632A2FA0CB2/111/228/195/ART> (last visited Feb. 17, 2006); Net4TV Voice News Staff, *Cybersquatting: One Way Not to Make Money on the Net*, NET4TV, October 24, 1999, <http://www.net4tv.com/voice/Story.cfm?storyID=1579>.

151. *Eastern Europe: City Names Are Prey for Cybersquatters*, BALKAN INFO, July 11, 2000, <http://www.b-info.com/tools/miva/newsview.mv?url=news/2000-07/text/jul11a.rfe> (last visited Feb. 17, 2006) [hereinafter *Eastern Europe*].

152. *Id.*; Net4TV Voice News Staff, *supra* note 150; Jeffrey Benner, *Sites Forlorn When Reborn as Porn*, WIRED NEWS, Dec. 10, 2001, <http://www.wired.com/news/ebiz/0,1272,48903,00.html>; *Whitehouse.com For Sale*, SYDNEY MORNING HERALD, Feb. 12, 2004, <http://www.smh.com.au/articles/2004/02/11/1076388445084.html?from=storyrhs>.

153. Dina ElBoghdady, *When Domains Go Unrenewed, the Opportunists Swoop In*, WASH. POST, Nov. 22, 2001, at E5.

spelling.¹⁵⁴ These “typo” domain names are registered with “deliberate missing-dot typos, character omission typos, character permutation typos, character replacement typos, and character insertion typos.”¹⁵⁵ Thus, by mistyping a website’s secondary-domain name or top-level domain name, Internet users may find themselves visiting a pornographic site.¹⁵⁶

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”.¹⁵⁷ 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.¹⁵⁸

Children are at least as susceptible to these scams as adults.¹⁵⁹ 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

154. David Carney, *Page Jacking and Mouse Trapping*, TECH L.J., Dec. 8, 1999, <http://www.techlawjournal.com/internet/19991208.htm>.

155. Ryan Naraine, *MS Research: Typo-Squatters Are Gaming Google*, EWEEK, Dec. 19, 2005, <http://www.eweek.com/article2/0,1759,1903695,00.asp>.

156. Jeff Peline & Courtney Macavinta, *When a Typo Leads to Porn*, CNET NEWS, July 14, 1997, <http://news.com.com/2100-1023-201416.html>.

157. *Id.*; *Whitehouse.com For Sale*, *supra* note 152.

158. THIRD WAY, THE PORN STANDARD: CHILDREN AND PORNOGRAPHY ON THE INTERNET 6 (2005), available at http://www.third-way.com/data/product/file/14/porn_standard.pdf.

159. See Anne Collier, *Internet Safety News—Internet Pornography and Children: Extraordinary Complexity*, NETSMARTZ, <http://www.netsmartz.org/news/May02-8.htm> (last visited July 29, 2006) (stating there exists “no quick technology fix or any other single solution for protecting children from sexually explicit material on the Internet”).

selling advertisements for high-traffic websites.¹⁶⁰ Advertising dollars may derive from competitors and from advertising related products or services of the mimicked website.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.”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.¹⁶³ These digital infections can contaminate computers simply by users stumbling on a compromised website.¹⁶⁴

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

160. See Paul Boutin, *The Typo Millionaires*, SLATE, Feb. 11, 2005, <http://www.slate.com/id/2113397>.

161. Naraine, *supra* note 155.

162. In October 2001, the Federal Trade Commission charged John Zuccarini with unfair and deceptive practices in violation of federal law. Press Release, Fed. Trade Comm’n, Court Shuts down Cyberscam Permanently (May 24, 2002), available at <http://www.ftc.gov/opa/2002/05/cupcake.htm>. Mr. Zuccarini was forced to give up \$1,897,166 and was barred from running his “typo” domains. See Judgment, Fed. Trade Comm’n v. John Zuccarini, No. 01-CV-4854 (E.D. Pa. 2002), available at <http://www.ftc.gov/os/2002/05/johnzuccarinijudandpi.pdf>. Then on December 10, 2003, Mr. Zuccarini was charged for violating the federal Amber Alert law. To avoid civil damages, Mr. Zuccarini pled guilty and was sentenced to 2 1/2 years in prison for directing children to pornography using “typo” domain names. *John Zuccarini Jailed for Scheme to Lure Children to Porn*, ASSOC. PRESS, <http://www.whois.sc/news/2004-02/john-zuccarini.html>.

163. Marshall Brain, *How Computer Viruses Work*, HOWSTUFFWORKS, <http://computer.howstuffworks.com/virus.htm/printable> (last visited Apr. 4, 2006).

164. Robert Lemos, *Web Site Virus Attack Blunted*, CNET NEWS, June 25, 2004, http://news.com.com/Web+site+virus+attack+blunted/2100-7349_3-5248279.html (reporting that on June 25, 2004, Internet engineers found that certain websites contained a computer virus that redirected visiting Internet users to a Russian site and then downloaded software unknowingly onto their computers).

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.”¹⁶⁵ 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.¹⁶⁶ Once the Trojan horse is triggered, it then downloads code and redirects the Internet user’s browser to other pornographic sites.¹⁶⁷

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.¹⁶⁸ 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.¹⁶⁹ 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.¹⁷⁰

Viruses also replicate themselves and may wreak havoc on an Internet user’s computer.¹⁷¹ For example, the “VBS/Confi-A” virus repeatedly loads an Internet user’s browser onto a pornographic website.¹⁷² 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

165. Press Release, Sophos, *Porno Trojan Horse Lies in Wait for Seedy Web Surfers*, Says Sophos, Nov. 17, 2004, http://www.sophos.com/pressoffice/news/articles/2004/11/va_delfit.html [hereinafter *Porno Trojan Horse*].

166. *Id.*

167. *Id.*

168. Kaoru Hayashi, Symantec, *Trojan.Exlife*, <http://securityresponse.symantec.com/avcenter/venc/data/trojan.exlife.html> (last visited Feb. 17, 2006).

169. Kaoru Hayashi, Symantec, *Trojan.Gurepirls*, <http://securityresponse.symantec.com/avcenter/venc/data/trojan.gurepirls.html> (last visited Feb. 17, 2006).

170. *See* Sophos, *Troj/TCXMedi-C*, <http://www.sophos.com/virusinfo/analyses/trojtcxmedic.html> (last visited Feb. 17, 2006).

171. Brain, *supra* note 163.

172. Sophos, *VBS/Confi-A*, <http://www.sophos.com/virusinfo/analyses/vbsconfia.html> (follow “Description” tab) (last visited Feb. 17, 2006).

in these devices.¹⁷³ Sophos, a UK-based global computer security company,¹⁷⁴ reports such programs are deliberately designed to increase traffic and revenue to pornographic sites with results that can only benefit pornographic website owners.¹⁷⁵

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*.¹⁷⁶ 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.¹⁷⁷ 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.¹⁷⁸ Just as the city of *Renton* had an interest in protecting the quality of life in its communities,¹⁷⁹ 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.

176. See *City of Renton v. Playtime Theatres, Inc.*, 475 U.S. 41, 51–52 (1986).

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

180. See BBC News, Life of Crime—Part 5, http://news.bbc.co.uk/hi/english/static/in_depth/uk/2001/life_of_crime/cybercrime.stm (last visited Apr. 4, 2006).

181. Fiberlink, Knowledge Base: Market Statistics, <http://www.fiberlink.com/release/en-US/Home/KnowledgeBase/Resources/Stats> (citing the November 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.

185. SOPHOS, SOPHOS SECURITY THREAT MANAGEMENT REPORT 4 (2005), available at <http://www.sophos.com/virusinfo/whitepapers/SophosSecurity2005-mmuk> (complete registration material; then click the "Submit" button; then follow "Sophos Security Report 2005" hyperlink).

186. ALBERTO FELICIANO, ET AL., TREND MICRO, INC., Q2 2005 VIRUS ROUNDUP 10 (2005), available at <http://www.trendmicro.com/NR/ronlyres/1D333BB8-55BA-4A92-94AF-D6C8E4A5F3ED/16469/Q22005Roundup.pdf>

187. TREND MICRO, INC., THE REAL COST OF A VIRUS OUTBREAK: WHY IS ANTIVIRUS NEEDED? 4 (2002), available at <http://www.trendmicro.com/NR/ronlyres/02A09EAE-3758-41C9-8ED0-1FAF851BA256/2774/realcostwhitepaper.pdf>.

median of \$10,000 and an average of \$120,000 in direct costs.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 *Renton* court's assertion, the government need not conduct an independent study.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.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,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.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”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

188. *Id.*

189. *See City of Renton v. Playtime Theatres, Inc.*, 475 U.S. 41, 51 (1986).

190. *See id.* at 50.

191. *Id.* at 52 (holding that the *Renton* ordinance was “narrowly tailored” and affected only those theaters that produced the unwanted secondary effects).

192. *Id.* at 53.

193. Ted Bridis, *Internet Group OKs 'xxx' Web Addresses*, S.F. GATE, June 1, 2005, <http://www.sfgate.com/cgi-bin/article.cgi?f=/news/archive/2005/06/01/national/w162114D19.DTL>.

such a move or about getting a bargain price for such sites.¹⁹⁴

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.¹⁹⁵ 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.¹⁹⁶

The primary argument against zoning the Internet is that zoning discourages free speech.¹⁹⁷ 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.¹⁹⁸ That sort of system is ripe for abuse. For example, governments could attempt to control or eliminate information on the Internet.¹⁹⁹ Around the world, governments have attempted to ban what they deem to be disruptive messages on the Internet.²⁰⁰

194. See *City of Renton*, 475 U.S. at 53–54.

195. See Jim Wagner, *Report: Online Pedophilia up 300 Percent*, INTERNETNEWS.COM, Mar. 31, 2005, <http://www.internetnews.com/stats/article.php/3494241>.

196. See MARVIN J. JOHNSON, THE TEN COMMANDMENTS OF REGULATING INAPPROPRIATE MATERIAL ON THE INTERNET, http://www7.nationalacademies.org/itas/whitepaper_4.html (last visited Feb. 17, 2006).

197. Yulia A. Timofeeva, *Worldwide Prescriptive Jurisdiction in Internet Content Controversies: A Comparative Analysis*, 20 CONN. J. INT'L L. 199, 220 (2005).

198. Steven G. Gey, *Fear of Freedom: The New Speech Regulation in Cyberspace*, 8 TEX. J. WOMEN & L. 183 (1999).

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.

200. See Wikipedia, *Censorship in Cyberspace*, http://en.wikipedia.org/wiki/Internet_censorship (last visited Apr. 4, 2006); Ryan Paul, *China Declares*

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.²⁰¹ When Internet developers comply with such regulations, costs for Internet development will likely increase.²⁰² With rising costs, smaller Internet developers may not be able to afford to broadcast their message.²⁰³ Furthermore, development costs will likely be passed to Internet users, inhibiting access to the Internet.²⁰⁴

Legislation proposed in 2004 in Australia provides an estimate of costs associated with zoning the Internet.²⁰⁵ That legislation required ISPs to impose mandatory filtering in order to protect children from Internet pornography.²⁰⁶ The initiative was estimated to cost AU\$45 million (approximately US\$33.7 million)²⁰⁷ per year to implement and AU\$33 million (approximately US\$24.7 million)²⁰⁸ per year to maintain.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)²¹⁰ per year to cover the proposal.²¹¹ The Australian government rejected the proposal a few months later.²¹²

Australia's mandatory filtering proposal also revealed other

War on Internet Pornography, ARS TECHNICA, Dec. 31, 2005, <http://arstechnica.com/news.ars/post/20051231-5873.html>

201. Timofeeva, *supra* note 197, at 221.

202. *Id.*

203. *Id.*

204. *Id.*

205. See Kimberley Heitman, *Australian Net Censorship Bill*, INTERNET FREEDOM, May 31, 1999, <http://www.netfreedom.org/news.asp?item=63>; Lester Haines, *Oz Conservatives Demand Porn-Busting Net Levy*, REGISTER, Sept. 27, 2004, http://www.theregister.co.uk/2004/09/27/net_levy/print.htm.

206. See Heitman, *supra* note 205; Haines, *supra* note 205.

207. XE.com, Universal Currency Converter, <http://www.xe.com/ucc/convert.cgi> (last visited Jan. 9, 2006).

208. *Id.*

209. The Age, *Govt Rejects National Net Porn Filter*, FAIRFAX DIGITAL, Dec. 1, 2004, <http://www.theage.com.au/news/Breaking-News/Govt-rejects-national-net-porn-filter/2004/12/01/1101577543022.html>.

210. XE.com, *supra* note 207.

211. Haines, *supra* note 205.

212. See The Age, *supra* note 209.

issues that could arise were the U.S. government to zone the Internet; for example, the ineffectiveness of government regulation as a solution.²¹³ 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.²¹⁴ Without agreement between different nations, Internet users would be able to circumvent Internet restrictions simply by searching on overseas sites with less or no Internet regulations.²¹⁵

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.²¹⁶ For example, the “Guba.com” website offers free adult video downloads in addition to its ordinary selection of videos.²¹⁷ By typing in the Uniform Resource Locator “www.guba.net,” Internet users are immediately transported to the corresponding “www.guba.com” website.²¹⁸

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,²¹⁹ but the trademark owner must invoke the policy by filing a complaint to an appropriate court or to an approved dispute resolution service

213. Posting of Rik Panganiban to <http://mailman.greenet.org.uk/public/plenary/2004-December/010133.html> (Dec. 2, 2004, 14:35:05 CET).

214. Donald E. Eastlake, *.sex Considered Dangerous* (Motorola Laboratories, Network Working Group, Paper No. RFC3675) (Feb. 2004), <http://rfc.net/rfc3675.html>.

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).

216. *See* Eastlake, *supra* note 214, at 8.

217. Guba, <http://www.guba.com> (last visited Apr. 9, 2006).

218. *Id.*

219. *See* ICANN, Uniform Domain-Name Dispute-Resolution Policy, <http://www.icann.org/udrp/udrp.htm> (last updated Aug. 26, 2001).

provider.²²⁰ Parties must also submit a request to ICANN to delegate and to change (i.e., “redelegate”) a top-level domain.²²¹ 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.²²²

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.²²³ 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.²²⁴ 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.²²⁵

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.²²⁶ 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).

223. Poulsen, *Net Dust Storm*, *supra* note 10.

224. *Id.*; Bill Thompson, *Preserving the Essence of the Net*, BBC NEWS, Nov. 18, 2005, <http://news.bbc.co.uk/1/hi/technology/4448564.stm>

225. Poulsen, *Control of Net*, *supra* note 7.

226. ‘XXX’ Web Domain is Turned Down, L.A. TIMES, May 11, 2006, at C3.

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.²²⁷ 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.²²⁸ 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.”²²⁹ 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.²³⁰

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

227. INFO. TECH. ASS’N OF AM. (ITAA), INNOVATION AND A COMPETITIVE U.S. ECONOMY: THE CASE FOR DOUBLING THE NUMBER OF STEM GRADUATES 2 (2005), <http://www.ita.org/workforce/docs/Innovationwhitepaper.pdf>.

228. *Id.* at 1.

229. See Scholastic, School Districts Meeting Adequate Yearly Progress (AYP) Requirements Spend Significantly More Per Student on Technology and Plan to Spend More in 2005–2006, Sept. 13, 2005, http://www.scholastic.com/aboutscholastic/news/press_09132005_CP1.htm.

230. See Wagner, *supra* note 195.

forecasted by Tim Berners-Lee who is the inventor of the World Wide Web,²³¹ 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.²³²

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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).

232. See *Net Guru Peers Into Web's Future*, BBC NEWS, Sept. 25, 2003, <http://news.bbc.co.uk/2/technology/3131562.stm>.

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