Children and Internet Pornography:  
The Nature of the Problem and the Technologies for a Solution  

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I. INTRODUCTION

The Internet has become a pervasive facet of daily global life. Businesses and professionals in most countries cannot succeed without it, and billions of ordinary citizens in developed nations depend on it for daily educational, social and recreational purposes. Furthermore, the Internet’s reach is expanding; the international Internet Governance Forum seeks, as a primary goal, to provide Internet access to the far corners of the earth.

Prominent among ordinary Internet users of the present and future are children. In fact, a greater proportion of children now access the Internet than adults. One study in the United States revealed that 87% of teenagers, ages twelve to seventeen, use the Internet, while a separate study reported that only 71% of American adults use the Internet. Third-world countries clamor for more ways to fund the acquisition of computers and networks so their children can learn the skills necessary to be productive in an information-age world frequently without much apparent thought into the costs of exposing their children to rampant Internet trash, especially when the adult generation in their countries lack the technical savvy to make choices to protect their children.

Given the Internet’s pervasive reach and daily expansion, we must no longer ignore one of its most destructive disorders, namely pornography. Mixed in with the Internet’s positive and enabling features, pornography functions like a disease that corrupts (sometimes irreparably) our children. The effects of this corruption are already being felt. Social experts report that pornography and the Internet are feeding rapidly growing social problems, including bullying, as well as sex trafficking and the creation of child pornography.

One recent study suggested a direct link between Internet sexual offenders and actual acts of

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⁷ For example, attacks on homeless people have gone up in recent years, and some believe it is driven by the opportunity to post such attacks on the Internet. See Todd Lewan, Attacks on Homeless Soaring, ASSOCIATED PRESS, Apr. 8, 2007, available at http://www.usatoday.com/news/nation/2007-04-08-homelessattacks_N.htm.  
⁹ See infra note 29–30 and accompanying text.
sexual abuse against children.\textsuperscript{10} It showed that as many as 85\% of those convicted for trafficking in child pornography admitted to also inappropriately touching or raping children.\textsuperscript{11} In addition, empirical data and anecdotal evidence show that easy access to porn cannot be healthy for our children. Even the tremendously important value of free expression must not be allowed to completely blind us to the wise balancing needed to save the Internet generation.

The Internet’s porn plague is not unique to any particular country. Research reveals that staggeringly large proportions of tech savvy children in various parts of the world, such as the United States, United Kingdom, Australia, and South Africa have been exposed to pornography because of the Internet.\textsuperscript{12} Although individual nations have begun to fight for a safer Internet,\textsuperscript{13} isolated efforts cannot be effective without global cooperation because the Internet knows no boundaries.\textsuperscript{14} For example, Uganda\textsuperscript{15} may ban the production and posting of all harmful communications on the Internet within its borders, but this ban would not stop the flow of pornography from the United States. To avoid pornography, Uganda would essentially have to block all foreign sites and, thereby, forgo effective Internet use.

This article argues that a better solution would call on nations to collectively zone the Internet. This zoning could be facilitated by the Internet Corporation for Assigned Names and Numbers (ICANN), which is uniquely positioned as a global Internet administrator. A zoning of the Internet would require nations to pass legislation obliging pornographers to post their offerings only on designated ports (dubbed “Open Ports” by the CP80 initiative).\textsuperscript{16} ICANN, with its global authority, could designate which ports are “Open” for harmful communications and could also indicate those countries and Internet service providers that are non-compliant with zoning requirements.

Proper zoning would result in a range of Internet ports we can comfortably browse without continuously being assaulted by pornographers and a range of ports where legal pornography would continue to be accessible to those adults who choose it.\textsuperscript{17} Thus, Uganda, and any other country, would not have to give up access to foreign Internet material to avoid harmful communications but could, instead, subscribe to porn-free ports (Community Ports) and block access to any Internet service providers declared “non-compliant” by ICANN.

Technologically, legally, and globally this solution is sound. As this article will show, a zoning of the Internet utilizes existing technology and protects both free speech and consumer choice.\textsuperscript{18} Further, zoning requirements are not burdensome, since compliance is not costly or time consuming. Lastly, while Internet zoning would require ICANN to make some policy choices, these choices are no more political than decisions it has already made regarding copyright infringement and spamming.\textsuperscript{19} Surely, our children and our society’s basic moral

\begin{itemize}
  \item \textsuperscript{11} Id.
  \item \textsuperscript{12} See infra notes 20, 59–52 and accompanying text.
  \item \textsuperscript{13} See infra pp. 8–10.
  \item \textsuperscript{14} See infra pp. 13–14.
  \item \textsuperscript{15} See infra p. 8–9 (discussing Uganda’s indictment of the United States for creating the Internet pornography problem).
  \item \textsuperscript{16} See infra Part V(B).
  \item \textsuperscript{17} See infra Part V(B).
  \item \textsuperscript{18} See infra Part V(B).
  \item \textsuperscript{19} Brent A. Little & Cheryl B. Preston, ICANN Can: Contracts and Porn Sites:
\end{itemize}
structure deserve the same measure of protection ICANN has been willing to afford corporate property interests. Indeed, the CP80 Internet Zoning Initiative offers governments and ICANN the opportunity to preserve the innocence of our children and, thereby, preserve a better future.

II. CHILDREN AND INTERNET PORNOGRAPHY

A. Childhood Exposure to Pornography

A University of New Hampshire study published in the February 2007 edition of *Pediaterics* reported that 42% of ten to seventeen year olds in the United States had been exposed to Internet pornography. Based on 2005 census data, that amounts to roughly fifteen million children in the United States.

1. Wanted Exposure

Forty-four percent of exposed minors had purposely accessed pornography. A few researches have suggested that children have legitimate reasons for seeking out pornographic material. “Adolescents go to these sites for many of the same reasons adults do,” stated the findings of “Youth, Pornography, and the Internet” a book published by the United States National Research Council: “Human beings are sexual. Sexuality is a part of identity and a facet of identity that is a focus during adolescence . . . .” While it is true that teens may be particularly focused on their sexual identity, society has already decided that some material is not age-appropriate for children. As will be shown, any evidence that porn is ok for minors is outweighed by considerable evidence that adolescent viewing of pornography is damaging to both the minor and society.

2. Unwanted Exposure

Sixty-six percent of exposed minors reported that their exposure was unwanted. This unwanted exposure is largely due to irresponsible porn distribution. Supposedly self-regulating, the porn industry has negligently (and often maliciously) exposed millions of children to harmful materials. Adult websites expend little or no effort in preventing children from entering their site and being exposed to patently inappropriate material. For example, despite the existence of age verification tools, only 3% of adult websites require age verification for entrance that goes beyond simply clicking “Yes, I’m over 18.” Better age verification technology exists, but most adult Internet businesses choose to make irresponsible business choices. A site that attempts to

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21 Id. 247.

22 COMM. TO STUDY TOOLS AND STRATEGIES FOR PROTECTING KIDS FROM PORNOGRAPHY AND THEIR APPLICABILITY TO OTHER INAPPROPRIATE CONTENT, NAT’L RESEARCH COUNCIL, YOUTH, PORNOGRAPHY, AND THE INTERNET 362 (Dick Thornburgh & Herbert S. Lin eds., 2002).


screen minors with a simple on-your-honor age-verification system may in reality be inviting minors to enter the site—particularly if the verification page contains enticing teasers or describes the prohibited content. In fact, pornographers often use deceptive images to lure unsuspecting persons, including children, further into their site and then employ pop-up traps to keep them there. Internet users report that clicking on exit buttons only causes additional windows to pop up, resulting in the user’s prolonged exposure to offensive content. Other traps and tricks are deployed by profit driven adult companies, including deceptive advertising which makes a porn site initially appear family friendly.

It is not hard to imagine why pornographers try to trap kids. By facilitating children’s access to pornography, website owners not only increase their short-term ad revenue, but, like other merchandisers, they create future customers. The porn industry admits that twenty to thirty percent of its traffic comes from youth under the age of eighteen. This open access to harmful content is unprecedented for minors. Protections exist in other media, including TV, magazines, and phone calls, but, thus far, pornographers have been allowed to “play” with children online with impunity.

B. Effects of Pornography Exposure

The Internet has spurred a revival of research on the effects of pornography. Even without direct studies of children, we can combine anecdotal evidence of the effects of pornography on children with empirical data of its toll on adults and draw some conclusions. Few seriously argue that children should use pornography in their formative years. But some try to downplay the risks to children by suggesting that porn usage by adults is costless, and thus children will, likewise, not be seriously damaged. For some adults, pornography use may arguably be costless, but evidence suggests that for many, especially those who are predisposed to be vulnerable—as are children, harms abound. It is not necessary to show that every user of pornography suffers harms, or even a majority. If there is more than a minimal risk, we should spare our children during their formative years.

1. Harm to the Child

The United States has codified a plethora of crimes that punish those who expose children to sexual activity in person rather than on the Internet. The distinction in viewing sexual activity live and online is fading as the quality of image and sound on the Internet improves. In discussing the harms of child pornography, the court in New York v. Ferber explained that the “use of children as subjects of pornographic materials is harmful to the physiological, emotional, and mental health of the child. . . . . It has been found that sexually exploited children are unable to develop healthy affectionate relationships in later life, have sexual dysfunctions, and have a tendency to become sexual abusers as adults.” Is it not likely that viewing explicit material leads to some of these same issues? One juvenile judge in Utah recently noted that she is seeing more and more juvenile sex offenders who were never themselves abused, as once was the rule, but who are involved in viewing pornography.

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25 Id. at 78 (citing Interview with Bill Johnson, Director of Marketing for Flying Crocodile Inc. (January 2001)).
27 Interview info
One reason pornography is particularly damaging to children is that children are not mature enough to handle such material and distinguish between what they see in pornography and reality. Claude Rozier, the head of a study commissioned by the French government reported, “Hardcore porn has become the principal vehicle for quite young children’s understanding of everything to do with love and sexuality, sometimes their only point of reference.”

Further, the accessibility of pornography feeds a disturbing trend: children creating pornography. Some pornographers take advantage of child-made porn videos by providing forums where children can post their material to “become famous.” Thus, children as young as eleven years old use webcams and cell phones to mimic what they see online, film themselves and friends, and subsequently post the films online. A chilling example of child-produced porn was recently reported in South Korea where police busted a sadomasochist sex site run by kids:

[A] Seoul police cyber crimes unit announced it had busted a group of seven elementary and middle school students between the ages of 8 and 13 who had been operating an online community about “perverted” sex, complete with bulletin boards filled with pictures and “how to” descriptions about sadomasochist methods for achieving sexual pleasure.

Moreover, pornography is a dangerous tool for sexual predators. These sick individuals often use Internet child pornography to seduce their victims because children who have been exposed to pornography become easier targets. The FBI confirms that “[p]ornography is often used in the sexual victimization of children.” Indeed, investigations “sometimes discover significant amounts of adult and child pornography and other sexually explicit material on the computer of [a] child victim.” Pornography is such an effective tool for seduction because it “is used to lower the natural, innate resistance of children to performing sexual acts, thus functioning as a primer for child sexual abuse.” Also, “child pornography is used as a type of instruction manual to teach children behaviors that are completely foreign to them.” When children repeatedly see Internet pornography, they begin to accept the acts portrayed as normal, acceptable activities.

34 Id. at 199.
35 See Id. at 197.
The dangers posed by sexual predators and pornographers are real. Nineteen percent of youth who access the Internet receive online sexual solicitations or approaches.  

2. Harm to Society

Empirical evidence regarding the effects of pornography viewing on adults validates concern over children viewing pornography and the effects that society will inevitably suffer. Indeed, studies show that pornography is a factor in the development of sexual offenders. In 2000, Oddone-Paolucci, Genuis, and Violato conducted a comprehensive meta-analysis of forty-six published studies conducted in the United States, Canada, and Europe about the effects of Internet pornography. The analysis found that exposure to pornography leads to a 31% increase in sexual deviancy, 22% increase in sexual perpetration and a 20% increase in negative intimate relationships.

Crime and divorce rates are often used to gauge the vitality of a population. Individual attitudes about sex, rape, and other sexually deviant behaviors influence these rates and are themselves influenced by the viewing of pornography. Pornography can lead some individuals to accept rape myths—the negative and incorrect beliefs of a person toward rape, rapists, and rape victims. Studies indicate that there is a correlation between viewing violent and non-violent pornography and the acceptance of rape myths. It is believed that a man who believes a rape myth will be less likely to vote to convict on a rape-jury trial. It is also widely held that women who believe a rape myth would be less likely to report a rape.

A person who accepts rape myths becomes desensitized to the seriousness of rape and likewise suffers an overall breakdown of sexual inhibitions. Children would logically seem particularly susceptible to rape myths—given their general immaturity, lack of experience and limited conceptions of reality. If sexual desensitization occurs early in the life of a child, that child may never develop appropriate attitudes toward sex and could become a sex offender. In fact, studies already reveal a link between childhood pornography use and sexually harmful behaviors. An Australian Child at Risk Assessment Unit in Canberra, New South Wales noticed an increase in the number of sexually abusive or aggressive children under ten years old. A retroactive study of the case files found that “almost all of the children who accessed [the unit’s] services . . . in relation to sexually harmful behaviors . . . had accessed the Internet for pornographic material.”

This finding highlights two disturbing trends. First, children are exposed to pornography at increasingly early ages, and, second, the age of sexual offenders is lowering. A study published in the February 2007 edition of *Pediatrics* found that 17% of boys and 16% of girls

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38 *Id.* at 136–37.

39 *Id.* at 137.


41 Manning, *supra* note 20, at 154.

ages ten to eleven have been exposed to unwanted online pornography.\textsuperscript{43} If children as young as ten years old are constantly exposed to pornographic material during the critical pubescent years, they may very well become the sex offenders of the future.

Further, the Associated Press recently reviewed national statistics on sex offenders and found that from 1985 to 2005 the number of children accused of sex related crimes rose from 24,100 to 33,800.\textsuperscript{44} One psychologist thinks that the numbers are even higher.\textsuperscript{45} Citing a 1999 National Crime Victimization Survey which found that only 28\% of all sexual assaults are reported to police, Sharon Araji said “if nothing is done to catch [these kids] they’re going to become our adult offenders of tomorrow.”\textsuperscript{46} Scott Poland, a former president of the National Association of School Psychologists noted: “We’re seeing more...sexually aggressive acts. How do these kids even know about this?” He answered his own question “It’s [sex] permeated throughout our society.”\textsuperscript{47} Unquestionably, the availability of Internet pornography plays a role in the increased number of children committing sex crimes.

Pornography undoubtedly harms the family. Most people understand, either because of experience or intuition, that pornography is harmful to relationships. First-year college students asked to name the effects of exposure to pornography identified an increased likelihood to believe that marriage is sexually confining and that raising children is an unattractive prospect.\textsuperscript{48} The pervasiveness of these attitudes toward the family is evidenced by multiple social problems, including divorce and broken homes.

In a 2002 survey of 350 members of the American Academy of Matrimonial Lawyers, sixty-two percent of the lawyers reported that the Internet played a role in divorce cases in the previous year. Fifty-six percent said that an obsessive interest in Internet pornography was one of the most cited problems. Sixty-eight percent reported that the meeting of a new love interest online was to blame. J. Lindsey Short, Jr., president of the Academy, acknowledged that the Internet facilitates anti-marital behaviors: “While I don’t think you can say that the Internet is causing more divorces, it does make it easier to engage in the sorts of behaviors that traditionally lead to divorce.”\textsuperscript{49}

III. THE GLOBAL REACH OF PORNOGRAPHY

A. Worldwide Childhood Exposure to Pornography

The Internet is largely responsible for the new era of globalization and the spreading of financial wealth. Unfortunately, the Internet is also responsible for bringing pornography into homes around the world. Academics and policy makers worldwide have begun documenting the extent of children’s access to Internet pornography:

\textsuperscript{43} Wolak, supra note 5, at 251, 254.
\textsuperscript{44} Sex Offenders Getting Younger, More Violent, ASSOCIATED PRESS, June 9, 2007, http://www.msnbc.msn.com/id/19143411/.
\textsuperscript{45} Id
\textsuperscript{46} Id
\textsuperscript{47} Id
\textsuperscript{48} Dolf Zillmann, Influence of Unrestrained Access to Erotica on Adolescents’ and Young Adults’ Dispositions Toward Sexuality, 27 J. ADOLESCENT HEALTH 41, 42 (2000).
• The Australia Institute, a progressive think tank, found that 84% of boys and 60% of girls had been accidentally exposed to pornography on the Internet.\textsuperscript{50}

• A United Kingdom study conducted by faculty at the London School of Economics found that 57% of children, ages nine to nineteen, who access the Internet at least once a week had been exposed to Internet pornography.\textsuperscript{51}

• Sixty-four percent of South African youth have been exposed to Internet pornography. Eighty-one percent of those youth surveyed said they knew of friends who had pornographic images on their cell phones.\textsuperscript{52}

These numbers show that the need to protect children from Internet pornography exists throughout the world, not simply in America. Not surprisingly, many nations and International groups have begun fighting pornography, but their laudable efforts are likely to fail without ICANN’s support. As will be shown, ICANN is uniquely positioned as the only entity with global authority that Internet pornographers recognize—the authority to disconnect offenders from the Internet.

\textbf{B. National and International Efforts to Fight Pornography}

\textit{1. Uganda}

In May 2003, civil groups presented a petition to the Speaker of the Ugandan Parliament demanding the ban of Red Pepper, a tabloid that often publishes sexually explicit material, and the strengthening of obscenity laws. This led to a December 2003 request by a member of parliament that the government do something to address Internet pornography. Consequently, a ten-member committee was selected to study the extent of the problem in Uganda and to examine what types of solutions, technical and otherwise, were feasible within Uganda’s legal framework.\textsuperscript{53}

The committee’s report implicated the West, specifically the United States, for causing the Internet pornography problem. “Pornography has developed into a multi-billion dollar industry in western countries” the report said, “despite [the] existence of anti-obscenity laws, because of major flaws in western jurisprudence, starting mainly in the United States.”\textsuperscript{54}

As Uganda and other developing nations log on to the Internet, they are instantly connected to unwanted sexually explicit material that, while acceptable in other nations, may be outlawed in their own. The current structure of the Internet puts these nations between the

\textsuperscript{50} MICHAEL FLOOD \& CLIVE HAMILTON, THE AUSTRALIA INSTITUTE, REGULATING YOUTH ACCESS TO PORNOGRAPHY, at v (2003).

\textsuperscript{51} SONIA LIVINGSTONE \& MAGDALENA BOBER, DEP’T OF MEDIA AND COMMC’NS, UK CHILDREN GO ONLINE 29 (2004).

\textsuperscript{52} IYAVAR CHETTY \& ANTOINETTE BASSON, FILM AND PUBL’N BOARD, REPORT ON INTERNET USAGE AND THE EXPOSURE OF PORNOGRAPHY TO LEARNERS IN SOUTH AFRICAN SCHOOLS 15, 25 (2006).


proverbial rock and a hard place. Many developing nations struggle with the choice of whether to restrict the Internet and thereby protect children and society or to allow unwanted and in some cases illegal material into their environments and thereby preserve unrestricted freedom of speech. The Ugandan committee has concluded that the dangers of unrestricted pornography access are greater than the dangers posed by some limitation on speech: “The greatest mistake for developing countries, where pornography is still a budding problem would be to adopt the misguided western policy approaches that will simply open the floodgates for the sex industry along with its negative effects.”

2. Australia

In March 2006, Kim Beazley, then Leader of the Labor Party and Leader of the Opposition in the House of Representatives, said that a Labor led government would require ISPs to employ filters and offer pornography-free Internet to all Internet access points used by children. Beazley’s statement started a heated public debate about the merits of ISP-level filtering. Opponents of mandatory ISP-filtering said that it would cost too much and slow down the Internet. As a counter option in June 2006, Senator Helen Coonan, Minister of Communication and Information Technology, announced a $116 million government initiative to provide every Australian family with a free Internet filter. Clearly, as this costly initiative suggests, the Australian government is committed to protecting its children.

3. European Union

In the summer of 2006, the European Commission issued a call “under the multiannual Community Programme on promoting safer use of the Internet and new online technologies.” The call contained four specific categories, including “Tackling Unwanted and Harmful Content” and “Promoting a Safer Environment.” User empowerment was specifically cited, asking for technologies and ideas that will allow users to better control the content they receive. The call also sought solutions that would utilize existing technology.

The call is part of a larger Safer Internet plus program launched in 2005 after the successful, but incomplete work of Safer Internet program, which ran from 1999-2004. The new program has four stated goals: (1) fighting illegal content, (2) raising awareness of safer Internet practices, (3) limiting the amount of unwanted and harmful content that users receive, and (4) promoting a safer environment, specifically for children.

The deadline for submissions was in September 2006, and the results have not yet been released. Selected proposals are eligible to receive funding from the European Union. In 2005, fifty-nine proposals, requesting €20.13 million in contribution from the European Commission, were received. Contracts, authorizing over €10.8 million in contribution, will be signed with thirty-three of these projects. These projects include several hotline reporting mechanisms and

55 Id.
awareness campaigns.\textsuperscript{59} The European Commission has issued similar calls each year since 1999. By consistently soliciting the ideas of the general public to create a safer Internet, the European Commission demonstrates its commitment to protecting children online and giving all Internet users choice over the content they receive.

\section*{4. Internet Governance Forum}

Protecting children online is also an important issue for Internet Governance groups, including the UN-sponsored Internet Governance Forum. The IGF recognizes that Internet Governance includes social considerations, namely the protection and promotion of children in their use of the Internet.

Child protection is specifically mandated by the \textit{Tunis Agenda} for the Information Society, a founding document for the Internet Governance Forum. Paragraph 90q reaffirms IGF’s commitment to “incorporating regulatory, self-regulatory, and other effective policies and frameworks to protect children and young people from abuse and exploitation through ICTs into national plans of action and e-strategies.” \textsuperscript{60} In addition, Principle 57 of the \textit{Geneva Declaration}, a declaration of principles and action points which set the table for the Tunis agenda, underscores the need to protect children: “The widest possible protection should be accorded to the family and to enable it to play its crucial role in society.”\textsuperscript{61}

The IGF will hold its second ever meeting in Rio de Janeiro in November of 2007. It is expected that child protection issues will be a major topic of discussion at the summit.

These examples are only a sampling of the efforts of nations to protect the world’s children from unwanted exposure to Internet pornography and to avoid, in the words of the Ugandan Parliament, opening the “floodgate[]” of pornography’s “negative effects.” These examples also indicate that no effective protection for children Internet users currently exists.

\section*{IV. Technical, Legal, and Global Challenges to Protecting Children Online}

Three general obstacles stand between the Internet we have today and the child-friendly Internet every parent longs for: (1) inadequate Internet code, (2) regulatory difficulties, and (3) inadequate international Internet-policy leadership.

\subsection*{A. Inadequate Internet Code}

Because the Internet developed so quickly, needed Internet protections were either ignored or not recognized. Indeed, the Internet grew from networks built for the military and academics to a commercial tool in a span of only a few years. Today, specific dangers on the Internet include viruses, spyware, worms, Trojan horses, email spam and, of course, sexually explicit content inappropriate for children. These dangers pose risks of identity theft, lost sensitive data, or the receipt of unwanted content, such as spam or pornography. Indeed, a child surfing the Internet for one of his favorite toys is easy prey for pornographers willing to groom

\textsuperscript{60} Tunis Agenda for the Information Society, Item 90q (2005).
the child to one day purchase adult “toys.” To remedy Internet dangers, much of the last ten to fifteen years has been spent developing safety software and passing regulations. To be sure, Internet security has become a multi-million dollar industry—a clear sign that society is concerned with extending the same protections we enjoy in the real world to the virtual world.

However, thus far, developers have failed to do the one thing that could best protect children—write Internet code providing for a zoning of the Internet. This inaction is unfortunate because Internet zoning is the key to protecting children online. To illustrate, consider the way that cable television has zoned its content by channels. Cable channels separate content that is inappropriate for minors from content that is child-friendly, and, as a result, parents are free to subscribe to the Disney channel and are free to decline HBO. No such “freedom to choose” currently exists on the Internet, where only one channel (port 80) carries all Web content—both innocent and explicit. However, as will be discussed later, current Internet port technology, combined with proper code, would allow for an immediate zoning of Internet content. This zoning of the Internet offers hope for those who wish to protect the Internet generation.

B. Regulatory Difficulties

1. Free speech demands

To date, Internet decency regulations in the United States have failed because they have unduly burdened First Amendment speech. Free speech is a critical value for societies throughout the world, and in the United States, free speech is a cornerstone of democracy. Ironically, however, this value—as defined by the Supreme Court—has helped to undermine parents’ ability to protect their children online. The demise of Congress’ Communications Decency Act\(^1\) and Child Online Protection Act\(^2\) are directly attributable to free speech infringements. The Court has determined that all Internet pornography except obscenity and child pornography is protected adult speech—yet it has also held that some protected pornography is harmful to minors and is, therefore, not protected speech for children (soft-core pornography, for example). Regulatory difficulties arise when decency regulations designed to protect children from harmful material infringe on an adult’s easy access to protected pornography. In such situations, the Court has found decency regulations unconstitutional.\(^3\)

(a) Communications Decency Act. A previous attempt to regulate Internet speech, the Communications Decency Act (CDA),\(^4\) was ruled to be unconstitutional by the Supreme Court.\(^5\) The Court ruled that the CDA must be analyzed as a content-based regulation on speech, for “the purpose of the CDA is to protect children from the primary effects of ‘indecent’ and ‘patently offensive’ speech, rather than any ‘secondary’ effects of such speech.”\(^6\) The Court characterized the CDA as a “content-based blanket restriction on speech,”\(^7\) and, therefore, the Court reasoned that the CDA could not be “properly analyzed as a form of time, place, and

\(^1\) Reno v. ACLU \([\text{Reno I}], 521 U.S. 844 (1997)\).


\(^3\) See id.


\(^5\) See Reno v. ACLU \([\text{Reno I}], 521 U.S. 844, 849 (1997)\).

\(^6\) Id. at 868; see also Boos v. Barry, 485 U.S. 312 (1988) (discussing regulations focusing on the direct, rather than secondary, impact of speech cannot be properly analyzed under Renton).

\(^7\) Reno I, 521 U.S. at 868.
manner regulation.” The CDA was then subjected to the Court’s strict scrutiny analysis, which it did not pass because of overly broad language.

(b) Child Online Protection Act. In the aftermath of the CDA litigation, Congress enacted the Child Online Protection Act (“COPA”) to remedy the problems the Court found with the CDA. On remand from the Supreme Court, Judge Reed of the U.S. District Court of the Eastern District of Pennsylvania issued a permanent injunction against the enforcement of COPA, ruling that COPA was unconstitutional because it impermissibly burdened free speech. Judge Reed found that COPA was not narrowly tailored, was not the least restrictive means for protecting children online, and was impermissibly vague and overbroad. In making this determination, the court first found that COPA was both over- and under-inclusive; that is, that it prohibited more speech than was necessary and failed to block a significant amount of sexually explicit material on the Web that originated outside the United States. The court also found that COPA was not the “least restrictive, most effective alternative in achieving the [government’s] compelling interest” because “[filters] are at least as effective, and in fact, are more effective than COPA” in protecting children from sexually explicit material on the Web. Additionally, the court found COPA was vague in several of its definitions, thus making COPA overbroad.

(c) Filters. Not all regulations that burden First Amendment speech are unconstitutional, however. So long as the regulation is narrowly tailored to a compelling governmental interest and is the least restrictive alternative, a regulation may survive constitutional scrutiny. However, neither CDA nor COPA survived because the United States Supreme Court found that filters offered a less restrictive alternative for protecting children online. This is so, despite the fact that filters are an inadequate protection to children. Filters are easily worked around by shrewd teens, are inaccurate and may create a false sense of security. A government survey found that filters block 91% of sexually-explicit websites. That means of the estimated 4.2 million pornographic websites 378,000 would remain unblocked. With the daily addition of new pornographic websites and the efforts of pornographers to beat filters, this number of accessible pornographic pages continues to grow. Furthermore, as long as pundits proclaim that filters work, a better solution will never pass legislative scrutiny.

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69 Id. (quoting Renton v. Playtime Theatres, Inc., 475 U.S 41, 46 (1986)).
70 See id. at 870–79.
73 Id. at 810.
74 Id. at 777–78, 815. Judge Reed explained “filters block sexually explicit foreign material on the Web, [are customizable] depending on the ages of their ... children and what type of content [parents] find objectionable, and filters are fairly easy to install and use.” Id.
75 Id at 816–20. Specifically, the court held that COPA was unconstitutitionally vague because it: (1) failed to define the scienter requirements and (2) was unclear in its definition of (a) “communication for commercial purposes,” (b) “minor,” and (c) “as a whole.” Id. at 815.
76 Id. at 777–78, 815.
2. Enforcement difficulties

Currently, the record keeping requirements of Internet service providers are inadequate, and this inadequacy makes prosecuting Internet crimes difficult. The Internet is used to commit many crimes, especially those involving the abduction of children for sexual purposes. Not infrequently, law enforcement can trace the activity to a particular web site but cannot get information to identify the owner of that site. Certainly, privacy and anonymous speech are important. But once a crime has been committed, or law enforcement has a reasonable basis for suspecting a crime, law enforcement should be able to access mere property ownership records to locate the offender. In addition, governments need tools to trace the posting of Obscenity, which has no First Amendment protection, and, eventually, the posting of pornography as laws are enacted to regulate it.

3. Top level domain designator.

Among the more widely debated solutions for fighting Internet pornography is the use of a new top level domain designator, the .xxx domain name. On the surface, this solution seems to be among the most viable. Using .xxx would allow users to easily identify where objectionable and obscene content is located on the web. There are however important negatives in employing .xxx. Not only is the voluntary nature of this approach problematic, the implementation has proven to be difficult as well. Further, the .xxx designation will do little to deter minors from accessing the material. On March 30, 2007 ICANN rejected a proposal by the ICM Registry to create the .xxx TLD.78

C. Inadequate International Internet Policy Leadership

Though ICANN is admirably protecting property interests on the Internet, it is currently ignoring children and their exposure to pornography online. This callousness is particularly troubling because decency laws on the Internet are unlikely to succeed without the global cooperation ICANN can foster. Even if an individual nation successfully regulates harmful Internet content originating within its borders that country will continue to be inundated by harmful foreign content because the Internet ignores all borders. If a country prosecutes foreign offenders in the courts, knotty jurisdictional and injunctive difficulties will likely doom the effort. Furthermore, blocking all foreign content is not a real option because a complete block would deny the country of effective Internet use.

Some countries have become creative, but to no avail. They are targeting Internet intermediaries—such as ISPs, information intermediaries such as Google or Blogger, or financial intermediaries such as credit card companies79—to combat pornography and other illegal online action. However, these efforts are not solving the problem. Targeting Internet intermediaries is less effective in smaller countries where intermediaries such as ISPs and financial institutions often do not have a presence or assets. Even more powerful countries have difficulty controlling illegal online conduct where offenders minimize their dependence on intermediaries, thereby

eliminating a government’s means of regulation and enforcement. Offenders also evade prosecution by “mixing” legal and illegal conduct.80

Clearly ICANN, uniquely positioned as a global Internet administrator, must participate if child online protection measures are to succeed. ICANN is the only International authority with the power to disconnect offending pornographers from the Internet! Existing contractual language in ICANN-mandated agreements and the language adopted by ICANN-authorized registrars, registries and internet service providers, supplies the legal basis for taking down Internet sites that would violate Internet decency laws. Thus, nations should craft decency regulations that utilize this contractual language. Additionally, ICANN must make the policy decisions necessary to facilitate enforcement of decency legislation.

It is too late for ICANN to argue that it does not do “policy.” ICANN’s hands are covered with non-technical policy choices. For instance, trademark holders have and continue to influence the development of ICANN’s policies. As Michael Palage, the head of the Registrars’ Domain Name Supporting Organization (DNSO) Constituency, famously noted, “[t]he trademark lobby must be placated because of its potential ability and inclination to bankrupt new registrars and wreak havoc on their registrant databases.”81 If only children had money to leverage ICANN and could lobby Congress in the way that Trademark interests do, the Internet would have been safe long ago.

D. In sum

There are serious obstacles to protecting children online. Technically, the Internet provides no built-in security for parents and their children. Legally, effective Internet decency legislation has failed against the demands of the First Amendment, and the porn industry has been left to self-regulate—which it has not done. Globally, international Internet-decency policy leadership is non-existent. Thus, current Internet structures, ineffective legislation, and apathy have combined to alleviate pornographers of any meaningful responsibility for the irresponsible distribution of their product. There is no parallel in the non-virtual world. Products ranging from vehicles to cigarettes can only be sold and operated when they meet specific safety protections or are accompanied by adequate warning about the consequences of their use. Though some people claim that “nothing can be done” about Internet pornography due to the Internet’s unique challenges, much can be done. CP80 has crafted a sound solution.

V. A PRACTICAL SOLUTION: THE CP80 INTERNET ZONING INITIATIVE

A. The Internet

Any initiative or solution meant to protect children must be grounded in an understanding of how the Internet works and its, as yet, unexplored possibilities for protecting children. The Internet is often called the World Wide Web, a name suggesting a massive spider web of connected computers from around the globe. However, this metaphor creates a disorganized image of the Internet when, in fact, the Internet is well ordered. Even though the Internet

80 GolDSMITH & WU, supra note 79, at 81–84.
comprises millions, if not billions of computers, servers, and Internet accessible devices all connected to the Internet via Internet Service Providers, the Internet’s processes and procedures make data transmission on the Internet quite efficient. For example, when an Internet user types a web site address into a browser and presses the send button, the browser almost instantaneously displays the requested website, even though that website may be located on a computer halfway around the world.

Web browsing is efficient because a specific procedure is always followed. Browsing relies on two distinct actions: (1) sending a request and (2) receiving a response. A request is initiated whenever a user clicks on a link or enters and sends a website name in the browser’s address field. Each request creates a virtual packet of information. This virtual packet of information, invisible to the computer user, contains both the Web address of the requested website and the sender’s IP Address. Internet procedure translates the requested website’s name into a specific delivery address (IP Address). Then, the requested website receives this packet, reads the sender’s IP Address and replies by sending virtual packets containing the requested information back to the identified IP Address. This process is repeated each time a new link is selected or a new website address is entered.

Though millions of different Internet users simultaneously browse, email, instant message, and share files, Internet information does not collide or interfere because of protocols and ports. A protocol is a standard procedure for negotiating data transmission between computers, and a port is the number assigned to each specific protocol. For example, Web browsing uses the Hypertext Transfer Protocol (HTTP) to send and receive virtual packets. This protocol’s port number is 80. Thus, whenever an Internet user enters and sends a website’s address from a browser, that request contains the port number 80. This port number tells a Web server the appropriate Internet application to use and what protocol to follow, thereby enabling the server to open, read, and respond to the request appropriately. If an Internet user were emailing, his transmission would use a different port—port 25. Even though the Internet possesses thousands of ports, only a small number are used. Indeed, only one port, 80, is used for all Web browsing.

In sum, the combination of protocols and ports allows all Internet applications to utilize network resources without conflicting or interfering with each other. While all current Web browsing takes place on port 80, it is possible to separate Web content onto more than one port—similar to the way that cable television content is separated by channels. This separation technology is available in all Internet formats, including email, peer-to-peer file sharing, instant messaging, etc. This port concept is central to CP80’s Internet Zoning Initiative. Children will be protected on the Internet if materials harmful to minors are zoned to ports that children (and anyone interested in avoiding pornography) do not visit.

B. The CP80 Internet Zoning Initiative

The CP80 Foundation proposes the designation of content-specific ports that categorize the Internet into Community Ports and Open Ports. Community Ports would contain only content appropriate for all ages. Open ports would contain all legal content. This approach leverages the existing technical infrastructure of the Internet to “build-in” protective options for families. Legally, nations can enact and enforce laws and penalties for port violations. ICANN would designate which port numbers are available for Community or Open classification.
Publishers of mature content would be required to sanitize their Community Port presence and use the Open Port ranges to publish any legal content.

As outlined above, the Internet utilizes a port designation to transmit data packets from one device to another. This port designation is used to determine how a particular data packet should be handled. The CP80 approach seeks to use port identifiers to classify content types. Once content is classified, it may be zoned away from an Internet user’s home (by way of a simple network rule), according to the choice of that individual. There are over 65,000 ports available for use within the current infrastructure of the Internet. These ports are already used to categorize content and services; however, only a limited number are widely used by consumers.

With content organized into ports and communities, Internet users can then choose to opt-out of the Open Ports and into the Community Ports, where he would receive only family friendly Internet directly from this ISP. Any child using that Community Port Internet connection would be unable to access Open Port pornographic material. Further, the Internet Zoning Initiative addresses the issues associated with any and all Internet connected devices, including cellular phones, PDAs, desktops, laptops, nanotops, game consoles and any future Internet enabled devices.

The idea of Community Ports and Open Ports, dubbed the CP80 Initiative or Internet Zoning Initiative, was framed with two key guidelines. First, in keeping with the constructs of the First Amendment, the rights of free speech must be maintained. Second, the solution must enhance consumer choice to receive or not receive particular Internet content. Currently, the Internet denies many Internet users the freedom to refuse offensive and inappropriate speech. CP80’s proposed zoning of the Internet through designated ports will preserve an individual’s right to choose what he or she wants to see, hear and experience.

1. Solving technical, legal, and global challenges to protecting children online

CP80’s Internet Zoning Initiative is technically, legally, and globally sound. It provides the solutions to the unique Internet challenges that have plague prior Internet decency regulations.

(a) Inadequate Internet code. Under the CP80 Initiative, technicians will finally write code that enables a zoning of the Internet. Internet browsing will no longer take place only on port 80. Pornographers (and other publishers of harmful content) will simply configure their web servers to deliver mature content only to Open Ports. This configuration is a simple web server setup and is often accomplished with less than ten lines of code. The code is unseen and has no impact on the content of served material.

The functionality and unobtrusiveness of this configuration requirement is illustrated by the fact that a website server may be configured to serve content on both port 80 and port 443 simultaneously. Thus, a consumer shopping online at a website such as Amazon.com browses existing inventory over port 80. When a purchase is made, the transaction occurs securely via port 443. The consumer then returns to port 80 to continue browsing without ever realizing that the port switch occurred. This switch between ports can occur with any designated port with no impact to the network performance and no increased cost. Additionally, a transfer to port 443 protects the consumer’s identity and credit card information from theft. In a similar way, children that access the Internet through a Community Port will be protected from receiving material with mature content. Fortunately, the technology for a zoning of the Internet is already
“built-in” – no wholesale changes are necessary. Simple code configurations will enable Internet zoning on distinct ranges of readily available ports.

(b) Regulatory difficulties.

(1) Free speech demands. The CP80 Foundation’s proposed legislation avoids the constitutional difficulties past decency regulation in the United States has faced. Significantly, the Internet Community Port Act (ICPA) does not prevent an adult from publishing or viewing legal pornographic content. Rather, it simply requires that adult content be published in a particular location on the Internet, e.g., the Open Ports, where it can be easily blocked from the view of those who do not want to receive it.

Because ICPA provides for a zoning of Internet content, not a restriction on that content, the United States Supreme Court should subject ICPA to intermediate scrutiny. Indeed, ICPA is a regulation of the secondary effects of unbridled access to Internet obscenity, child pornography, and content harmful to minors. It is a content-neutral time, place, and manner regulation similar to the zoning regulations upheld in the Court’s prior decision in Renton v. Playtime Theatres, Inc. It simply zones harmful Internet communications away from the homes and computers of requesting citizens.

However, even if the Court finds that ICPA burdens protected speech and, subsequently, subjects it to strict scrutiny, ICPA will survive. This is so because ICPA serves the compelling governmental interests of protecting children from harmful Internet communications and preserving Internet users’ ability to choose the content they receive. The statute is narrowly tailored to these interests since the only people who suffer substantial speech restrictions are those who request to be restricted. Also, ICPA leaves open alternative avenues of communication for pornographers because porn may still be published over Open Ports. Other nations should use ICPA as a model for crafting legislation specific to their political and legal structures.

(2) Enforcement difficulties. ICPA alleviates enforcement difficulties because it requires ISPs to keep records. Under ICPA, enforcement officials can trace Internet criminality directly to the offender. The Act requires ISPs to keep for two years the simple records they already have for billing and other purposes. There is no personal data required, no invasion of privacy, no tracking of the times or contents of anyone’s Internet use – just the identity of who owns a particular IP Address at any given time. The information is simply a record of a commercial transaction (a money payment is exchanged for use of the IP Address) and is no different than a receipt acknowledging any sale or transfer.

The burden this Act imposes on ISPs is minimal. In fact, most ISPs already keep such records for at least two years. Moreover, as more laws are put in place, such as the federal Digital Millennium Copyright Act, that impose sanctions on use of the Internet in violating various laws, a law-abiding ISP would want, for its own protection, evidence of when an IP Address was in the control of another party.

(c) Inadequate International Internet Policy Leadership. The CP80 Foundation encourages ICANN to foster the Community Ports concept. Initially, ICANN would designate Internet ports into ranges of Community and Open Ports and provide for the general zoning of

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82 475 U.S. 41 (1986)
the Internet. ICANN would, then, compile and make available a list of compliant and noncompliant countries—that is, countries that have passed ICPA-like legislation and can enforce that legislation and those who have not or cannot. Further, ICANN should provide a forum in which complaints against offending Web publishers could be lodged and addressed. Ultimately, after proper legal processes, ICANN should—as it is entitled to do through existing contractual language with ISPs—require that criminals on the Internet are disconnected from the Internet—just as trademark offenders are justly removed.

As this Internet zoning is first implemented, a necessary transition period will take place. Some countries will not have sufficient legal infrastructure to ensure compliance with this mandate. Thus, ISPs that offer Community Port packages will simply block all IP addresses originating from countries declared non-compliant by ICANN. A consumer who wishes to access websites within noncompliant countries will continue to have access to all websites, worldwide, over the Open Ports. Thus, every Internet users’ choice is unrestricted. Most importantly, children will finally be able to use the Internet without being exposed to degrading pornography.

IV. Conclusion

Our children need to be protected from pornography on the Internet. Currently, pornographers may push their porn to anyone who uses a computer, and as a result, the Internet has become unsafe for children, families, and schools. In every other medium, pornographers are justifiably regulated. CP80’s approach to the Internet pornography problem allows the government to fulfill its responsibility to protect children from harmful Internet communications while simultaneously protecting First Amendment speech.

Internet content could and should be easily categorized by using existing and available Internet ports. With Internet content categorized by port, users would be equally free to access desirable content and to avoid unwanted content. Such a system leverages the existing Internet infrastructure and available technologies to create space for those who value the freedom to avoid unwanted intrusions into their businesses, homes, and minds. To ensure compliance, an Internet governing body, accountable to the general world public, would designate content specific ports and appropriate penalties for violators. Furthermore, individual governments would be free to implement additional laws, as appropriate, to enhance the adoption and enforcement of the port requirements.

CP80’s zoning of the Internet is justifiable in the defense and protection of children. According to the Declaration of the Rights of the Child: “The child shall enjoy special protection, and shall be given opportunities and facilities, by law and by other means, to enable him to develop physically, mentally, morally, spiritually and socially in a healthy and normal manner and in conditions of freedom and dignity.” Violent, hateful, and pornographic content can negatively affect the mental, physical, spiritual, and social development of children around the world. Because of the Internet, this dangerous material is more widely available to minors than ever before. And even though Internet pornography is widely accepted as a danger to children and others, nothing has been effectively accomplished to offer children and their caregivers any “special protection.” The CP80 Internet Zoning Initiative offers a technically feasible, legally sound, and globally viable solution for balancing the rights of adults to view what they want, while protecting children from Internet pornography.
