AN ALTERNATIVE TO GOVERNMENT REGULATION AND CENSORSHIP: CONTENT ADVISORY SYSTEMS FOR THE INTERNET

C. DIANNE MARTIN*
JOSEPH M. REAGLE**

ABSTRACT

The explosive growth of on-line services and access in the United States and other technologically sophisticated nations has resulted in a huge increase of on-line users below the age of eighteen. With this increase, there has been an accompanying surge in the availability of adult oriented content and services. Consequently, a plethora of government policies and industry strategies have emerged that attempt to shield the public, and in particular children, from exposure to content deemed inappropriate.

Due to the competing interests between government control and regulation of content on the one hand, and individual privacy, autonomy, and free speech on the other hand, several industry coalitions have formed to develop and endorse voluntary content labeling and blocking systems. Such mechanisms are embedded in the very technologies that create the problem, thus providing technological alternatives to censorship and regulation of the Internet.[1]

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* C. Dianne Martin is an Associate Professor in the Department of Electrical Engineering and Computer Science at the George Washington University. She is Chair of the ACM Special Interest Group on Computers and Society ("SIGCAS"), served as a member of the Task Force to revise the ACM Code of Professional Ethics, and is President of the Recreational Software Advisory Council ("RSAC") Board of Directors.

** Joseph M. Reagle, Jr. recently graduated from the MIT Sloan's School of Business Management Technology and Policy Program. After consulting on the Internet and interactive media in Manhattan, he returned to MIT to work as a Policy Analyst for the World Wide Web Consortium ("W3C"), where he is responsible for policy issues related to digital signatures, intellectual property, and privacy.

Much of the background information in this Article was developed as part of a case study on RSAC*i* during an internship at RSAC by J.M. Reagle, Michael Evans, and Patrick Shareck for an Electronic Commerce and Marketing Course at MIT's Sloan School of Business Management, during the spring of 1996.

[1] *See generally* JOEL FEDERMAN, MEDIA RATINGS: DESIGN, USE AND CONSEQUENCES (1996); *RSAC Homepage* (visited Feb. 9, 1997) < http://www.rsac.org>. Many of the legal issues surrounding efforts to regulate on-line services have recently been addressed by the courts. *See, e.g.*, ACLU v. Reno, 929 F. Supp. 824 (E.D. Pa. 1996) (holding that the provisions of the Communications Decency Act of 1996, Title V of the Telecommunications Act of 1996, Pub. L. No. 104-104, § 502, 110 Stat. 56, 133-35, violated the First Amendment by prohibiting transmission of obscene, indecent, or patently offensive communications to persons

BACKGROUND

> The RSAC [Recreational Software Advisory Council] rating process is an objective content-labeling system which has been designed to be informative without being judgmental. The goal of the system is to provide parents and other consumers with the information they need to make decisions about the suitability of Internet content for themselves and their families.
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> -RSAC Home Page[2]

A significant reason for the presence of young people on the Internet has been the explosive growth of on-line services and Internet access,[3] especially through services such as America On-Line ("AOL"), CompuServe, and Prodigy. For this reason, on-line services are poised to play a central role in the education of America's youth, and many recent governmental initiatives (from about 1989 onwards) focused on the educational capabilities of these networks. This is evidenced by recent initiatives of the Clinton Administration. For example, the National Information Infrastructure ("NII") aims to provide a level of education to all students that surpasses the highest levels of education available today.[4] Throughout the history of the NII, education and research were a key motivation for the development of the technology, first as the ARPANET,[5] then the Internet, the NREN, the NII, and as part of the U.S. Department of Education project GOALS2000.[6] Ironically, this surge of new users has also brought an increase in the availability of adult-oriented content and services, much of which is considered inappropriate for young people.

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under the age of 18 through the use of interactive computer service). The government appealed the decision of a special three judge panel in the Federal District Court in Philadelphia. The panel ruled the portion of the Communications Decency Act of 1996 dealing with indecent speech violated the First Amendment and issued injunctions against its enforcement. Oral arguments were presented to the Supreme Court on March 19, 1997 in *Reno v. ACLU*, No. 96-511. *See* Lina Greenhouse, *Spirited Debate in High Court On Decency Rules for Internet*, N.Y. TIMES, Mar. 20, 1997, at B10.

[2] *RSAC Homepage*, *supra* note 1, at <http://www.rsac.org/>.

[3] There are approximately 1.1 million on-line users below the age of 18. *See* Traci Carl, *Kids Coach Adults to Surf the Net*, MILWAUKEE J. SENTINEL, Jan. 26, 1997. *See generally*, <http://www.w3.org/pub/WWW/Journal/3/s3.harkness.html> (visited Feb. 25, 1997) (between 16 to 18% of Internet users are between the ages of 16 and 24).

[4] The Clinton administration has launched the NII to connect industry, government, research, education, and homes through advanced information and telecommunications resources. *See* GLENN J. MCLOUGHLIN, THE NATIONAL INFORMATION INFRASTRUCTURE: THE FEDERAL ROLE (1996).

[5] ARPANET was the forerunner to the Internet. It was founded in 1969 to allow government funded researchers to share information over an electronic network. *See* Philip Burgess, *Study Explores Digital Divide*, ROCKY MTN. NEWS, Mar. 11, 1997.

[6] GOALS2000 is a federal program which seeks to raise academic achievement in U.S. schools. *See How Much Money States Get for GOALS2000 Education Program*, GANNETT NEWS SERV., Sept. 18, 1996. In 1996, New York received $25,358,328 through the program. *Id.*

For those who find this alarming, the situation is further complicated by other Internet controversies involving censorship, anonymity, and government control; the decentralized nature of the Internet; and ill informed media attention.[7] Hence, those who are sincere about preventing censorship on the one hand, and enabling legitimate parental control on the other, are left in a difficult position. Currently, the parties concerned have turned to content labeling in an attempt to meet the dual goal of non-censorious content selection and screening.[8] Several different labeling schemes now available allow Internet content providers to either self-label or to be labeled by third parties with respect to any number of attributes. The areas of greatest concern relate to attributes such as sex, violence, nudity, and language.

In 1994, Senators Joseph Lieberman (D-Conn.) and Herbert Kohl (D-Wis.) chaired a number of Senate hearings regarding the increasing levels of violence in computer games.[9] To address these concerns, and to deflect possible government regulation of this media, two major content classification systems for interactive electronic entertainment were developed. These are known as the Recreational Software Advisory Council ("RSAC"), developed by a coalition of over twenty-five organizations led by the Software Publishers Association ("SPA"),[10] and the Entertainment Software Rating Board ("ESRB"), sponsored by the Interactive Digital Software Association ("IDSA").[11] Both were established in 1994.[12]

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7 ACLU v. Reno, 929 F. Supp. 824, 824 (E.D. Pa. 1996).

8 *See* Paula Franzese et al., *Censorship on the Internet: Do Obscene or Pornographic Materials Have Protective Status?*, 5 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 279, 280 (1995) (discussing how parents worry that their children can easily gain ready access to material parents deem inappropriate). *See generally* David B. Johnson, Comment, *Why the Possession of Computer-Generated Child Pornography Can Be Constitutionally Prohibited*, 4 ALB. L.J. SCI. & TECH. 311 (1994); Note, *The Message in the Medium: The First Amendment on the Information Super Highway*, 107 HARV. L. REV. 1062 (1994).

9 "RSAC's very existence is a direct result of the legislative initiative taken by Senators Lieberman and Kohl . . . that raised the issue of excessive violence in computer games." *See Child Pornography on the Internet, 1995: Hearings on S. 892: "Protection of Children from Computer Pornography Act of 1995" Before the Senate Judiciary Comm.*, (1995) (statements of Senator Orrin G. Hatch, Dee Jepsen, President, "Enough is Enough!" Jerry Berman, Executive Director, Center for Democracy and Technology, and Stephen Balkam, Executive Director, Recreational Software Advisory Council) [hereinafter *Child Pornography on the Internet, 1995: Hearings on S. 892*]. *See also Joint Hearing/Video Game Rating System Testimony Before the Senate of Governmental Affairs Regulation and the Government Information Judiciary/Juvenile Justice Comm.* (1994).

10 Microsystems is working with RSAC to implement the ratings system for the Internet. *Reno*, 929 F. Supp. at 841.

11 The ESRB ratings were originally organized into five age groups, but encountered strong resistance from computer game developers who were not comfortable with the ratings system. *See* Matthew Hamilton, *Graphic Violence in Computer and Video Games: Is Legislation the Answer?*, 100 DICK. L. REV. 181, 207 (discussing how the SPA and the IDSA formed the RSAC and ESRB).

Both RSAC and the ESRB are independent, non-profit organizations, but the two content advisory systems are fundamentally different from each other. The RSAC system is a content-based advisory system based upon self-disclosure using an interactive ratings package. The ESRB system is an age-based advisory system based upon the decisions of a rating board. The RSAC system has been used mainly by manufacturers of computer games, while the ESRB system has been used for both video platform games such as Sega and Nintendo and computer games.

THE RSAC SYSTEM

To understand the RSAC labeling system, it is first necessary to understand content advisory systems in general. The basis of any rating system is the way in which it classifies content. Joel Federman has used the terms "descriptive" versus "evaluative" to characterize content labeling methodologies.[13] Furthermore, the terms "deterministic" versus "non-deterministic" are often used to characterize the labeling process itself.[14] Adding the third dimension of rating obligation, voluntary versus mandatory, the rating process may be defined as follows:

descriptive:	a rating system which provides a description of the content of the labeled media and can provide a set of indicators about different content categories;
evaluative:	a rating system which makes a judgment about content using a standard of harmfulness and typically provides a single rating indicator, usually based upon age;
deterministic:	a rating process based upon some objective methodology in which the final rating is the result of following the methodology;
non-deterministic:	a rating process based upon the opinions of a rating body;
voluntary:	the content producer is free to choose to rate or have product rated;
mandatory:	the content producer is required to rate or to have product rated by some other agency.

No rating system is purely descriptive or deterministic. Rather, each system varies with respect to where it falls between

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12 *Id.*

13 FEDERMAN, *supra* note 1, at 25.

14 These terms were developed through the case study on RSAC undertaken at MIT by J.M. Reagle, M. Evans, and P. Shareck, entitled *RSACi Case Study Electronic Commerce and Marketing Course*, in the spring of 1996.

extremes. Our usage of these terms is with the understanding that no system is completely without bias or arbitrariness.

Most people are familiar with the Motion Picture Association of America ("MPAA") rating system, in which a board of reviewers examines the content and then issues an evaluative, non-deterministic rating.[15] The process is non-deterministic because, while general rules of thumb may guide the reviewers' decisions, the process itself is opaque and the results are sometimes at odds with other ratings. It is also evaluative because the ratings do not describe the content of the film, but what age group may see the film.[16]

In contrast to the MPAA, the RSAC system is voluntary, with specific deterministic criteria by which content is rated in a descriptive manner.[17] Content producers, such as video game makers, answer a detailed questionnaire (either in paper or electronic format) about their content with respect to violence, nudity, sex, and language.[18] RSAC then processes the questionnaire, and registers and returns the consequent rating to the company.[19] The company is able to use that label in advertising or on their product. The label consists of a number, between zero and four, for each of the four categories.[20] A rating of "All" ("0") represents the minimum amount of objectionable material. The system is represented in graphical form by a thermometer. The number, or the temperature of the thermometer, informs the customer about the specific content of the package, as is demonstrated below in the RSAC advisories for violence:

VIOLENCE

ALL (0):	Harmless conflict; some damage to objects;
1:	Creatures injured or killed; damage to objects; fighting;
2:	Humans injured or killed with small amount of blood;
3:	Humans injured or killed; blood and gore;
4:	Wanton and gratuitous violence, torture, and/or rape.

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15 Gretchen Atwood, *Going Beyond Blocking*, DIGITAL MEDIA, Apr. 8, 1996, at 3. The MPAA is a rating service that views material through its own rating system. The MPAA system has one category and the scale of values are G, PG, PG-13, R, and NC-17.

16 Alex S. Kasten, *Game Industry Update, The Rating Game*, MULTIMEDIA & VIDEODISC MONITOR, Nov. 1, 1994, *available in* 1994 WL 2693656.

17 Karan Swisher, *The Games People Rate; Software Industry Awaits Review of Video, Computer Game Labeling*, WASH. POST, Dec. 13, 1995, at F01; *see also How Do You Rate*, COMPUTER GAMING WORLD, Dec. 1, 1994, at 14, *available in* 1994 WL 13146918.

18 *How Do You Rate*, *supra* note 17, at 14.

19 Atwood, *supra* note 15, at 3.

20 Michelle V. Rafter, *Organizations Compete to Rate Sites on Internet*, ST. LOUIS POST-DISPATCH, Mar. 5, 1997, at 5C (The RSAC*i* rating system has four categories—sex, nudity, language, and violence. Each category has four levels, from "0" for none present, to "4" for most extreme.); Meeka Jun & Steven D. Rosenboro, *V-Chip and T.V. Ratings: New Form of Static Interference?*, N.Y.L.J., Jan. 17, 1997, at 5.

The RSAC system does not say for whom the content is appropriate. It merely describes the content with respect to characteristics that may be of concern to parents.[21] Since content providers fill out the questionnaire, it is a self-labeling and voluntary system. However, to ensure public confidence in the RSAC system, the content producer is contractually obligated to rate the content accurately and fairly. Every month a number of registered titles are randomly sampled. And producers who have willfully misrepresented the nature of their content may be fined up to $10,000 and may be required to recall their product from the shelves.[22] Using this system, RSAC has rated over 350 game titles with ninety-four companies, including the popular *Myst* by Broderbund, *Doom II* by id Software, and *Dark Forces* by LucasArts.[23] Only two companies have ever requested an appeal,[24] and so far no suits have been filed for misrepresentation.

RSAC*i* AND PICS

During the year leading up to the passage of the Communications Decency Act of 1996,[25] a number of Internet-specific labeling activities occurred: (1) the U.S. Senate Judiciary Committee heard testimony regarding the "Protection of Children From Computer Pornography Act of 1995" (S. 892);[26] (2) the Information Highway Parental Empowerment Group ("IHPEG"), a coalition of three companies (Microsoft Corporation, Netscape Communications, and Progressive Networks), was formed to develop standards for

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21 *How Do You Rate?*, *supra* note 17, at 14.

22 Anthony Debarros, *Game Ratings Give Families a Consumer Tool*, GANNETT NEWS SERV., Aug. 10, 1995 ($10,000 fine levied in accordance with terms of contract with RSAC), *available in* 1995 WL 2903518; *see also* Reva Basch, *Software Measures Up*, COMPUTER LIFE, Nov. 1, 1995, at 34.

23 Catherine Greenman, *Ratings for Software: Retailers Slow to Follow Wal-Mart's Lead*, HARTFORD WKLY. HOME FURNISHINGS NEWSPAPER, June 5, 1995, at 69.

24 *See generally* Dawn Sinclair, *Ratings are Name of the Game for this Season*, CHI. TRIB., Nov. 25, 1994, at 81.

> If the game producer isn't happy with the assigned rating, they can resubmit for a lower rating if the appropriate modifications are made. After a new team of three individuals rates the revised version, the product goes to market with their rating unless the manufacturer wants to appeal. The appeal board consists of five members who hear the arguments of game makers and the rating team. The board responds within 24 hours with a final decision.

Id.

25 Pub. L. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 47 U.S.C.). "The controversial law, vehemently opposed by Internet and civil-liberties groups, was overturned and is being appealed to the U.S. Supreme Court." Rafter, *supra* note 20, at 5C.

26 *See Child Pornography on the Internet, 1995: Hearings on S. 892*, *supra* note 9. This Act would regulate the telecommunications networks, access providers, and electronic bulletin boards with respect to "the knowing or willful transmissions" of indecent material to children under Senate Bill 892. *Id.* (statement of Senator Hatch).

empowering parents to screen inappropriate network content;[27] (3) a number of standards for content labeling were proposed, including Borenstein's and New's Internet Draft "KidCode" (June 1995);[28] and (4) a number of services and products for blocking inappropriate content were announced, including CyberPatrol,[29] CyberSitter,[30] Internet Filter,[31] NetNanny, SurfWatch,[32] and WebTrack.[33]

By August, much of the standard activity was consolidated under the auspices of the World Wide Web Consortium ("W3C")[34] when the W3C, IHPEG, and twenty other organizations agreed to merge their efforts and resources to develop a standard for content selection. This effort resulted in the creation of the Platform for Internet Content Selection ("PICS") standard,[35] which allows orga-

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27 The purpose of the IHPEG is to "develop technology to identify and let computers block certain information or images." Myles White, *Tips for Net-proofing Your Children*, TORONTO STAR, Mar. 30, 1996, at E5.

28 KidCode is a product in development which "would block access to sites based on a common voluntary rating system . . . . " Robert Cohen, *Trooper to Cyber-crooks: "Drop that Hard Drive!,"* STAR-LEDGER (Newark, N.J.), July 27, 1995, *available in* 1995 WL 8866442. More information can be viewed via anonymous file transfer protocol ("ftp") at <ftp://ftp.fv.com/pub/nsb/draft-fvkidcode-00.txt>.

29 "CyberPatrol was the first parental empowerment application to be compatible with the PICS standard." ACLU v. Reno, 929 F. Supp. 824, 840 (E.D. Pa 1996). It "allows parents control over how long their kids can remain online, as well as over which sites they can visit. The company has a panel of researchers . . . that surf the Net and keep a log of which sites they deem to be violent, pornographic, profane, racist or drug-culture oriented." White, *supra* note 27, at E5.

30 CyberSitter is a software product that "allows parents to monitor their children's activity and can prevent children from downloading image, sound and video files." Cohen, *supra* note 28.

31 Internet Filter is a filter program "armed with frequently updated lists of no-go sites and forbidden words and phrases designed to protect children and, increasingly, block adults in the workplace from what has been termed the dark underbelly of the Internet." Peter Wilson, *Access Denied: Two of the Controversial Net Filtering Programs are Made by Vancouver Companies*, VANCOUVER SUN, Feb. 5, 1997, at D12.

32 NetNanny and SurfWatch are software programs that "provide parental controls for families who choose to connect to the Internet directly. Such software allows parents to block access to sites that contain inappropriate materials." Cohen, *supra* note 28; *see infra* notes 68-70 (discussing non-RSAC content filtering systems).

33 WebTrack is an information service that has charted the growth of advertising on the Internet since 1995. WebTrack predicted the Internet advertising industry would invest more than $90 million by the end of 1996. *See* Adam Feuerstein, *Internet Ads are Generating More Prophets than Profits*, S.F. BUS. TIMES, July 19, 1996, *available in* 1996 WL 10042494.

34 The World Wide Web Consortium ("W3C") "was created to serve as the platform for a global, on-line store of knowledge, containing information from a diversity of sources and accessible to Internet users around the world." *Reno*, 929 F. Supp. at 836; *see id.* (for a history and overview of the basic operation of the W3C). The W3C is "the international standards body for the HTML programming language." *Microsoft: Microsoft Site Builder Network Launches Integrated Web Site Webzine for Web Professionals*, M2 PRESSWIRE, Mar. 4, 1997, *available in* 1997 WL 8029482; *see also* Neil Munro, *Putting a Price Tag on Privacy*, WASH. TECH., Mar. 6, 1997, *available in* 1997 WL 8578099.

35 Platform for Internet Content Selection ("PICS"):

> [E]stablishes Internet conventions for label formats and distribution methods while dictating neither a labeling vocabulary nor who should pay attention

nizations to easily define content rating systems and enable users to selectively block (or seek) information. It is important to stress that PICS is not a rating system like MPAA or RSAC, but rather an encoding method for carrying the ratings of those systems.[36] Those encoded ratings can then be distributed with documents or through third party label bureaus.[37]

To aid the rating of large sites, labels may apply to whole directory structures (hierarchies) of a Web site if the label is appropriate to all of the content. Labels may also be placed on individual Web pages or individual assets on a Web page. This flexibility to rate at different levels is referred to as the granularity of a particular rating.[38] The following example demonstrates a label for a RSAC label of language (l=3), sex (s=2), nudity (n=2) and violence (v=0):

(PICS-1.0 "http://www.rsac.org/v1.0/" labels
on "1994.11.05T08:15-0500" until "1995.12.31T23:59-0000"
for "http://www.gcf.org/stuff.html"
by "John Doe" ratings (l 3 s 2 n 2 v 0))

The PICS encoding specifies the rating service, version number, the creation and expiration date, the page, the rater, and the ratings themselves (other options may be specified but are not shown). Multiple labels can exist for any page. Labels can be included in "html" documents[39] within the meta-tag, they can be

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to which labels. It is analogous to specifying where on a package a label should appear and in what font size it should be printed without specifying what it should say.

Paul Resnick & James Miller, *PICS: Internet Access Controls Without Censorship*, 39 COMM. ACM 87 (1996), *available in* 1996 WL 9011906. The PICS program was launched by the W3C "in order to develop technical standards that would support parents' ability to filter and screen material that their children see on the Web." *Reno*, 929 F. Supp. at 838.

[36] Available PICS—compliant ratings systems include Ararat Software's Commercial Rating System ("ARC"), Net Shepherd Collaboratively Rated Content ("CRC"), SafeSurf Internet Rating System and Voluntary Content Rating ("VCR"), and Recreational Software Advisory Council ("RSAC"). *See* Kristina B. Sullivan, *PICS: Rating the Net Without Uncle Sam*, PC WK., Dec. 16, 1996, *available in* 1996 WL 14277387.

[37] "When publishers are unwilling to participate, or can't be trusted to participate honestly, independent organizations can provide third-party labels. . . . Third party labeling systems can also express features of concern to a limited audience." *Id.* An on-line database of labels is referred to as "a label bureau." Such bureaus "identify Web sites based on age appropriateness or the amounts of sex, nudity, obscenity or violence they contain." Rafter, *supra* note 20, at 5C.

[38] Granularity describes the way in which "services can label entire sites or individual documents and images." Resnick & Miller, *supra* note 35. "Granularity offers multiple layers that allow you to set security for a folder, a document within that folder, a paragraph within a document, and so on. Notes has the most granular settings for security." *Product Comparison*, INFOWORLD, Dec. 9, 1996, *available in* 1996 WL 14455700.

[39] HTML is an acronym for hypertext markup language documents. *Wang Targets Desktop Users With Imaging Professional*, DOC. IMAGING REP., Mar. 5, 1997, *available in* 1997 WL 8217547. It is used by the W3C to set common information storage formats as a response to the growing number of Internet-linked computers. *Reno*, 929 F. Supp. at 837. This allows for the creation of "hyperlinks" or "links." *Id.* at 844. "HTML enables a user to

fetched from the "http" server using the "http" get command, or they can be fetched from label bureaus. Hence, the author of a homepage could include a variety of labels on the page itself (for example, the RSAC, MPAA, or Golf-Fan systems). The "http" server on which the page resides could have a label or labels for that particular page, and a third party label bureau like the "Good Housekeeping Seal of the Web" could be queried for its opinion of the quality of the Web page.[40]

Multiple distribution methods lead the authors of PICS to stress the difference between rating systems and rating services. A rating service provides content labels for information on the Internet,[41] and utilizes a rating system to describe the content. For instance, the Unitarian Rating Service and Christian Coalition rating service could both use the MPAA rating system to describe what each considers the appropriate viewing age.

In the rapidly evolving market of the Internet, label systems and services have a significant stake in maintaining the public confidence in the authenticity of their ratings. Users who purposefully falsify label content could damage the reputation of a service, a rating system, or PICS in general. Thus, to prevent such manipulation of labels or the content to which they apply, PICS includes the capability of ensuring the integrity of a label using message integrity checks ("MICS") and its authenticity using digital signatures.[42] In this way, compliant browsers ensure that a document has not changed or been manipulated since the labeling of the document, and that the label is genuine.[43] An important part of PICS compliance is the requirement that PICS compatible clients read any label system definition from a user accessible configuration file.

In February 1996, the RSAC rating system was adapted for Internet content under the name "RSAC*i*" using the PICS encoding

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jump from one source to other related sources by clicking on the link. A link might take the user from Web site to Web site, or to other files within a particular Web site." *Id.*

40 Tim Jackson, *Media Futures: New Censorship Made Easy and Effective*, FIN. TIMES, June 10, 1996, at 13. There are numerous organizations that can censor Web sites, for example, Internet providers, parents, and third parties. The creators of PICS has designed the system to let the market decide. Rather than holding the site ratings internally, their standard provides that the browser holds just an Internet address pointing to a computer somewhere else that holds a ratings list. This means that any person or organization in the world can set up a ratings service, and computer owners can pick any ratings service for their own use. *Id.*; *see also* Resnick & Miller, *supra* note 35, at 87.

41 Atwood, *supra* note 15, at 3.

42 Eric Elgar, *Internet Explorer Sets Fourth-Generation Browser Standard*, COMPUTER RESELLER NEWS, Aug. 26, 1996, at 8.

43 *Id.*

standard.[44] The RSAC*i* system is a Web-based questionnaire that queries the user about the content of a Web page or directory tree based upon the content categories shown in Figure 1.[45]

FIGURE 1: RSAC*i* CONTENT ADVISORY CATEGORIES

LEVEL 0	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
VIOLENCE: content may include				
Harmless conflict: some damage to objects	Creatures injured or killed; damage to objects; fighting	Humans injured or killed with small amt. of blood	Humans injured or killed; blood and gore	Wanton and gratuitous violence; torture; rape
NUDITY: content may include				
No nudity or revealing attire	Revealing attire	Partial nudity	Non-sexual frontal nudity	Provacative frontal nudity
SEX: content may include				
Romance; no sex	Passionate kissing	Clothed sexual touching	Non-explicit sexual activity	Explicit sexual activity; sex crimes
LANGUAGE: content may include				
Inoffensive slang; no profanity	Mild expletives	Expletives; non-sexual anatomical references	Strong, vulgar, or hate language; obscene gestures	Crude, explicit sexual references; extreme hate language

Upon completion of the questionnaire, a PICS meta-tag similar to the one previously shown is returned to the user to be placed in the file header. There is also the option to place the RSAC*i*

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[44] *See Parents' Group Protesting "Incomplete" Child Protection in Microsoft Browser*, REP. ON MICROSOFT, Aug. 26, 1996 [hereinafter *Parents' Group*].

[45] Hiawatha Bray, *Rated: P for Preemptive System to Shield Kids from Adult Web Material Also Seeks to Keep Censors Off "Net,"* BOSTON GLOBE, July 25, 1996, at E4; *Parents' Group*, *supra* note 44.

> RSAC*i* is a voluntary rating system whose questionnaire asks highly specific questions about the level, nature, and intensity of sex, nudity, violence, and offensive language found within the Web master's site. Once completed, the questionnaire is submitted electronically to the RSAC Web server, which tabulates the results and produces the "html" advisory tags that the Web master then places on their Web site. A standard Internet browser, or blocking device, that has been configured to read the RSAC*i* system can recognize these tags, enabling parents who use the browser to either allow or restrict their children's access to any single rating or combination of ratings. RSAC said more than 2,000 Web sites have rated with RSAC*i*, including Playboy, CompuServe, and Cnet.

Id.

symbol on the Web page. The service does not currently provide message integrity checks or digital signatures, but is free to anyone interested in labeling the contents of a Web site.[46] It is expected that many of the attributes of the previous RSAC system will be extended to RSAC*i*, including the sampling of sites for labeling veracity and compliance with the terms of service that a user agrees to before receiving the label.[47]

Providing labels on Internet content is only half of the content control problem. Internet users must have the capability to use the labeling data to make decisions about what content they want to be able to access from their computers. A PICS-enabled browser is able to detect a PICS label on a web site being accessed and to decode it. It is also able to block that site from being accessed if it has a label that has been designated inaccessible to the requesting computer, This mechanism is established by activating the blocking feature of the browser.

For example, in Microsoft Internet Explorer 3.0 under the Security options, there exists an option called Content Advisor. When a parent enters that option, he or she is presented with the RSACi content labeling system. A parent can use a slider to set the level from 0 - 4 for each of the four content areas of nudity, sex, violence, or language. He or she can also decide whether to block all unrated sites or not. The feature is then enabled with a password known (hopefully!) only to the parent who can disable or enable the feature with the password. After activating the blocking capability, the computer will not allow any sites with a higher rating to be accessed on that machine. Instead a message which states that the "site is inaccessible to this machine" will appear on the screen if such a site is requested by the user.

ROLE OF RSAC*i* ON THE INTERNET

The potential role of RSAC in the labeling of Web content is complex. Just as the production and distribution of Web content is more than a matter of placing an "html" document on a server, RSAC*i* and other PICS-compliant rating systems are more than the voluntary insertion of labels into documents by their creators. This simple act is only the first step in a strategically and technically complex flow of information from origin to destination. This section presents an analysis of RSAC's relations to the production and distribution of content.

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[46] Elgar, *supra* note 42, at 8.
[47] *Parents' Group*, *supra* note 44.

The production and flow of content is neither a vertically integrated production chain—the same people who create the content do not necessarily provide the conduit and browser[48]—nor is it a purely distributed and segmented market.[49] Although this market is highly compartmentalized, the need for market efficiencies will drive the creation of strategic alliances and standards between functional domains (such as on-line companies and browsers). This consequently affects the delivery paths and quality of content. Included in this rapidly evolving market are content producers, content hosts, other rating services, bots, search engines, directories, filters, Internet Service Providers ("ISPs"), on-line services, protocol developers, and browser/software companies (see Figure 2).

Content Producers: Commercial and non-commercial developers of Internet information and Web sites range from single individuals to huge multi-national corporations. They may or may not have incentives on their own to provide content advisories through a system like RSAC*i* with the information they produce.[50]

Web Farms[51]/Content Hosts:[52] Web farms and content hosts provide server services to individuals and organizations that lack the means or interest to support their own server. As a defense against charges of harboring objectionable material without proper safeguards, these entities may encourage or require content developers to self label. For example, CompuServe has endorsed the RSAC*i* system through an implementation with CyberPatrol,[53] and has encouraged individual and institutional content developers on its systems to employ the RSAC*i* labeling system.

Search Engines[54] and Agents:[55] Search engines and agents lay

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48 *See generally* Robert P.L.I. Somerville, *The Shift From Vertical Integration*, PHYSICAL EXECUTIVE, May 1, 1996, at 13.

49 *See generally* Greg Lyles, *The Golf War Veteran*, MARKETING TOOLS, Nov. 1, 1996, vol. 3, at 8.

50 Barbara Quint, *Reality Check For Traditional Online: Free, High Quality Web Information Challenges Fee-based Online Services*, INFO. TODAY, Feb. 1, 1997, at 7.

51 Rozana Sani, *Sun to Focus on Setting Up Web Farms*, NEW STRAIT TIMES, May 23, 1996, at 9.

52 Mitch Ratcliffe, *Narrative Wants to Help CD-ROM Refugees Tell Networked Stories*, DIGITAL MEDIA, July 17, 1996, at 9.

53 *See supra* note 29.

54 ACLU v. Reno, 929 F. Supp. 824, 837 (E.D. Pa. 1996); *see* Pam Park, *Developing Site Shouldn't Be So Overwhelming*, KNOXVILLE NEWS-SENTINEL, July 28, 1996, at D1.

55 Stephen Lynch, *Bot Program Can Provide Limitless Use*, AUSTIN AM.-STATESMAN, Feb. 8, 1997, at D1.

outside of the direct path of content flow—one does not need a search engine. However, they often provide an important value added service[56] in channeling and selecting information. As such, search engines may gain from being compatible to PICS because label information may improve searching and indexing capabilities. This, in turn, may be a further incentive to content developers to adopt RSAC*i* and other PICS-based rating systems.

Bots:[57] Bots travel from site to site retrieving information of interest to their owners. Since bots are personal, discriminatory spiders, their ability to search and retrieve content with content labels has implications similar to that of search engines. As bots gain the ability to communicate with each other (one could now call them "agents"), PICS-compliant labels could become the language for communicating about the preferences of their owners.

Internet Service Providers ("ISPs"): ISPs connect one point on the Internet to another.[58] They have been viewed by governments as convenient points of control. Thus, legislators are eager to make ISPs legally responsible for the material they carry. In response to this threat of regulation, ISPs show great interest in RSAC*i* as an alternative.

Browsers: Browsers are used to access information on the World Wide Web.[59] Microsoft has incorporated the RSAC*i* PICS implementation into its most recent browser product, the Microsoft Internet Explorer.[60] Such an agreement is valuable to browser companies because it addresses parental and institutional concerns about restricting access to inappropriate material. One point of particular interest is that while many of the PICS recommendations will be implemented by these and other browsers, the companies have thus far declined to implement signature verification of the labels, an omission that may put the trustworthiness of RSAC*i* and other PICS-compliant systems at risk.

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56 A corporation which competes against other corporations in providing certain services to customers will sometimes enhance those services in certain ways to differentiate themselves from their competition. This is commonly referred to as value added service.

57 Lynch, *supra* note 55, at D1.

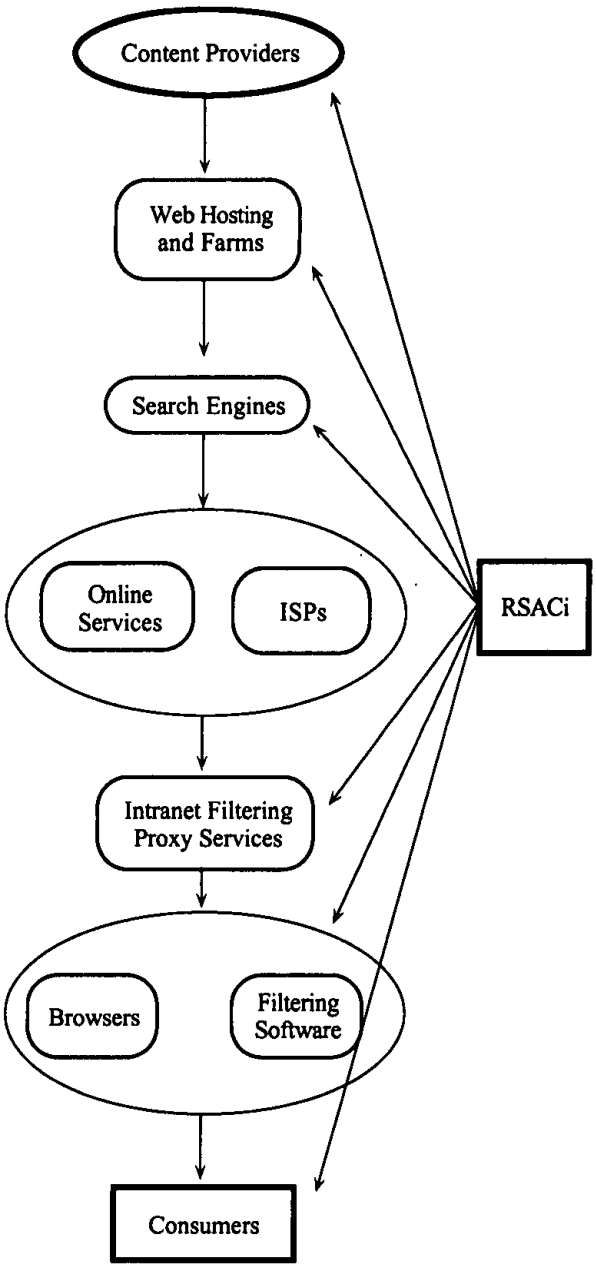
58 ISPs typically offer modem telephone access to a computer or computer network linked to the Internet. *Reno*, 929 F. Supp. at 833.

59 The Web utilizes programs that browse different pages on the Web. Programs that browse the Web can display documents containing text, images, sound, animation, and moving video. *Id.* at 836.

60 *See Parents' Groups*, *supra* note 44 (noting objections raised by competitors such as SafeSurf because the Internet Explorer supports only the RSAC*i* system). As of August 19, 1996, more than 1 million people downloaded the new version of Internet Explorer (3.0) Web browser in the first week of availability. *Id.*

FIGURE 2: STRUCTURE OF CONTENT FLOW ON THE INTERNET / WORLD WIDE WEB

Content
Pathfinder, Playboy/Penthouse
National Geographic, Personal Pages
Web Hosting and Farms
AT&T, BBN
Search Engines
Lycos, AltaVista, Yahoo
Online Services
Compuserve, Prodigy, AOL
Internet Service Providers
BN, Netcom, MCI, AT&T
Intranet Filtering, Proxy Services
Netscape's Proxy
Browsers
MS Explorer, Netscape
Filtering Software
NetNanny, SurfWatch, CyberPatrol



On-line Services,[61] Firewalls,[62] Proxies,[63] and Intranets:[64]

[61] On-line services such as America Online, CompuServe, and Prodigy are nationwide computer networks that provide extensive and well organized content within their own proprietary network. Additionally, they allow users to link up with the larger resources of the Internet. *Reno*, 929 F. Supp. at 833.

[62] A firewall is a computer system designed to protect corporate networks from unwanted Internet content or access. *See* Stephen Wildstrom, *Push Buttons Worth Pushing*, BUS. WK., Feb. 24, 1997, at 106.

These categories include both publicly accessible (AOL, CompuServe, Prodigy) and private/corporate networks. This market has been particularly concerned with inappropriate material. While ISPs have argued for common carrier status, on-line services have invested significantly in the creation of a family oriented image. Hence, they have been the quickest adopters of content selection and screen software such as SurfWatch[65] and CyberPatrol. Corporations are also concerned about the inappropriate activity on their networks, and some are seeking the ability to monitor or screen the activities of their employees using systems like NetShepard.[66] Network services such as Intranet servers, firewalls, and proxies are also points of control for the dissemination of information to an organization.

The relationships between these entities resembles a plumbing system made of reservoirs (containing a variety of liquids), conduits (with a variety of delivery capacities, operating pressures, and flow rates), and control systems (upstream versus downstream regulation), with filtering mechanisms interposed at various points in the plumbing. At each step, information may be redirected, collected, or amplified by a value added service, and companies may take advantage of strategic opportunities for increasing market efficiency and strengthening their position in the market. Given this interesting information flow structure, the relevant question is: which domains (and their boundaries) will be of the greatest significance to labeling services?

NON-RSAC RATING MECHANISMS

Some browser filtering systems have similarities with the RSAC*i* system in that they are PICS- compliant and content descriptive. They may, however, also differ in significant ways.[67] For example, the SafeSurf rating system is also PICS-compliant,[68] yet

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[63] Most firewalls use a method called proxying to screen the content going into and out of a network. *See* Peter Morrisey, *Fortifying Your Firewall*, NETWORK COMPUTING, Feb. 15, 1997, at 56.

[64] An Intranet is an internal corporate network with similar features to the Internet as well as high speed links to the Internet. *See* Amy Cortese, *A Way Out of the Web Maze*, BUS. WK., Feb. 24, 1997, at 95.

[65] *See infra* note 72 and accompanying text.

[66] NetShepherd is the newest organization to provide ratings, and is available at <http://www.netshepherd.com/>. Rafter, *supra* note 20, at 5C. Because it is based on PICS, NetShepherd's database, along with SafeSurf and RSAC*i* ratings, can be used along with Microsoft's Internet Explorer Web browser. *Id.*

[67] *See* Sullivan, *supra* note 36 (discussing the various PICS-compliant ratings systems).

[68] SafeSurf, a parental rating system has rated over 100,000 Web sites, as compared to 300,000 by Net Shepherd. *See* Rafter, *supra* note 20, at 5C (discussing the three organizations that have begun offering ratings services or label bureaus based on PICS); *see also*

more evaluative than the RSAC*i* system in two respects: 1) it includes an appropriateness rating with regard to age; and 2) it provides descriptive labels that have highly judgmental definitions and descriptions.[69]

Other methods for content filtering include mechanisms like SurfWatch, which maintains lists of the Uniform Resource Locators ("URL") with objectionable content.[70] Similarly, NetNanny has filters which block objectionable material (such as curse words) in real time.[71] Although non-RSAC filtering mechanisms may be synergistic in some cases (meaning they may be able to cooperate at some levels), these blocking technologies are different from the RSAC*i* system because they:

1) require proprietary software;
2) are labor-intensive;
3) are not extendible to other areas of concern or interest;
4) realize no economies of scale as the volume of content grows;
5) employ standards that are obscure, somewhat arbitrary, and ultimately restrictive.[72]

CONCERNS

Instability:

The process of content screening and selection will continue to be highly unstable for the near future.[73] One must remember that it is only within the past year that many of these standards and services became available to users of the Internet.[74] As an example of the tremendous pace of events, consider the case of CompuServe. CompuServe has offered SurfWatch as part of its In-

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Atwood, *supra* note 15, at 3 (SafeSurf was the first ratings service); Sullivan, *supra* note 36 (the SafeSurf Internet Rating System has its own Web site, available at <http://www.safesurf.com> (visited Apr. 2, 1997)).

69 *PICS Ready to Go Worldwide as Practical Alternative to Global Censorship of "Net"*, EDP WKLY., Mar. 25, 1996, at 1 [hereinafter *PICS Ready to Go Worldwide*]; *see* <http://www.safesurf.com> (visited Apr. 2, 1997).

70 Rich Schwerin, *Suitable for All Audiences?*, PC/COMPUTING, June 1996, at 315; <http://www.cdt.org/iwg/IWGrept.html> (visited Jan. 5, 1997) (for a report written by the Center for Democracy and Technology in Washington D.C.); *PICS Ready to Go Worldwide*, *supra* note 69, at 1.

71 *See* <http://www.cdt.org/iwg/IWGrept.html> (visited Jan. 5, 1997); *PICS Ready to Go Worldwide*, *supra* note 69, at 1.

72 Rafter, *supra* note 20, at 5C ("Ratings services differ from software programs such as SurfWatch, Cyber Patrol and Net Nanny that block access to a pre-determined set of Web sites and Usenet newsgroups. Publishers of such 'blacklist' software determine objectionable sites, often with user input, and provide updated databases for a monthly fee.").

73 *Web Site Ratings-Shame on Most of Us*, PC WK., Feb. 3, 1997, at 68.

74 *See generally* Kate Gerwig, *Self Ratings for Web Sites*, NETGUIDE, May 1, 1996, at 20.

ternet-in-a- Box, a suite of Internet access applications including software from Spry.[75] A competitor of Spry, SpyGlass, has now bought SurfWatch![76]

Digital Signatures, Intellectual Property and Market Brand:

To engender public trust in labeling systems, any organization like RSAC must ensure that its labels correspond to the content, and that no unauthorized content developers use their labels and their respective icons.[77] On the Internet, while trademarked GIFs may be of some advantage in creating brand recognition, the important "content" with respect to selection software will be the validity of the rating that is accessed by the content seeker.[78] How easily can this text be misappropriated?[79] If a digital signature is provided by RSAC and checked by the browsers for authenticity, it is very difficult. If digital signatures are not incorporated, they may be misused very easily. One could create such a label for an adult Web service without consulting the RSAC questionnaire, and one may do so with malicious intent. Hence, simple encryption technologies would seem to provide the only protection to widely-used labeling systems.

International Issues:

The threat of governmental censorship of electronic media provided the main impetus for the formation of RSAC and the development of PICS. Until this point, we have only considered this issue with respect to the United States. However, an often cited characteristic of the digital realm is its global scope. This can increase the difficulty of developing a content labeling system because the cultural norms of violence, language, sexuality, and

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75 Mark A. Kellner, *Seamless Internet-Compuserve Link, As Long As You're New*, WASH. TIMES, June 12, 1995, at A14 ("Since its $100 million purchase by CompuServe, the folks up at Spry Inc. in Seattle have been working to integrate their Windows Software, called Internet-in-a-Box, with CompuServe's on-line service software, WinCIM."); *see* Karen Rodriguez, *CompuServe Offers Host Services and Full Internet Access*, INFOWORLD, Dec. 12, 1994, at 52 ("Following a deal . . . with Spry Inc., the makers of Internet-in-a-Box, CompuServe plans to offer CIS users Internet access via its WinCim front-end. Users will get automatic Internet Protocol connections and an integrated package of Internet applications.").

76 *See Spyglass to Buy SurfWatch Software*, S.F. CHRON., Apr. 25, 1996, at B3 ("Internet software company Spyglass said it will acquire SurfWatch software of Los Altos in a stock swap valued at about $12.6 million. [Spyglass] plans to incorporate SurfWatch technology into its products.").

77 *See, e.g.*, Bray, *supra* note 45, at E4 ("[RSAC executive director Stephen Balkam] admits that [Website operators using] his system could lie about their content, thus making a sexually explicit site available for children. But Balkan said that RSAC will patrol the Web in search of such violations. Companies that post fraudulent RSAC ratings could be liable to legal penalties for fraud.").

78 Mark Gibbs, *Using GIF Animation: Web, Browser, Action!*, INTRANET MAG., Feb. 24, 1997, at 9 ("GIF stands for Graphics Interchange Format, a technique CompuServe, Inc. invented for encoding image data.").

79 *See* <http.www.w3.org/pub/WWW/PICS> (visited Dec. 12, 1996).

political freedoms differ across the globe, and there are no cultural boundaries in cyberspace.[80] Hence, content which may be considered appropriate within one culture, may be considered inappropriate to others. Governments have been attempting to legislate technical infrastructure requirements because of indecency or cultural concerns.[81]

An immediate difficulty with evaluative labeling systems is that what may be appropriate for one culture may be highly inappropriate for another. Fortunately, the PICS system allows for multiple rating systems, services, and label bureaus. As an example of a potential problem, consider the German government's aversion to Nazi propaganda.[82] Without requiring draconian regulation of infrastructure or ISPs, Germany could require that all browsers and ISPs use a labeling system and label bureau for filtering information pertaining to Nazism. All PICS compliant browsers must be able to read label system definitions from a configuration file, and the government would be responsible for developing the appropriate rating and labeling services. This technique could be extended even further by totalitarian nations such as China to filter sensitive information, if all access is required to go through gateways that employ filtering software.

RSAC*i* has an advantage in the international market because systems that use straightforward content description rather than age appropriate evaluations will have greater applicability and adaptability across multiple cultures. While there is some cultural bias within the RSAC system, efforts to extend the system while keeping it very content oriented would allow it to have international scope. Some countries may associate different icons or names with the ratings differently, but the numeric value of a descriptive rating would stay the same. Potentially, this would extend usage of the RSAC*i* system beyond the United States, and enable it to become an international content labeling service.

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80 *See generally* Symposium, *Regulating the Internet: Should Pornography Get a Free Ride on the Information Superhighway?*, 14 CARDOZO ARTS & ENT. L. J. 343 (1996).

81 *See, e.g., id.* at 346 (discussing Singapore's efforts to use on-line communications to monitor its citizen's activities, thoughts, and expressions).

82 The Post-War German Constitution limits freedom of expression by banning the incitement of racial hatred, organizing neo-Nazi political movements, and the public display of Nazi symbols, save for educational purposes. Recent problems enforcing these laws have included the mailing of such materials from the United States. *See Germany Moves to Try U.S. Neo-Nazi in Pre-Trial Custody*, DEUTSCHE PRESSE-AGENTUR, Feb. 7, 1996; *Court Rejects Government Ban on Neo-Nazis*, DEUTSCHE PRESSE-AGENTUR, July 30, 1996; *Ku Klux Klan Reported Active in Germany*, DEUTSCHE PRESSE-AGENTUR, Sept. 8, 1994.

CONCLUSION

A common saying among those who study the Internet is that, "three months are one Web year." However, there are a number of observations one can make about content labeling as it exists today. One observation is that this market is extraordinarily dynamic. Many of the filtering companies discussed in this case study are one to three years old. Some of the companies are likely to go out of business, or be purchased by larger content or infrastructure organizations, as has happened with SurfWatch.

The dynamic nature of the Internet leads one to realize the importance of cooperation between the entities discussed. It is imperative that with the chaotic development and flow of information on the Internet, standards such as PICS be adopted at each level of information delivery to bring some sense of order and control to concerned users. It is in this spirit of cooperation that disparate organizations such as RSAC and Microsoft have worked together to use the PICS encoding system to develop a content labeling and blocking mechanism and to make the system available as widely as possible. The ultimate goal of such content advisory systems is to provide a technical alternative to government regulation and censorship of the Internet and to empower members of the public to make informed decisions based upon their own value systems about the appropriateness of content when accessing the Web.