Children And Internet Use: Perceptions Of Advertising, Privacy, And Functional Displacement

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ABSTRACT

Fourth-graders demonstrated the ability to identify the persuasive intent of commercial Web sites, and to distinguish between commercial, nonprofit, and government sites based on information-giving, entertainment, or persuasion functions.

INTRODUCTION

The ubiquity of the Internet and the increasing ease of access to it from households, schools, public locations such as libraries, shopping malls and hotels, as well as via mobile wireless devices, have raised questions about the impact of the Internet on society in general and on children in particular. As the Web becomes increasingly visible and available to children, the ways in which the Internet and its content are perceived and used by children has become the subject of investigation by researchers, parents, educators, and policymakers.

Three important areas which have attracted the focus of researchers include the Internet's impact on young consumers' decision making, Internet security and privacy issues as they relate to young children, and the Internet's potential to displace other media-related and nonmedia-related activities in which children would otherwise engage.

BACKGROUND OF THE STUDY AND REVIEW OF THE LITERATURE

Young People And Time Spent Online

Internet use among young people is widespread and continues to grow. U.S. Census Bureau figures from 2001 indicate that 75% of teens ages 14 to 17 and 65% of children ages 10 to 13 use the Internet (U.S. Department of Commerce, 2002). Studies from the Pew Internet Project (Lenhart, Rainie, and Lewis, 2001) and the Kaiser Family foundation (2001) report that between 73% of teens 12 to 17 and 95% of teens 15 to 17 have gone online. The figures from a 2004 study indicate that the proportion of U.S children and teens 8 to 18 who have ever gone online has grown to 96% (Kaiser Family Foundation, 2004).

Not only are more young people going online, but the average time spent online is substantial. Nearly half (42%) of young children ages 12 to 17 go online every day (Lenhart, Rainie and Lewis, 2001), and spend at least 45 minutes online per day, on average (Woodard, 2000).

Attribution Of Persuasive Intent And Attitude Toward Commercial Content

Because of the commercial nature of many websites, with some writers claiming that more than two-thirds of child-oriented websites are supported by advertising (Neuborne, 2001), concern about the impact of the Internet on young people has centered on their ability to identify the persuasive intent of commercial websites. As previous research of television advertising's impact has shown, children who understand the selling intent of TV commercials

are less likely to believe them or to like them, and are less likely to want the advertised product (Robertson and Rossiter, 1974).   Few studies, however, have examined children's understanding of Internet advertising or commercial websites, to determine the degree to which persuasive intent of Internet sites is understood by young children.

Online Privacy And Requests For Personal Information

Many commercial websites have requested personal information from children, about themselves or their families, prompting Congress to pass the Children's Online Privacy Protection Act (COPPA) in 1998, which was implemented by the FTC in 2000, to protect the personal information collected in interactions with commercial websites from children under the age of 13.   The Act, designed to prohibit unfair or deceptive practices in connection with the collection, use, and/or disclosure of personal information from and about children on the Internet, requires website operators who collect personal data from children to clearly reveal the name and contact information of all individuals with access to the information, explain how they will use the information, and obtain verifiable parental consent before collecting, using, or disclosing the information.

The degree to which children under the age of 13 find it acceptable to divulge information about themselves and their families is thus an area of significant interest.   One study reports that 39% of children ages 13 to 17 have freely shared information about their allowances, their parents' store preferences, and how their parents spend their weekends with online data collection sites (Turow and Nir, 2000).

Displacement Of Social Activities And Media Use By The Internet

A third area which has attracted the Interest of researchers is the Internet's ability to displace other media-related and nonmedia-related activities in which children would otherwise engage.   For some children, the novelty of the Internet may have the potential to prevent participation in sports or social activities, or in consumption of other print or electronic media.   Many studies have examined the potential for emerging communications media to displace established media (Henke and Donohue, 1986; Henke, et al., 1984; Krugman and Rust, 1987; Lasswell, 1949; Rubin, 1983) and other activities besides media use (McLuhan and Fiore, 1967).   Some have identified a "novelty effect," the tendency of a new medium to achieve initially high attention and displacement potential which diminish over time (Henke and Donohue, 1986).

One study conducted in 1999 with fourth-graders who were new to the Internet suggested a novelty effect, in that 39% were willing to forego their favorite activities, including social activities and consumption of other media, to surf the Internet (Henke, 1999).   However, in more recent studies with more experienced Internet users, Internet use has been shown to promote "media multitasking"—that is, engaging in more than one media activity at a time, such as checking email while listening to music and playing computer games (Foehr, 2006).   Media used simultaneously with the Internet are not being displaced.

The impact of the Internet on social relationships has been investigated in a recent study, which indicated that for 64% of children ages 12 to 17, Internet use cuts into time they would otherwise spend with their families, while for 62%, Internet use does not detract from time spent with friends (Lenhart, Rainie, and Lewis, 2001).

FOCUS OF THE PRESENT STUDY

The present study sought to determine young children's understanding of the purpose of commercial websites, beliefs about the appropriate response to online requests for personal information, and potential to displace other activities in favor of Internet use.

Toward that end, the authors interviewed a sample of fourth-graders and their parents. Parents were asked to provide information about household Internet use. Children were asked about their perceptions of commercial and noncommercial Web sites, preferences regarding Internet and non-Internet activities, and beliefs and behaviors with regard to security and privacy issues.

METHODOLOGY

Procedure

The study consisted of two distinct phases. In Phase One, parental consent forms were sent to students' homes with a brief description of the study and a questionnaire to be filled out by students with the aid of their parents. Parents were asked to indicate their willingness to allow their children to participate in Phase Two of the study.

For Phase Two, children who had permission to participate in the study were taken from classrooms in groups of eight or nine at a time. In a room provided by the school, the children watched a videotape of a simulated Internet session portraying visits to several websites. At four separate points in the simulated Internet session, the videotape was paused, and children were instructed to answer questions about what they had just seen. Children filled out the survey forms by themselves as research assistants read the questions.

Sample

The participants in the study were fourth-graders who ranged in age from nine to eleven years. The sample of 39 fourth-graders attended a public school in a small town outside of Durham, New Hampshire, and was composed of nearly equal numbers of boys (54%) and girls (46%). A majority (54%) had older siblings. Most (89%) had a computer at home.

Variables

The surveys sent home with the parental consent forms were designed to assess the degree, frequency, and purpose of Internet use in the home generally and by the student specifically; the degree and type of interaction with family members and friends related to Internet use; household rules about Internet use; site-control equipment (such as Net Nanny or CyberPatrol) employed in the household; and classification data such as age, gender, and presence of older and younger siblings.

The questionnaires administered to the children during and following viewing of the videotape measured perceptions of the purpose of various commercial and noncommercial Web sites, perceptions of the profit motives of organizations with the various websites, and beliefs and behaviors related to security frames and data collection sites. Finally, questions measured the children's willingness to forego their preferred after-school activity in favor of using the Internet.

Analyses

Data were coded and subjected to SPSS analysis to determine frequencies for all closed-ended measures. Answers to open-ended questions were coded and tabulated separately.

FINDINGS

Internet Experience

All of the children were Internet users. Almost all (97%) had used the Internet at school, and more than half (54%) had also used it at home, where their parents and siblings are users. Most of the children were veteran users, having first used the Internet a year (43%) or more (31%) before the study.

Mass vs. Interpersonal Sources Of Information About The Internet

Adults play an important role in the socialization of children to Internet use. The majority of children learned about the Internet from an adult, either a teacher (49%) or a parent (34%), and said they discuss the Internet at least "sometimes" with parents (57%) and teachers (54%). A majority (52%) also said they discuss the Internet with friends.

Learning about specific sites of interest, however, is likely to occur because of contact with magazines (46%) and television (46%) as well as communication from interpersonal sources, though interesting sites are identified by teachers (55%), parents (54%), and older siblings (32%). Interestingly, none of the children (0%) said they learned about interesting sites from younger siblings, and most (60%) said they "never" or "almost never" learned about interesting sites from their friends. Therefore, for the children in this study, adults share their influence with mass media, but are a greater source of influence than peers and siblings.

Solitary Internet Use vs. Use With Others

The fourth-graders in this study were fairly independent Internet users, reporting that they used the Internet alone (52%) more often than not. They also reported using the Internet with teachers (51%) and parents (45%). By contrast, a large majority (88%) said they rarely or never used the Internet with their friends. Thus, for the children in this study, adults play a greater role than peers in hands-on guidance of Internet use.

Household Rules For Internet Use

Many of the children use the Internet at home, primarily for fun (86% of home-based use), and a majority of their households have established rules for Internet use. Most households (51%) require parent supervision of Internet use and also place restrictions on the type of sites that can be visited (23%) or the types of information that can be given (5%). In homes where no parent supervision is required, 20% place limits on the types of sites allowed and on information-giving. Nearly half (48%) use site-control equipment and filters (such as NetNanny or CyberPatrol).

Other households place limits on the amount of time allowed for using the Internet (5%) or require that homework be completed prior to Internet use (5%).

Internet use by children in the study was moderated by parents.

Patterns Of Internet Use At Home

Children reported using the Internet at home on the weekend (49%) and during the week (41%), and remaining online up to two hours at a time. They are equally likely to "surf"—find new sites with each visit—as they are to be regular visitors to specific sites.

Most of the children (80%) reported having one or two sites they visit regularly when using the Internet at home, primarily related to toys (62%), sports (15%), or entertainment such as television programs (10%). A majority of children (77%) identified the sites by brand name.

Perceived Purpose Of Commercial And Noncommercial Websites

The children were accurate in their assessments of the purpose of several different commercial and noncommercial websites. Asked to identify whether the purpose of each of six specific websites was to inform, entertain or advertise, large majorities correctly identified advertising as the purpose of the websites for Toys 'R Us (97%) and Sony (77%). Substantial majorities identified information-giving as the function of the websites for the CIA (91%), CNN (91%), and the Boston Museum of Science (66%). A large majority (89%) identified

entertainment as the purpose of the Nickelodeon website. Children's responses regarding the purpose of the six websites is shown in Table 1 (available from authors).

Perceived Purpose Of Organizations With Websites

Because motives assigned to an information source affect the way consumers evaluate information, children's assessments of the purpose of the organizations sponsoring the selected websites were also measured. Asked to identify whether the purpose of each of the six organizations with websites was to sell products and services, inform or entertain the public, attract an audience and sell ads, or gather information for the government, the children demonstrated high levels of awareness. Majorities identified selling products and services as the purpose of Toys 'R Us (97%) and Sony (57%). Informing or entertaining the public was identified as the purpose fo the Boston Museum of Science (by 74%), CNN (63%) and Nickelodeon (60%). A majority (71%) reported that the purpose of the CIA was to gather information for the government.

Table 2 (available from authors) depicts the perceived purpose of the six organizations with websites in the study.

Identification of selling as the purpose of Toys 'R Us was nearly unanimous, while Sony was perceived to be more multifunctional in nature. As a company selling enteetainment, Sony was also identified as being in the business of attracting audiences and selling ads (20%) as well as informing or entertaining the public (17%). That a large majority (77%) assigned a type of selling intent to Sony, however, resonates with the majority response (77%) that the purpose of its website was to advertise.

Similarly, the entertainment company Nickelodeon, whose website's purpose was identified as entertainment by (89%), was judged to have dual functions of informing or entertaining the public (60%) as well as selling ads or products (40%). Thus, the children in the study distinguished between functions of commercial entertainment media and retail packaged goods outlets.

Asked whether each of the six organizations was in business to make money, majorities identified a profit motive for Toys 'R Us (100%), Sony (97%), Nickelodeon (74%), the Boston Museum of Science (66%), and CNN (57%). The CIA was perceived not to be in business to make money by a large majority (86%). Table 3 (available from authors) reports perceptions of profit motive for the six organizations.

Displacement Of Activities By Internet Use

Displacement of social activities and consumption of other media is not likely to occur among the seasoned Internet users in the present study. A large majority (89%) of the children said they would prefer to engage in their favorite after-school activity than to use the Internet. Favorite after-school activities included playing with siblings or friends (named by 26%), playing a sport (20%), watching TV (11%a), and playing video games (9%).

Privacy And Security Issues

Asked the meaning of the security frame which appeared in the simulated Internet session, the children gave a variety of responses including remarks that it indicated problems with the site (11%), a chance to download (9%), a site not for children (6%), or a site whose information was protected (6%). Only 3% reported that the security warning meant that other people could get access to personal information of those who remain on the site. Asked what they should do when they see a security warning, most (54%) had no answer, but 26% said they should read the warning and stop surfing, and another 20% said they should press "OK" and continue to surf.

Shown the Sony website requesting personal data, a large majority of the children (89%) said they have seen requests for personal data like it. Half as many (40%) said they had filled out a similar form in the past.

Asked what they should do when confronted with such a request for personal data, they answered: ask a parent or other adult (46%); don't fill it out (17%); or get out (9%). Only 11% said they should fill it out, and 3% said they should give false information.

DISCUSSION AND IMPLICATIONS

The fourth-graders in the present study, who are veteran Internet users, demonstrate sophistication in their ability to identify the persuasive intent of commercial websites as well as to distinguish between the informational, entertainment, and persuasive functions of commercial, nonprofit, and government websites. Their understanding of the websites is consistent with their assessment of the motives of the organizations whose websites they see. The children are adept at identifying profit motives or organizations, and distinguishing between organizations on the basis of their purpose to inform, entertain, or sell.

Displacement of media audiences and substitution of social activities is unlikely to occur as a result of Internet use among the seasoned Internet users in the present study. Although their behaviors indicate that they enjoy using the Internet on an almost daily basis, they are largely unwilling to forego other activities in order to surf the Web. It is likely that, for these users, the novelty of the medium has worn off, and Internet use takes its place among the other activities and interests in the children's lives.

The study's findings also confirm the important role that teachers and parents and, to a somewhat lesser degree, older siblings play in influencing young children's choices related to Internet use. While most of the children agreed that the appropriate response to a website request for personal data was not to comply with the request, there was considerable uncertainty regarding the meaning of, and appropriate response to, security warnings. Because parents, teachers, and older siblings are consistent sources of influence regarding Internet use, interaction with them could help to clarify appropriate behaviors in relation to privacy and security issues. As children become more independent users, acquiring information about Internet sites from mass media sources and exploring on their own, monitoring and discussion of Internet use by parents and teachers, and guidance by older siblings, will help to increase children's Internet literacy and enhance the development of competent Internet users.

REFERENCES

1.   Foehr, Ulla G. (2006). *Media Multitasking Among American Youth: Prevalence, Predictors, and Pairings.* Menlo Park, CSA: Kaiser Family Foundation.
2.   Henke, Lucy L. (1999). Children, advertising and the Internet: an exploratory study. In D. Schumann & E. Thorson (Eds.) *Advertising and the World Wide Web* (pp. 73-80). New Jersey: Lawrence Erlbaum Associates, Inc.
3.   Henke, Lucy L. & Thomas R. Donohue (1986). Teletext viewing habits and preferences. *Journalism Quarterly, 63*(3), 542-553.
4.   Henke, Lucy L., Thomas R. Donohue, Christopher Cook & Diana Cheung (1984). The impact of cable on traditional television news viewing habits. *Journalism Quarterly, 61*(1), 174-178.
5.   Kaiser Family Foundation (2001). *Generation Rx.com: How Young People Use the Internet for Health Information.* Menlo Park, CA: Kaiser Family Foundation, available at http://www.kff.org/content/2001/20011211a/GenerationRx.pdf.
6.   Kaiser Family Foundation (2004). *Survey Snapshot: The Digital Divide.* Menlo park, CA: Kaiser Family Foundation.
7.   Krugman, D.M. & R. T. Rust (1987). The impact of cable penetration on network viewing. *Journal of Advertising Research, 27*(5), 9-13.
8.   Lasswell, H.D. (1949). The structure and function of communication in society. In S. N. Katz (Ed.), *Mass Communications.* Urbana: University of Illinois Press.

9.   Lenhart, Amanda, Lee Rainie, and Oliver Lewis (2001). Teenage Life Online: The Rise of the Instant-Message Generation and the Internet's Impact on Friendships and Family Relationships. Washington, DC: Pew Internet and American Life Project, available at http://www.pewinternet.org/reports/pdfs/PIP_Teens_Report.pdf.

10.   McLuhan, M. & Q. Fiore (1967). *The Medium is the Message: An Inventory of Effects*. New York: Bantam Books.

11.   Neuborne, E. (2001). For kids on the web, it's an ad, ad, ad world. *Business Week*, August 13.

12.   Robertson, Thomas S. & John R. Rossiter (1974). Children and commercial persuasion: an attribution theory analysis. *Journal of Consumer Research, 1*, 13-20.

13.   Rubin, A. (1983). Television uses and gratifications: the interactions of viewing patterns and motivations. *Journal of Broadcasting, 27*(1), 37-51.

14.   Turow, Joseph and Lilach Nir (2000). The Internet and the Family 2000. Philadelphia, PA: The Annenberg Public Policy Center, available at http://www.appcpenn.org/internet/family/finalrepor_fam.pdf.

15.   U.S. Department of Commerce (2002). *A Nation Online; How Americans Are Expanding Their Use of the Internet.* Washington, DC: NTIA and ESA, February, available at http://www.ntia.doc.gov/ntiahome/dn.

16.   Woodard, Emory (2000). Media in the Home 2000: The Fifth annual Survey of Parents and Children. Philadelphia, PA: The Annenberg Public Policy Center, available at http://www.appcpenn.org/mediainhome/survey/survey7.pdf.

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