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College Students' Use of the Internet

Anna C. McFadden
University of Alabama

Introduction

Over the last several years there has been mounting concern about children being exposed to sex-related material on the Internet. Concern about pornography and obscenity is widespread and this concern has spawned a host of products to block or filter content. The notorious *Time* magazine article (July 3, 1995) "Cyberporn"--which *Time* later acknowledged had doubtful credibility (July 24, 1995)--undoubtedly inflamed this trend. The article, which asserted that much of traffic on the Internet dealt with pornography, was based on the largely discredited research of a Carnegie Mellon undergraduate student who examined 32 alt.binaries newsgroups on Usenet, not the Internet. Nonetheless, the article was fodder for the Communications Decency Act of 1996. While the Supreme Court struck down the Act, pending bills such as the "Safe Schools Internet Act" (H.R. 3177) would require all public libraries and schools that receive federal funds for Internet access to install blocking software to restrict minors' access to "inappropriate" material. Other pending bills would punish commercial online distributors for access to material they do not directly control and require service providers to offer blocking software to customers.

While most students who use computers in university computer labs are legally adults, many are not. If laws restrict access to minors, there will be a host of technical problems to provide access to scholars and adult students. Labs are open spaces where students come and go, using computers for many purposes but only part of the time for

Internet access. Determining policies and creating procedures to implement and monitor policies will entail considerable resources for something that may not be a serious problem and something that cannot be effectively controlled with filtering software. It could require students to present identification to prove they are adults in order to access certain computer resources, not to mention the procedures that would be used to restrict access to those who are minors. There is no way to verify age on the Internet, so the responsibility would fall to the school staff. For the time being, most universities have policies that limit computer use to legitimate educational purposes, and students in most universities have mainly unrestricted access. There is little or no information about how the Internet is used in such settings.

Purpose

The purpose of this study was to determine the nature of Internet uses by students in a computer lab of a major state university. Of particular interest was the percentage of "hits" associated with pornography and gambling sites.

Setting

The study was conducted in an "open" computer lab of a major state university. The lab contained 62 computers, 2 of which were inoperative at the time of the study. The lab is available to any student on the campus and is open six days a week for approximately 70 hours each week. Any student may simply enter the lab, take a seat, and begin using the computer. All 60 computers had Internet connections, ear phones, CD- ROM, and were equipped with standard tools, such as word processing, database, spreadsheet, presentation software, graphics, statistics software, and other applications.

Method

Due to the fact that the computers in the lab are open, no computer is assigned to any particular student or group. There was no way or any wish to identify any student who used a computer, and all computers have several different users each day. Also, students do not store personal files on the computer but keep their files either on a literal drive on the network or copy their files to floppy or zip disks. A student may use any particular application for long periods of time, such as word processing or a statistical package, so Internet use is intermittent.

The researchers elected to randomly select 10 percent of the computers for the study. Thus, 6 computers were selected with the aid of a table of random numbers. The researchers copied the Internet cache of the six computers at the same time in the late afternoon on January 25, 1999. This date was selected, in part, because it was assumed that dates close to holidays (e.g., Christmas, Halloween, and Valentine's Day) would lead to spurious results with "hits" unrelated to normal usage. It should be emphasized that the cache provides anonymous information in an open lab. No attempt was made to examine the cache of any office computer because this would be an intrusion on privacy, and only computers in the open lab were studied. No attempt was made to determine how long each computer was used for Internet activity or the amount of time in any particular category of Internet activity.

Results and Discussion

The six computers had a total of 2,310 Internet "hits" stored in cache for an average of 385 per computer. This seemed to be rather small, perhaps because the cache limit was set at low levels for two reasons: (a) different users do not benefit from cache memory as a single user would, and (b) a lower cache limit frees up space on computers that are heavily loaded with many different software programs. Nonetheless, the cache records served as a useful sample of activity for purposes of this study.

It should be emphasized that the percentage of "hits" indicates the sites contacted, not the percentage of time the computer was actually used for any purpose. A computer may be off line for many hours for word processing or the amount of time a student accesses a "course site" may be for the purposes of getting an assignment. The data were organized into convenient categories for data analysis, although our intent was to examine the contents specifically for sexually explicit or gambling related sites. Nearly half of Internet use was accounted for by a category labeled "General Sites." Due to the number and diversity of these sites, it was decided to categorize them under this general heading. These included sites apparently related to course activities, research, or personal interest, including anatomy, science, books, literature, airlines, government web sites, health and disease, psychology, business statistics, and the like. This is the largest category reported because of the way the data were collapsed for categorization. The complete categorization of "hits" appears in Table 1 below.

Table 1
Number and Percentage of Internet Use

Type of Site	Count	Percent
Sites (General)	1094	47%
Mail	647	28%
Chat	133	6%
Search	133	6%
Sports	137	6%
Course Sites	102	4%
News	30	1%
Sex	29	1%
Games	2	0%
Radio	3	0%
Total	2310	99%

(Note: Due to rounding the total does not reach 100% and games and net radio use are below 1%.)

No gambling sites (0%) were contacted and contact with sexually explicit sites was low (1%). Many e-mails were sent or received (28%). Course-related activities as well as personal use might account for much of this e-mail, although personal use is probably high. Internet Chat represented 6% of activity, some of which may also be accounted for by course requirements. An equal percentage of activity involved contacting sports related sites (6%), such as ESPN, university sports pages, and the like.

If this study is representative of the college population, the overwhelming use of the Internet in an open computer lab conforms to university acceptable use policy. There is far less use of lab computers to contact pornographic sites than we have been led to believe; in fact, there was almost none. There was as much interest in news (1%) from online sources, such as MSN or CNN, as there was interest in sex. Pending legislation that could impact university labs would require a potentially expensive and cumbersome procedure for a very minor problem. This "snapshot" of college student computer use on the Internet reveals a picture remarkablke in its "ordinariness."

About the Author

Anna C. McFadden

Associate Professor
Instructional Technology
The University of Alabama
Tuscaloosa, Alabama

Phone: 205-333-9185 Fax: 205-333-8288

Homepage: www.bamaed.ua.edu/it

Dr. McFadden teaches doctoral-level courses in instructional technology, including local area network management and development of online media. She is leading a team in initiating Real Audio/Real Video development as part of the web-assisted classes, focusing on asynchronous learning activities. Dr. McFadden and her team, over the last twenty years together, have secured in excess of $6 million in external funding for research and development activities. She also serves as the Editor for Internet In-Sites , a monthly online newsletter for instructional technologists in K-12 schools around the world. She also serves on the Editorial Board for The Internet Source , a quarterly journal for teachers in international schools. As a senior partner in emTech Consulting www.emTech.net, Dr. McFadden is involved in professional development activities in K-12 schools in the USA and around the world.

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General questions about appropriateness of topics or particular articles may be addressed to the Editor, Gene V Glass, glass@asu.edu or reach him at College of Education, Arizona State University, Tempe, AZ 85287-0211. (602-965-9644). The Book Review Editor is Walter E. Shepherd: shepherd@asu.edu . The Commentary Editor is Casey D. Cobb:

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canalesa@servidor.unam.mx

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lucemb@orion.ufrgs.br

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mmollis@filo.uba.ar

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