

INTERNET USAGE AMONG FAMILY AND CONSUMER SCIENCES EDUCATION PROFESSIONALS

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Data from a 1999 survey of FCS professionals were used to determine exposure to and use of the Internet within the field. Overall, the majority of FCS professionals are using the Internet and e-mail. Significant differences in Internet usage were found between those aged 60 and over and those under 60 for educational use of the Internet. Significant differences were also found between white and non-white respondents for e-mail usage and participation in chat groups. FCS educators were more likely than non-educators to use the Internet, including e-mailing, surfing to explore the Internet, and other educational, informational, and communication activities on the Internet.

Why should Family and Consumer Sciences (FCS) education professionals be knowledgeable about the Internet? In addition to the wide variety of knowledge FCS education professionals are called upon to know each day, should they add yet another competency to their long list of duties? There are three main reasons why FCS education professionals need to stay current and knowledgeable about the Internet. First, the Internet can be a useful tool for FCS educators in many fields. Quick access to the latest information can help reduce the time spent in search of information, an important goal for a discipline that is experiencing a shortage of educators, forcing fewer people to do more (Stout, Couch, & Fowler, 1998). Second, as computer and Internet technology have become a greater part of the lives of families and individuals, FCS professionals need to be able to help prepare their clients and students to live and work in a technologically oriented society. Third, FCS professionals who work in educational fields are often the main way that FCS students are exposed to new technology before they enter the workforce, a place where technological skills and basic computer and Internet literacy are becoming a necessity (CEOs speak out, 1998; Hardy, 1998).

There has been a paucity of research on the technological skills of Family and Consumer Sciences professionals. Though few studies have looked at the technical skills required of today's FCS graduates in the job market, overall research has found that the majority of graduates today will be required to exhibit at least a basic familiarity with personal computers and the Internet. For example, a study of textile and apparel businesses found that computer literacy was rated as very important for professional competency (Arnold & Forney, 1998). This finding was accompanied by a call for greater use of the Internet in textiles and marketing education, both for technical competency and for exposure to the global business environment. A study conducted at Iowa State University found that FCS students (sampled from disciplines such as FCS education, Foods and Nutrition, Hotel/Restaurant Management, Human Development and Family Studies, and Textiles and Clothing) are less likely to use computers than students in other colleges at the university (Office of Institutional Research, 1999). Due to the lack of other studies it is not known if these findings are a national trend for Family and Consumer Sciences students. If it is a national trend, there is a need to put more emphasis on

sharing computer and Internet expertise within the discipline and addressing the problems that have prevented FCS professionals from obtaining the degree of technical literacy needed in today's classroom and global society.

Another survey distributed to FCS undergraduate students at a large southern research university found that approximately 85% of students indicated that they believed they would need to know how to find information on the Internet for their future careers (Sweaney, Manley & Meeks, 1999). An even larger percentage (94%) indicated that they would like to learn more about the Internet. Overall, the students in this study showed a strong preference for using the Internet for both personal and academic activities. This study also found that while 83% of students reported using the Internet to research a project or paper, only 56% stated that they had cited an on-line reference in a paper, and only 40% reported that they knew how to cite an on-line reference. This finding indicates that while students have learned how to find information on the Internet, they are still unsure of how to incorporate it into their research properly.

In order for FCS students to become effective FCS educators and professionals, current FCS educators must facilitate technology use within the discipline. Instructors should be expected to be ahead of their students on the learning curve. Studies have shown, however, that across all disciplines instructors often lack the time and/or resources to devote to staying current on the latest technology (DeLoughry, 1996; Hardy, 1998; Pasquinelli, 1998; Whitfield & Bishop, 1986; Woodall, 1997). Additionally, educators may be overwhelmed by the Internet and the millions of webpages it contains with its accompanying lack of organization (Brauch, Gerhold, & Patt, 1996; Carvin, 1997; Grosse, 1998). For educators, especially Family and Consumer Sciences educators who must cover for the increasing number of vacancies in the profession (Nelson, 1999), sorting through the sea of information on the Internet may not seem like a worthwhile investment.

Even current preprofessionals may not be receiving the technological training they will need to keep up with their students when they begin their careers as educators (McQueen, 1999; Moursund & Bielefeldt, 1999; Woodall, 1999). Though improving over time, many primary and secondary teachers may not have access to the Internet in their classrooms (Bare & Meek, 1998). The lack of training and resources leaves many FCS educators on their own when it comes to gaining or improving their technological skills.

Purpose of the Study

The purpose of this study was to ascertain the Internet use and experience of Family and Consumer Sciences professionals in order to better assess the technological status of the field. By determining actual experience and use of the Internet, it will be easier to devote resources to the skills that are most lacking among various groups of FCS professionals. This type of research also provides a benchmark for comparison to other disciplines and professionals and for self-comparisons over time. In the year 2000, the American Association of Family and Consumer Sciences (AAFCS) adopted the theme of Invest in Families: Utilizing Emerging Technology. In order to meet this AAFCS goal of ensuring that families have access to the information and resources necessary to take part in the technological revolution we are experiencing as we begin the 21st century, we must first take stock of the resources we have within the discipline.

The Data

The data in this study were collected with a fall 1999 Internet usage survey of the Georgia affiliate of the American Association for Family and Consumer Sciences (GAFCS). The survey was developed based on the National Consumers League (NCL) instrument used for their 1999 Consumers and the 21st Century study (Krane & Cottreau, 1999). The GAFCS survey was mailed out to approximately 400 members. Completed surveys were returned by 111 non-students (professionals).

On the survey, respondents were asked if they used the Internet; if so, they were then asked more specific questions about their Internet activities. Respondents were also asked to report their race, age, and occupation. The survey included questions on 15 typical Internet activities, ranging from e-mail and communication to education and entertainment. Respondents were asked to reply yes or no for each category of Internet activity.

Survey Results

Analyses of the Internet usage survey were conducted for the entire group of respondents and for three distinct subsets of respondents. Respondents who identified themselves as teachers, professors, instructors, extension agents, or any education-related professions were collapsed into one category labeled educator. Since respondents self-identified their occupation, rather than describing their job duties, it is possible that some respondents who actually have educational components to their jobs were not included in the educator sample. Results were also calculated separately for respondents aged 60 and over and non-white respondents. Non-white respondents were primarily African American (13.2%).

Results of the 1999 Internet usage survey are reported in Table 1. Values in the table represent the percentage of respondents answering affirmatively (yes) that they use the Internet for the specific activity in question. Chi-square analysis was used to determine if there were significant differences between educators and non-educators, respondents over age 60 or older and respondents under age 60, and non-white and white respondents.

Table 1
Internet Experience Questionnaire Results

(% answering yes)	All professionals (n=111)	FCS educators (n=65)	Professionals age 60 and over (n=13)	Non-white professionals (n=21)
Use the Internet	81.8%	93.8%*	69.2%	71.4%
Use e-mail	77.3%	86.2%*	69.2%	57.1%***
Use the Internet for:				
Research	75.5%	86.2%*	61.5%	71.4%
Play games	20.9%	23.1%	23.1%	33.3%
Financial Management	29.1%	26.2%	30.8%	23.8%
News, updates, weather	58.2%	61.5%	61.5%	52.4%
Gather infor. on goods & services	68.2%	75.4%	69.2%	61.9%
Purchase good or services	40.9%	43.1%	38.5%	38.1%
Chat groups	2.7%	3.1%	0.0%	9.5%***

Surf to explore websites	55.5%	67.7%	46.2%	57.1%
Find & download software	20.9%	24.6%	23.1%	33.3%
Entertainment	22.7%	24.6%	30.8%	19.0%
Hobbies & interests	39.1%	44.6%	30.8%	38.1%
Business	40.9%	43.1%	30.8%	33.3%
Education	66.4%	86.2%	23.1%	66.7%
Information	74.5%	84.6%	69.2%	66.7%
Communication	65.5%	75.4%	53.8%	57.1%

* Statistically significant difference ($p < .05$) between respondents who work as FCS educators and those who work in non-education fields, are unemployed, or retired.

* * Statistically significant difference ($p < .05$) between respondents under age sixty and respondents aged sixty and older.

* * * Statistically significant difference ($p < .05$) between non-white and white respondents.

Respondents to the survey were primarily white (84.9%) or African American (13.2%). The vast majority of professionals (84.4%) were 40 years or older. Results from the survey also showed a majority of professionals using the Internet for a variety of activities. For the entire sample, an impressive 81.8% of respondents stated they used the Internet and 77.3% indicated that they use e-mail. At least half of all respondents indicated that they use the Internet for research, getting news, updates, and weather, gathering information on goods and services, surfing to explore new websites, education, information, and communication. The categories used by less than half the respondents were playing games, financial management, purchasing goods and services, chat groups, finding and downloading software, entertainment, hobbies and interests, and business.

When comparing educators to non-educators, educators were more likely to engage in every category of Internet activity with the exception of financial management. Results found that 93.8% of educators use the Internet, and 86.2% use e-mail. Educators were significantly more likely than non-educators to use the Internet for activities such as e-mail, research, exploration of websites, education, and communication. Comparing respondents aged 60 and older with respondents under 60, fewer older respondents indicated they use the Internet in general or e-mail, but within the subcategories of Internet activities, older respondents only showed a significantly lower percentage of users for educational use. Comparing non-white respondents to white respondents, significantly fewer non-whites use e-mail than whites, but non-whites are significantly more likely to use chat groups.

Implications and Conclusions

Given the growing importance of technology in most aspects of school, home, and work, it is of the utmost importance that FCS educators and students be technologically prepared for the future. In fact, the importance of understanding the impact of technology on issues important to Family and Consumer Science professionals was highlighted at the 2000 annual meeting of the American Association of Family and Consumer Sciences (Frankel, 2000). In terms of teaching, positive teacher/faculty attitudes toward technology can positively impact their students' use and attitudes toward technology (Robertson & Seaforth, 1999). Therefore, FCS educators can directly impact their students by embracing and promoting the use of technology.

Additionally, integration of technology into the curriculum can help to legitimize Family and Consumer Sciences as an integral part of academia, as it has in other fields (Magnuson-Martinson, 1995). The results of this study indicate that despite increased demands on their time and resources (Nelson, 1999), FCS educators are making use of Internet technology and its applications. Though the majority of respondents are using the Internet and e-mail, FCS educators seem to be the leaders in integrating technology into the FCS curriculum and professional environment. This high degree of Internet use should help maintain and improve the technological skills found in Family and Consumer Sciences. This trend should be maintained and strengthened so that FCS professionals will be leaders rather than followers in the dissemination of digital information.

Additionally, FCS educators may be able to use the vast resources of the Internet and the opportunities it provides for long-distance networking to increase their influence on public policy issues. FCS educators have a long history of influencing public policy in this country (Saunders, 2000), and the Internet provides an ideal medium for policy-shaping activities such as research, discourse, and monitoring of government activities.

A call to FCS teacher educators for “innovative, state-of-the-art programs” to increase the appeal and significance of Family and Consumer Sciences (Smith, Hall, Jones, Cory, & Ethridge, 1998) should also include the incorporation of technology into the curriculum whenever possible. Professionals should also be made aware of the vast array of materials and tools available on the Internet for life management activities such as financial management, price comparisons, and product reviews, since these particular types of resources on the Internet are especially useful in Family and Consumer Sciences. FCS educators can help allay consumers’ fears regarding the security of on-line financial transactions and teach them the criteria for judging the quality and integrity of the websites they visit. Also, by becoming more familiar with Internet resources, professionals will be able to help guide future development of FCS Internet materials and tools. FCS educators should also be made aware of grant opportunities available for technologically advancing the discipline, such as the United States Department of Agriculture’s Higher Education Challenge Grant program (<http://faeis.tamu.edu/hep/menus/msgc~1.htm>).

In order to put solutions in place to remedy deficiencies in computer literacy, the discipline must clarify which skills are most important in the field of Family and Consumer Sciences. However, there is some debate as to what constitutes computer literacy. Essentially, as technology keeps improving the user-friendliness of computer applications, skills such as programming become less important for the average education or business user. Four areas in computer technology have been identified as the most important and basic skills that students should learn: word processing, e-mail, mailing lists, and the World Wide Web (Evans, 1999). This survey found that the majority of FCS professionals, especially FCS educators, are familiar with the Internet and its communication capabilities. In order to maintain this technological vitality in Family and Consumer Sciences, these four areas should represent the minimum included in FCS education. Also, given the finding from a previous study of FCS undergraduates that students seem to prefer using the Internet instead of the library but don’t know how to properly cite Internet sources (Sweaney, Manley, & Meeks, 1999), FCS educators should emphasize Internet research skills and proper usage of Internet resources in their work. FCS educators need to become part of the educational explosion, as there are great opportunities for the FCS field to become experts in the area of training consumers on using the Internet and the tools it provides for managing daily life activities such as shopping, budgeting, education,

entertainment, and information gathering. FCS educators must be prepared for the new educational model based on an e-learning society” (Von Holzen, 2000).

A Call for Future Research

Critical to our future as FCS professionals and educators is the integration of computer technology within the FCS curriculum. One important step is to determine the “state of computer literacy” among FCS professionals and educators nationally. After trends in literacy are determined, mechanisms for addressing educational gaps through trainings and workshop opportunities nationwide can be developed. A simple strategy such as developing a concise one-page comprehensive survey on computer and Internet skills and distributing it at the AAFCS annual meeting, state level affiliate meetings, or by mailing the survey with annual dues reminders could be easily implemented with a minimum of cost and effort. A one-page survey should not add to the original or return postage costs, thereby creating a cost-effective, yet thorough survey of FCS professionals. Other strategies such as placing a survey on the AAFCS or state level affiliate websites could provide insight into the Internet and computer behaviors of members who are already actively on-line. Additionally, if leaders in the profession remained committed to distributing the survey over time, trends in technological literacy within the discipline could be determined. A collective effort would reap great rewards in the future for the profession. The survey reported in this article is but a beginning. Other state-level affiliates of AAFCS are also encouraged to share information regarding the technological experience of their members to add to the base of knowledge in the discipline.

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