

Information Technology and Human Services

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Increasing amounts of scientific and professional information are available through information technology. Government agencies, universities, professional societies and many non-profit organizations are making knowledge available using technology. With this growing body of online scientific and professional information, it is increasingly important for human service providers to have access and be able to use information delivered in electronic formats.

Recent reports by Nua (1998) indicate that the number of U.S. and Canadian Internet users has reached 70 million and estimate that there are over 120 million users worldwide. Almost daily we hear reports about how the Internet and the World Wide Web are transforming commerce and society. These reports raise important questions to consider in regards to how human service providers are using information technology and what their attitudes are about the role this technology can play in their work. There have been several recent reports on the use of information technology by human service and mental health providers. However, most of these reports focus on human service providers who are already online (e.g., Marlowe-Carr, 1997). In only a few instances have there been efforts to obtain a broader sample of human service providers (Biagiante and Jensen, 1996; Stoecker and Stuber, 1997), but the return rates have been low (Biagiante and Jensen--52%; Stoecker and Stuber--30%). It is impossible to tell whether these are representative samples.

The current study seeks to overcome the limitations of previous studies of human service providers by conducting a mailed survey of access and use of information technology from a randomly selected group of human service providers with significant efforts to obtain a high rate of return. In this study we were interested in the following questions concerning human service providers:

1. To what extent is there computer availability and Internet access in the workplace?
2. What are the important potential uses of information technology?
3. What are the professional development and programmatic needs and how are these affected by information technology access?

PROCEDURE

Questionnaires were mailed to a random sample of 220 human service providers in Ohio between January and March, 1998. The original sample was based on mailing lists gathered from a variety of social and human service agencies in Ohio and included about 1700 names. This group was sent several follow-up requests. Twenty-seven questionnaires were returned due to incorrect addresses and six questionnaires were returned because the person was no longer employed at the agency or left the field of human services. A total of 149 completed questionnaires (out of 187 successfully mailed) were returned for an 80% return rate.

SURVEY INSTRUMENT

A questionnaire was developed to obtain information from human service providers. It included definitions of information technology terms (e.g., Internet, e-mail, World Wide Web) so that even providers who were unfamiliar or unclear about this terminology should have been able to accurately answer the questions. Participants were first asked to provide demographic information about themselves and to describe the general nature of their human service activities. Second, they were asked questions about information technology. These questions asked human service providers about: a) use of information technology, b) opportunities for using information technology (4-point scale from 1 strongly disagree to 4 strongly agree), c) needs for technology support and assistance with information technology (4-point scale from 1 strongly disagree to 4 strongly agree), d) specific needs for information (4-point scale from 1 very important to 4 not at all important) and e) ease with which topical information (demographics, funding opportunities, laws, legislation, technical assistance, and service ideas) could be obtained. These were rated from easy access (1) to very difficult access (4).

Most of the participants were in the 45-54 years old age range (48%), female (62.1%), had primary responsibility for administration (67.6%) and the primary area they served was the county (62.2%). The mean years in their current position were 8.2. The participants represented a wide range of service areas including early intervention, health, education, mental health, social work, and general human services. Overall, this was a diverse sample of professionals who work in human services; however, administrators are overrepresented.

A series of data analytic steps were taken to provide a descriptive picture of information technology access and use, opportunities for using technology, professional development and programmatic needs. Tests were conducted to determine the ways these variables were influenced by information technology access.

The first question of interest was the amount of access and use of information technology by human services providers. Generally, these results indicated that slightly over three-quarters of the sample had access to a computer both at home and at work. Although about 35% did not have any access to e-mail, over 50% had access from their own computer. About 40% of the providers surveyed used e-mail on a daily basis. In terms of use of the World Wide Web (WWW), a larger percentage did not have access (about 40%), but still slightly over 50% had direct access to the WWW. Only 15% of this sample were currently daily users of the WWW.

Although the sample was broadly representative of human service professionals, there were more persons with administrative responsibilities in the sample than expected. We examined the results of access and use to see if persons working directly with clients differed from professionals with other work assignments. The results indicated professionals working directly with clients were less likely to have a computer and were less frequent users of the WWW when compared with professionals having administrative, technical assistance or other assignments. About half of direct care professionals had computers and only 5% were frequent users of the WWW, while for professionals with other assignments, three-quarters or more had computers and 16% to 25% were frequent WWW users. There were no differences among professionals with various assignments regarding access or use of e-mail.

Human service providers were asked about the degree to which they agreed with various statements about the potential use of information technology in support of their work. In Table 1 the percentage of participants who either agreed or strongly agreed with various uses of information technology are presented. The strongest agreement was with statements about the use of the Internet for conducting education with clients and in the use of the Internet for their own professional development. The least agreement was with items that involved the use of e-mail or the WWW for communicating with clientele.

We hypothesized that providers might have different attitudes toward these uses depending on their access and current levels of use of information technology. The results indicated that there were no

differences in attitudes based on current use and access of information technology. In short, human service providers had similar views about the opportunities for information technology regardless of their own current access and use.

Human service providers were also asked questions about their needs for technical assistance. As can be seen in Table 2, these providers generally reported strong needs for assistance in developing information technology skills. The highest needs were for instruction on integrating technology into existing activities and administrative functions. Overall, these high levels of agreement on the need for technical assistance across a wide range of areas indicate that there are strong needs for training. It was expected that there might be substantial differences in the types of technical assistance needed based on access and use of technology, but there were few differences. Generally, these findings indicate that the needs for assistance in using information and developing ways to incorporate this technology into existing functions were high for almost all human service providers regardless of their current access and use.

This study provides a general description of the status of information technology use and access of participating human service providers in Ohio at a particular moment in time. This survey is substantially better than previous studies that have either not had representative samples or have not had a satisfactory return rate to be considered representative of the population of human service providers. By surveying human service providers from a broad range of occupational groups this study provides an overall assessment of the status of access and use of information technology. At the same time this sample is limited to one state and oversamples administrators. Caution should be taken in generalizing these findings to national samples and to direct care providers. Further studies of access and use of technology should consider national samples that employ strategies for representing many levels of human service provision from direct service to administration.

Generally, the findings indicate that a large percentage of human service providers have access to computers and many have access to e-mail, with somewhat fewer having access to the World Wide Web. Overall, human service providers strongly endorsed the use of information technology in their work. This enthusiasm for the Internet has been reported by others (e.g., Schofield, Davidson, Stocks, and Futoran, 1997) and probably reflects the general optimism regarding information technology that is widely endorsed by media attention rather than specific solutions to current work situations.

The ratings by human service providers about their needs for technical assistance with information technology is unambiguous. There was strong agreement on their need for all types of assistance and training and this did not vary greatly by current access or use. Since there are almost monthly innovations in information technology, it is not surprising that human service providers and probably most other professionals feel the need for technical support. The immediate implications of these findings are that organizations and professional associations should consider developing increased professional opportunities for human service providers to develop information technology skills.

TABLE 1. OPPORTUNITIES

Use of information technology for educating clientele 91.2%
Use of Internet for professional development 90.0%
Use of Internet to foster collaborations with government 83.9%
Use of Internet to foster collaborations with business 79.8%
Use of e-mail for communicating with clientele 47.7%
Use of the WWW for communicating with clientele 38.1%

TABLE 2. TYPES OF TECHNICAL ASSISTANCE

Instruction on integrating technology into existing activities 88.5%
Instruction on integrating technology into administration 87.6%
Technical support for daily use 83.1%
Consultation on selection of information technology 81.8%
Strategic planning to guide use of information technology 80.2%
Instruction on finding information resources on the Internet 78.9%
Instruction on creating information resources on the Internet 78.3%

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