Chapter 2.12

Developing Information Communication Technologies for the Human Services:
Mental Health and Employment

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ABSTRACT

This chapter introduces a design process for developing useful information communication technologies for the human services. Key to the success of the design process is an in-depth knowledge and understanding of user needs and requirements. The stages involved in the design process are presented in this chapter and include: user and task analysis, persona and scenario development and the establishment of measurable usability goals. A case study illustrates the application of this design process to develop a Web enabled electronic work requirement awareness program (e-WRAP) for people recovering from mental illness seeking employment. The challenge for social workers is to use these new technologies to improve service provision and enhance quality of life without compromising ethical standards of practice; particularly in relation to client confidentiality, privacy and self-determination.

'After the idea, there is plenty of time to learn the technology'. -- James Dyson (1947-), English inventor and businessman, Against the Odds, 1997 in Oxford Dictionary of Quotations (2004, p.294:20).

INTRODUCTION

Information communication technologies today are in abundance. People of all ages, particularly young people communicate through the Internet to access the social networking sites MySpace and Facebook; the online video site YouTube; microblogging sites Twitter and Plurk and the virtual world of Second

Life. In addition to these are Internet sites such as Wikkipedia, MSN and Google. Most organizations today have a web presence for marketing, attracting users and conducting business. Increasingly organizations in the human services are adopting web technologies to reach user groups to communicate their messages and to increase organizational efficiencies. However the profusion of information on the Internet makes it difficult at times for users to actually locate the information they are seeking. This may be due to diversion sites that can cause considerable frustration, confusion and time delays or an overload of information, with many Internet sources unverified. Access to the Internet can be costly requiring constant updates and virus protection with some media requiring the latest versions of sophisticated software to access them. Available software and the Internet service provider will also affect access and speed.

These new technologies create both challenges and opportunities as designers try to reach their intended user groups using the most appropriate means and messages, delivered in a timely manner. Central to the success of designing useful and usable information communication technologies for the human services is in-depth knowledge and understanding of the target audience, referred to hereafter as "users". The stages involved in the design process are presented including: user and task analysis, persona and scenario development and the establishment of measurable usability goals. This is followed by a case study of mental health and employment illustrating the application of this design process to develop a web enabled Electronic Work Requirement Awareness Program (e-WRAP) designed for people recovering from mental illness seeking employment.

USER ANALYSIS

The main features of user groups are identified by conducting a user analysis. This involves thinking and forming assumptions about what users

would like. The next crucial step is to test these assumptions against the "reality" of the users in an endeavor to understand their needs, expectations, knowledge base, experience and preferences. Information is also gained on technologies and software that users have available to them, for example via broadband or dial up, as well as the physical environment where the Internet is accessed. By involving users in the pre-design stage they become active and important partners in the design process. Research techniques that complement each other for conducting a user analysis comprise: contextual interviews, individual interviews, surveys and focus groups (United States Department of Health & Human Services, 2008). The more techniques used the greater the depth of knowledge gained about the needs of users and the less likelihood of design errors. A common mistake to avoid is choosing "flashy" technology over accessibility.

Contextual Interviews

Contextual interviews are similar to participant observation, and involve observing and listening to users while they are engaged with the technologies. These interviews provide information on the physical and social environment as well as the technologies available including means of access, familiarity and level of comfort and support. For instance a person's use will vary according to whether they are on broadband or a modem. Dial up access to the Internet may mean that the users want to use the web quickly so that a telephone line is not tied up for extended periods. Access will vary according to the Internet service provider with many limiting or denying access during peak periods. Insights are gained on whether or not users have anyone who can assist them with the technology and the nature of this support. Contextual interviews are usually informal with the interviewer mindful of not imposing any changes on the environment that is being observed. This is achieved by watching and listening to users and

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