Chapter 24
The Convergence Model Implements Accessible Information: Creating Effective ICT Tools for Our Forgotten Ones

Elspeth McKay
RMIT University, School of Business Information Technology and Logistics, Australia

ABSTRACT

In defining ‘effective HCI’ one may turn to the literature. While there can be no doubt that the ‘techno-vista’ has changed dramatically in the past decade; there are many new entries in the literature, which still elevate the mechanistic orientation of information communications technology (ICT), placing the social connectedness of human beings in a dependent context. Professor Bradley’s voice however shines through revealing her polite yet determined mindset that places human beings in the technological driving seat. This chapter presents a reprinted paper (McKay, 2007b) to acknowledge Professor Bradley’s dedicated encouragement for research into the interactive effects of ICT tools and computer literacy on the ‘multifaceted’ nature of human beings. As Professor Bradley explains that to test her ‘Convergence Model’, “…. we must develop new concepts to reflect the changes that are occurring, and grasp the latest new phenomena in depth” (Bradley, 2006, p.57). Effective HCI means having a trusted, interactive and communicative computing environment that lets users decide whether to trust it for a particular purpose, or not; furthermore, effective educational HCI is about knowing how to develop a learning design that provides access to an education information system that is easy to use, offering a safe environment for knowledge and cognitive skill development that supports the joy for life-long learning.” (McKay, 2007a, p.xii) The following reprinted McKay paper presents two such research projects that tap right into some of the issues that are faced by people through their basic right for unencumbered access to information, as described by Professor Bradley as “psychosocial life environment/quality of life and well being” (Bradley, 2006, p.61). In these funded research projects, McKay highlights the need to enhance access to Web-mediated information for those people who may need special help. Evidence gained through these projects suggests that unless we have input from the corporate sector, little progress will be forthcoming. Sadly however, this is not a new observation; the corporate sector has been on notice for
several decades: “Family policy was also a part of constructive work environment actions when data processing systems were introduced” (Bradley, 2006, p.199). These two McKay research studies serve to reinforce Professor Bradley’s ‘Convergence Model’ as an effective HCI knowledge developing tool. It is however, incumbent upon the corporate sector to link the interrelating worlds of: globalisation, ICT, life environment, life role and their effects on humans.

PLANNING EFFECTIVE HCI TO ENHANCE ACCESS TO EDUCATIONAL APPLICATIONS

Information and communications technologies (ICT) are widely believed to offer new options for Web-mediated courseware design. Multimedia and online courseware development accentuates a belief that highly graphical (or visual) delivery media will meet the individualised instructional requirements of diverse student cohorts. While most electronic courseware may allow the user to proceed at their own pace, two assumptions are commonly made by courseware designers. Firstly, to facilitate learning, all users are assumed capable of assimilating the graphical content with their current experiential knowledge. There is little or no consideration of different cognitive styles. Understanding learner attributes is essential to increasing accessibility to computerized information. Secondly, learning is assumed rather than demonstrated. To deal with this issue, data analysis techniques can be used to differentiate between what an individual knows from what they do not. This chapter presents two research projects that demonstrate the importance of awareness for the human-dimension of human-computer interaction (HCI) in designing effective online experiential learning for special education.

INTRODUCTION

Effective learning is often expressed in measures of knowing. These pieces of knowledge can represent explicit activities required to become an expert in something (Bransford, Nitsch & Franks, 1997). Rarely is the achievement expressed in qualitative terms. Quality may vary according to how a learner feels about a particular learning event (Sonnier, 1989). At best, the results may take a broad view of cognitive performance that cannot be applied to individual learners experiencing learning difficulties. There are suggestions for learning orientation that involve dealing with emotions and intentions, along with cognitive and social factors (Martinez, 2000). Herein lies the first dilemma facing the design of effective learning environments, namely how to create appropriate educational environments for those people who require accessibility assistance.

The notion of effective learning design assumes equal access to instructional strategies. However, the ubiquitous nature of many online learning environments means that people who require enhanced instructional delivery modes cannot become involved. For instance, when decisions are made concerning appropriate training/education/reskilling needs for people after some type of traumatized event, it is important to differentiate what an individual knows, from what they do not. However, for this particularly sensitive group of learners there are currently no means of providing a skills/competency measurement tool that is efficient, reliable, and safe to administer.

This chapter outlines two projects designed to manage this issue. The first of the two projects sought to enhance the evaluation of young peoples’ potential to participate in appropriate educational programs following a mental health episode. As both the young people and their support workers require a specialized tool to determine possibili-
13 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the product’s webpage: www.igi-global.com/chapter/convergence-model-implements-accessible-information/45300?camid=4v1

This title is available in InfoSci-Books, InfoSci-Social Technologies, Business-Technology-Solution, Communications, Social Science, and Healthcare, InfoSci-Select, InfoSci-Social Sciences and Humanities, InfoSci-Select, InfoSci-Select, InfoSci-Select. Recommend this product to your librarian: www.igi-global.com/e-resources/library-recommendation/?id=1

Related Content

Global Tracking Systems in the Australian Interstate Trucking Industry  
www.igi-global.com/chapter/global-tracking-systems-in-the-australian-interstate-trucking-industry/95996?camid=4v1a

Psychosocial Life Environment and Life Roles in Interaction with Daily Use of Information Communication Technology Boundaries between Work and Leisure  
www.igi-global.com/chapter/psychosocial-life-environment-life-roles/45296?camid=4v1a

Students Hurting Students: Cyberbullying as a Mobile Phone Behavior  
Kathleen Conn (2015). Encyclopedia of Mobile Phone Behavior (pp. 981-991).  
www.igi-global.com/chapter/students-hurting-students-cyberbullying-as-a-mobile-phone-behavior/130209?camid=4v1a

Learning Cultural Heritage Through Information and Communication Technologies: A Case Study  
www.igi-global.com/article/learning-cultural-heritage-through-information/34054?camid=4v1a