

# Accessibility Research in Malaysia

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In recent days, there is a tendency in Malaysia that more and more people are interested the research regarding the use of computing and information technology by the ageing population and people with disabilities. Below are some examples of these projects.

## Research on Older Adults and Computer Technology

The first breakthrough in the area of Gerontology is the establishment of the Institute of Gerontology (IG) at the University Putra Malaysia on 1 April 2002. Since its inception, various research and development activities, both at the national and international levels, have been carried out at the institute. The institute has particularly been successful at obtaining several research grants from the Ministry of Science, Technology and Innovations in the categories of Prioritized Research and Experimental and Applied Research. At the international level, the institute received sponsorships from both the United Nations Population Fund (UNFPA) and the United Nation's World Health Organization (WHO). As a result of the confidence shown by these organizations, the University has approved the acquisition of an additional block for the institute to house two laboratories, namely, the Biosocial, Cognitive and Functional Laboratory and the Gerontechnology Laboratory to ensure a more systematic and efficient research activities at the institute.

In an effort to produce quality research, the institute is also actively involved in a variety of collaboration with researchers and agencies from within University Putra Malaysia and outside the university. In addition, the introduction of graduate programmes (MSc and PhD) at the institute is another step towards producing a new generation of researchers in the field of gerontology. The institute is also currently planning a publication programme to enhance the channel of communication to inform on the institute's research activities and findings.

Among the latest research projects that have been granted for the Institute of Gerontology for the year 2007 are : Access and Utilization of Computers and the Internet among Older Malaysian, Assessing Mobility and Behavioral Patterns and Perception of Needs and Barriers of Older Road Users in Malaysia, Development of GIS-based Youth Mapping, Traffic and Ageing in Malaysia, Patterns of Social Relationships and Psychological Well Being among Older Persons in Peninsula Malaysia; and Perception, and Awareness and Risk Factors of Elder Abuse.

Another research work is the design of user interface for Malaysian older adults. The major motivation for this research work is to encourage the adoption of computer technology among older people in developing countries like Malaysia. Regardless of demographic and cultural characteristics, older people share similar age-related difficulties in perception, cognition and mobility which remarkably affect their daily activities including computer tasks. However, the problem is more apparent in Malaysian older adults who are not only struggling with their age-related difficulties but at the same time need to user-interface design which was designed without considering their cultural preferences. Thus, this research work investigates the relationship between ageing and culture and its roles in user-interface design.

Syariffanor's research was partly inspired by the initiative conducted by the former Ministry of National Unit and Social Development in collaboration with The Malaysian Institute of Microelectronic Systems (MIMOS) in 2003 where a one year pilot study namely Warga Emas Networks and Eagle Nest targeted at Malaysian older adults was conducted. This pilot study was aimed at promoting societal inclusion and freelance employment with the use of computer and the Internet among older people in Kuala Lumpur, Selangor and Kelantan. Positive results from this pilot study had initiated more research interests with regards to Malaysian older people and their interaction with computer.

## **Research on Computer-Mediated Grandparents-Grandchildren Communication**

Research on grandparents (GP) and grandchildren (GC) relationship is currently being conducted, focusing on the use of computer mediated communication (CMC) for maintaining long distance GP-GC relationship. In this study, the grandchildren live in the UK and the grandparents live in Malaysia.

In addition to trying to understand the nature of the relationship between grandparents and grandchildren, the objective of this research is to identify the effectiveness of video conferencing technology to mediate long-distance relationship and to develop and evaluate better video conferencing technology to support long distance communication between grandchildren and grandparent. This research is important since currently, there is only one research conducted on grandparent-grandchild (GP-GC) in Malaysia and the research focused on Malaysian Sindhis (in contrast to the Malay population investigated in this study).

At the moment, this study involves children aged between 7 to 11 years old and who have had some experience using video conferencing. All respondents were interviewed about their Internet usage and the nature of communication with their grandparent. Their video conferencing behavior was also observed. The same process was performed with the grandparents. In addition, the grandparents were required to accomplish some specific tasks using video conferencing application. In this study the grandparents was assisted by other family members. The interaction between grandparents, their helpers, the video conferencing application and the grandchildren were observed and analyzed using content analysis technique. This study is a longitudinal study, collecting five data points with seven days interval.

## **Research on Input Devices for People with Motor Disabilities**

Another recently initiated research work is the use of input devices by people with motor disabilities in Malaysia, more specifically on input devices evaluation with motor-impaired people. This research is significant it is the first research of its kinds to be conducted in Malaysia. An experiment was carried out in July 2007 with support from Dato' Dr Zaliha Omar, who is currently the Honorary Consultant and project leader for Malaysian Independent Network on Disabilities (MIND). Potential participants for the experiment were recruited from community centers for disabled people around Kuala Lumpur and Selangor.

The motivation behind the research is the current statistic that those with physical impairments constitute the largest population of disabled people in Malaysia. In Malaysia, a digital divide exists not only among rich and poor, urban and rural but also among populations with and

without disabilities. As a result, some segments of society have become disenfranchised by exclusion from access to information and information technologies.

This research would contribute to support e-Khidmat Sosial, an initiative by the government of Malaysia that was introduced in 2006. It is a branch of the government Strategic Planning for target groups such as children, people with disabilities (PWDs), older adults, those from lower income group, families with problems, victims from natural disasters and non governmental organizations (NGOs). The Malaysian government has identified e-Khidmat Sosial as part of strategic initiatives for the implementation of Strategic ICT Plan for Public Sectors.

#### About the authors



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