Promoting User Sensitive Inclusive Design: Strategies for Communicating User Needs to Designers

Alan Newell, Jim Mueller, Mike Jones
Correspondence to: Mike Jones
Shepherd Center
2020 Peachtree Road, NW
Atlanta, GA 30309
mike_jones@shepherd.org

This workshop will explore effective and innovative ways to help designers understand the needs of diverse customers, including those with limitations due to age, disability, or the environment. Workshop participants will share strategies for gathering input from users and communicating this information to designers and engineers in ways that help them understand and design for user needs. The workshop will include presentations and demonstrations of "best practice" techniques to assist designers along the journey to understanding user needs. The workshop will be followed on the subsequent day by a satellite meeting of interested participants, providing an opportunity for strategy development, brainstorming, and planning possible research collaborations.

Keywords: User sensitive inclusive design, universal design, design education

1. BACKGROUND AND PURPOSE

Innovation in digital technologies has revolutionized the ways people communicate and access information. However, much of the technology available is not easily usable by important and growing segments of the population, particularly older and disabled people. For example, the displays and controls of cellular phones continue to get smaller and smaller, whilst offering an increasingly confusing array of features and functions. These characteristics provide significant challenges to older people and people with disabilities, as well as those whose functional abilities may be temporarily impaired by low light, glare, a noisy environment, or gloved hands.

Designers and engineers do not intentionally ignore the needs of users who may have limitations due to age, disability, or limited technology skills. In fact, considerable research has been devoted to investigating the human factors of product use. Legislation in the UK, USA, and other countries also requires that telecommunication products and services be accessible to disabled users. Nevertheless, new designs continue to be dominated by new technical capabilities rather than functionality and ease of use. Thus, whilst most people could benefit from the growing possibilities of such devices and technologies, many are denied these benefits because the design process has not fully taken into account the needs of older and disabled people.

Part of this problem stems from a lack of real understanding among designers, engineers, and product managers of the opportunities and challenges posed by older and disabled users. Few of those involved in mainstream product design have any direct experience with older and disabled people as users of their products, and many designers are not familiar with the currently available guidelines for accessible/inclusive design. Effective and time-efficient methods are needed to persuade designers of the benefits of taking account of the needs of older and disabled people as an integral part of the design process, and to provide them with easy access to the tools necessary for inclusive design. This workshop will investigate a range of novel methods designed to influence the mindset of designers, as a complement to more formal design guidelines and demographic data.

2. WORKSHOP SCOPE

The proposed workshop will bring together researchers and practitioners who have used these and similar techniques to help designers and engineers better understand user needs. During the workshop a range of strategies and techniques will be demonstrated and workshop participants will discuss their applicability and effectiveness. Invited presentations will serve as a basis for critique of currently-used strategies and a springboard for new ideas. These presentations will include summaries of successful techniques, as well as market forces that reinforce the
effectiveness of these techniques, including the influence of elder celebrities and those with disabilities, and highly-committed personal champions within businesses. These discussions will also include consideration for best ways to reach the decision-makers who drive change. The following workshop sessions are planned:

2.1. Charge for workshop participants (20 min). Welcoming remarks from the workshop hosts (Newell, Mueller, Jones) explaining the purpose and expected outcomes of the workshop.

2.2 What happens when companies "get it?" - An overview of success stories (150 min). A series of case examples will be presented of successful businesses that have been persuaded to devote greater attention to the design of user inclusive products or services--often through a personal experience that converts a key decision maker into a committed champion. Presenters will include:

- Roger Coleman, The Helen Hamlyn Research Centre in UK. Roger has actively promoted inclusive design to business and industry for many years and is one of the organizers of RCA’s annual “Include” conference.

- Paul France, Proctor & Gamble. Paul travels worldwide promoting universal design throughout the company. He will share practical ideas on what works and what does not work in changing the minds of industry on the subject of Universal Design.

- James Mueller, JLMueller, Inc. and Wireless RERC. Jim will share several case studies he has compiled on companies that have successfully adopted user-sensitive inclusive design.

- Graham Pullin, IDEO, London, who is writing a book about design and disability. The aim of the book is to get more (and more diverse) designers to engage with disability as the source of design inspiration.

- Steve Wilcox - Principle and founder of Design Science, a consulting firm specializing in ethnographic research, human factors, and product design development. Steve assisted with Motorola’s universal cell phone student design competition and has spoken on the subjects of universal and inclusive design.

2.3 "Best practices" presentations demonstrating techniques to assist designers along the journey to understanding user needs (150 min). Three presentations will demonstrate different techniques, including a theatre presentation, each followed by a 15 minute discussion session for participants to ask questions and brainstorm about potential applications of the technique. The following presentations are planned:

- Gregg and Kate Vanderheiden - Empathic exercises from the Trace Accessibility Course, used to help focus design and engineering students on inclusive design.

- Jim Mueller and Mike Jones - Development and use of personas from the work of the Wireless RERC, with a visit from one of the personas.

- Alan Newell - A specially prepared theatrical presentation by the Foxtrot Theatre Company to demonstrate use of the Forum Theatre techniques to drive home the importance of inclusive design.

2.4 Satellite Meeting focused on strategy development, evaluating efficacy of techniques, and potential research collaborations (120 min). This session would begin with a summary of the previous day’s discussions, with emphasis on what results can and should be accomplished right away, what will require additional time and resources, as well as anticipated external forces that are likely to play a part (e.g., extended lifespans, emerging technologies).