Ageing, Adaption and Accessibility: Time for the Inclusive Revolution!

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Chapter 14:

Putting older people at the heart of every ICT development

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Johan Molenbroek is an Associate Professor of Human Factors at Delft Technical University in the Netherlands. His work spans four overarching topic areas: business, engineering, human factors and aesthetics. He has been teaching Inclusive Design for over 34 years at what is the world’s largest design school, consisting of 250 staff and some 2,000 students.

If he had a motto, it would be: “You have to put users at the heart of everything that your organisation does and always road test your designs with your target users”.

Molenbroek concedes that it is challenging to develop Information and Communication Technology (ICT) that offers seamless communication to both younger and older people. He is optimistic about the future, however, and gives the example of a recent project, which focussed on creation of intuitive communication between two user groups, one old and one young, using technology that each of these cohorts grew up with. Interestingly, in this project older individuals used a paper-based notebook to jot down a message which, upon closing of the notebook, uploaded itself to the younger users’ Facebook page, and vice versa. Molenbroek thinks that it is a powerful idea to develop technologies that tap into disparate groups’ models of the world and help those two ‘worlds’ come together. He also endorses local community schemes where the younger generations help to teach the older
generations how to send a text message or how to set up and use an email account.

He stresses the significance of understanding the capabilities, needs and attitudes of different target user groups because the misinterpretation of those can lead to acutely negative consequences, especially in the context of novel technology. Molenbroek reminisces the mistake that the Dutch government made in 2008, when roughly half of the over 65s sector were not online, by introducing a social service that distributed a number of essential forms for individuals to fill out by email. As a consequence, a significant section of the older population was unable to access and utilise this service because they have never been on the internet, nor have they had an email account. The last four years, however, have seen substantial effort put into including digitally disenfranchised user groups in ICT usage. Molenbroek has a particular hope that the number of those who are excluded will continue to be downsized in the coming years, by collaborative efforts of government, industry and academia. For this to come about, more effort and rigor needs to be put into involving heterogeneous older individuals during every ICT product or service development. He acknowledges, however, that it can be challenging, especially for small-to-medium-sized enterprises as they have fewer resources, to recruit a good sample of senior users who want to be involved in requirements capture and testing phases of design, and are capable of giving good, meaningful feedback. Consequently, he recommends that companies collaborate with academia and government to build up a large, sharable and reusable database of keen test panelists (by offering incentives whenever possible), and call upon the opinions of those individuals at early stages of the design process.

Furthermore, Molenbroek laments that there are a number of ‘specialised’ mobile phones on the market that under-appreciate the abilities of senior citizens and, thus, have a poor uptake among this group. Older people, he muses, do not want to be stigmatised in their limitation; just as any other user group, they want to be part of the overall user community and have their abilities embraced and aptly engaged. He references the work of Malcolm Gladwell on The Tipping Point, suggesting that human behaviour is sensitive to and strongly influenced by its environment. The Nordic walking sticks, for instance, are now very popular in the senior sector of population, yet only a few years ago the acceptance of a cane usage was fairly low among the older cohort because they were targeted at those with ‘special’ needs and the ‘old’. Now, however, it is trendy to use walking sticks because everyone else has them and they give the perception of activeness and fitness. Molenbroek also argues that older generations are reluctant to accept innovation if it does not clearly articulate what the benefits are and is far removed from the product interactions that they are familiar with.

Regarding ICT, he observes that hope now lies in smartphones as they are increasingly popular among the aged because, through a multifunctional platform that enables user-alteration of needed apps, they allow people to tailor the phone’s functions and behaviour to their specific needs. However, older people’s inability to easily penetrate the depth of much of the information inside many of today’s ICT devices (e.g. online banking devices and services) continues to be a hugely overwhelming drawback.

Another deterrent is that technology is moving very fast, leaving little time for reflection and mastering of different functions inherent in much of ICT. Although, digital equipment, such as iPhones and iPads, is more accessible and usable than many other devices on the market, Molenbroek points out that the number of typing errors with
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Asking to provide an example of technology that is accessible to a wide and varied range of users, Molenbroek chooses not one, but two such products. The first product is the satellite-driven navigator TomTom as it tunes in to the needs and abilities of different types of people. The second one is an e-bike, presently encompassing 50% of the market of Dutch bikes. Why is this particular bike so popular? Because, apart from being visually appealing, it contains a Global Positioning System (GPS), allowing users to set their target destination, know where they are or where to turn next, and it provides electrically-powered assistance for pedalling, making it possible to cycle on any terrain. In addition, this bike is not dissimilar in its look and form to the bikes that were produced in the past, thus allowing older people to easily understand its function and behaviour.

Molenbroek has demonstrated that testing with heterogeneous users must be the top priority during development of every customer product or service. He agrees, however, that sometimes it can be taxing to find trial participants with extreme, or unusual, conditions or disabilities and recommends recruitment of specialised community organisations as an intermediary in finding such individuals. There is also an urgent need for a joint effort by industry, government and academia to create a large, sharable and reusable database of keen test panelists of different ages and abilities.

References: