Backwards compatible
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In January 1998 I was on a research trip to Montreal. As I landed the city was declared to be in a state of emergency. A freak ice storm had taken down the power to the city and surrounding areas, and the power remained off in many places for weeks. I was led to my room on a 12th floor of the hotel by a receptionist with a candle up the stairs. She took the candle with her as she left, leaving me in pitch dark with no TV, phone or way of safely getting back down again till morning. Many people in the surrounding towns and villages had to survive with no power, light or heat in sub-zero temperatures for several weeks. Mark Abley edited a collection of people's experiences from the storm. In the introduction he notes:

> "*The rich as well as the poor had to devise strategies for coping. Old people who are, with sad frequency, shunted off to the waiting-rooms of death found they could again be useful, as though in a time of upheaval, the world still had a need for them.*"

The life experiences of older people suddenly came to the fore. Their long unwanted skills were suddenly in demand as the technology failed on mass. There are many myths about aging. A widely held belief is that we gradually loose our wits. Youngsters often assume themselves better and brighter than their elders. Such views are reinforced by new technology as youngsters take to it apparently with ease whilst their elders and "betters", we are told, struggle even to do the basics. As a result one focus of design for all is on technology to help the elderly. If we design things that older people are able to use then they will also be better for everyone is one argument used to persuade.

There is something odd here though. How come my father is so much more skillful than me at so many things? I am undoubtedly more proficient with computers than he is. On the other hand, he now spends much of his retirement making use, for example, of his cabinet making skills, making things just for the love of it, like the beautiful traditional rocking horse my daughter and friends love. His craftsmanship is far beyond anything I would ever hope to achieve. Even at the height of my youth the best I managed to make was a small bookshelf that, due to the fact that I rounded all the corners to make it look nice, had a serious design flaw. Put a book on it and it rolled over and tipped it out – possibly the world's first bookshelf with an aversion to books. My father's craft skill far exceeds mine so what would it mean to be designing for him to make it easier for me?

Pat Rabbitt (1999) gives a good review of the evidence on various myths to do with aging. My father is not an exception. As those in the Ice Storm showed, as we age we retain very high skill levels in the things we have practiced through our life: so called crystalized skills. Some new skills and new problem solving skills do gradually become more effort to learn. So how should this affect the way we design for the elderly? Technology changes fast so technology related skills we learn now are likely to be out of date as we retire.

Rather than seeing older people as a problem for user-centred designers to overcome, perhaps instead they can be seen as holding assets that designers can build on. The current approach to the design of new technology often seems to be that people must adapt their skills to fit. Yes it can be made easier but ultimately the onus is on the user to change to fit. If we take the profile of older people as an asset in design, then the design problem changes. How can we build on their existing skills? For example, older people have developed information seeking strategies over a lifetime that are very efficient for them. Rather than throw those skills away and force them to learn new skills, perhaps information tools can be designed that complement the skills acquired with earlier technologies.

New versions of software are made to be backwards compatible in the sense that it still works with the formats of older software: computer centered backwards compatibility. Perhaps publicly used software should also be backwards compatible in that it also works with the skills of older people: user-centered backwards compatibility.

Further reading:
- M. Abley (ed) (1999) *Stories from the ice storm*, McClelland and Stewart Inc.
- P. Rabbitt (1999) "When Age is In, the Wit is Out?" Chapter 11 of *Mind Myths: Exploring Popular Assumptions About the Mind and Brain*. Edited by Sergio Della Sala, pp165-186, Wiley.