

Managing Housing

Home adaptations for elderly people are quickly associated with high tech, smart homes, and domotics^{1,2}. Yet, the true usefulness seems rather hidden. We can remotely control an innovative washing machine (Technology Fair 'Future Show', Bologna), but no robot is present to fill or to empty it when we are out.

*Lifelong housing*³ is a new cultural model that goes far beyond a bright architectural plan. It offers a wide range of living solutions into the same basic household frame. One habitat can host over time various combinations of one to four elderly persons with single young persons, a family with children, or a nurse. Such a housing system introduces a true freedom of choice. The individual is not compelled to change address when situation changes occur. Self-help, natural and informal care giving, intergenerational relationships, territorial integration, domotics, and intranet are conveyed into such a solution.

Remote sensors and smart processors will surely find a place in the health care services. Tracked in time on a regular basis, individually selected performance parameters will arrive automatically and discretely in the doctor's office. Early significant deviations are detected and taken care of. This revolutionizes the old concept of prevention.

But home adaptation encompasses more. It includes a wide range of arrangements at micro or macro level. What is needed to make elderly dwellers safe, secure and happy? How can elderly persons feel like the old sages in ancient villages? Those are the questions that should be answered. Since possibilities of home environment modifications appear so powerful, what should we put in the agenda?

Only a small minority of old persons are invalid, whilst most of them cope with some difficulty in daily living. In other cases, relatives, neighbours or friends take care of

dependent elderly. Current national policies in many European countries favour maintaining elderly living in their own home.

Removing mismatches between the home environment and physical or psychological capabilities among community-living older persons have shown benefits. As recently remarked⁴, 'Nobody will be hurt by grinding down the breaks in the sidewalk'. A recent survey in USA revealed that domestic hazards were more frequent in the homes of persons with disabilities than without^{5,6}.

The proper answer to more basic questions are found in the concepts of *universal design*⁷, *design for all*⁸, *responsive design*, and *customisation of technical solutions to individual needs*⁹. Robert Kane invites us to be creative, in order to shape properly the long term care for the (near) future¹⁰.

Of course, it is not only a matter of technology but also of integration of ideas, services and products: but isn't that true innovation? I hope that the new journal *Gerontechnology* will continue to address the basic questions on safety, security and happiness of older persons and the technology to be embedded in life to these ends. It would literally give us all a shining future!

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Response:

Indeed the journal intends to dwell on safety, security, and happiness as basic aspects of good technology. In that respect I fully agree with the correspondent. Mass-Individualisation as both a marketing strategy and a domain of fundamental research is one of the possible ways to supply the best technology to the greatest number of (older) persons. This would include responsive design

and customisation of technical solutions, but it appears to be less congruent with universal design. I fear it is not enough to be creative, and also think that we should not stop at the limits of the Care Concept.

In essence older persons are not to be cared for. I envision them as masters and designers of their own care process. Societal thinking and implemented technology needs a change towards facilitating ambitions of the older and wiser part of society, while using the older society members as co-designers of products and services. Further development of the concept of technology generations (see original contribution in this issue) may solve current problems with user-system interfacing. You mentioned the absent robot to empty the washing machine, when we are out. Perhaps a more common example is the forced-on change in control panel view and use of the washing machine, each time you acquire a new one. Why not simulate the old, well functioning, control panel that I was used to (= belonged to my technology generation)?

I hope that the journal *Gerontechnology* will be able to contribute to this necessary change in thinking about technology and its use, by elucidating the scientific and technological principles of

- (a) needs and ambitions of (older) users,
- (b) actual use of technological products, and
- (c) efficient co-development and co-design of products by future users. That will keep us all master of our own life as long as possible, and indeed, it leads to a shining future.

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