Correspondence

Introduction of domotics

I wonder if the very slow rolling out of domotics, including home automation and tele-care in The Netherlands, is caused by a lack of scientific and technological knowledge, as is commonly stated. I consider it to be a marketing problem, and an industrial problem as well, since currently companies are not willing to offer flexible products adhering to standards making the consumer free in the choice of a supplier. Secondly, a problem exists in cost-benefit rates, just as in case of the residential care in the USA[1]. Industry would be helped with research comparing the market introduction of home automation and telecare in different countries. Unfortunately I do not know any state in the world where a mass introduction took place. This is the final challenge for Smart Home Environments, and I hope the journal will stimulate and publish research on these aspects.

Reference

1. Freedman VA, Calkins M, Van Haitsma K. An exploratory study of barriers to implementing technology in U.S. residential long-term care settings. Gerontechnology 2005; 4(2):86-100

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Book reviews

Zhang, D. & Mokhtari, M. (Eds.) (2004). Toward a Human-Friendly Assistive Environment. Volume 14, Assistive Technology Research Series. Amsterdam: IOS Press, 284 pages. ISBN: 1-58603-457-X. Price: €107/£71/US$129

Toward a Human-Friendly Assistive Environment is the title of the 14th book in the IOS Press series on assistive technology, which contains the published proceedings of the 2nd International Conference on Smart Homes and Health Telematics (ICOST), held in Singapore in September 2004.

ICOST 04 was a small conference, having five thematic sessions and thirty-six papers. Two of the three keynote addresses appear in the book and all but one of the thirty-one original session papers. The five chapter headings are: 1. HumanComputer Interaction; 2. Smart Home and Healthcare; 3. Context Awareness and Activity Monitoring; 4. Communications for Health Telematics; and 5. Personal Assistive Devices and Robotics.

As expected in conference proceedings, there is considerable variability in style and quality between the papers. The editors have been only partially successful in organising the individual contributions into a thematically coherent narrative. One reason I think is that the chapter structure strictly mirrors the conference programme sessions. For example, the keynote speeches were not (as would normally be expected) cross-cutting thematic presentations, but dealt with individual projects carried out in the respective institutions of the authors; one in an agent-based health-monitoring system in smart homes, and the other concerning a remote mobile robotic ultrasound system. Logically, therefore, the keynotes should have been included under the relevant general chapter headings (respectively 2 and 4), rather than presented in a separate section at the beginning of the book.

More seriously, however, are some rather striking anomalies concerning relevance to the conference theme. An article in the chapter on human interfaces about smart TV programme personalisation systems seems to have little, if anything, to do with the disability or ageing context of ICOST. Another example is a paper on location-aided on-demand (LOAD) routing protocols (under the chapter on health telematics). Neither of these contributions mentions, even tangentially, possible applications to coping with disability or aging.

Little care either seems to have been paid to the editing of individual papers, the English prose of which in too many instances is quite poor, as well as containing numerous typographical errors. Platitudes such as "it is commonly acknowledged" should have no place in the scientific lexicon. I was therefore quite pleased to notice this phrase in only one paper. Another shortcoming (IOS Press is not the only publisher guilty of this) is the lack of a subject index. This reduces substantially the usability and reference value of the book. Given the wide availability of desk-top publishing automatic indexing tools, there is no good excuse for this absence.

The majority of the articles, nevertheless, are pertinent to the book's title and theme; and generally they are of significant topical scientific interest. The book also strikes a good balance between articles having a highly technical emphasis

and those discussing user involvement, unmet needs, and best practices. Several contributions specifically address technology for older people; these include: Potential of Smart Home Technology at Homes of European Elderly ; Intelligent meal preparation system to help older people live independently ; Monitoring elderly people using a multisensor system ; Keeping in touch with cognitively impaired people ; and Applications of mobile phone technology in the elderly.

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Jaeger, B. (Ed) (2005). Young Technologies in Old Hands. An International View on Senior Citizens Utilization of ICT. Kbenhavn: DJØF, 248 pages. ISBN 87-574-1127-1. Price: €37/£24/US$40

The illustrations on the book cover give the impression that the book is only about how senior citizens learn to use ICT. The introduction by the editor, however, makes clear that part of the research is to identify senior citizens from different cultural, social and economical backgrounds, living in different areas of the world, and relate this background to their use of ICT. This appears a valuable starting point, not taking senior citizens as a homogenous group but focusing on the differences. In the book, senior citizens are studied in Sweden, Denmark, Germany, Spain, Midwest United States, and China.

The first chapters are about who these citizens are, why they adopt ICT and how they are viewed by the surrounding society.

Britt Östlund discusses that hypotheses and definitions of old technology users are generally not correct, with respect to age and use of ICT. Retirement, age discrimination, life perspective as homogenizing factors are put along the heterogeneity of ageing and existential understanding of oneself as human being. The message of this discourse may be that, although generalizations or stratifications may be necessary to define a target population, in that process the variety within the group must not be neglected.

The next chapter describes a study by Heidrun Mollenkopf and Roman Kaspar about the use and acceptance of ICT by elderly people in Germany. The survey was performed in 1999. A representative sample of 1417 persons over 55 years of age were asked about their access to and use of 15 ICT devices, their background experience with and attitude towards technology, and the problems that they experience with the devices. The results were translated into predictors of availability and use of ICT in old age, showing that both earlier education and income and attitude towards technology are important. The authors recommend for research on technology and ageing that also studies at the macro level must be performed, taking historical and societal factors into consideration.

The following three chapters describe studies within the Danish programme for Old Peoples Use of ICT. First, Lars Fuglsang examines the attention that national newspapers in Denmark give to senior citizens and ICT as a topic. While the conclusion is that these media do not treat this combination at all, the author gives four explanations why this is so: political climate, journalists writing style, confusion about seniors active participation, and complexity of new technology. Regarding that media will take up any subject that is new, I am not entirely convinced that these explanations are complete.

Next, Birgit Jaeger describes the programme and evaluates its outcome. The Danish funding programme consisted of 6 local development projects, a dissemination project and 4 research projects. In the research project Elderly in the Information Society the local development projects were studied case by case to evaluate whether these contributed to decrease the digital divide based on age. Through interviews, project documents and two surveys among local authorities and among participants and non-participants of the development projects, three main objectives of the programme are evaluated. The first objective, a flexible redrawal from work by staying available to some degree through an ICT connection, was not realized in the two projects studied. In one of the two, external causes (moving and closing down of the factory) prevented the realization. For the second objective, scanning the possibilities of introducing new applications of ICT to improve the quality of live, several applications were tried, but only the development of portals and websites succeeded. Main finding here is that to succeed it should be a bottom-up pro-

ject, performed or in close contact with the users. Third objective was to develop pedagogical methods for IT training. Some principles for IT training became apparent and are described. The conclusion of Jaeger is that the overall target, to overcome the digital divide, was met up to a relevant degree, which seems not entirely in accordance with the results presented. The knowledge gained from the projects may be used to do better next time, but in this programme many targets were not met, actually.

Sune Johansson discusses the concept of user. How do senior citizens become users? Based on results from the Senior Net Project, part of the above Danish programme, he concludes that a learning process is essential. The essential elements of this process include social environment, pedagogical method, individual view of technology, and positive aim directed at being an active senior citizen. These themes will return in the last four chapters from different parts of the world.

The contribution of Artemio Baigorri and Mar Chaves describes Spanish experiences in building digital literacy. By comparing two approaches, they conclude that the most fruitful approach was obtained by teaching individually-paced and by the readiness of the older person to stay active. Previous level of knowledge is not essential. Although the methodology seems poor regarding selection of persons and the number of persons observed (11 in total), the outcome is similar to the results of the Danish study of Johansson.

Lisa Thrane and colleagues (S. Shulman, M. Shelley, S. Beisser, T. Larson) used a larger sample of 158 elderly persons to demonstrate quantitative and qualitative relations regarding senior citizens and e-political empowerment. Survey results from invited participants of a computer workshop showed that both people who have already some IT skills and people with a negative attitude towards IT are less inclined to do IT training. Elders with lower levels of IT skills were more supportive of the political uses of the internet, whereas those that desired IT training were less positive about this so-called e-citizenship. The study, as declared by the authors, is somewhat hampered by the sampling procedure, which is not random, but a selection of previously interested elders attracted by advertisements or community outreach. Thus, results cannot be expanded to the larger aged community of the United States or even the Midwest. The results are, however, interesting enough to follow-up on this study. Would these results also been obtained in a European or Asian setting?

The contribution of Bo Xie compares two senior IT training networks, SeniorNet (USA) and OldKids (China). The study entailed interviews of network personnel and attending offline events of both networks. The evaluation, partly augmented by citations, shows clear cultural and social differences between the two networks; it also shows differences in setup of network and training facilities. Whereas SeniorNet appears to have a flourishing offline community and a separate, teacher-student style IT training, OldKids has its training and social work more intertwined, students learn from each other. At OldKids higher levels of IT skills are reached. For both networks offline events are vital. The author concludes that the concept of an online virtual world detached from the offline real world should be reviewed; the offline context influences the results of elders experiences with IT.

Stefanie Becker adds a somewhat different subject to this book: the role that older adults as users/experts may have in the development process of senior friendly products. Four different product ideas were developed with systematic variation of user-group participation. Early involvement of elders appeared less effective to develop a senior-friendly product, whereas involvement later on appeared to improve the senior-friendliness. The study might have been described more complete methodically (i.e., the developed product description standard remains obscure, and the size of the respective age groups is missing). The approach seems nevertheless worthwhile.

The book 'Young Technologies in Old Hands' is compiled of contributions by different authors, each with a different target. The introduction gives a neat status quo and an overview of what is concluded in the different chapters. Throughout the chapters relevant pieces of information are obtained on the relation between older adults and ICT. How can they be trained best? Where can IT be used to facilitate social or working relations? Which rules must be obeyed to

obtain the most user-friendly devices? These topics are not new, but brought together they show the cultural and social problems associated with them in different parts of the world. What is missing in the book is a finalizing chapter that assembles these thoughts and conclusions into a broader view on senior citizens' use of ICT. Instead, an introduction to references is given by the editor, which gives clues to where relevant articles may be found and to what fields of research these belong. Jäger pinpoints at the lack of social research appearing in Gerontechnology (this journal).
A few typing errors and an author description missing are only minor flaws that do not impede reading this interesting book, which gives new views on how to put young technologies in old hands.

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People

Who is who: New Editors

In the last 12 months the Journal has acquired four new editors. Some of them are already known to the readers. **James Fozard** and **Lawrence Normie** used to be members of the editorial board and a short vita of them has been published in the issues 3(2) and 2(4) respectively.

Don Bouwhuis, too, started his career at the Journal as a member of the editorial board, but no vita of him had been published in the Journal earlier. Don G. Bouwhuis studied cognitive psychology and mathematics at Nijmegen University, The Netherlands. He worked as a research scientist by Philips Research Laboratories, attached to the Institute for Perception Research/IPO. His dissertation work was on word recognition and reading. Since 1988 he is professor of technical psychonomics in the Department of Technology Management at the Eindhoven University of Technology. Current interests are human-computer communication, cognition and aging, multimodal user interface architectures and social presence. He has been visiting research fellow at the University of California at San Diego, the LIMSI-CNRS at Orsay, the Technion at Haifa, and the LaTrobe University, Melbourne. He is a regular evaluator and auditor of the Research Framework Programmes of the European Commission. Currently he is director of the J.F. Schouten School for User-System Interaction Research.

Floris L. van Nes, our fourth new editor, obtained an MSc degree in Electronic Engineering at Delft University of Technology (1961) and a PhD in Physics and Mathematics at University of Utrecht (1968). At the Institute for Perception Research/IPO, a collaboration of Philips Research Laboratories and Eindhoven University of Technology, he led the research group on Information Ergonomics from 1984-1995. In 1988 he obtained the chair of Information Ergonomics at Eindhoven University of Technology. In June 1997 he established his own company, ErgoNes.
His research interests concern visual psychophysics, handwriting, the human learning processes at any age, information ergonomics, and related international and national standardisation. Technical standardisation is a prerequisite for industrial progress and prosperity because the market demands products conforming to international standards. Human factors (ergonomics) standardisation has become important since it is related to health, safety and usability. Floris van Nes participates actively in ISO standardisation on electronic visual displays, and ITU-T standardisation on human factors in telecomunication. As an example of the latter, he edited Recommendation E.138: Human factors aspects of public telephones to improve their usability for older people. His editorial tasks for the journal include the last check of all contributions and proofs.

ISG Business

The 5th international conference of ISG at Nagoya, Japan

The 5th international conference of ISG was successfully held in Nagoya, Japan, for three days, from May 25 to May 27, 2005. A total of 201 attendees from 17 countries could be welcomed, originating from the European Community (EC), North America, and Asia. Scientific papers amounted to 135. They were presented as 3 keynote papers, contributions to 7 symposia (including 6 invited papers), to 13 oral paper sessions, and to 1 poster session. In addition, two luncheon seminars were held to treat the practices of Gerontechnology in industry. It was the largest conference ISG ever had in terms of attendance and scientific papers presented.

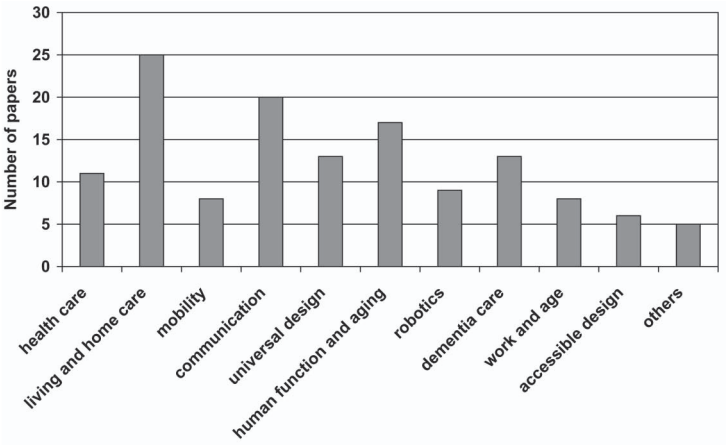

Figure 1. Classification statistics of papers presented at Nagoya 2005

Specific features

Most distinguished feature of the present conference was that it was the first ISG conference held in Asia. The host country, Japan, is well known as the most aged society in the world in terms of life expectancy. Many social, economical, and technical problems associated with the aging of society that have confronted us, remained unsolved. Sooner or later, these situations may also arrive at other Asian countries. It was a good choice of ISG to arrange its 5th conference in Japan to lead Asian countries into this aging field. Consequently, many Asian scientists and engineers working on aging were able to attend to share the updated knowledge on aging and technology. The symposium entitled 'Challenges in Aging and work from Asia to eastern Europe' and the paper session under the title of 'Gerontechnology in Asian Region', focused on the Asian activities. This served good opportunities for the participants to know and discuss how science and technology on aging have been progressing in Asian countries such as Malaysia, Vietnam, Taiwan, Korea, and, last but not least, Japan.

Table 1. Country distribution of the participants of Nagoya 2005

Country	Pre-registration	On-site registration	Total
Bangladesh	1	0	1
Canada	1	1	2
China (Hong Kong)	1	0	1
Denmark	1	0	1
Finland	9	1	10
Germany	1	3	4
Italy	4	2	6
Japan	84	40	124
Korea	5	2	7
Malaysia	4	0	4
The Netherlands	9	0	9
Norway	1	0	1
Taiwan	2	9	11
Ukraine	1	0	1
United Kingdom	4	1	5
USA	11	2	13
Vietnam	1	0	1
Total	140	61	201

Attendance

As expected from the geographical advantage, more Asian people than ever were able to attend the conference (Table 1). A total of 26 persons attended from Asian countries outside Japan. In addition, the Japanese formed the largest group in comparison to any other previous conference of ISG. Among the Asian nations, Taiwan sent the 2nd largest delegation to the conference.

Papers presented

Quite a large number of scientific papers (135) were presented, and fruitful discussions were extended in each of the 7 symposia, 13 paper sessions, and 1 poster session. Each conference day started with a keynote lecture, to highlight a special issue for extensive discussion.

The first day focused on the issue of longevity, the second day on robotics, and the third day on aging and work, respectively. All those keynote lectures were fully informative and, as expected, a good guidance for the discussions that followed. The program committee selected these three keynote issues from the current critical problems in Gerontechnology extending into Asian countries.

In addition to those keynote lectures, the seven symposia were all well organized and discussions held were active and fruitful. Some of these were historical overviews of Gerontechnologys development, universal design, accessible design and international standards, and a report on the Finnish-Japanese joint project for care of older people. Two luncheon seminars were also successful in showing the implementation of Gerontechnology in industry.

The papers presented at the conference were distributed over almost all fields covered by Gerontechnology (Figure 1). Compared to the previous conference in Florida, 2002, the number of papers on mobility decreased, but robotics showed an increase, as well as the sub-domain of work and age. It might be noted that few papers were presented on leisure, which might become a more important issue in the near future. For additional details of those papers, the conference issue of Gerontechnology (Vol 3, No.4, 2005), or the CD-ROM distributed at the conference site should be consulted.

Conclusions

Fifteen years have past since the concept of Gerontechnology was first launched in the EC. In these 15 years, a schedule of 3-yearly scientific conferences has been established. The first three were held in EC countries. The 4th one moved to Florida, US in 2002, and at the present time the 5th conference was held in Nagoya, for the first time in Asia. It could be said that the present conference in Asia has made Gerontechnology and its international conference a real international organization, widely accepted all over the world. It has a deep significance that we had the ISG conference in Asia.

Next conference

At the end of the Nagoya conference the Italian delegates invited us to the 6th conference to be held in Pisa in 2008. We all hope to see each other again there to have another excellent conference of ISG.

At the end of this report, it should be noted that the present conference was made possible by the help of many sponsors, volunteers and staffs. On behalf of organizing and program committees I would like to sincerely thank all of them by using this opportunity.

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World News

Demand-driven care

Although demand-driven care includes an extensive amount of smart technology, it is not restricted to direct technological interventions at the micro-level, such as the use of a user-driven lifter as shown on the cover of this issue (http://www.apexdynamics.cm). On October 28, 2005 Dr. Helianthe S.M. Kort defined demand-driven care at her first public lecture as lecturer at the Hogeschool Utrecht, Utrecht, The Netherlands as a notion contrasting with the more common supply-driven care, and including patient-centred care, family-centred care or patient-focussed care, all leading to the empowerment of the receiver of care. The older person is slowly to become a consumer of care services instead of a patient. Healthcare becomes consumerized! For The Netherlands this is the first time that technology receives a prominent place in the system of demand-driven care envisaged by the government of the country.

Dr. Kort (E: helianthe.kort@hu.nl) stressed gerontechnology as a corner stone in this approach. Technology is paramount for supplying information and guidance to consumers (older persons) and professionals alike, and to support planning and policy development. Integration of home automation, telecare and telemedicine, in both a technological and organisational sense, should further lead to the needed growth in care capacity. It coincides with the wish of 85% of persons above 65 years of age to remain at home.

Perhaps the most extensive change brought about by demand-driven care is the re-arrangement of care tasks among professionals, bringing a number of functionalities outside the strictly medical domain.

For the international aspects and growth of the domain of gerontechnology, Dr. Kort's lecture was commented upon by the president of the International Society for Gerontechnology, professor-emeritus

Herman Bouma, while Dr. Jan A.I. Coolen, representing the Netherlands Health Insurance Companies, answered to the insurance aspects of the Netherlands health-care system in transition.
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Frontier topic
The Italian Society of Gerontology and Geriatrics (SIGG) will have its 50th national congress in Florence, November 9-13, 2005. One of the opening events Wednesday [14:00 to 16:30 h] - will be committed for the first time to gerontechnology, as a frontier topic. Speakers from different backgrounds will add contributions to the two sessions of the symposium. Main issues in the preliminary program are information technology for caring, and housing domotics.
Info: www.sigg.it

Standards news
The British Standards Institution (BSI) has released a Guide to managing inclusive design (BS 7000-6:2005). The new publication is aimed at private enterprises, the public sector, and not-for-profit organisations to help them ensure that disabled peoples needs are considered throughout the lifecycle of a product or service. BSI says that the new guidelines will help businesses to be inclusive. Organizations that adopt a proactive approach based on a better understanding of consumer needs and aspirations stand to benefit from higher quality products, services and facilities; increased sales, customer satisfaction and loyalty; stronger brand values and enhanced brand recognition; and greater profitability, explained the coordinator of the BSI drafting committee, Alan Topalian. The guidelines for managing inclusive design were drafted by representatives from various organisations, including the RNID, RNIB, Design Council, Tesco Stores, and the Royal College of Art. The "Guide to managing inclusive design" will be critically reviewed in the next issue of this journal.
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International Association of Gerontology
The 18th Congress of the International Association of Gerontology (IAG), an every-four year event, was held in Rio de Janeiro, Brazil, from June 26 to 30, 2005. Among the main functions of this congress, immense in scope of issues treated, is communication between the developed and developing countries in terms of ageing issues. It was also good to learn that IAG is planning a World Ageing Survey aimed to provide for the first time the bigger picture on ageing based on a comparable data protocol. Person-environmental related and technology played a role in Rio, but it may be a considerable goal for ISG members and gerontechnology researchers at large to be much stronger on stage on the next IAG conference coming up in Paris in 2009.
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Calendar of Events

October 9-12, 2005
ASSETS 2005: The 7th International ACM SIGACCESS Conference on Computers and Accessibility
Baltimore, Maryland, USA
Organizer: New Mexico State University, Las Cruces, New Mexico, USA
Info: asears@umbc.edu

October 23-26, 2005
White House Conference on Ageing 2005
Washington DC, USA
Organizer: US Department of Health and Human Services
Info: www.whcoa.gov

November, 2005
Technology and Aging event
Convention of the Gerontological Society of America,
New Orleans, LA, USA
Organizer: Formal Interest Group Technology & Aging
Info: www.gsa-tag.org/2005/index.html

Announcements of meetings and other events for the Gerontechnology Calendar should be submitted by e-mail to: j.e.m.h.v.bronswijk@gerontechjournal.info. The editors decide to include or not include the announcement of a certain event.

The most up-to-date forthcoming list may be found at www.gerontechjournal.net