

## CORRESPONDENCE

### Listmail discussion

The ISG community online distributes information for readers, and invites participation in exchange about gerontechnology and its many facets. Recent months discussions include the following topics: 'assistive technologies' and current projects to categorize and order these devices, products, and applications; call for papers to celebrate the 10<sup>th</sup> anniversary of the ISG; mobile phones and social networks; balance training and fall prevention, including online programs; mental health and cognitive training topics; overlaps between gerontechnology and rehabilitation studies; post-doctoral studies in gerontechnology. Number of posts for August amounted to 13; July had 28, and June had 16.

The forum has 125 subscribers and is open to all, not only ISG members, with queries and comments, and to add information about local upcoming conferences and events. Journal authors are encouraged to participate. To sign up for the Listmail, visit [www.jdc.org.il/mailman/listinfo/iscg\\_discussion](http://www.jdc.org.il/mailman/listinfo/iscg_discussion).

*Lauren E. Storck, Forum Facilitator*  
E: [drstorck@caregiving-online.com](mailto:drstorck@caregiving-online.com)

## BOOK REVIEW

**Gari Lesnoff-Caravaglia, editor, Gerontechnology: Growing old in a technological society. Springfield: Charles C. Thomas; 314 pp; ISBN 978-0-398-07692-4 (hard); 978-0-398-07693-1 (paper); US\$ 69.95**

In total 12 different US authors explore the consequences of current aging of populations and individuals in societies that are adopting increasing amounts of new, cheap, digital technologies. The awareness of the potential role of technology to extend independence of older adults has grown in the past decades, but this potential has not yet been fully used. On the gerontology side, the re-evaluation of life, death, and the qualities and nature of human experiences in the aging societies has lagged behind. In view of these developments, the editor defines gerontechnology as an expression of the practical and the theoretical to pursuit healthy and rewarding long lives for the highest possible number of persons. Gerontechnology's task is to provide new life and new opportunities to those reaching advanced ages.

Topics treated include the complex linking of gerontology and technology leading to the challenges gerontechnology meets, age-related changes in the different biological systems, ergonomic design, intelligent systems, robotics for independence, the mobility problem, communication and gerontechnology ontology.

Linking gerontology and technology (Chapter 1) is seen as heralding a new frontier. This is the first time in western history that older persons become a major target for medical, engineering, environmental or lifestyle interventions. Health, home health care, housing & environment, employment, learning & recreation, the predominance of women, changing the process of aging, and a prolonged sex life are some of the aspects treated.

The challenge of gerontechnology (Chapter 2) is to make it all happen by preventing creeping up in an existence as a shell of one's former self. This constitutes a new way of thinking about human life. Technological advances are to be matched to actual human needs. Computer-assisted health instruction, medical devices, instrumentation and long-term care fitted to older persons' needs and wishes, answering the problems of a shrinking personal world, and support to cope with losses in old age, are all within the gerontechnology domain.

Age-related changes give insight in the biological aging process (Chapters 3 to 6), and focus on the effects of lifestyle and environment, a subject treated to greater detail in another book of the editor (*Gerontechnology 2007*;6(3):181-182).

Using the examples of vision and hearing, Chapters 7 & 8 detail interventions and modifications of the environment for rehabilitation to complement and enrich the experience of growing older.

Ergonomic design and intelligent systems (Chapters 9 & 10) are considered key factors in reaching gerontechnology's goals; the former by better fitting daily and leisure tasks to the older person who executes them, and the latter through control of home comfort systems, refilling the fridge and prescriptions, supply reminders, support planning, etc., all meant to enhance quality of life.

This brings us to robotics (including exoskeletons and interactive robots) for independence and the pressing mobility problem (Chapters 11 & 12). Both chapters

are oriented towards support of independence, chosen lifestyle and well-being, and are partly presented as an answer to the shortage of nursing professionals by taking over the low-cognition tasks of nursing. Keeping an older population mobile is a prerequisite to extended vitality and freedom, and translates itself in a large array of mobility devices. This includes aids for the older driver.

Communication (Chapter 13) mitigates isolation and prevents depression. It is indispensable for personal security. In gerontechnology theory it concerns all four ways that technology affects human activity. In short, communication is essential for human existence and gerontechnology can take away some of the limitations.

In the last chapter on gerontechnology ontology (Chapter 14), the editor clearly shows his feelings as to the current situation and expected near-future developments. A revolution is about to occur. Sudden changes are expected in our concept of time, in the perceived human horizon, in our interaction with technology, in the value given to virtual experiences, in the forming and maintaining of personal identity, and in the length of the vital life span. Even the concepts of birth and death could change.

This is one of the few textbooks that treat gerontechnology almost fully. Unfortunately, a number of essential photographs are reproduced in sub-optimal quality. Although I somewhat miss preventive interventions at younger ages to safeguard vitality and independence in the higher age categories, I fully recommend the book as an introduction to the current state of the gerontechnology domain.

*J.E.M.H. van Bronswijk PhD*

E: [j.e.m.h.v.Bronswijk@tue.nl](mailto:j.e.m.h.v.Bronswijk@tue.nl)

**PEOPLE**

**In memoriam Cor A. Vermeulen MD PhD (1927-2007)**

On Sunday August 5, 2007, Dr Cornelis A. Vermeulen died in Eindhoven at the age of 80 years from a heart attack that he suffered a few days earlier. As a physician he worked in public health for most of his life, his last official job being director of the municipal medical service in Eindhoven. After his



retirement, together with his younger colleague Dr Bosma, he continued to work on their PhD thesis: *De gezondheid van ouderen: Epidemiologie en beleid* [Health of older people: Epidemiology and policy] and completed it successfully in 1992. A basic finding was that up to the age of 75 or so, physical and mental restrictions were generally light, even in most cases of chronic disease.

He joined the Institute for Gerontechnology at Eindhoven University of Technology as a consultant and contributed to several projects, among which the educational European GENIE project that also led to the textbook: 'Gerontechnology: Why and How'<sup>1</sup>. Cor Vermeulen had a major role in the chapters on 'Healthy aging' and on 'Lifelong working'.

As it turned out, he himself became a prime example of the average found in his thesis, in that in his late seventies his health deteriorated. However, the first stage was through a *Legionella* infection contracted while showering in a hotel in the USA, an environmental risk that should have been prevented by proper technology. Thereafter he had to withdraw from most of his scientific activities but he continued to serve as a consultant to the HB foundation for Gerontechnology.

Cor had lost his wife nine years ago and their only son died in a tragic accident in New Zealand six years later. He is survived by his daughter Thea and her family in the USA and by his partner Marieke Kanters and her family.

We in gerontechnology have lost a good and thoughtful friend of long standing.

**References**

1. Harrington TK, Harrington MK, Editors. Gerontechnology: Why and How. Maastricht: Shaker; 2000

*Herman Bouma*

E: [h.bouma@gerontechnology.info](mailto:h.bouma@gerontechnology.info)

**ISG BUSINESS**

**News from Pisa**

Registration is open and abstracts may be submitted ([www.isg08.org](http://www.isg08.org)). The following key-notes are foreseen: Technology needs for older adults, Robotics for longevity, Ambient Intelligence, Natural ageing, and Age-related motor control and rehabilitation.

*Silvestro Micera*

E: [micera@sss.up.it](mailto:micera@sss.up.it)

### Start of the Japan chapter

The Japan Chapter of ISG (or ISG-Japan) was successfully started with its first annual conference held in Tokyo on December 8, 2006 (Gerontechnology 2007;6(2):123). The meeting was held in conjunction with the AIST Gerontechnology Forum, an annual event since 2001. The conference was attended by nearly 80 people from academic, industrial, and governmental institutions.

#### *Welcome message*

For the starting of ISG-Japan and its annual conference we received a very warm welcome message from our ISG President Prof. Emeritus Herman Bouma, which is cited here.

At the occasion of the establishment of the Japanese Chapter of the International Society for Gerontechnology, it is a great honour to me to welcome your Chapter in our Society. It will offer an excellent opportunity to intensify your efforts for improving the situation of older people in Japanese society in our international, global context. The advantage is mutual: both for your country and for other countries. First, closer contacts among your members and workshops in Japanese will help to discuss, to reach, and to spread the best solutions for your country. Secondly, you will profit from a close following of international developments, selecting those that fit the social and technological situation in Japan. Thirdly, you may increasingly draw upon national and international experts in other countries to help maintain and add to the quality of PhD dissertation research in particular. Last but not least, our international journal and the accompanying website and ISG discussion forum will act as an active communication tool, offering both a national and an international expert platform.

For the International Society for Gerontechnology, it is the first national chapter that is being established. The ISG was founded 10 years ago; our journal 'Gerontechnology' just completed its 5th volume and is now being indexed in two prominent international index services. In these years, essential contributions came from your country among which many papers in 'Gerontechnology', contributions to the international congresses, and the major achievement of the organization of the 5th International Gerontechnology Congress in Nagoya, May 2005. Your example will be closely

watched by other countries, who wish to learn from you; presently three European countries are making preparations for their ISG chapters.

I congratulate you at the establishment of the Japanese chapter of the International Society for Gerontechnology and I wish you every success in furthering the cause of integrating older people in the dynamics of society as deeply influenced by continuing technological developments.

This message was introduced to the participants by our new President of ISG-Japan Prof. Hiroyuki Umemuro who also gave us an opening message.

#### *Theme of the conference*

Main theme of the first annual conference of ISG-Japan read 'Towards a future development of Gerontechnology'. Gerontechnology has been developed and grown up for already 20 years. At the 5th international congress in Nagoya gerontechnology's 15 year history was reviewed at a symposium. A new direction is sought to break through into a new generation of gerontechnology. The ISG-Japan considered the technology for life enhancement of older people as its challenge for the near future. This is addressed as one of the three original scopes of gerontechnology, compensation, prevention and enhancement, but in these 15 years most of the studies have been devoted for the first two issues and not so much on the 'enhancement'. To make our aged life more pleasant and happy is vitally important as it may raise our life into a more positive stage beyond the usable or effective.

#### *Technology for life enhancement*

Keeping these thoughts in our mind a symposium was held to discuss the 'enhancement' issue in which three invited speakers from different fields addressed the issue "How to make our older life pleasant". The first speaker Prof. Hiroyuki Umemuro (Tokyo Institute of Technology) spoke on 'Usability, fun, and aesthetics: Towards technology that is loved by older users'. Prof. Umemuro is the first president of the Japan Chapter of ISG. He introduced the idea on 'Funology', a concept to make a product with fun as one of the attributes of it. The 'fun' is a psychological term and difficult to introduce into technology and industry. Currently, usability, effectiveness, and satisfaction are the three major aspects of industrial products, and satisfaction may come close to the concept of fun. But fun

is much more than this. It makes the use of products pleasant, lovely, and permanent. The concept has been already introduced in product design and is becoming more popular now. Prof. Umemuro emphasized that this design concept is much more needed to bring gerontechnology into a new stage. He pointed out that one of the major factors to make a product fun is beauty. Recent research has told us that a beautiful design not only pleases us but it also makes the product usable. A design which is being based on aesthetics makes us eager to use it, and this is very important in our older life. Much more investigations will be required, however, to implement this design concept into the field of gerontechnology. Interrelations among aesthetics, usability, fun, and life enhancement are issues to be studied scientifically.

The second talk of the symposium was entitled 'Mental Commit Robot Paro for Robot Therapy' and given by Shibata Takanori (AIST) and Kazuyoshi Wada (SORST, JST). 'Paro' is a seal-shaped robot developed for the purpose of therapy in hospitals. This was already reported in the 5th ISG conference in Nagoya together with an exhibition and is now very popular not only in the scientific field but also in the social one such that the Guinness Book of Records recognized it as the most popular robot in the world. One of the developers of 'Paro', Dr. Kazuyoshi Wada from AIST, gave a talk focusing on the background of the development and influence on therapy to people with dementia or other cognitive disabilities. The interesting point in his talk was that 'Paro' was not originally aimed for therapy at its first stage of development. It was developed only for fun, and consequently was not paid high respect or evaluation in AIST. It is now highly valued as a pioneer of robot therapy with great success in psychological treatment for people with Alzheimer disease, senile dementia, nervous depression and so on, not only in Japan but also in Europe and the US. It was also pointed out that 'Paro' helps to increase communication among those in older people's clubs. This is one of the good examples that technology for fun is useful to enhance our older life.

'Home to live in happy after retirement' was the third topic presented by Saeko Yoshida (Atelier uni Ltd.), an architect of private houses. She expressed her considerations on what type of house is preferable for peo-

ple after retirement. The primary purposes of housing are of course safety, effectiveness and comfort. Along with these lines, the barrier-free design or universal design of houses is being developed. But these are not only aimed to make our life in older age satisfactory. In addition to these criteria, pleasantness or amusement is also required. She showed in her talk some examples which she actually developed for her clients and expressed her concept for each house. There seemed to be no systematic way at the first glance to make a house pleasant or fun from her examples and it rather depends on the preference of a client. However, some fundamental rules or methods such as coloring, lighting or spacing may exist in housing for which gerontechnology can contribute technically. Active discussions followed these presentations and people were convinced that fun is one of the issues worth while to see as a challenge in the next step of gerontechnology.

#### *Other papers presented*

In addition to the symposium mentioned above, a total of nine individual papers were presented:

- The effects of lighting characteristics to visual performance, perception and subjective evaluations; The spectral distribution and correlated color temperature for LED - Misako Yamagishi, Kazuo Yamaba (Nihon Fukushi University), Masanori Nagata, Yasuyuki Watanabe (Toyoda Gosei Co, Ltd.)
- Comparative study of skin color between elderly and young female under different light sources - Sueko Kanaya (Kanazawa Institute of Technology), Yukari Miyagishi, Zen Noh, Kenji Yamaguchi (Tokyo Butai Shoumei Co.Ltd.), Masanori Nagata (Toyoda Gosei Co.Ltd.)
- Readability of character size for car navigation system - Kazuhiro Fujikake (Nagoya University), Masako Omori (Kobe Women's University), Satoshi Hasegawa (Nagoya Bunri University), Masaru Miyao (Nagoya University)
- Minimum legible font size and legibility evaluation of Japanese characters for people at any age - Ken Sagawa, Nana Itoh (AIST)
- Older adults and computer-mediated communication technology in Shanghai
- Kang Chen, Hiroyuki Umemuro (Tokyo Institute of Technology)

- Span of memory for older and younger persons in computer operation - Yoshikazu Seki, Ken Sagawa (AIST)

- Consideration for the transition of age-related differences in muscle strength - Seiichi Hisamoto, Masatoshi Higuchi (National Institute of Technology and Evaluation)

- Visual functions of elderly people and their independence in daily life - Onomichi survey results - Shigekazu Ishihara, Keiko Ishihara (Hiroshima International University), Mitsuo Nagamachi (Hagi International University), Sugaru Hiramatsu (Onomichi University)

- Promotion of Universal Design through Human Resource Development by a Housing Manufacturer; SH-UD Master Planner System - Shinji Tanaka, Yoshiaki Goto, Masanobu Maeda (Sekisui House, Ltd.)

Also, a forum was organised with three introductory papers:

- A Design of Production System for Aging Workers - Mitsuyuki Kawakami, Tokyo Metropolitan University

- Usability tests with elderly users in product design process - Mitsuhiro Karashima, Tokai University

- Sendai-Finland Well-being Project - Aiko Sakai - R&D Unit, Sendai-Finland Well-being Center

The proceedings were published with financial support from AIST. Papers are in Japanese but with abstracts in English.

*Ken Sagawa, Secretary of ISG-Japan, AIST, Japan*

E: sagawa-k@aist.go.jp

## WORLD NEWS

### ISARC 2007: New technologies for Smart Homes

The 2007 International Symposium on Automation and Robotics in Construction (ISARC) is the 24<sup>th</sup> annual symposium of the International Association of Automation and Robotics in Construction (IAARC). It is a gathering of researchers, academics and practitioners interested in the use of information, computational and robotic technologies for planning, managing and executing construction projects. This year the conference was held in Kochi, Kerala, India, organized by the Indian Institute of Technology Madras (IITM). The theme for ISARC 2007, 'Appropriate automation for productivity improvement', encompassed a new approach to intelligent homes for people that need support in their dwelling. Nowadays smart homes try to move from

conventional remote-controlled houses to intelligent environments. One of the key issues is the analysis of current home spaces and the adaptation of the robots' locomotion systems for them. Several types of robots (mobile, climbing and bipedal) together with the new home and room structure can create a blended ambient intelligent environment. More information may be found at the web under ISARC 2007. The next conference is scheduled for June 2008 in Vilnius, Lithuania ([www.IAARC.org](http://www.IAARC.org)).

*Ger J. Maas*

E: [g.maas@tue.nl](mailto:g.maas@tue.nl)

### EuMaG 2007 cohort

September 22, 2007, a 5<sup>th</sup> cohort of students started the part-time 90 ECTS program for the degree of European MSc in Gerontology. This two year program includes lectures and workshops given in Amsterdam (Netherlands), Heidelberg (Germany), Keele (United Kingdom) and Paris (France), as well as a 2-months summer school in Berlin (Germany). Students in this cohort originate from Europe (Denmark, Germany, Netherlands) and abroad (Japan, Canada, Netherlands Antilles, USA). Subjects treated include (public) health gerontology, bio-gerontology, psycho-gerontology, and social gerontology as well as gerontology theory and methodology ([www.eumag.org](http://www.eumag.org)). Gerontechnology as such is not part of the formal program, but the program delivers a complete gerontology basis for gerontechnologists.

*René J.T. van Rijsselt PhD*

E: [RJT.van.Rijsselt@fsw.vu.nl](mailto:RJT.van.Rijsselt@fsw.vu.nl)

## CALENDAR OF EVENTS

### 2007

*October 11-12, 2007*

Housing and environmental conditions in post-communist countries  
Gliwice, Poland

Organizer: The Silesian University of Technology

Info: <http://konferencje.polsl.pl/iaps/default.aspx>

*October 14-17, 2007*

ASSETS 2007: 9<sup>th</sup> International ACM SIGACCESS Conference on Computers and Accessibility

Tempe, Arizona, USA

Organizer: Association for Computing Machinery (ACM)

Info: [www.acm.org/sigaccess/assets07/](http://www.acm.org/sigaccess/assets07/)

*October 22-24, 2007*

3<sup>rd</sup> International Symposium on Work Ability: Towards a Productive Aging  
Hanoi, Vietnam

Organizer: Scientific Committee on Aging and Work of ICOH in collaboration with the Vietnam Association of Occupational Health, the Ergonomics department of the University of Occupational and Environmental Health, Japan, and the Technical Committee on Aging of the IEA

Info: [www.uoeh-u.ac.jp/kouza/ningen/works/aging3rd%20Int.%20Symp%20Work%20Ability.doc](http://www.uoeh-u.ac.jp/kouza/ningen/works/aging3rd%20Int.%20Symp%20Work%20Ability.doc)

*October 22-25, 2007*

8<sup>th</sup> Asia / Oceania Regional Congress of Gerontology and Geriatrics: Aging diversity in Asia and Oceania region: Health, participation, security, sharing  
Beijing, China

Organizer: Gerontological Society of China  
Info: [www.aog2007.org](http://www.aog2007.org)

*October 24-26, 2007*

1<sup>st</sup> Arab-African Conference On Disability: Rights - Decades - Partnership  
Djerba, Tunisia

Organizer: General association of persons with motor deficiencies of Tunisia (AGIM)  
Info: [www.agim.org.tn/?pId=183](http://www.agim.org.tn/?pId=183)

*October 25, 2007*

Scientific meeting of SFTAG  
Paris, France

Organizer: Société Française des Technologies pour l'Autonomie et Gêrontechnologies (SFTAG)  
Info: [www.sftag.fr](http://www.sftag.fr)

*November 8-9, 2007*

DSAI 2007: Software Development for Enhancing Accessibility and Fighting Info-exclusion  
Vila Real, Portugal

Organizer: University of Trás-os-Montes and Alto Douro (UTAD)  
Info: <http://dsai2007.utad.pt/index.html>

*November 13-14, 2007*

2<sup>nd</sup> ISG International master class 'Gerontechnology' for PhD students  
Eindhoven, the Netherlands  
Organizer: Flemish-Dutch chapter of ISG

Info: [www.phe.bwk.tue.nl/2ndISGMasterClass](http://www.phe.bwk.tue.nl/2ndISGMasterClass)

*November 13-15, 2007*

AdvantAge07: Annual Conference of the Retirement Village Association  
Melbourne, Victoria, Australia  
Organizer: Retirement Village Association (RVA)  
Info: [www.rvadvantage.com.a](http://www.rvadvantage.com.a)

*November 14-17, 2007*

1<sup>st</sup> World Congress & 10<sup>th</sup> EDE.Congress for Care and Nursing Home Directors  
Berlin, Germany

Organizer: Deutscher Verband der Leitungskräfte von Alten- und Behinderten-Einrichtungen eV (DVLAB)  
Info: [www.worldcongress-edc.com](http://www.worldcongress-edc.com)

*November 16-20, 2007*

GSA's 60<sup>th</sup> Annual Scientific Meeting: The era of global aging: Challenges & opportunities  
San Francisco, California, USA

Organizer: The Gerontological Society of America  
Info: [www.agingconference.com/](http://www.agingconference.com/)

*November 20, 2007*

6<sup>th</sup> National Conference of Emerging Researchers in Ageing 2007: Defining Future Directions  
Adelaide, South Australia, Australia

Organizer: ARC/NHMRC Research Network in Ageing Well  
Info: [www.ageingwell.edu.au/era2007](http://www.ageingwell.edu.au/era2007)

*November 26-27, 2007*

RAATE 2007: Recent Advances in Assistive Technology and Engineering  
Sheffield, UK

Organizer: RAATE  
Info: [www.raate.org.uk](http://www.raate.org.uk)

Announcements of meetings and other events for the Gerontechnology Calendar should be submitted by e-mail to: [j.e.m.h.v.bronswijk@gerontechnology.info](mailto:j.e.m.h.v.bronswijk@gerontechnology.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](http://www.gerontechjournal.net)