



Inclusive ICT

ICT has always been a powerful change agent. Many have turned to ICT to help resolve the growing concern over social exclusion, and the care of old people and those with disability. It is true that ICT can provide a number of new opportunities for improvement in people's daily lives including work, education, travel, entertainment, healthcare, and independent living. However there is a risk that, despite its many benefits, ICT could set people apart, create new barriers, and increase social exclusion. Specific attention needs to be given to those groups in society which are at high risk of being excluded, due to a wide variety of reasons such as age, gender, disability, literacy and culture. How ICT strategy is developed and implemented can mean for disadvantaged people the difference between dependency and autonomous living.

New technology often focuses on maintaining and monitoring the health of older people but technologists must take a broader view. The common misunderstanding that looking after the elderly simply means addressing health and welfare issues needs to be rectified. Older people are more physically and mentally active than previous generations and this should be a key consideration in guiding the development of new services and products for them. Indeed, technology can provide a vital link for older people to family and friends through email, instant messaging or video conferencing, but there are many other potential applications. These could include: virtual travel and tourism (virtual tours of museums and art galleries for example); support to enable older people to continue working, should they wish to; and enhanced media, such as books, films and music, which take into account the specific needs of older people, such as poor hearing or eyesight.

Therefore, ICT must be used to not only address health and welfare issues but also for social interaction, life-long learning and work. This is because in the information society we have an ageing population which is increasingly more physically and mentally active and has a younger outlook than in generations past. If ICT is to play a part in supporting the ageing population it must be financially accessible, usable, useful and transparent. Old design and business paradigms must be challenged. That is starting to happen!

Enter the Flip Video – a pocket video camera which is easy to use and cheap. Gone are complex multiple controls, gone are bulky external chargers, gone are multiple wires to connect to computers and televisions, gone are memory card slots and gone are cd-roms of software to manipulate videos on a computer. In their place are a few simple buttons, two AA batteries, a flip-out USB plug, embedded memory to hold sixty minutes of video, and software in the camera which automatically loads on



Editorial

Five months have already passed since the organisation of the 11th EU Hitachi Science and Technology Forum in Munich. During this time, the summary report has been issued and sent out to around 1,400 people, mainly in Europe. We have received several positive feedback letters, including one from the President of the European Commission, José Manuel Barroso. All Forum participants and contributors to the report, deserve a warm thank you for making this years discussions and hence the report content so interesting and informative.

In this issue, we have asked several Munich participants to share with us their thoughts about the Forum. Firstly, Prof. Simon Rogerson, of De Monfort University, in addition to his speech at the Forum on ethics, has decided to share with us his thoughts on how ICT could support ageing population. Secondly, Mr. Arthur Furtado, from European Commission DG Sanco, who helped us to identify many speakers and moderators for this year's event, highlights the importance of technologies designed around and adapted to aged users, rather than the other way round. Thirdly, Mr. Geert Somers, Forum member and lawyer at Time.lex focuses his gaze on technology and privacy in the ageing society. Finally, Prof. Günter Müller, of Freiburg University and a Forum member, shares with us his recent impressions on Japan after returning there for a 2-month stay and contrasts his latest stay with

his first visit to the country way back in 1992. To all of the contributors of this edition we extend our deepest gratitude.

As already informed to you previously, we are currently in the process of reviewing the Forum and I would like to take this occasion to share with you some developments. The concept of the Forum will remain the same i.e. a platform where European experts but also 'normal' citizens can discuss and assess European societal issues related to science and technology. Nevertheless, the format of the Forum will change and we will move to a bi-yearly Forum; which should allow our office more time to prepare even better content for future Forums. This extended period between Forums will also allow us to organise some follow-up actions in order to give the Forum a greater impact and allow the results of the discussions to reach more stakeholders. This in turn means that the next forum will now be organised in 2010 and we will inform you of theme, date and place as soon as it has been decided. In terms of participation, we will also try to increase the number of experts and external participants in order to diversify and deepen the debates.

During the summer, some of you have answered our short survey on Connexion; and we would like to thank all of you which have so far participated. For those of you who have yet to answer the questionnaire, it is not too late and we would still welcome your comments and suggestions. We will of course analyse all your answers carefully and try to incorporate them into the next issues of Connexion.

I wish you a very good reading of this newsletter.

Ko Takahashi
General Manager
Hitachi Corporate Office, Europe

any computer when the camera is plugged into a USB port. So why is this so special? It is because it could fundamentally change the way we view and interact with people and places around us. It could revolutionise, for example, education, entertainment, reporting and communication. It could enable everyone, including older people, to interact using video, rather than text or voice-only, which is intuitively more natural. Design-for-all is evident in this little camera. Jonathan Kaplan, founder of the Flip Video company, Pure Digital Technologies explained,

"We want to have software that helps users feel smarter." It is a great example of technology which puts people first. It shows the direction in which we should be moving so that the development and use of ICT is empowering rather than debilitating and inclusive rather than exclusive.

Professor Simon Rogerson,
Director, Centre for Computing & Social Responsibility, Faculty of Computing Sciences and Engineering, De Montfort University, UK

Involving patients and health professionals = better ICT for health and the ageing

Technology can improve the quality of care of patients and the quality of life of citizens. As people age, this support may become more important and even critical. A number of eHealth solutions from a broad scope of technology developed for the health sector - from Electronic Health Records to remote monitoring and telemedicine - can be called to help on this task.

For the development and availability of such innovative solutions, important contextual trends should be acknowledged:

- both medical and social care are becoming more and more multidisciplinary team activities; at the same time, there is a world-wide shortage of health professionals;
- health information can be very complex, both in nature and in form, and health systems provide a continuum of services, a true challenge for coordination and continuity of care; as we move towards more patient-centric health care systems, to improve quality and reduce costs, individuals are called to take more active roles in health care;
- citizens raise their expectations as regards safe, accessible and high-quality care, including across borders; citizens' demands also increase as regards availability and performance of information technologies in health; in parallel, a substantial e-divide subsists;
- given the slow demographic growth and the ageing of European societies, the importance of higher availability of a healthy work force grows; but ageing is a part of a larger societal change that also includes, for instance, more people living alone for longer periods and looser, more complex family and social support networks;

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• there is increasing concern regarding the long-term financial sustainability of the social security and health systems. In this framework of mounting pressure for increased efficiency in the health sector, better support and communication tools are needed, both between carers and with the patient. These should provide better support for the citizen to navigate the complexity of the health system while sick, vulnerable or facing some age-related disability.

Technology in itself should therefore not be the central problem. In the EU, the generation born around 1975 is the last one to know what life was without a personal computer, without a mobile phone, without the Internet.

The challenge is rather to ensure the integration of technology with human values, in such a way that the development of one translates or is reflected in the other. Technology should fit the user and not the other way around. eHealth applications for the citizen and especially for the elderly should not only be user-friendly but also contribute to a sense of inclusiveness and dignity.

The tools must be designed for the real-world use needs and problems of citizens and health professional; otherwise, they will not deliver their full value. Doctors, nurses and patients have to be called to give input to the design and implementation of new processes and equipment, for improvement (instead of resistance) to occur. Regardless of the apparent technological soundness of proposed solutions, early user involvement in project definition, professional training and management of change are key for effective buy-in and real progress to be made. The realization of the potential of eHealth for the benefit of citizens - namely elderly citizens - and of the healthcare sector calls for the participation and empowerment of both patients and health professionals. The Hitachi forum proved an excellent opportunity for debating this and other ideas.

Artur Furtado, Health Information Unit, Public Health and Risk Assessment Directorate, Directorate-General Health and Consumer Protection, European Commission

Technology and privacy in the ageing society

The 11th Hitachi Science and Technology Forum held in Munich was a great success. It addressed a topic that is of common interest: the ageing society and technology. The Forum discussed how technology can help to deal with the challenges of our ageing society, which will be very different from the one we know today, with an increasing and eventually even larger number of elderly people in proportion to the rest of the global population. Already, technology is providing increased comfort and security for elderly people. A good example is telemedicine for distant monitoring of patients. However, it became clear that technology can do much more than helping to take care of elderly. Given the great experience our senior citizens can offer, it can also contribute to their overall inclusion and continued participation in the working society. This way, they can stay active and healthy, which would be beneficial to everyone. Ultimately, it can turn elderly from a potential burden into a productive resource.

In view of this, the 11th Hitachi Forum could hardly have come at a better moment. Recently, policy makers all over the world are heavily discussing the opportunities of technology in the ageing society. In particular at EU level, several projects started looking into the potential of the internal market for ICT services and products for elderly, amongst others by promoting interoperability through standards and commons specifications, by improving the working conditions and productivity of older workers, by facilitating communication, participation and social interaction and by promoting assistive technologies.

However, when planning strategies for governing future trends we also need to look at social, ethical and privacy needs in ICT for older people. Indeed, technology does not only offer potential benefits but also potential threats. In particular, it bears the inherent risk of violating the privacy of its users, for example when information is intercepted or transmitted to third parties for marketing or other commercial reasons, such as to insurance companies. Another example would be the constant tracking of users through chips and sensors, leaving them no single moment of privacy.

Technological applications should therefore be designed in a way to avoid violations of privacy to the extent possible by carefully bearing in mind the principles of finality, proportionality and transparency. The ultimate purpose will be to find a balance between dependence needs that almost inevitably come along with age and on the other hand respect for autonomy, privacy and dignity, which should be given irrespective of age, physical or mental condition.

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Return to Japan – Transformation from Modern to “Poku”?

Back in 1992, when I first stayed longer than as a tourist in Japan, the criteria for self-judgement of the Japanese about themselves were “hard”: the Nikkei-Index, rising gross national product and the artefacts of “made in Japan” and access to Tokyo University. The combined land prices of Tokyo were more expensive than all the land west of the Mississippi. But, this “bubble” exploded. Now, the criteria are “soft”: fashion, design and the right way to live, the right way to build, eat, entertain and to work, marry, raise children and learn. Of course, there were many people in 1992 who were not affected by any of the hard criteria and there is now a majority who does not subscribe to any of the soft criteria. But the signs are clear: life-time employment is not for everybody, salaries have not risen during the last 15 years and globalization has destroyed the myth of the invincible industrial companies. The demographic factor is frightening and just a little better than the one in Korea. The economic dominance of Japan in Asia is challenged by China. New hope and new success to surprise the world again may be found in the 1992 despised J-Pop culture and of an in western opinion “questionable” personal behaviour, the “otaku”.

The “inter-generation contract” after the war has been broken with the burst of the bubble economy in the 90ties. This was not just a financial disaster; it was the end of “beautiful” Japan: lifetime employment and the concept of a society of

the middle class. Everybody was more or less equal and everybody made more or less the same amount of money. All lived in small houses and western visitors secretly wondered where the Japanese got their patience to endure such a low standard of dwelling. But now even as a European, you have a tough time not to be seduced and devoured by the products and vibrancy of Tokyo. There is nothing you cannot buy. Design, art and fashion are of avant-garde spirit. One never thought - back in 1992 - that the industrious Japanese would ever be capable to move to the individualistic behaviour of 2008. But this “Bohemian spirit” has drawbacks. Some people are becoming richer than others. Many young people do not find a permanent job in a society where nevertheless the myth still exists that precisely the “job” defines worldly paradise. Many miss the “salary-man” or the “OL” (office lady), which have been replaced by “managers”, bankers and “millionaire women”. This is not a misspelling; it is just another example of the ubiquitous mix of Japanese and English to create the language of 2008 which many use but only a few understand. “Millionaire” is a lady who has enough disposable money – it is unclear from what source - to make shopping and party to their reason of existence. On the other side one finds the “freeters”. This is a combination of “free” and the German word “Arbeiter” to describe modern “ronins” without much social security and no permanent job. Some of them sleep at night in Internet cafés because this means being with friends of similar spirit and maybe also saving some rental costs.

Manga, Anime, Hello Kitty and Super Mario and other pop cultural representatives of “soft culture” have made their way to success around the world and ensure income for many, and their economic importance is growing. Everything starting with a J, e.g. J-Pop, J-Food or J-sport is new, fashionable, modern and a sign of progress. “Cool” Japan is replacing “beautiful” Japan. The potential new Prime Minister, Taro Aso, has, among other accomplishments, well-respected expertise in manga and anime and is proud of it. This has a start and reasons. First young artist complained about the relatively low status of Japanese art in and outside the country. Secondly, the dedication of the growing numbers young people to one subject generated the “otaku”. The acceptance of J-Pop culture has led to a mix of “Pop” and “otaku”, called “Poku”. The “Japanicity” – looks like it is Japanese - of “Poku” with its un-heroic characters can be found everywhere, in advertising, industrial design, new fashion and in architecture or products of daily use. “Poku” is the opposite of the “bushido”, but it is truly Japanese and it has effects. The foreign movies are on the retreat, to be replaced by Japanese films; nobody has ever heard of and probably never will. On the fashion mile of Harajuku in Tokyo the harmony between the “cool” and the “beautiful” can be seen in the parallel existence of latest western fashion, futuristic “Poku” designs and a surprising comeback of Kimonos.

Japan changes every minute in a direction I cannot predict. One does not need to go to Japan if one wants to experience the Japan of 1992 and before. One should go to Japan, if one wants to experience an experiment with an unclear outcome and, most interestingly, not just for the Japanese.

Prof. Dr. Günter Müller, Forum Member
Institute of Telematics, University of Freiburg, Germany

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In order to appropriately tackle the above challenges of our ageing society, we need to adopt a multidisciplinary approach. This was demonstrated by the very fruitful discussions at the Hitachi Forum. Because participants came from very different backgrounds, ages and countries, they could launch ideas and proposals based on their own experience and views. The Forum could therefore be concluded with very interesting and useful considerations. Since we are only starting to see the challenges of the ageing society, it is clear that discussions will be continued and further developed for many years.

Geert Somers, Forum Member, Lawyer, Time.lex, Belgium

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The Hitachi Corporate Office, Europe welcomes and encourages your comments and ideas.

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