ICT solutions for an aging population

Thanks to advances in medical science, many people are living longer. But that means they may need to be convinced to work longer.

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Early retirement used to be positively encouraged. Back in the '60s, older workers were offered generous pensions and retirement packages in a bid to get them onto the golf course and younger people into jobs.

But all that has changed. The aging of the population is a global phenomenon. In 2050, an estimated third of the E.U. population will be 60 or over.

Despite the fact that we are living longer and staying healthier, Europeans are retiring at 61, on average.

Projections indicate that, due to declining birth rates, there will soon be a shortage of young workers in many E.U. countries. Without enough taxpayers to support the cost of state pensions, the impact of an aging population on fiscal sustainability will be profound.

Older people who choose to remain at work are, therefore, vital to the economy.

"Goldenworkers" is a new report written by IESE Prof. Antonio Dávila with Veikko Ikonen, Ilenia Gheno, Jaana Leikas, Kristiina Kantola and Laia Pujol. It aims to raise awareness of the importance of improving work environments for this aging population.

The report offers a detailed analysis of the demographic, social, economic and cultural forces shaping European societies, and suggests how information and communication technology (ICT) could be deployed over the coming years.

Why people retire when they do

The 2004 Survey of Health, Aging and Retirement in Europe (SHARE) found that Europe had a large, unused labor capacity — namely, retired people who were in good health.

The survey found that:

- Financial incentives embedded in pension systems significantly affect retirement behavior.
- Ill health is a major reason for retirement.
- Agreeable and flexible working conditions encourage later retirement.

Other research has noted that:

- Obsolete skills and/or low levels of education increase the risk of unemployment, low wages or forced exits from the labor market.
- ICT knowledge is strongly linked to employability.
- Blue-collar workers in stressful or dangerous workplaces retire earlier than white-collar workers.
- A growing number of so-called "goldenworkers" choose to start their own businesses, rather than join existing organizations.

Given all this, effective policies need to include both retirement-discouraging "sticks" and work-enhancing "carrots."

Increasing the age of pension eligibility, introducing more phased or partial retirement opportunities, and reducing social security contributions for older workers would help.

Finding ways to make ICT work for them is also key.

Furthermore, work environments need to be adapted. Companies, regardless of size, need to ensure that workplaces are safe, clean, properly lit and ergonomically designed.

Debunking the myths

Age discrimination is one of the major barriers to the employability of older workers.

Research has found no relevant differences between older and younger workers that would explain this bias.

While the capacity to carry out physical work and some mental functions may decrease with age, other functions improve.

On the whole, older workers are considerably better than their younger counterparts at using language, keeping their emotions in check and processing complex problems in extreme situations.

They can also be expected to be more conscientious, positive and loyal than their younger counterparts.

ICT and older workers

Technology is changing at a rapid rate, far faster than the rate of our biological evolution, and it is expected to keep on transforming the way we work.

As European societies become increasingly reliant on ICT and the Internet, the digital divide risks excluding older people, both from the community and the labor market. Eliminating this divide needs to be a major priority for public policy.

Unfortunately, ICT tools were not designed with older users in mind. Most devices rely on swift eye/hand coordination, good eyesight and hearing, and nimble fingers.

While teenagers can find their way around a new mobile phone in two minutes, its fiddly buttons, complicated menus, and small fonts and size can represent a real challenge to the older generation.

As a result, many older adults feel that technology is beyond them, and this can lead to feelings of low self-esteem and worth.

Design challenges

The authors give an overview of roadmapping strategies in relation to aging-related technological innovation.

Affective computing, ambient and artificial intelligence, bioelectronics, cloud computing, future Internet, human/machine symbiosis, neuroelectronics, quantum computing, robotics, and augmented virtual reality (AVR) are all fields that could potentially affect aging workers' lives in the future.

However, all such technology needs to be designed from the start in a user-friendly way that

truly improves the quality of our work, rather than creating more problems for workers.

This is especially important for older workers, who may find it harder to adapt to new ways of working.

Lifelong learning

To improve their employability, older workers need to think in terms of lifelong learning and a constant updating of their skills.

By the same token, organizations, whatever their size, need to adapt training to the needs of an aging population.

The sharing of knowledge between workers also needs to be actively encouraged, not only to get a particular project done, but also to ensure that vital knowledge is not lost after retirement.

As ICT tools impact everything — from communication to coordination and productivity at work — ICT systems need to be designed so that they help, rather than hinder, those who have to operate them.

In the future, ICT needs to be not only user-friendly, but age-friendly, too.

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