

## The «info-(ex/in)-clusion» of the elderly people: Remarks for the present and for the future

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**Abstract:** This paper discusses the importance of the info-exclusion/info-inclusion of elderly people. Recently several initiatives taken from the EU encourage the info-inclusion of all the European citizens in special women, unemployed, and the elderly people. A problem related to the participation of older people in learning activities is that learning is traditionally often designed for younger people's learning needs and skills. As our societies become older, a shift needs to be made towards older audiences in order to integrate them with younger generations. But the problem is that educational solutions rarely address the interests and specific needs of older people. Our conviction is that ICT can help elderly people to improve quality of life, stay healthier and live independently for longer. Portugal also launched several initiatives regarding the info-inclusion but as like the other countries some obstacles must be overcome and some proposals for the future will be presented.

### The European demographic change and challenge

There is a fact that Europe's population is getting older! The demographic structure of the population in Europe has been shifting dramatically over the past few decades and current predictions show that the trend towards an increasingly older population is likely to continue. If we consider that this group will account for 33% of the European population by 2050, the implications of the emerging demographic revolution cannot be ignored. This demographic change means significant and serious challenges to Europe's society and economy. As argued by the European Commission (2007) in Europe the spending on pensions, health and long-term care is expected to increase by 4-8% of GDP, with total expenditure tripling by 2050. Therefore, governments, civil society and the industry need to work hand in hand to adapt and supplement some of the existing policies and practices so as to adjust to the new reality. The Ministerial Declaration of Riga (2006) was approved not just only by the EU 27 but also by the EFTA and several countries that joined the Meeting in order to settle some basis for a global strategy to promote the «*eInclusion*». According to the Riga Ministerial Declaration ICT is so powerful that can promote a growth of productivity around 50% and they also believe that ICT contributes to improve the quality of everyday life and the social participation of the European citizens. With ICT the access to information is facilitated as well as the media, content and services, to enhanced and more flexible jobs, and to fight against discrimination especially for citizens with disabilities and for the elderly people. The *i2010* e-Inclusion Initiative is coherent with the Riga Ministerial Declaration and the main aims are to: 1. Establish a single European information space, i.e. a truly single market for the digital economy so as to fully exploit the economies of scale, offered by Europe's 500 million strong consumer market; 2. Reinforce innovation and investment in ICT research, given that ICT is a major driver of the economy and; 3. Promote inclusion, public services and quality of life – in other words extending the European values of inclusion and quality of life to the information society (European Commission, 2007a). Since it has been observed is that experiments involving the use of ICT is very

specific and localized to denote a lack of a more global view is that the economic factor in Europe and the literacy level of citizens are the factors to take into account with a view to sustainable development. Another variable relates to the fact that the countries belong to the northern or southern Europe, the latter being those who have more penalized in terms of info-exclusion. Already at the level of the U.S. measures are more consistent and better organized while in Europe there is much bureaucracy and a great diversity of approaches and intermediaries involved that, in most cases, do not allow greater speed in implementing the e-inclusion.

In summary the Ministerial Riga Declaration includes an objective reference for the elderly on the following assumptions:

- Assumption # 6: *i2010* (an initiative that includes some very general associated with the active aging).
- Assumption # 8: *eInclusion* Initiative (aimed at reducing the differences in Internet use in groups considered most disadvantaged: elderly, disabled, women, people with low literacy levels, unemployed).
- Assumption # 9: Develop and exploit the potential market related to ICT and Internet for the elderly population.
- Assumption # 10: Improving the employability, working conditions and life for older workers by improving their skills and computer literacy for these older workers.
- Assumption # 11: Improve and increase active participation through the use of ICT that focus and facilitate the relationships and social interactions.
- Assumption # 12: Promote the technologies 'assistive' and ICT-based services in terms of health, social services and public services in general.
- Assumption # 20: measures to promote digital literacy through measures involving the formal and informal education for disadvantaged groups, in which they are the elderly.
- Assumption No. 41: To seek answers and consider issues related to the needs of the elderly by improving their living conditions and working environment, health care in public and private domains

Portugal as a Member of the European Union reinforced those political strategies with several national initiatives that it may be emphasized this one: «*Connecting Portugal National Plan*». This National Plan is considered the principal technological political measure of the Portuguese Government under the so-called «*Technological Plan*». The main goals of the «*Technological Plan*» are to mobilize the Information and Knowledge Society according to five pillars: 1. Qualifications and Citizenship; 2. Promotion of the e-inclusion and e-accessibility; 3. Contents and Infrastructures; 4. Technologies and Knowledge; 5. Public Services.

In terms of 'technology generations' Korupp Szydlak (2005, 412), propose the following categories: "(...) the pre-technical generation (born before 1939), the generation of the household revolution (born between 1939 and 1948 ), the third generation of advanced technology household (born Between 1949 and 1964) and the computer generation (born after 1964)." This means that elderly people +65 years is in a delicate situation in relation to issues connected with the info exclusion.

## **ICT and the Elderly People**

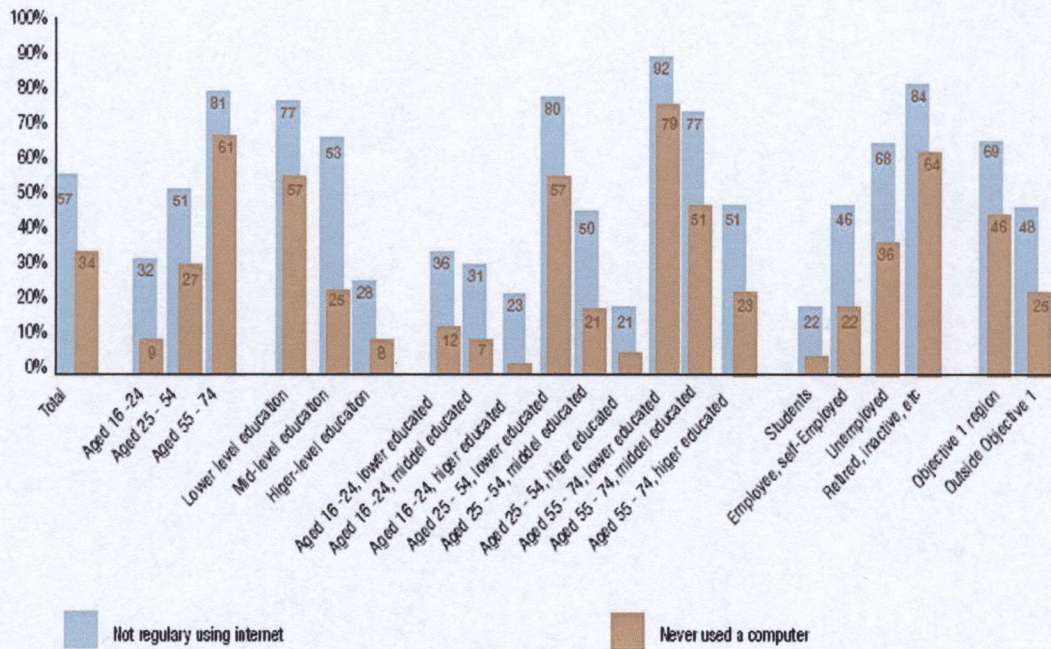
Due to the growth of the elderly population the European Commission launched in 2007 an «Action Plan on Ageing Well in the Information Society» under the *i2010* Initiative. The main reason is to promote the use of technology as a medium to engage the elderly citizens and to ensure their important contribution to the European economy to encourage the ageing population to remain active for longer. However the elderly people when faced with ICT they have a relatively weak performance and use. Several reasons may be referred according to their personal situation: level of education, health, income, location, gender, impairments... Other reasons may be due to the fact that most of the products and services are often not adapted to meet the specific needs of the elderly people or are not adequately available that increase their sense of frustration and dependency (European Commission, 2007b). Table 1 shows some evidence about the referred concerns:

	MALES			FEMALES		
	16 - 24	25 - 54	55 - 74	16 - 24	25 - 54	55 - 74
EU 27	79	61	31	77	55	19
BE	89	74	41	87	69	26
BG	55	32	7	61	33	5
CZ	73	49	21	74	44	11
DK	94	87	58	96	84	47
DE	90	78	44	87	69	26
EE	89	64	19	92	71	22
IE	71	59	24	61	54	17
EL	60	39	7	53	27	2
ES	77	54	17	77	46	9
FR	84	67	34	84	63	23
IT	61	45	17	57	34	6
CY	58	41	14	57	37	6
LV	90	57	15	93	58	14
LT	87	45	10	86	51	9
LU	92	86	60	88	71	29
HU	81	54	21	79	57	16
MT	-	-	-	-	-	-
NL	95	92	64	98	87	46
AT	79	76	41	80	63	24
PL	77	41	12	77	40	8
PT	77	41	13	77	33	6
RO	50	23	4	48	21	2
SI	83	56	16	82	58	9
SK	86	56	14	73	59	10
FI	98	86	48	98	87	40
SE	95	84	61	86	82	49
UK	83	76	50	83	68	33
IS	99	91	70	99	90	60
NO	95	90	61	88	86	54

**Table 1:** Individuals who used the Internet at least once a week by age and gender, EU 27 (%).  
Source Eurostat statistics.

As it can be observed (Table 1) there is a clear decrease on the use of Internet when the user is older and this decrease is greater when gender issue is present: the women are the most info-excluded. The country rankings showed that respondents in the eastern and southern EU Member States were less likely to be Internet users than those in the Union's northern and central regions (Eurobarometer, 2008). The elderly are struggling with the current image linking ICT to young people and that does not recognize them as a potential user group. It is often assumed that ICT has a very intimate connection with young people (Cutler, 2006). Many are the problems that the elderly have to face when they use ICT devices: increasingly technological devices that are smaller and miniaturization in favor of simplicity and ergonomics is creating serious problems for the elderly.

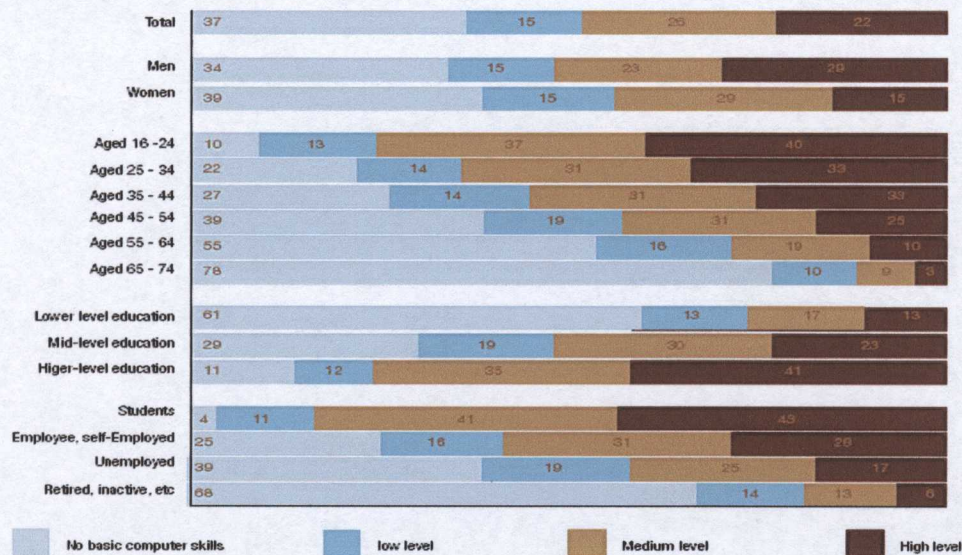
The more traditional approach to envisage ICT as static devices is a mistake, because increasingly ICT devices are presented as dynamic and evolutive and different approaches and strategies must be carried on for their use by older adults. Some investigations developed at Dundee University by Inglis et al (2002) have shown that the interaction should be done as a group since it was found the importance of so-called 'interpersonal skills'. This was also being supported by Furlong (1989) when referring to older people who already had social networking was easier for these seniors to use ICT. Another issue that was valued has to do with the fact that the designers of software and hardware are usually young people that they lack to know the 'another perspective', the perspective of the elderly, which is justified by the inclusion of elderly in the design and design.



**Figure 1:** Individuals using the Internet and/or Computers (2005, EU 25).

Source: Eurostat Community survey on ICT usage in households and by individuals.

Figure 1 clearly shows that the more elderly citizens are less using the internet and computer. But Figure 1 highlights another variable: literacy. In this case the higher the level of literacy is the greater use made by the elderly or the Internet or on computer use. Next is to present Figure 2, which aims to highlight several variables such as age, sex and level of literacy but adds new variables: work activity / occupation. In summarizing, we may affirm that across Europe, older people are arguably the most excluded group of citizens in terms of media literacy. The table below highlights how older people from lower social classes are likely to be excluded the most of all.



**Figure 2:** Individuals' level of basic computer skills (2005, EU 25) as percentage of the total number of individuals aged 16 to 74. Source: Eurostat, Community survey on ICT usage in households and by individual.

The results obtained in Figure 2 are consistent with other studies, for example, Blit-Cohen and Litwin (2005) refer: The analysis revealed that even though home computer availability declined with age, part of this relationship was due to the effects of such factors as employment status, marital status, race, gender, family income, living arrangements, education, and number of disabilities. Interestingly, use also declined with age among persons who owned a computer, irrespective of socio-demographic differences. The analysis concluded that age-related computer availability is influenced by socio-demographic factors, but that computer use indeed declines by age. When citizens change their 'life process' of a situation of active worker for the retirement have to know how to learn to deal with this new situation and we must learn to integrate all learning made by it through their practices that should be considered as relevant (Hodkinson et al, 2008). Precisely because the transition to retirement constitutes a process of personal change and at the same time social, these individuals should be able to know how to deal with new situations and realities that should be seen as opportunities and not as new obstacles. Because learning is important for the welfare of the elderly (WHO, 2002) and learning in later life can compensate for variations associated with the aging process (Schneider, 2003). Therefore, Hodkinson et al (2008), are of the view that retirement should be viewed in a reactive manner, and preferably in a proactive manner. That is, it is necessary integrated action at the level of changing behavior and attitudes of the general population in an increasingly technological society (MS-DGS, 2004).

### **Remarks for the present and for the future**

One certainty is supported by statistics from various institutions and countries have to demonstrate, clearly, the world's population is aging with a corresponding increase in life expectancy. This means that the elderly will become a social group highly representative who will require special attention with regard to the process of active aging. As stated by Alvarez (1999): "Ageing is not a social virus rather the social historical database of the nation's journey which transfers its rich information to the Next Generation." In this context, several governments and NGOs have begun to take initiatives to include this group in all the measures taken and implemented in the use of ICT. According to Pfeil (2007) is crucial more research in this area and the elderly constitute the group of choice for these actions.

Anyanwu (2004) state that: "We should therefore take ageing as a transition in our social-biological clock. Without preparation such transition causes anxiety to people around us, we need to get people around us prepared for such changes. This will enable them adjust their expectations as well as ensure that we are not left behind." As it is referenced by Fox (2004), the elderly have particular differences and that escape to the general characteristics of ICT users: first, the elderly do not feel so attracted by computers and the Internet compared to the younger population. On the other hand, the aspects of a physical, sensory and cognitive aging process resulting from the trigger difficult barriers to overcome. Despite all these "precautions and recommendations", this target is not easy to achieve since the age of an elderly person does not exactly match a given "technological profile" or given a 'cognitive profile'. This problem was already presented by McKeracher (1999, p. 260): "(...) Defining a senior learner is problematic because the single definition satisfies everyone."

This reality is compounded by the professional career of the elderly has been a close link between the employment status of the elderly and the technology used was not ready to receive and incorporate new technologies (Down and Reveley, 2004). That is, there is one called 'generation connection', according to Cavalli (2004) as a result of the level and degree of exposure that individuals have had with certain technologies over the years. Therefore, we must act quickly so that we can reverse this trend and counteract recent studies that clearly refer to those who have a delayed contact with ICT and who did not follow its evolution will be a great disadvantage (McMullin et al, 2007). This is also underlined by Czaja (2007), whereas determining the nature and type of experience that older people had to ICT, training and support, as well as the conditions of access provided to them will determine the extent of their receptiveness to accommodate new technologies and their subsequent use. In a study by Hazzlewood (2001) 'The TALANT: The third age learner accessing new technology' was possible to verify that the Internet access at home, together with a close and aided training of trainers provided by a learning and a more positive ICT and Internet in particular more effective.

In the research conducted by Dickinson and Gregor (2006) which dealt with a critical eye the 'real' benefits of ICT for the elderly present several suggestions that can and should be taken into consideration and which are to be submitted:

- the level of training becomes not so important what the content addressed but the approaches, methodologies and strategies to promote;
- the level of future use of computers, despite high levels of satisfaction shown by the elderly during the training process only the elderly who already had a reasonable level of literacy demonstrated continue using it, while the elderly who have not reached adequate levels demonstrated that literacy would abandon the use of computers, which means that in most training courses still do not feel independent and so the training should be more extensive and longer lasting;
- another critical aspect that must be addressed relates to the constant evolution of hardware and especially software and operating systems that promote a certain disarray and a difficulty in adapting to new routines, commands and operations.

As revealed by the research coordinated by Jimison et al (2008) has been a noted increase in the use of ICT by elderly people because usability is being improved, yet the elderly still prefer a bi-directional contact (machine and humans) giving a high value on feedback that gives them a feeling of closeness with other (s) correspondent (s). Another aspect that was investigated relates to the need to feel that ICTs bring real benefits to the elderly. But for this feeling to be successful is still important in this elderly population the presence of a support or technical support that can interpret and capitalize on resources provided and made available by ICT.

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