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SILHOUETTE

USING NOVEL INFORMATION
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FOR THE SUPPORT OF ELDERLY'S ACTIVE
PARTICIPATION IN THE INFORMATION SOCIETY



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ICT-based Support for the Elderly in LORRAINE: Stakeholders' views

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1. Introduction

In France, by 2050, according to the latest projections, 26.2% of the population will be aged 65 years and older. When the 60 - 64 age group is included, the rate will rise to 31.9% by 2050, whereas it was 22.7% in 2010. In addition, in 2050, the elderly aged 75 years or older will represent 15.6% of the population against 8.8% in 2010 (Robert-Bobée, 2006), suggesting that the proportion of elderly will almost double within this period. The aging of the French population will be very similar to that of the entire EU during the first half of the twenty-first century. The ratio of active / retired individuals is also a concern in France. The ratio of active to inactive aged 60 or older will increase, according to the INSEE (the National Statistics Institute) from 2.2 in 2003 to 1.1 in 2050 (Nauze-Fichet et al., 2003). In the Lorraine region, from 2005 to 2015, the number of dependent elderly will increase from 18% to 22% (Dell'Era, 2008). Meanwhile, the number of freelance nurses and doctors who could assist seniors at their home is already lower in Lorraine than in the rest of the country, and this trend will continue in the years to come (Duée & Rebillard, 2004). As for other kinds of stakeholders, their distribution is unbalanced (Atarodi et al., 2012). The same applies to retirement homes and they are lacking particularly in the northern parts of the region, where the number of elderly aged over 85 will be more pronounced (Dell'Era, 2007).

We report here the answers to three questionnaires expressing the involvement, strategies, plans, expectations, points of view and critics of various stakeholders, such as local social administration representatives, care providers and companies, from the Lorraine region of France, regarding ICT-based solutions to support the activities of the elderly in the region. Eleven public administration representatives, 7 company managers and executives, and 4 care providers responded to our interview request.

2. Senior-oriented activities

2.1. Supporting the elderly communities in the region

Two kinds of public bodies were interviewed in our survey. The Local Centers of Information and Communication (Centre Local d'Information et de Communication, CLIC) thought that they were primarily a social public service of information and communication dedicated to the elderly, and that such service should be easily accessible to the concerned persons. They explained that their job is to evaluate the situation of the elderly in terms of autonomy, to inform the elderly regarding their rights, to help seniors to perform administrative procedures to take advantage of their rights, to identify the most vulnerable elderly, and to coordinate the development of human and technical aids in the home. They also coordinate the implementation of collective prevention actions with various partners. Thus the CLIC's mission is to develop on its territory of competence, the coordination necessary to promote the care of the elderly in partnership with all local stakeholders in the field of gerontology.

The Communal Centres for Social Action (Centre Communal d'Action Sociale, CCAS) are public municipal establishments conducting a general action for the facilitation of social activities and for welfare across the town in partnership with public and private institutions. Their service for the elderly and disabled concerns different areas of activity, including the census of the frail, the reception of the public, the information and advice to the families, and the assessment of needs. The CCAS also helps the elderly with the administrative procedures to get the Personal Allowance for Autonomy (Allocation Personnalisée d'Autonomie, APA) and works with the county council services to propose an adapted action plan for maintaining the elderly at home. The CCAS coordinates local stakeholders' meetings and actions, or actions conducted by other partners in the field, provides a range of homecare services, lists the application requests for sheltered housing / nursing homes or adapted housing. Indeed, the CCAS is responsible for housing allocations. In a few cities of the region, a housing offer for the elderly who can live independently is managed by the CCAS. In this framework the elderly have a safe home, with several services in exchange of a cheap contribution.

The CCAS also provides social monitoring and support for the elderly who live alone with difficulty, including financial, or senior clubs in their cities that allow members to benefit from animations to maintain their independence, and have a social life. These public bodies help the elderly to choose the solutions needed for the compensation of their frailty, and to request a personal allowance from the county councils to fund the selected solutions.

The nursing homecare services are managed by non-profit associations. These services are used by older people requiring non-urgent nursing care at home and home hospitalization. Their funding comes from the "Regional Health Agency." Currently, these nursing units are present on all the regional territory and concerning elderly care they collaborate with other stakeholders through coordination networks.

Several non-profit associations and companies also provide support to the elderly in the Lorraine region. Their offer includes classical services and products aiming at the facilitation of the elderly's daily life such as

household tasks, meals on wheels, daily phone calls to the seniors, non-ICT technical aids, but also ICT-based services and products.

2.2. Use of ICT-based solutions for supporting the elderly

The solutions proposed by the public social bodies to the frail elderly include ICTs such as teleassistance systems or a geolocation system implemented into a wristwatch to monitor the elderly at early stages of dementia. In the sheltered house, the elderly residents have at their disposal an internal teleassistance system. Several social institutions support financially the computer literacy courses organized by non-profit organizations for the elderly. ICTs are also used by the stakeholders to list all individual requests via a software common to all CLICs. This software allows them to produce statistics and to monitor the evolution of the support to the elderly. The internet is also used for communication between the stakeholders and the population, and between the stakeholders themselves. The setting up of computer literacy courses for the elderly (age 60+) is the main kind of program including ICTs supported by these public bodies. These courses have been developed to reduce the digital divide and to create social ties.

ICT-based services and products are offered to the elderly by the companies that have been interviewed. Interestingly the respondents plan to propose several ICTs services or products to support the elderly's activities.

One stakeholder plans to develop a research study and a consulting service for ICT equipment. The project is motivated by the will to provide greater security and efficiency for ICT use by the elderly. This service provider states that the main external factors of his success concerning this action would be a support to form all of the stakeholders to the use of ICT devices, the assurance that a proposed product is really adapted to the needs and abilities of the users and the possibility to carry out follow-up tests to validate the recommendations made.

Another stakeholder interviewed plans to develop a product that will integrate ICTs to maintain the intellectual activity of the visually impaired as long as possible and also to help them retain a strong link with their social environment. The incentive for them would come both from a greater consistency in the offer for products on the market and, on the other hand, from the best provision to the customers, which would lead to greater satisfaction. External factors for the success of this approach would be the recognition by professional organizations and health professionals of the correlation between this proposal and the needs of customers.

Another stakeholder, a non-profit association representative, identified a demand for support and personal assistance in the use of ICTs by the stakeholders themselves. Satisfaction of this need could encourage the development of a commercial offer of services in addition to the associative approach.

Three kinds of answers were obtained from nursing homecare unit representatives to the question regarding plans to include ICT-based solutions. First, discussions are underway to improve the care of the elderly. The regular completion of patient records and the follow-up of care should be reviewed. The software used by the home care nursing services offers new features (on smartphones, tablets) and will still be improved. This will help professionals and allow for a better visibility of care and the development of support at home. Any modifications would be directly recorded in a computerized patient record. Other nursing providers indicate that for the moment, no basis is available or known for improvements. The elderly in their care have mostly a loss of autonomy and a lot of difficulty in using even the simplest telecare device. They consider that ICTs should

be used more by the professionals than by the elderly. Other nursing providers state that for the moment they don't plan to use ICTs because they don't know what devices are available and furthermore, the prices of ICT systems is an important criteria: who will pay the bill ? The nursing service or the elderly ? For the moment, they use a software essentially for administrative management of the person in care and for their statistics.

3. National, regional and local programs and strategies of supporting the elderly

3.1. Practical implementation of programs

The CLICs' strategies are defined by county councils within the limits imposed by a national law and published in a multiannual program of political orientation. Some county councils decided to separate the multiannual programs dedicated to the elderly and to the disabled young adults, while others prefer to publish a single program for both of these categories. The CLICs also work in coordination with other stakeholders of their territories for the monitoring of the frail elderly. The CLICs assume an information role for the stakeholders, as well, regarding the administrative obligations and procedures. The CLICs' employees are animators in the territory covered by them. They organize prevention activities, conferences, discussion groups, and forums. By these activities, the CLICs inform the population about the political orientations, strategies and programs at national and county levels, and about the kind of situations they can handle and the solutions that exist in each territory including ICT-based support.

The CCAS operates within the framework of the mission defined in Article L123-5 of the Code of Social Action and Families which states that:

- The CCAS runs a general action of prevention and social development in the municipality.
- The CCAS can create and manage host institutions for the elderly and people in difficulty.

Their strategies are defined by the municipalities who finance the CCAS.

3.2. Needs concerning the creation and implementation of programs enabling a wider use of ICTs

Only one stakeholder from a public social body expressed the need to introduce recommendations for the use of ICT devices to all stakeholders for the multidimensional assessment of clients. None of the public bodies interviewed currently planned a new program including ICTs for the elderly. Two expectations were expressed by public social bodies in relation to national, regional and non-governmental institutions: a) The expectation of systems equivalent to telecare for patients with acute disorders of hearing, because assistance office representatives to seniors are often faced with this difficulty for the implementation of adequate support; b) The expectation of funding to facilitate the development of these tools.

Two executives of start-up companies explained that the need involving a demand and therefore a sufficiently large market would encourage them to initiate the provision of new products and / or services. They also stated that innovation is the main external factor of their success in the supply of such products or services. More generally the measures expected by companies include essentially financial and assistive measures to support new products (investment, development, storage).

The expectations of caregivers interviewed in the survey, towards institutions and non-governmental organizations, focus on the development of services adapted to the life of the elderly, easy to use, and interactive. It is necessary that the institutions get involved in terms of research, communication, maintenance, user training and financial assistance for the purchase of equipment.

4. Benefits and barriers in implementing ICT-based solutions for supporting the elderly

4.1. Benefits

According to the stakeholders from public bodies who participated in this survey, the benefits of deploying ICT-based solutions would be that these ICTs can effectively overcome the loss of a sense, especially hearing or vision, and should play an important role for support at the level of administrative management and communication. In terms of operation of the services to the elderly the ICTs allow often to optimize the benefits of classical care. Furthermore, the seniors' good skills with ICTs contribute to maintain their independence and their cognitive abilities. They also allow them to find solutions in dealing with their isolation.

To the company managers interviewed, the benefits of ICT-based solutions for the caregivers are related to the ease of use, the facilitation of certain activities, the maintenance of updated information, a greater openness to the world, the productivity gains of support solutions for company founders, and an easier adaptation of services to various situations. The benefits for the elderly are more effective risk prevention, the facilitation of certain activities, a diminution of individual isolation, an improvement of safety and the greater autonomy of seniors. According to these stakeholders ICTs constitute an additional tool for monitoring and security, but they are not enough to entirely replace human help.

According to nursing homecare unit representatives, the advantage of ICT use is a better view of what is done with the elderly, and therefore a better monitoring. These systems are interesting for stakeholders because of the increasing number of elderly living in isolation, where life at home is difficult due to a lack of security, human contact and help.

4.2. Barriers

According to the public bodies interviewed, the main barriers to the progression of ICTs in the Lorraine region of France is first due to the absence of habit and training using ICTs in the oldest generations. On the other hand, there is a barrier in the economic access to ICTs. Older people using these services generally have modest incomes and are often reluctant to invest financially the field of homecare aides in general. Another problem pointed out by a stakeholder is the low latitude available to the public bodies in the means needed to carry out an action plan. Moreover, to the stakeholders interviewed, it appears to be too complex to compensate the entire loss of autonomy in the basic activities of daily life of the elderly by the use of ICTs. Human resources appear to them to be the main solution.

To the company managers and executives, among the barriers to the widespread use of ICTs are the budget of households, the complexity of the devices and the reduction of the personal allowances. They also mentioned that the adaptation of the elderly to a new technology is not intuitive and needs an active implication from the user; the problem of automatic systems can be disruptive, and involve ethical problems (e.g. in telemonitoring),

the dehumanization of the environment, the loss of traditional benchmarks, and the risk of digital divide between those who are knowledgeable and the others.

Beyond the cost of these facilities, that have an impact on the budget of the elderly, some other barriers have been mentioned by nursing home care managers: physical and psychological dependence of the elderly to the support, worsening of the isolation of the elderly and the fact that in rural areas the elderly have rarely any notions about computers. The nursing home care unit representatives also expressed the fear that ICTs may dehumanize the support given to the elderly. The caregiver who registers his care on a device and not on a written record might not take the time to talk with the patient. Moreover, to them the basic home care relies in the doctor/nurse-patient relationship. The disadvantages cited also include the difficulty involved in using new technologies by the elderly. However, according to the stakeholders, if the tool is simple and with specific training, it should be possible to overcome these difficulties.

5. Potential of the region to utilize ICT-based solution for supporting activity of the elderly

5.1. The size of the regional market

For the stakeholders interviewed, the market is sufficiently broad and is systematically growing due to the increasing number of elderly. The market includes several levels of customers, ranging from people still active to the person confined in a nursing home. Furthermore, some stakeholders note that the traditional barrier concerning the lack of ICT skills among the elderly fades progressively due to the arrival of new seniors more accustomed to using modern technologies. Several managers of nursing homecare services also state that the region is ready for the development of ICT-based support solutions for improving the activity of the elderly. They stress the fact that the region was not too late for the development of the Internet and of telemedicine networks between hospitals.

5.2. The R+D and innovation potential

A majority of company managers see positively the collaboration with research institutions for the development of ICT-based solutions to support the activity of the elderly. Some of them are already engaged in R&D projects with laboratories from various Universities. This kind of partnership is highly encouraged by regional and national authorities and is well accepted at all levels. Furthermore, applied research in telehealth and support for the elderly are included among the scientific national and regional priorities.

6. Recommendations of regional stakeholders

Some additional recommendations have been mentioned by a majority of stakeholders:

- ICTs shouldn't replace human contact, but be the mean to optimize the support offered to the elderly;
- The elderly should not feel invaded by a technology they do not understand and that they cannot control;
- It is important to differentiate products and services according to their typology. Each product or service should be proposed in several versions adapted to the specific needs of different populations in order to satisfy all kinds of needs and the demands of the market.

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