Technology and old age in Argentina

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R.M. Gutmann. Technology and old age in Argentina. Gerontechnology 2007; 6(2):63-65. Argentina's economy has seen rapid changes and economic growth, but the divide between the poor and the rich was and still is significant. 3.8 Million inhabitants aged 64 and over generally have limited access to health care in a number of provinces. The National Institute of Industrial Technology started a gerontechnology centre in 2004, mainly oriented at assistive technology. It consists of two engineers, a rehabilitation physician, an electronics technician, an architect, a sociologist / gerontologist, an industrial designer and a secretary. A survey of actual needs in the older population is being worked on.

Keywords: Argentina, economy, assistive technology

Argentina is a large, but sparsely populated country, for example, it covers an area of more than 76 times the size of the Netherlands, but its population is 38 million inhabitants only (Netherlands 16 million). Argentina's southern regions are scarcely populated. The country produces three times the food necessary to feed its population but more than a million children are suffering from malnutrition. It uses the latest technologies in the production of soy, including transgenic species, but it does not provide fresh water or sewage removal to millions of inhabitants[1]. In a few years' time, the country's finances changed from a huge foreign debt to a great financial surplus. The lack of technology for production in the country cannot be explained by absence of natural resources, know-how, or capital; factors usually considered by researchers. If we agree that corruption, covetousness and thirst for power in the country are significant, we do not exaggerate in stating that the technical, social, and environmental situation has to be understood from the conflict between greed on the one hand, and satisfaction of the basic human needs and preservation of the environment on the other.

The population aged 65 years and over makes up about 10% of the total population. Most of these people have an insufficient pension to lead a daily life without economic worries; they have limited access to medicine, especially in some areas of the country. Of the aged, 2.2% live in nursing homes, of which 30% are not under official control. Also, there are insufficient networks of relatives, neighbours, and friends to care for the elderly. Thirdly, there is a real threat that thousands of older people after retirement will not have sufficient money leading to the incipient phenomenon of 'the elderly in the streets' or 'homeless elderly' similar to 'the children in the streets'.

National Institute of Industrial Technology

In this editorial for *Gerontechnology* I would like to mention INTI – National Institute of Industrial Technology – the main governmental body for research, development, and accreditation. It has 30 centres with about 2,000 professionals and technicians. I entered the Centre for the Disabled and the Elderly in 2004. In November that year, the Centre organized a successful conference on Technology and the Elderly in Buenos Aires, with Lawrence Normie (from Israel), and Prof. Bryan Preston, from Agelab–MIT (USA) as keynote speakers. Especially the discussions with Normie helped us to orient our program.

This contribution to Gerontechnology follows Tolstoi's advice: "Paint your own village and you will be more universal".

From its start in 1957 INTI served as a support and supervision instrument for industry. It is the only organization in the country which has the power to create research centres on specific issues. INTI was organized around the basic 'hard knowledge' disciplines such as mechanics, chemistry and civil engineering. Technologists of a certain discipline were gathered, without much thought of who would profit from any answers.

Later, the second generation of centres were organized with the purpose of meeting specific demands of industry. Thus appeared the meat centre, the dairy centre, the cereal centre and the plastics centre, where interdisciplinary technologies were applied. Presently, we have advanced towards a third generation of the centres in INTI: centres directed at certain human needs. Thus the Research and Development Center in Assistive Technology for Disabilities helps to create and produce suitable and accessible technologies that allow the disabled to live longer and with a better quality of life. This group covers 2,200,000 people, and 900,000 of them are over 65 years of age. The centre stems from the need to redefine technology; not only as the capacity to produce the transformation of raw material with a strictly economic end, but rather as a utilitarian end for members of the society, and a tool for improvement of the human condition.

The professional team of our centre is made up of eight people (two engineers, an architect, a sociologist / gerontologist, a rehabilitation physician, an electronics technician, an industrial designer and a secretary) with options for help by the other 29 centres in INTI, such as the Mechanics, Plastics, Electronics and Computing, Environmental Engineering, and Energy centres whenever it is necessary to verify plans, test weight, solidity, and feasibility of joining the different elements involved in the manufacturing of a device.

Technophobia & technophilia

Among older people there are two extreme positions in regard of new technologies. A position of 'technophobia' such as: "These technologies complicate life unnecessarily", and a position of 'technophilia' expressing: "How much more comfortable would life have been if we had known these devices earlier". Older adults seem to pose the same questions as the younger generation, even though they seem to be less familiar with these new technologies. Thus, we have to ask ourselves, as our Mexican colleague Daniel Cabrera did[2]: "With which words, symbols and images are the new technologies associated ? Which feelings do they awake? In relation to which set of meanings and values are they mentioned? And when new technologies are involved, which is their focus? Which sounds stimulate listening? In what way are we stimulated to think, imagine, and desire?".

Our Centre works for the older population and disabled in all age categories simultaneously. Its main social goal is to create, help financing and facilitate the production of prototypes of technological devices, and then to encourage mass production in small and medium-sized industries, of the devices that people, especially the lower-income segment of the population, need for their everyday life, their rehabilitation, and for keeping their independence and self-esteem.

Problems that have to be overcome are fears and risks in business and industry for the manufacturing of health devices; the assumed or real limitation of the market size; and associated fictitious or real uncertainties, in addition to environmental and social effects.

Surveying

In Argentina, the Department of Census and Statistics (INDEC) carried out a special national study in 2003 with information based on the 2001 census, which covered 84% of the overall population in the country (all towns with more than 5,000 inhabitants). The study revealed that 7% of the population has at least one disability, and more than 40% of them belong to the group of 65 years old and over.

With this global information and numerous regional reports, we started to organize our *observatory*, which consists of surveying different population groups at which our work is aimed, in order to know their real needs instead of 'supposing' or 'assuming' what these needs are. We started our surveys with the institutionalized seniors in nursing homes; with the professionals and the staff working in state homes (national, provincial and municipal), and private homes; with the elderly who live in their own house and receive support and care from local government, with the Senior Citizen Centres, with the disabled who live with their family; with those who live on their own without assistance, with those who are in Rehabilitation Centres, with those disabled who attend Sheltered Workshops for Disabled, and with the disabled who work on their own or in common companies.

The aim of these surveys is to have a closer analysis of the possible current problems, with:

(i) New devices that have not been invented yet.
(ii) Devices that exist but are unknown to people.
(iii) Domestic or imported products that are unaffordable for the majority of this social group, which should be replaced by more affordable ones.
(iv) Difficult access to and limited trading of devices.
(v) Rejection of the devices by actual and potential users due to aesthetics, discomfort, or little practicality.
(vi) Ignorance of the advantages and benefits of the use of such devices.
(vii) Dissatisfaction with their use due to ignorance or mal-implementation.

We will investigate these needs not only with the users but simultaneously with the experience of relatives, social workers, occupational therapists and physicians, in innovative interviews that will elicit the creative views of industrial designers, engineers, and specialised technicians. For this purpose we present a methodology with scientific rigor in this professional area, based on the detection of needs and problems and articulating actions from the social sectors in health, education, and technology. The topic will be further analysed by constantly building and rebuilding an interdisciplinary knowledge corpus to understand and effectively improve the everyday reality of our target group.

To implement this research project that we have named observatory of technology needs we have prepared different surveys which have been and are currently being administered to thousands of people.

References

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