



PROMOTING THE SOCIAL INTEGRATION OF THE ELDERLY: HOUSING REHABILITATION AND ASSISTIVE TECHNOLOGIES

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Abstract: This paper addresses the need to respond to the new demographic reality, namely the increase of the elderly population, regarding new housing requirements. The research carried out focuses on defining housing rehabilitation strategies to fulfil the elderly needs and on how the integration of Information and Communication Technologies and Assistive Technologies in the dwelling space will assist this group of population.

1. INTRODUCTION

The goal of the presented research is the definition of strategies to enable the elderly people to live autonomously in their homes for longer before, or avoiding, having to be institutionalized in healthcare facilities.

This paper focus on two aspects: i) the need to improve accessibility and functionality in homes by rehabilitating them; ii) the use of Information and Communication Technologies (ICT) and Assistive Technologies (AT) to promote a more independent living for the elderly and people with disabilities.

The need to carry out rehabilitation work arises out of the fact that a large amount of the housing stock in Portugal, particularly in the big cities, urgently requires intervention work of this kind. In terms of population several changes had occur in the last years. Elderly people (aged over 64) represent one quarter of the Lisbon population, and the most representative families consist of two individuals, followed by 1 individual [1]. This data has major consequences for the dynamics of neighbourhoods and their residential buildings, both now and in the future. The need to consider these domestic groups is reflected in the need to understand different ways of living and to incorporate these needs into housing. Parallel to this increase in new forms of co-residence, the emergence of ICT and their mass use has changed social relationships amongst individuals and between individuals and the surrounding space, on different levels. The use of technology has introduced numerous new possibilities in everyday life that enhance human capacities and allow for greater autonomy and comfort.

It has been calculated that by 2050 almost one third of the Portuguese population will be aged over 65 [2]. Portugal has never had such a high percentage of potentially dependent citizens and the entire care sector has to be prepared for this fact. For these groups, the use of home automation technologies, namely AT, is becoming a viable option in terms of remaining in the comfort of their own homes rather than moving to a healthcare facility.

2. HOUSING REHABILITATION

Approximately 64% of the housing stock in Lisbon is over 50 years old [3] and therefore presents various constructional and functional problems which are the cause of its immediate unsuitability in terms of comfort. In addition to constructional rehabilitation, buildings also need functional rehabilitation, which is more difficult to quantify in statistical terms. In fact, most of the existing housing stock does not meet current habitability

requirements, either in terms of comfort or functionality. The city of Lisbon has been subjected to processes of occupation and urban growth that have led to a high level of depopulation in its central area. In addition to the fall in the number of residents, this is also reflected in the ageing of the resident population, the existence of vacant or underused housing stock and its deterioration (due to abandonment or lack of financial resources on the part of its owners).

In the aim of this study a specific analysis of “rabo-de-bacalhau” building type was done as well as a survey administered to the households in the studied buildings. 58% of the households that responded to the survey were sublet and contained only 1 or 2 residents. This situation mainly affected elderly people who had opted to stay in their original home and young couples without children. For those small households which are living in “rabo-de-bacalhau” buildings, some rehabilitation strategies were defined in order to fulfil their functional requirements. These strategies include e.g. dividing the dwellings into smaller autonomous units.

3. ASSISTIVE TECHNOLOGIES

It is recognised that the elderly population in Europe has increased and there is now a growing awareness of the need to intervene and invest in improving living conditions for this social group. This has helped draw attention to the need to provide housing and other buildings with universal features. With regard to the use of AT to support individuals with special needs, various methods have been studied and solutions implemented in different countries. The installation of digital controls and communications systems represents a step towards the changes that have to be made to the domestic environment. The proposal to provide housing with AT will enable individuals to receive help in carrying out daily tasks, supplemented by personal health care. In addition, ICT provides those with restricted mobility (whether for physical, geographical or economic reasons) with the possibility of access to service centres services without the need to leave the home. In this context, we have seen a considerable improvement in communications options and access to information through countless products and systems adapted for the disabled to enable them to communicate from a distance.

In the scope of the presented research several packs of technologies were assigned to different families profiles and three levels of technology were defined which take into account the evolution of residents' requirements and hence the need to upgrade infrastructure.

4. CONCLUSION

The present Portuguese demographic context shows a trend towards a growing elderly population and it is therefore important to study hypotheses for improving housing conditions and integrating ICT and AT into housing as a complement and, in some cases, an alternative to assisted healthcare and residential systems. In this sense, it is important to define methodologies that enable this goal to be achieved to increase the autonomy of the elderly and enhance their independent living.

Rehabilitation strategies that take advantage of the division of large houses, that are only partially occupied, into smaller autonomous units with the incorporation of AT will enable to fulfill these goals.

5. REFERENCES

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