HOUSING - BUILDING - DAILY LIVING Smart care homes

M. MOHAMMADI, N. MOOR. A decade Dutch smart care: A national benchmark on smart care homes in the Netherlands. Gerontechnology 2016;15(suppl);89s; doi:10.4017/gt.2016. 15.s.862.00 Purpose In the EU, and specifically in the Netherlands, many pilot projects were carried out on smart technologies, in relation to housing and care in the last decade. This study analyses 75 of Dutch case studies executed between 2002 and 2013. We will map the changing concept of residential care and the role that smart (care) innovations play in this development. The central question reads: what are the major developments in smart care homes in this decade and which factors and strategies will stimulate a breakthrough in this area? Method From the perspective of innovation theories^{1,2}, three key elements of the innovation process can be distinguished: technology (e.g. smart environment / housing), actors (e.g. (the organisation of) the stakeholders, the user interface), and technological regime (e.g. economic, political, social and ethical factors). The interaction between these key elements determines the stage of the innovation process. On the basis of face-to-face interviews with 75 stakeholders involved in the projects, this exploratory study aims to offer insights in the current situation of Dutch smart care and to identify the stage of the innovation process in which domotics technologies are currently located. Results & Discussion Smart care has had a significant influence in the last decade on various aspects of housing and health care services, such as access to care, its quality and affordability, and the usability of care in everyday life. The results of this study provide guidance for identifying the factors that may influence the extent and the manner in which healthcare organizations can integrate smart care in their future projects. The developments in the application of smart care can be considered the result of the interaction between factors that relate to technology, actor-network, and technological regime. Interestingly, the study provides sufficient evidence that these factors, despite their diverse nature, have a (strong) connection. For example, the quality of care is largely determined by the acceptance of home automation by caregivers. In other words, the change in the technology has led to changes in actor-network and in the technological regime. In the opinion of the respondents, smart care has improved the quality and the efficiency of care and also made it more affordable. Furthermore, this study provides a new perspective on the persistent misunderstanding that successful and validated innovations (in health care) should always be implemented on a large scale. For the end user, the total experience of living and residing in a place counts and smart care applications are not seen separately from the overall living enjoyment at home. From an organizational point of view, the application of smart care requires an open attitude of healthcare institutions. From a technological point of view, smart technologies should be domesticated and adapted to the domestic domain. Based upon the results, it appears that the optimal interaction between the three factors (technology, actors, regime) has not yet been achieved in this area. The quality of the products appears to be the decisive factor for the breakthrough of smart care innovations in residential care. All things considered, we can conclude that the range of technological possibilities is enormous, but that there is still a mismatch between supply and demand. This indicates that smart care is in transition from the awareness and recognition of its added value (the so-called transfer phase) into the implementation phase, in which the social embedding of the technology is central.

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