

D.G. Bouwhuis, L.M.J. Meesters, J. Berentsen. *Technology acceptance models in gerontechnology*. *Gerontechnology* 2008; 7(2):78. Though the development of advanced technology products for gerontechnological use is intended to satisfy clear and present needs, the actual uptake and use of these products is far from certain. The pressing needs for care provision and the high investment cost, however, require that acceptance of the technology should be much better predictable. An influential theoretical model that describes the product adoption process is the Technology Acceptance Model (TAM)¹. It states that the decision about how and when to use a product is dependent on Perceived Usefulness (PU) and Perceived Ease-of-Use (PEoU). TAM is a model that describes theoretical concepts and not observable behaviour, which limits its applicability. The more global the questions are concerning smart-home and telemedicine technology, the more positive the valuations are by the presumed users. The respondents may well be presumed users, because when asked to show the operation of the actual product, it often appears that the respondent has rarely or never used it. In some cases even the claimed functionality was not installed or unavailable without the user knowing this. When confronted with severe handling impediments in actual usage, the originally positive assessment changes to a very negative one for a specific product. However, experiencing the product may also make an earlier opinion much more positive². The prediction of TAM of a positive attitude to use a product does therefore not at all mean that this product will indeed be used, even though the user may appreciate it highly³. Social factors, recommendations by friends and relatives turn out to be influential in forming positive views, but ultimately seem not to impact the eventual actual usage of the products. All of these are robust effects that do not correspond with, for instance, the theory of reasoned action⁴ because of the behavioural inconsistencies. Clearly, different metrics are needed, as well as a more accurate behavioural model to describe and predict both subjective appreciation, frequency of usage and residual need for assistance. Currently, a practical solution that is chosen consists of the triangulation method, which in addition to the traditional questionnaire includes an in-depth interview, and an observational study of product use. This increases the number of metrics that is employed, combining the usability metrics (effectiveness, efficiency and satisfaction) with attitudinal measures, and the frequency of usage⁵. One thing that is certain is that just ergonomic features do not nearly cover the adoption process of advanced technology products.

References

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- Keywords: Gerontechnology, technology acceptance, satisfaction, efficiency
Address: Eindhoven University of Technology, the Netherlands; E: d.g.bouwhuis@tue.nl