

V. RIALLE, N. VUILLERME, A. FRANCO. *Outline of a general framework for assessing e-health and gerontechnology applications: Axiological and diachronic dimensions. Gerontechnology 2010;9(2):245; doi:10.4017/igt.2010.09.02.223.00* **Purpose** In spite of a considerable amount of reported efforts of assessment of specific Technologies and Services for Ageing, Health and Autonomy (TSAHA), there is still a lack of a universal framework for evaluation. Previous studies have shown that the global (social, medical, economical etc.) service rendered by these TSAHA could be assessed only by means of a *complex* evaluation process involving a number of distinct and complementary dimensions¹. We propose a framework for evaluation that encompasses areas of 'values' (axiology) and diachronic (or magnitudinal) phases. **Method** The design process is based on 3 analytical standpoints – systemics^{2,3}, clinical trials⁴, and ethics and evaluation issues⁵ –, and 6 data resources: literature review, technological watch, authors' use-case studies, gerontechnology modeling studies, meetings and discussions with numerous stakeholders, and practice of a gerontechnology consultation in our University Hospital Center. **Results & Discussion** The designed model, named TEMSED for 'Technology, Ergonomics, Medicine, Society, Economics, Deontology', can be summarized in a two axes diagram (*Figure 1*): an axiological one featuring a set of 6 consistent areas of human investigation values, and a diachronic one defining 4 magnitudinal or chronological phases of evaluation. The phases' transitions are defined by orders of magnitude in the growth of the evaluation process: phase I concerns the purely technical values such as functioning and robustness; phase II addresses the relation between the user and the technical device (ergonomics, comprehensiveness, creativity enhancement etc.); phase III concerns probing results in terms of medical or social practice and impact depending on device purpose (medicine, activity of daily living, social connectedness etc.); phase IV refers to the dissemination capacities of the device and relies essentially on its economical viability (this assessment may start at phase III). As a general framework, the model does not provide any detailed methodology and precise indicators of quality or effectiveness⁶. Further enhancements are under consideration. TEMSED, which is currently tested with the assessment of smart home technologies and assistive devices for persons with cognitive impairments, is also intended to be used for the assessment of technologies and services in the cadre of the recently created French National Reference Center for Home Care and Autonomy⁷.

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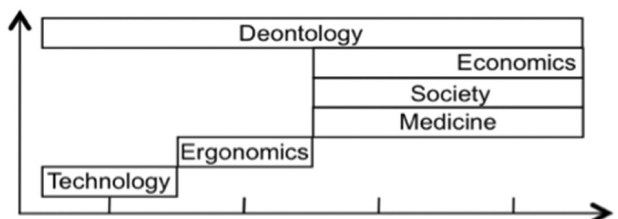


Figure 1. The TEMSED model