

# Editorial Preface

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The Quality of Life and Information & Communications Technology (ICT) in Health can be more usefully interlinked if researchers and experts in future think more about the possible opportunities and pay closer attention to the interconnections that already exist.

The widespread use of electronic Personal Health Records is considered of great importance, however, until today, there is no widely adopted application paradigm for the functional specifications of a modern ePHR due to absence of trust, inadequate data completeness and overall use complexity and “unfriendliness”. CO.R.E. (COnsolidation & Routing Engine) is an innovative approach towards the development of a health data consolidation and cloud access provision infrastructure, taking under consideration both the needs for wide adoption and the application of mission critical technologies in real production environments. The

The first article was presented previously at the 2<sup>nd</sup> Panhellenic Conference on Technology, Economics and Management (PASYTOD’ 2018). CO.RE infrastructure provides an environment for deploying medical record applications with central storage and individually controlled distributed access, ensuring: a) the absence of readable identifiers in any network communication among the involved systems and b) the inability (as much as modern cryptographic methods offer) of anyone - even the engineers working on the system - to correlate the stored medical data with their owner/physical person. The presented CO.R.E. as a project includes the design and development of a working prototype ePHR that addresses all three of these factors “by default and by design”, as well as stakeholder adoption and real-world implementation considerations.

As people live longer, the number of those with disabilities will rise significantly. The second article provides the reader with a literature overview of the newest empirical evidences available on the use of assistive technology-based programs for teaching and improving adaptive responding of children with severe to profound developmental disabilities. Five main categories of studies were selected, regarding (a) the technology for promoting independent access to positive stimulation, (b) the combination between microswitch and VOCA aimed at asking for social contact with a caregiver, (c) the cluster technology for increasing an adaptive response, and simultaneously reducing a challenging behavior, (d) the technology for requesting and choosing desired item or the access to the literacy, and (e) the technology with contingent positive stimulation for enhancing locomotion. Overall, 33 studies were reviewed, and 94 participants were involved. The outcomes were largely positive, although few failures occurred. Psychological and Rehabilitative implications of the findings for both research and clinical practices were critically discussed. To ensure that assistive technologies enhance users’ quality of life, future emphases should focus on consumer involvement in the selection and evaluation of appropriate assistive technology, and ways to make technologies more widely available and affordable.

Microswitch-based programs may be useful for helping individuals with multiple disabilities with self-determination, constructive engagement, and an active role, although few failures occurred (i.e., 5.3%). Overall, the adaptive responding was relevantly increased, the stereotypic behaviors were reduced, the intervals with indices of happiness as outcome measure of the participants' quality of life were improved whenever available.

The communication process is a dynamic and constantly changing one, since any factor that can affect one of its three parameters, i.e. sender - message - recipient, also affects its effectiveness. Technology, with its rapid growth and progress, especially in the communication sector, could not be excluded from those factors. Literally speaking, it has caused a revolution in the way that people communicate with each other, as they are currently updated in more effective, faster, and easier ways. The modern health sector is currently organized around the Internet and the existence of organized information systems with a massive capacity for data storage and exchange, and characterized by the lack of interpersonal communication. Nevertheless, technology should not be used as a purpose itself, but as a means for fulfilling a purpose: that of serving the people's life and health.

The digital pen and paper (DPP) can be used in the daily medical and nursing practice, making the handling of medical and nursing information easier and safer, as well as extending it on a broader level, throughout the hierarchy levels of an organization that operates in the health sector. It can also be implemented in forms like those typically used in training, social care, and handling of facilities and materials. The DPP technology consolidates the advantages of the two technologies for data collection, i.e. both of Case Report Forms (CRF) and Electronic Data Capture (EDC). Some limitations may be considered such as the nurses' little aptitude for such technology and the relevant cost of DPP. Nevertheless, DPP is by far a useful tool for handling nursing information in a very short time without any need of specialized knowledge. It is expected to help the digitization of different forms of manuscripts in health sector and broaden technology in other sectors (education, telecommunication, public services).

The third article was presented previously at the 2nd Panhellenic Conference on Technology, Economics and Management (PASYTOD' 2018).

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