GUEST EDITORIAL PREFACE

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Health and social care services face, nowadays, several challenges regarding the effective use of Information and Communications Technologies (ICT) and Information Systems (IS). On one hand, there's a need to standardize healthcare processes in order to guide organizational and even clinical practice. On the other hand, health real-world case scenarios are full of unexpected situations, which are difficult to get registered within existing Electronic Health Records (EHR). Additionally, in the everyday practice, healthcare professionals have already to fulfill a reasonable set of standard procedures, and often consider the use of healthcare ICT /IS applications as extra-work, with little positive feedback.

Nevertheless, the last decade witnessed a growing interest of both professionals and patients in using ICT to acquire, store and share health data, or even to use ICT to fulfill treatments or help them with their special needs.

In this special issue, we can find good and useful examples of these uses, ranging from data quality, process optimization and access control, to the use of advance technologies to provide better healthcare for the society. Preliminary versions and results of these papers were presented at the International Conference on Health and Social Care (HCist'2013 - http://hcist.scika.org).

In Mendes et al, the authors propose an interesting approach to standardize medical information in EHRs, based on free-text medical descriptions used by physicians when registering diagnosis data. The authors foresee that these descriptions can be written in Portuguese, and then standardized in English with the help of ontology-based and Artificial Intelligence technologies. With this solution, EHRs get enriched with normalized medical descriptions, understandable world-wide by healthcare professionals.

In Caron et al, the authors address the important field of Business Process Management (BPM) for healthcare. They use a Case-Based Reasoning (CBR) approach to harvest real-world healthcare processes informations (from a series of oncological care processes). Then, they analyze the deviations observed when compared to the (expected) clinical processes models, which can be used to evaluate adverse events or suboptimal resource management.

Braga et al. propose an interesting approach related to telemedicine. They present an innovative technological solution for real-time video diffusion of endoscopic imaging results. This web-based solution also allows for the storage and remote assistance in endoscopic exams by a specialist, in order to enrich patient's diagnosis and reduce the need for repeated procedures.

In Cunha et al. the authors address general public health by providing an e-marketplace solution that enhances the communication and access to healthcare services and professionals by people with special needs and their relatives. The study also aims at collecting information about the most wanted services reported by the target population, in order to adjust the e-marketplace to real-world needs, fomenting its wider adoption.

Henriques et al. present an advanced solution for the visual impaired, by mapping visual information into sound events to provide spatial environment descriptions. They use particular sounds to represent light, color and shapes, and their perspective is to create a standard sound vocabulary for both human and machine use.

Finally, Zamite et al. propose the use of group-based discretionary access control for health data related repositories. Their aim is enable users to share their created health data resources while protecting sensitive data. They implement their model in the Epidemic Marketplace information platform, and conclude its usefulness within other similar repositories such as scientific information ones.

I hope you find it useful. Enjoy your reading!

Ricardo Martinho
Guest Editor
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