

EDITORIAL PREFACE

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There is a substantial body of research, describing shortfalls in the current provision of healthcare. Key issues emerging from this literature are significant variations in the quality of healthcare and risk of iatrogenic harm. On the other hand, there has been considerable progress in information technology effectuating a high capacity to exploit technological developments in relation to aspects of healthcare provision. Moreover, glimpses of future healthcare establish a wider use of nanotechnology, individualized drugs, cell-based computing and microchip-enhanced brains.

Notwithstanding the previously mentioned prospects, there has not been a systematic research and evaluation of the empirical literature on e-health applications and their impact on the quality and safety of healthcare delivery. Relevant theoretical, technical, developmental and policy literature has not been synthesized with a view to producing a definitive overview of the interaction.

The *International Journal of Reliable and Quality E-Healthcare* (IJRQEH) exploits a novel framework for revealing, understanding, modeling and implementing appropriate reliability and quality interventions leading to quality assurance and improvement. It addresses a variety of issues which relate to the quality and reliability assurance of e-healthcare, patient safety, patient empowerment, education on quality, e-medicine, and e-healthcare evaluation. It

aims to international leading edge research and best practice with a view to provide an interdisciplinary forum for the international debate on theoretical and practical aspects of quality, patient safety, and e-health interaction.

As a result, it supports students understand the effect of new technologies on health systems, helps healthcare professionals better understand their patients, acts as an assistant for patients to derive more benefits from their healthcare, and encourages e-health systems designers and managers to ground everyday practice on quality principles. Its target audience includes students, healthcare professionals, academics, researchers, managers, policy makers, and non-profit organizations.

The ninth issue of the journal provides an overview of the topics of interest. Specifically, the first article refers to the current efforts of the researchers, in the areas of Health Information Transfer in order to create a new generation of technologies that will facilitate the future health information systems. The objective of the paper is to study how a medical specialist can collect physiological data from mobile-remote patients and how health information can be transferred from emergency places to hospitals through TETRA. The second article presents a medical devices management software system to assist the Clinical Engineering Department and elaborates on the findings of this re-engineering attempt. The third article

presents the Greek registry of medical devices, which has been developed by the National Evaluation Center of Quality & Technology in Health. The Registry is in a mature phase and ready for widespread use. As a result, it is possible to conduct electronic auctions, gain complete and accurate picture of the types, quantities and prices of products and mainly make possible the real needs assessment and early planning. The fourth article argues that the Semantic Web of knowledge with meaningful relationships between resources and machine readable data will significantly improve the ability to conduct bioinformatics analyses. It also discusses the use of these technologies for the efficient and reliable retrieval of meaningful biomedical data from the relevant resources and repositories. Finally, the fifth article proposes a new identity, and its underlying meta-data, model. The approach enables secure spanning of identity meta-data across many boundaries such as health-care, financial and educational institutions, including all others that store and process sensitive personal data. It introduces the new concepts of Compound Personal Record

(CPR) and Compound Identifiable Data (CID) ontology, and suggests the access of sensitive data be strictly governed through an access control model with granular policy enforcement on the service side.

In conclusion, the ninth issue confirms the journal's impact, which could be summarized as follows:

1. Probing into the interaction of quality and e-health;
2. Providing essential information to assess e-health systems and services;
3. Offering information about reliability modeling in e-health networks;
4. Inquiring state of the art methods in quality, patient safety, patient empowerment and education in e-health;
5. Describing reliable e-healthcare processes and policies.

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IJRQEH