
Editorial

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Biographical notes: Reeva Lederman leads the Computational Bioinformatics and Health Information Systems Research Group in the Department of Computing and Information Systems at the University of Melbourne. She completed her PhD in 2008 and has published her work in top tier journals such as *EJIS* and *ToCHI*. She was awarded the highly prestigious 2012 Stafford Beer Medal, annually awarded by *EJIS*, which recognises an outstanding contribution to information systems. Her ground-breaking research in the e-health area has been featured extensively in the Australian general media. Her work has been supported by significant nationally competitive grants.

Ofir Ben-Assuli is the Director of Information Systems Specialisation in the Faculty of Business Administration at the Ono Academic College, Israel. He completed his PhD in Management Information Systems, Tel Aviv University in 2011; MBA from The Hebrew University in 2005 and BA in Economics and Computer Science in 2002. His main academic research interest is in the area of social network, healthcare information technology and medical informatics. He has more than eight years of practical consulting experience in the IT arena, including healthcare organisations, high-tech, and more. His publications have appeared in *Decision Sciences*, *Decision Support Systems*, *Journal of Medical Systems*, *BMC Medical Informatics and Decision Making*, *Liver International*, *Health Policy*, among others. His research is supported by several grants from academia and industry.

In this special edition, put together from papers from the European Conference in Information Systems 2014 E-health Workshop, we explore a number of economic, social and behavioural issues to do with e-health adoption and implementation.

In a networked society, it is important to explore the issues surrounding mobile healthcare, and how mobile devices can support virtual clinics and ‘anytime, anywhere’ access to healthcare. The papers in this special edition put a spotlight on these issues. They do this by examining how technologies can be used to bridge the information gap between patients and care providers in a variety of different contexts while ensuring that treatments are well targeted to individual needs.

The first paper by Israeli et al., 'Evaluating the feasibility of using tablets in emergency departments' examines how much clinician performance can be enhanced by the networking of bedside personal tablets with the electronic medical record (EMR). Generally, it was found that clinicians are keen to use information systems where they believe they will improve clinician effectiveness and where the physical tools and environment facilitate use. There are still many challenges to the use of personal tablets at the bedside but this paper shows how no single issue should be dealt with in isolation, and particularly, that the adoption of the EMR is dependent on a number of environmental factors. It suggests the need for full integration of the EMR with the processes that take place at the patient's bedside.

While this research is conducted in Israel, one of the most technologically advanced countries in the world, a second paper 'Mobile healthcare services adoption' by Shanko et al., also examines mobile technologies but in a much more technically 'challenged' environment in Ethiopia. This paper looks at mobile devices as a way of overcoming remoteness and poverty. It is novel in that it examines the use of technologies by healthcare extension workers who have specialised data and information needs in running a unique antenatal mobile health service. The paper argues that mobile technologies need to be easy to learn and utilitarian to ensure successful adoption by clinicians. This paper emphasises the importance of the quality of the communication network in adoption intensification. The paper raises some issues that are particularly significant in the third world and provides valuable insights into how to increase health technology uptake, where it is most needed.

A third paper by Shabtai et al., 'The connection between viewing medical historical information and using clinical tests' also looks at networking issues, in the form of health information exchange (HIE) interoperable networks. This paper examines whether the greater availability of patient historical information, made possible by HIE, affects the rate of ordering tests and using digital imagery. The paper found that the availability of historical information did not reduce the ordering of tests and in fact increased some types of tests. Like paper four, this shows the value of readily available information at the point of care.

Paper four 'Exploring the possibilities for intelligent risk detection in healthcare contexts' by Moghimi et al. describes an intelligent decision making framework for CDSS system which provides advice and support, rather than aiming to replace the decision making of clinical staff. It describes a shared decision model between staff and patients. It introduces an important model for predicting surgical risks. It provides a novel solution to decision support in a difficult environment by suggesting real time intelligent risk detection in a framework of patient clinician knowledge sharing.

The final paper by Lederman et al. on 'Tailoring patient information to encourage patient engagement' further examines the issue of how technologies can be used to encourage patient/clinician communication. This paper addresses the problem of patient adherence to medical treatment programs. It examines ways in which technologies can provide personalised patient treatments to encourage treatment adherence. This involves a comprehensive network between patient, clinician and the pathology providers that process patient data, in order to produce new and innovative ways of presenting patient information. It describes how theories of attitude are employed to present information to patients in a novel way tailored to the attitudes of individual patients.

Together, these papers present an interesting insight into a number of new opportunities and approaches that IT can provide in the healthcare sector across a diversity of contexts.