

## GUEST EDITORIAL PREFACE

# Special Issue on Sociotechnology and Pervasive Health, Part 2

*Barbara Rita Barricelli, Department of Computer Science, Università degli Studi di Milano, Milan, Italy*

*Priya Davda, The Bayswater Institute, London, UK*

The landscape of healthcare has increasingly been defined by a rise in patients with chronic illnesses and changing patterns of service use, and by government cuts in health and social care budgets. Technologies for telehealth, telecare and telemedicine have existed for over forty years and have often been presented as heralding a new era of healthcare, in which access to services and personalised care are improved whilst the costs of care are minimised by enabling healthcare interventions to be delivered within the community; Patients would not need to travel to see specialists, people could be kept safe in their own homes and there would be less need for expensive in-hospital treatment. For people with chronic illnesses in particular, the use of mobile technology as pervasive tools for the remote monitoring of health status by patients, health practitioners and relatives may be especially important in enabling the improvement of patients' health outcomes, quality of life and experiences of healthcare. Direct

involvement of patients and health and social care professionals in the co-design process of pervasive health technologies poses particular sociotechnical design challenges because of the integration of different expertise, systems and interests within the same domain of application.

Researchers and service providers working with these advancing technologies in healthcare were invited to contribute to this special double issue on *Sociotechnology and Pervasive Health* for the International Journal of Sociotechnology and Knowledge Development. Eight papers were accepted for publication, presenting research aimed at understanding the processes, factors and challenges of the design and implementation of pervasive healthcare projects through a sociotechnical approach. Four papers of these papers will be presented in each of the special issues.

The aim of this publication is to present a selection of high-quality papers that advance the quality and knowledge of pervasive health

and sociotechnology. Authors were asked to submit discussions and reviews about the use of technology in health and social care, including: methodologies and evaluation; case studies of mHealth, telecare, telehealth and telemedicine; patients' self-care and care in the home; remote monitoring of health status; and experiences in the co-design and implementation of technologies within healthcare.

The four papers submitted for this second part of the special double issue are outlined below.

The paper by Malek Alaoui and Myriam Lewkowicz, entitled '*Lessons learnt from the socio-technical design of social TV services with elderly*' presents the outcomes of the FoS-IBLE EU Project aimed at reducing the risk of social isolation for elderly people, often unable to leave their homes. Using a Living Lab approach with ten participants, the authors reflect both on the design and evaluation processes of developing an application for Smart TV, as well as how to maintain motivation amongst elderly study participants over a long period of time and engage them as a full partner in the design process.

In the next paper, entitled '*Processing domain knowledge into explicit design: a persona-building workshop with health researchers*', Irith Williams, Margot Brereton, Jared Donovan, Karalyn McDonald, Tanya Millard, Alex Tam, and Julian H. Elliott present an interesting research study taken from part of the longer-term project HealthMap which investigates how to support people living with HIV in their self-management of cardiovascular disease and ageing. The authors present findings based on interviews with 5 senior designers and discusses the outcomes of an interdisciplinary rapid workshop aimed at building personas for supporting the definition of design requirements.

Adam Hoare and Ken Eason in their innovative paper '*A Socio-technical Approach to Evidence Generation in the Use of Video Conferencing in Care Delivery*' present a practice-based model using action research to explore video conferencing across multiple health and social care settings. After considering existing approaches to evidence generation, the authors argue that a sociotechnical approach, based on the interweaving of Practice, Outcomes, Technology and Evidence (POTE dimensions) is key to implementing and evaluating a successful intervention. Based on their findings, the authors propose the use of a 'reusable' video conferencing platform as a pervasive tool for integrating person-centred care and responding to changing context of care.

Finally, the last paper of this second issue '*Artifacts at work – internship, learning and technology*' by Thomas Winman discusses how nursing students use electronic medical records (MRs) during their internship in a hospital ward for stroke patients. Through observations, interviews and video-recordings, the author studied how students found meaning in MRs and how the learning process, both at an individual and collective level, was supported by this.

We would like to thank the journal editors in-chief Constance Kampf and José Abdelnour-Nocera for inviting us as guest editors for this double special issue. We also want to thank the reviewers of the papers: Peter Aspinall, Ken Eason, Daniela Fogli, Lene Nielsen, and Antonio Piccinno.

*Barbara Rita Barricelli*  
*Priya Davda*  
*Guest Editors*  
*IJSKD*