

## EDITORIAL

The IADIS International Journal on Computer Science and Information Systems (IJCSIS) is a peer-reviewed scientific journal published exclusively in an electronic form. Its mission is to publish original contributions pertaining to the topics of Information Systems and their uses, to disseminate knowledge amongst its readers and to be a reference publication. The IADIS IJCSIS publishes original research papers and review papers, as well as auxiliary material such as short ongoing research papers, case studies, conference reports, management reports, book reviews and commentaries.

The Volume 11, Issue 2 (ISSN: 1646-3692) combines eleven selected original papers that bring together researchers covering the wide spectrum of the area of Computer Science and Information Systems in different contexts, such as Augmented Reality, Social Media , Big Data Technology, eHealth, Assistive technology , etc. The authors' contributions embrace significant research topics and intend to provide a current depiction of the research in the field while opening way to future research.

The first paper in this issue by Marc Sunet, Marc Comino, Dimosthenis Karatzas, Antoni Chica and Pere-Pau Vázquez entitled “DEVELOPMENT OF GENERAL-PURPOSE PROJECTION-BASED AUGMENTED REALITY SYSTEMS” reports on the development of a software framework for Augmented Reality (AR) setups. The authors focus not only on the modular design of the framework, but also on some hard problems such as the calibration stage, crucial for a projection-based AR. With this study, the authors present a software framework customized for the swift development of augmented reality setups that are based on the projector-camera pair.

In the second paper, by Giambattista Amati, Simone Angelini, Francesca Capri, Giorgio Gambosi, Gianluca Rossi and Paola Vocca, with the title “SECURE MODELLING THE TEMPORAL EVOLUTION OF THE RETWEET GRAPH”, the authors studied the temporal expansion of graphs generated by a social network. Consequently, it was performed an “extensive analysis of the evolution of *retweet* graphs relative to three Twitter streams for different periods of time”. The authors conducted the analysis on two types of graphs: the event-driven graphs and the graph constructed by an Italian stream of tweets.

The third paper by Egil Øvrelid, Bendik Bygstad and Ole Hanseth entitled “ESTABLISHING SPACES OF INTERPLAY: THE ROLE OF DISCOURSE IN THE GROWTH OF INFORMATION INFRASTRUCTURES” reports on the empirical evidence of a 15-year study of the growth of the national e-health infrastructure in Norway, that the authors examine at three levels. It was studied the interaction of the e-Health discourse and the various IT programme initiatives.

The fourth work, by Jan-Willem van 't Klooster and Miriam Vollenbroek-Hutten, titled “DESIGN AND EVALUATION OF A FLEXIBLE WEB-BASED SCREENING SERVICE FOR CLINIMETRICS” reports on the development and evaluation of a novel Software-as-a-Service, that can be used to create, share, conduct and manage clinical screenings and tests. This service can support an extensive variety of screening instruments. As a result, these instruments can be utilized in a wide variety of ways: online and offline; on smartphones, tablets and computer; guided by a professional, or self-assessed.

The fifth contribution entitled “WEB SELF-SERVICE AND TECHNOLOGY ACCEPTANCE: A CASE STUDY” written by André S.G. van Friderici, Pascal Ravesteijn and Benny M.E. De Waal studies the factors that determine the acceptance and satisfaction for Web self-service for IT-problems. The authors performed a case study to achieve more insights in the acceptance and customer satisfaction of Web self-service within a financial organization in the Netherlands. Different behavioural models and concepts from IS research and customer satisfaction were collected to develop a conceptual model.

The sixth paper by Suhas Govind Joshi and Heidi Bråthen entitled “SUPPORTING NEW INTERACTIONS WITH PAST EXPERIENCES ANCHORED IN MATERIALS” brings us to the context of developers and designers that work with assistive technologies for the oldest generation, that often have the purpose of developing the interface and interaction tools after the experiences and competences of their

users. The authors examined what role materials can the use of different materials influence the perceived familiarity, context-suitability, and intuitiveness of new interfaces and interaction mechanisms.

The seventh contribution by Pierre Barralon and Iñigo Dorronsoro Esnal called “PERSUASIVE E-COACHING FRAMEWORK: TEST WITH A REDUCED NUMBER OF SENSOR” presents a “persuasive e-coaching framework which explicitly consider and integrate the emotion in the decision making process”. In order to achieve this solution, the first important step is to identify a sensor configuration that is precise enough and minimally invasive. This e-coach system aims to support people in preventing diseases but also managing health conditions such as overweight, stress, or heart conditions.

The eighth paper by Rune B. Rosseland and Alma L. Culén with the “REPMOVES: STORIES THAT A RHYTHMIC INTERACTION DEVICE FOR SENIORS CAN TELL” reports on a research through design methodological approach to making design objects as producers and carriers of knowledge. The purpose was to explore its use and value and demonstrate how new knowledge can arise while exploring and experimenting with design objects. It was developed a research object, named RepMoves that can be used to “address rhythmic and repetitive bodily interaction with music as a welfare technology concept for senior citizens with cognitive difficulties related to the onset of Alzheimer’s disease, and in one example, an individual with Parkinson”.

The ninth work with the title “AUTOMATIC ENDODOSCOPIC IMAGE ORIENTATION STABILISATION WITH ULTRA-LOW-LATENCY” written by Wiebe Van Ranst, Toon Goedemé and Joost Vennekens focuses on minimally invasive surgery and how they can be improved by using instruments more efficiently (in this case endoscopes). In this study, the authors compare three different ways of implementing a counterrotation algorithm on the hardware that is available in the NUCLeUS Digital Operating Room of the company eSaturnus.

In the tenth paper “THE ROLE OF DESIGN MODELS IN DESIGN THINKING” authored by Hilda Tellioglu, it is identified the role of models in design thinking to connect the gap between design and engineering. The author introduces her approach (*MDT, multidisciplinary Design Thinking*) by describing its methods including the steps showing how to carry out them in a design project and focuses on the characteristics of the artifacts DT encourage.

The last contribution by Jörg Futterlieb, Christian Teutsch and Dirk Berndt named “SMOOTH VISUALIZATION OF LARGE POINT CLOUDS” presents “a novel approach for processing and rendering large point cloud data from 3D scanners on a standard computer system”. The authors’ method deals with a data size that usually exceeds the RAM for processing and the VRAM for rendering the data. The methods presented allow a more smooth visualization of large 3D point clouds with up to a billion of 3D points utilizing an out of core data storage.

These papers illustrate the different facets of research done on different contexts of Information systems. Moreover, how information systems can improve all aspects of society and contribute with the work they have developed to the enrichment of this field. The review of the relevant literature contributes to the theoretical grounding of these areas and the innovative empirical research on different technologies creates opportunity for the development of innovative findings.

The Editors

Pedro Isafas  
Open University, Portugal

Marcin Paprzycki  
SWPS, Poland