

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 1 (ISSN: 1646-3692) combines eight 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 Health, Gaming, Business, 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 Jorun Børsting, Alma L. Culén and Morten C. Eike entitled "AIDING GENETIC ANALYSTS: DESIGN OF A LITERATURE EVALUATION SYSTEM" reports on the "design of a system that handles published research literature evaluation related to clinical DNA sequencing and analysis of genetic variants". The authors focus on a new system interface developed as part of the Norwegian clinical genetic Analysis Platform (genAP interpreter that presents a structured, unified view of relevant information necessary to interpret genetic variants in a clinical situation, and guides the user through the interpretation process). With the usage of a user-centered design study (with user participation), the authors tried to categorize how users with high professional and domain knowledge actually work with literature related to genetic variants .

The second contribution by Fabrizio Pecoraro, Daniela Luzi and Fabrizio L. Ricci named "C-WAREHOUSING: A HL7 CDA-BASED APPROACH FOR THE SECONDARY USE OF CLINICAL DATA" presents a semi-automatic approach to extract information stored in a HL7 Clinical Document Architecture (CDA) and transform it to be loaded in a Data Warehouse for other purposes. In a healthcare context, the way people treat information is crucial to support decision-making in different fields, such as patient safety and healthcare quality assessment. Therefore, the purpose of this study is to present an appropriate solution to assist the design and implementation of Extract, Transform and Load (ETL) tools that are considered the most time-consuming stage of the data warehouse development process. In addition, it aims to explore the usage of Electronic Health Record (EHR) for secondary purposes in a clinical governance framework to measure the quality of care from the structural, organizational, financial and professional points of view

In the third paper, by Saeed Samet, Ahoora Sadeghi Boroujerdi and Shabnam Asghari, with the title "SECURE HEALTH STATISTICAL ANALYSIS METHODS", it is proposed a set of privacy-preserving methods and techniques for some popular health statistical analysis methods. Accordingly, to the authors by using this set of secure protocols, health researchers and other data users are capable to issue their requests as some queries, and retrieve only the results of their queries from the data owners, while each data custodian can keep their sensitive data private. The proposed methods were tested using sample data to demonstrate the performance of the results in terms of computational and communication complexities. A security proof of the proposed protocols was also provided as a proof of concept.

The fourth paper by Samuel Gallastegui entitled "BETWEEN IMMERSION AND EMERSION: ORIENTATING DIGITAL GAMES TOWARDS VIRTUAL AND PHYSICAL SPACES" focuses on the concept of "emersion", which is when the virtual content of a game is orientated outside the boundaries of the virtual space. This study addresses the question of how a change at an interface level can change the orientation of the interface inside out. It is developed a conceptual framework in order to comprehend the key aspects of the spatial experience of video games

The fifth paper, by Andreas Hufgard and Johannes Schulz, titled “USAGE ANALYSIS IN SAP ERP-SYSTEMS FOR MEASUREMENT OF BUSINESS MATURITY – EXEMPLIFIED IN PURCHASING” reports on “105 ERP-systems that have been analyzed in-depth, and whose data deliver empirical conclusions about usage and the level of maturity of business processes, and quantify the primary types of activities users are involved in.” This study focuses on identifying major differences in the efficient use of business processes (ERPs) in organizations.

The sixth contribution entitled “USER FEEDBACK SESSION WITH CLICKED AND UNCLICKED DOCUMENTS FOR RELATED SEARCH RECOMMENDATION” written by Sejal Desai, Vinuth Chandrasheker, Vijay Mathapati, Venugopal K Rajuk, Sundaraja S Iyengar and Lalit M Patnaik presents a framework called Related Search Recommendation (RSR) that discovers keywords which are present in snippets clicked and unclicked documents in users’ feedback sessions. Accordingly to the authors pseudo documents are generated from feedback sessions which reflect what users wish to retrieve and in the end semantic similarity is calculated between the terms present in pseudo document and used for recommendations.

The seventh paper by Luis Alexandre da Silva, Kelton Augusto Pontara da Costa, Patricia Bellin Ribeiro, Gustavo Henrique de Rosa and João Paulo Papa entitled “LEARNING SPAM FEATURES USING RESTRICTED BOLTZMANN MACHINES” brings us to the necessity of efficient spam detection applications. The authors propose to “learn intrinsic properties of e-mail messages by means of Restricted Boltzmann Machines (RBMs) in order to identify whether such messages contain relevant (ham) or non-relevant (spam) content.” The main purpose of this study is to use Harmony Search-based optimization techniques to fine-tune RBM parameters, as well as to assess their robustness in the environment spam detection

The eighth contribution by Irina Bernst, Christof Kaufmann and Jörg Frochte called “ON LEARNING ASSISTANCE SYSTEMS FOR NUMERICAL SIMULATION” reports on the problem to provide learning assistance systems (systems “which are able to perform the necessary knowledge discovery and acquisition mainly autonomous”) in the context of simulation and modelling. The authors develop a classification method for learning assistance systems and their use cases. Also they perform a survey how learning from simulation data can be distinguished from traditional knowledge discovery from data bases and a case study concerning a machine learning approach for automating the distribution of FEM (Finite Element Method) simulations in heterogeneous environments.

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.

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