

EDITORIAL PREFACE

Maria Manuela Cruz-Cunha, Polytechnic Institute of Cavado and Ave, Portugal

João Varajão, University of Trás-os-Montes e Alto Douro, Portugal

After the announced changes of the journal editorial board and coverage, announced in the previous issue, here you have a new issue of IJWP, as usual following the mission of being a primary forum for researchers and practitioners to disseminate the evolving theory and practice related to Web portals, providing comprehensive coverage and understanding in its technological, business, organizational, and social dimensions.

Web portals are one of the most important components in the context of business integration. This journal serves as means for researchers, developers, and industry practitioners to publish their research and practical experiences in the technological, business, organizational, and social dimensions of Web portals development and applications. Topics currently covered by the journal include (but are not limited to) the following: Business process integration and management; Cloud and grid solutions; Content Management Systems; Customization; e-Commerce and e-Business applications; Evolution of portals; Frameworks for portal design and development; Infrastructures; Mobile technologies and applications; Project management; Resource management, performance issues, and administration issues; Security issues; Semantic Web services and federated architectures in Web portals; Tools and development environments; User interface issues; Web services.

Inside this issue, readers will find five contributions to the discussion of several social and technical aspects of web portals that include a broad geographical coverage by internationally renowned and experienced researchers from Italy, Portugal, United Arab Emirates and Nigeria. The five contributions are briefly described below.

Model-Based/Driven Development (MDD) constitutes an approach to software design and development that potentially contributes to: concepts closer to domain and reduction of semantic gaps; automation and less sensitivity to technological changes; capture of expert knowledge and reuse. The widespread adoption of pervasive technologies as basis for new systems and applications, lead to the need of effective design of pervasive information systems that properly fulfill the goals they were designed for. In the first paper, "A Case Studies Approach to the Analysis of Profiling and Framing Structures for Pervasive Information Systems", Fernandes, Machado, and Carvalho, present a profiling and framing structure approach for the development of Pervasive Information Systems. This profiling and framing structure allows the organization of the functionality that can be assigned to computational devices in a system and of the corresponding development structures and models. The proposed approach enables a

structural approach to Pervasive Information Systems development. The paper also presents two case studies that demonstrate the applicability of the approach.

Today's manufacturing enterprises face enormous competitive pressures stemming from the current dynamic and open business context. Global competition and market demand for customized products and services, delivered 'just in time', exert real stress on businesses. Recently, new production paradigms, such as the extended enterprise, as well as agile, virtual and networked manufacturing, have appeared in response to the increasingly dynamic conditions of the marketplace. These new concepts prompt geographically dispersed manufacturers to build alliances with their suppliers and customers in order to work more closely with them. They need to work to build manufacturing networks which bridge large sections of the supply chain. In this context distributed scheduling problems are challenging tasks to researchers and practitioners that have been gaining increasing popularity over the years. This is partly attributed to the fact that multi-site production and networked manufacturing environments are increasing as a consequence of globalization. In "Web-Based Technologies Integration for Distributed Manufacturing Scheduling in a Virtual Enterprise", Varela, Putnik, and Cruz-Cunha present a web based system for technologies integration for supporting distributed scheduling in a Virtual Enterprise, by combining a simulation-based approach, with the Hungarian algorithm, for solving job-shop scheduling problems, in order to show how we can benefit from this technologies integration for supporting collaborative distributed manufacturing scheduling.

Business Organizations increasingly rely on publicly accessible communication infrastructures such as the Internet and Cloud computing, in order to manage their internal processes and offer their services to financial actors, businesses and ordinary people worldwide. However, little attention has been paid to Software-as-a-Service (SaaS) philosophy for supporting business analysts in evaluat-

ing effectiveness and relevance of business information or finding patterns to direct them on more sources of data. Argiolas, Atzori, Dessì, and Pes, in "Dataspace Enhancing Decision Support Systems in Clouds" propose a flexible architectural framework for modeling application services useful in supporting business decision processes. This architecture goes beyond the static schemas offered by data warehouse systems as it supports including data gathered from heterogeneous sources and added-value services offered in Internet or provided by Cloud infrastructures. Central to this architecture is the concept of dataspace as a reference model for structuring information relevant to a particular organization, regardless of its format and location. A case study of a real world implementation is presented, dealing with supporting decisions in the real estate domain.

In "Undergraduate Students' Satisfaction with the Use of Web portals", Tella and Bashorun examine the undergraduate students' satisfaction with web portals. A pure quantitative method using descriptive survey approach was adopted, and the results revealed that students were generally satisfied with the e-portal system with, 89.3% indicating they were adequately satisfied, satisfied, or moderately satisfied. On the other hand, 11.1% had little satisfaction with the portal. Information/content quality, system quality, ease of use was indicated to determine users' satisfaction. Furthermore, the entire user satisfaction dimensions positively and significantly correlate with and predict students' satisfaction with web-portal. The study concluded by pointing out the implications and the recommendations based of the findings for the improvement of the students' web portal.

Many web-based services such as email, search engines, and polling sites are being abused by spammers via computer programs known as bots. This problem has bred a new research area called Human Interactive Proofs (HIP) and a testing device called CAPTCHA, which aims to protect services from malevolent attacks by distinguishing bots from human us-

ers. In the past decade, researchers have focused on developing robust and safe HIP systems but have barely evaluated their usability. To begin to fill this gap, Khalil, Abdallah, Ahmed and Hajjdiab report the results of a user study conducted to determine the extent that English language proficiency affects CAPTCHA usability for users whose native language is not English, in the paper titled "Script Familiarity and its Effect on CAPTCHA Usability: An Experiment with Arab Participants". The results showed a significant effect of participants' English language proficiency level on the time the participant takes to solve CAPTCHA, which appear to be related to multiple usability issues including satisfaction and efficiency. Yet, the authors found that English language proficiency level does not affect the number of errors made while entering CAPTCHA or reCAPTCHA. These results have numerous implications that may inform future CAPTCHA design.

Before finishing this editorial preface, we would like to take this opportunity to express our gratitude to IGI Global for the excellent support of their team of professionals. We would like also to thank all the members of the Editorial Board, for their commitment and for sharing their knowledge and experience in the support of the decision-making process. Finally, we would like to express our gratitude to all the authors who submitted their work, for their visions and excellent contributions.

We hope you will find here an interesting and a valuable source of knowledge and ideas.

Maria Manuela Cruz-Cunha
João Varajão
Editors-in-Chief
IJWP