Introducing BIS 2008 Workshops on Emerging Web Technologies

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This volume includes papers presented at the workshops held in conjunction with the 11th Business Information Systems Conference, taking place in Innsbruck, Austria on 6-7 May 2008. The conference is a well established knowledge exchange forum, with topics covering development, implementation, application, and improvement of IT systems for business. It has a long tradition of organizing special sessions, tracks, and workshops that focus on new and developing research areas.

This year the conference hosted three workshops: 1st Workshop on Advances in Accessing Deep Web (ADW 2008), Workshop on E-Learning for Business Needs, and 2nd Workshop on Social Aspects of the Web (SAW 2008). The common denominator of these diverse workshops is the research on the application of the emerging technologies (particularly in the Web sphere). This topic is approached from different directions by each of the workshops: SAW concentrates on the influence that technologies exert on the societies, and on emergence of social knowledge and structures in Web-based IT solutions. ADW participants discuss how to use potential that lies in the Deep Web to enable more thorough analyses, broader information integration and stimulate outbreak of new information services. Finally, E-Learning participants ponder on the best ways to utilize new technologies to speed up knowledge acquisition and increase its quality for the e-learning solutions users.

The observation that the Web has recently moved from a simple one-way channel, to a complex social communication space was a direct motivation behind SAW 2008. Today, the distinction between the authors and audience is becoming blurred and new ways to create, share and use knowledge in a social way emerge.

SAW papers investigate a variety of aspects of this change of paradigm, that transforms our interactions with other people, our relationships, ways of gathering information and doing business. Bojārs et al. [1] and Guns [2] focus on bridging semantic technologies research with social aspects. Massa and Souren [3] analyze complex subject of trust measurement in the Web environment. Three papers show how Web 2.0 technologies may be used in knowledge management (Bibikas et al. [4]), customer support (Nguyen et al. [5]) and in development of mobile cultural services (Coppola et al. [6]). Jacquemin et al. [7] study how user conflicts may be handled in Wikipedia. Stocker and Tochtermann [8] analyze usage of weblogs in business scenarios and Ettinger et al. [9] demonstrate possible usages of job boards.

In parallel to advancement of Social Web, a significant growth of complexity of Web information systems can be observed. The growth is giving rise to the Deep Web phenomenon. While the main way of accessing content on contemporary Web is by means of search engines, they do not index significant portion of modern Web

content. In many cases these nonindexable information sources, known as Deep Web, are better structured and of better quality than indexed Web. High value and low availability are thus the basic motivation behind ADW 2008. Its focus is on a wide area of Deep Web research, combining challenges from several active research areas, including information retrieval, information extraction, hypertext, Web engineering, data integration, database technologies, and the Semantic Web.

This is adequately represented by ADW papers that present methods for different stages and approaches of Deep Web content acquisition and usage. Kardkovács and Tikk [10] propose a novel approach to identification of Deep Web sources relevant for specific queries by combining NLP and relational database research. Paper by Wang and Hornung [11] focuses on learning Deep Web sources navigational patterns based on user examples. Finally, Algergawy et al. [12] propose a new approach to schema mapping - a critical task for information integration from the Deep Web.

The same changes addressed by SAW and ADW, are reasons for strong need for life-long learning and increased knowledge availability, especially in business. This area of research is central for E-Learning for Business Needs. Its goal is to bridge the gap between human resource management and emerging technologies to create robust e-learning solutions for the knowledge workers. In addition, it aims at providing guidance for organizations to allow them not only to create new e-learning solutions but also implement these solutions as customers. To tackle these issues Papanikolaou and Mavromoustakos [13] propose a framework for designing e-learning applications incorporating social and collaborative aspects of Web 2.0 technologies. Simon et al. [14] present the Evaluate platform that measures the impact of e-learning on organizations. Finally, Bijlani et al. [15] describe the case study on the Amrita Campus and EDUSAT network and study how the integration of a wide range of technologies (including mobile solutions) can increase the effectiveness of e-learning.

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