

GUEST EDITORIAL PREFACE

Special Issue on Social Media and Networks for Multimedia Content Management (Part 2)

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This second Special Issue of the Journal of Virtual Communities and Social Networking continues the social media and networks theme by presenting research that addresses aspects of the problem of multimedia content management. As already pointed out in the editorial of part 1 of the first special issue of the Journal of Virtual Communities and Social Networking, despite the rather long history of multimedia content management approaches in the information technologies field, still a lot of motivations exist for related activities. The fact that multimedia content management is still a very active research field is also testified by the number of high-quality submissions that we received in response to our call for papers. Not surprisingly, it was a hard job to choose the best papers that fit to the scope of the Special Issue and have a high scientific level and relevance to practice. As a result six papers were finally accepted for publication after an extensive review process; four of these papers appeared in part 1 of the previous Special Issue, while the remaining two appear herein. All of the papers were subject to the same review and editorial standards as any regular paper in this journal.

The common observation remains that the Social Web and particularly Social Media data has grown considerably in the past few years. The use of a wide range of “smart” devices to produce, store, view and exchange multimedia contents, and the “always-on” users’ connection to the Web continue to increase this phenomenon. As a consequence, a huge amount of heterogeneous social media data can be generated, enriched and exploited for creating new research

opportunities and challenges to be investigated within the framework of this Special Issue. In its second part we present additional original papers that tackle challenges or issues relating to exploit the social media and networks for multimedia content management, especially in smart-homes. More precisely, content annotation and adaptation, information personalization, as well as data recommendation, are used to help users in a smart environment. Consequently, two papers have been selected for this second Special Issue and report the latest advances on the technologies, algorithms, models, standards and applications in such topics and smart context.

The Articles

The Special Issue Call for Papers received numerous responses from many communities. This is also the main motivation behind the fact that two journal issues have been published focusing on multimedia semantics, user modeling, personalization, artificial intelligence and multimedia analysis in the context of social media and networks. In the following, a short description of each paper of this Special Issue is provided, summarizing the aims of each article and how the work described is related to the overall Special Issue topics.

The first paper authored by *Tayeb Lemlouma*, entitled “*Home Media Access with Heterogeneous Devices*” shows that current digital home systems lack of intelligent components that help terminals and users to find, configure and connect devices for using media content (video, audio, etc.) in an intuitive, transparent and optimized way. In his paper, he discusses how the user’s experience is negatively affected in existing digital home systems. Particularly, in heterogeneous environments with terminals and networks having different capabilities. He presents a home media access using a real-world evaluation of existing home systems and then compares these evaluations to a web-based approach. He demonstrates that the use of the home network resources can be significantly improved for sharing and browsing media items and folders.

In the second paper entitled “*Context-Aware User Modeling and Semantic Interoperability in Smart Home Environments*”, *Giorgos Siolas, George Caridakis, Phivos Mylonas, Giorgos Stratogiannis, Stefanos Kollias and Andreas Stafylopatis* provide an overview on how user modeling, context awareness and content adaptation in Smart Home environments may be handled formally, in order to capture the semantics that emerge from a newly introduced user experience, namely “SandS”. SandS is in fact a complete ecosystem of users within a social network, creating and exchanging content in the form of so-called recipes and developing a collective intelligence which adapts its operation through appropriate feedback provided by the user. While presenting SandS from the user’s perspective, the authors illustrate how users and their relationships can be modeled through a number of fuzzy stereotypical profiles. Additionally, context modeling in pervasive computing systems and especially in the Smart Home paradigm are examined through appropriate representation of context cues in the overall interaction. Finally, they have investigated how users and system services although using languages of different semantic expressiveness can inter-operate successfully thanks to appropriate knowledge-based expert mappings.

At this point the guest editors would like to thank all authors who submitted their work for consideration in both parts of this Special Issue. We are also much indebted to the many colleagues who kindly made their time available to assist in the reviewing process, namely: Harry Agius, Panos Alexopoulos, Ioannis Anagnostopoulos, Christos Anagnostopoulos, Fernando Bobillo, George Caridakis, Claudia d’Amato, Ernesto Damiani, Mario Doeller, Panagiotis Germanakos, Katia Lida Kermanidis, Frédérique Laforest, Martín López Nores, Vasileios Mezaris, Yannick Naudet, Adamantia Pateli, Viviana Patti, Jose Pazos-Arias, Amaryllis Raouzaïou, Petr Saloun, Gerardo Simari, Spyros Sioutas, Evaggelos Spyrou, Petros Stefaneas, Zenonas Theodosiou,

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