AUM 2012 - Augmented User Modeling

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Abstract. Augmented user modeling is an emerging strand of research that aims to connect and exploit activities and events in the digital, social and physical worlds. AUM 2012 is the second edition of the workshop series on Augmented User Modeling, held at UMAP 2012 - the twentieth international conference on User Modeling, Adaptation and Personalization - in Montreal, Canada.

Introduction

The digital world and the physical world become more and more connected: our interaction with computer systems has impact on our activities and experiences and vice versa. This changes the way we use technologies and opens up new opportunities for personalization and adaptation. People blog, post, chat, comment, tweet about things that matter to them: what they had for dinner, what their job activities were, what they thought about a particular television broadcast, et cetera. People also share content about their activities, such as pictures taken at a concert, videos of business meetings, reports on business trips and personal stories. This abundant digital information stream has become an important back channel in our daily lives. We constantly create digital traces about our experiences, which can be valuable sources for personalization. The time is ripe for developing new adaptation paradigms that exploit sensor data and other digital traces of our activities. Hence, traditional adaptation mechanisms (such as feedback, help, guidance) can be extended to become more effective by taking into account not only the user's experience in the digital world (the conventional user modeling paradigm), but also relevant experience of this user or of similar users in the physical world. The latter approach, which is the focus of this workshop, represents an emerging strand of research in which user models are augmented with real world knowledge to enhance adaptation and personalization.

Workshop Themes

Digital traces can be attributed to more than one individual: circles of friends, scientific communities or even whole populations can be characterized by the topics they tweet about, or things they comment on.

Furthermore, events - for example conferences, local or global disasters, political debates - can be modeled by the streams of digital traces generated around these events, including pictures, comments, discussions and reactions. Technological advancements in various areas - such as location tracking, RFID, opinion mining, social signal processing, media aggregation and retrieval - make it now possible to automate the processing of digital traces to enrich the system's understanding about users' experiences in the physical world. These technological developments bring new opportunities to the user modeling community, and at the same time, open up new technological, social, and ethical challenges.

The AUM workshop series provide a forum for academic and industrial researchers and practitioners to discuss augmented user modeling from three angles:

The first angle, *modeling*, involves methods and techniques for analyzing digital traces to capture, represent and connect user experiences. What aspects of user experiences are captured in different digital traces? What sources of digital traces can be used and are there any social and ethical constraints? How can these traces be processed, connected and aggregated? To what extent do these models represent what people, groups and events 'really' are - do they conform to models and theories from social science?

The second angle focuses on methods for augmenting user models by *aligning* digital and real-world experiences. How can digital traces be connected to create holistic models of users, events, objects and groups? Is it possible to identify which parts of these holistic models are relevant to a certain user context?

The third angle involves *application areas* that can benefit from augmented user models. How can user experience be improved in adaptive simulators, or in personalized virtual museums, media libraries or information portals? Which types of personalization, recommendation and information filtering are possible and desirable?

Concluding Remarks

In the references you find the papers accepted for presentation at AUM 2012.

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Program Committee

Mohammad Alrifai, Ahmad Ammari, Lora Aroyo, Adriana Berlanga, Marcel Berthold, Kalina Bontcheva, Federica Cena, Owen Conlan, Declan Dagger, Pasquale De Meo, Dimoklis Despotakis, Qi Gao, Dominikus Heckmann, Nicola Henze, Laura Hollink, Anthony Jameson, Judy Kay, Alfred Kobsa, Tobias Ley, Stefanie Lindstaedt, Adam Moore, Christina Steiner, Dhavalkumar Thakker, Michael Yudelson

References

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3. Eelco Herder and Patrick Siehndel. Daily and Weekly Patterns in Human Mobility.
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