

Visual Interfaces to the Social and Semantic Web (VISSW 2010)

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ABSTRACT

Recent innovations in the Social and Semantic Web fields have resulted in large amounts of data created, published and consumed by users of the Web. This vast amount of data exists in a variety of formats, from the traditional ones such as text, image, video to the more recent additions such as streams of status information from Twitter and Facebook. The ability to easily integrate such vast amounts of data raises significant and exciting research challenges, not least of which how to provide effective access to and navigation across heterogeneous data sources on different platforms (e.g. computers, mobile devices, set-top boxes). Building on the success of the VISSW2009 workshop, the IUI2010 workshop on Visual Interfaces to the Social and Semantic Web aims to bring together researchers and practitioners from different fields to discuss the latest research results and challenges in designing, implementing, and evaluating intelligent interfaces supporting access, navigation and publishing of different types of contents on the Social and Semantic Web. This paper outlines the context of the workshop and provides an overview of the research to be presented at the event.

Author Keywords

Visual interfaces, Social and Semantic Web

ACM Classification Keywords

H.5.2 Information Interfaces and Presentation: User Interfaces—*Graphical user interfaces (GUI)*

General Terms

Design, Human Factors, Documentation

INTRODUCTION

The continued growth and importance of the Social Web has resulted in ever increasing volumes of data created, published and consumed by users. This vast amount of data takes many forms, including text, images, video and more recently streams of status information from applications such as Twitter and Facebook. Not only is this data accessible through more traditional means, such as desktop and laptop computers, but also via diverse platforms such as mobile phones and set-top boxes that bring unique constraints in terms of computing resources and user interfaces. Through the increasing availability of Web APIs, data that has traditionally been coupled with a specific application may now be exposed through novel interfaces developed by third parties, providing functionality not previously anticipated by the data owner.

In tandem with the growth of the Social Web, the Web at large has experienced a significant evolution into a Web not just of linked documents, but also of Linked Data. This development, which exploits the Semantic Web technology stack, allows relationships to be expressed between items in distributed data sets, paving the way for integration of raw data from multiple, heterogeneous sources. Coupled with the increasing availability of APIs that expose structured (if not linked) data from the Social Web, application developers have a wealth of data available to them upon which they can build compelling visual interfaces.

The ability to easily integrate vast amounts of data from across the Social and Semantic Web raises significant and exciting research challenges, not least of which how to provide effective access to and navigation across vast, heterogeneous and interconnected data sources. However, the need

for intelligent and visual human interfaces to this evolving Web is not limited simply to the modalities of searching and browsing, important as these are. As the Web becomes increasingly populated with data, continues to evolve from a read-mainly to a read-write medium, and the level of social interaction supported on the Web increases, there is also a pressing need to support end-users who engage in a wide range of online tasks, such as publishing and sharing their own data on the Web.

OBJECTIVES

Building on the success of the VISSW2009 workshop¹ at IUI2009 [1], we anticipate the VISSW 2010 workshop² to be of interest to researchers and practitioners in the following areas:

- Human-Computer Interaction
- Intelligent User Interfaces
- Personal Information Management
- Information Visualization
- Social, Mobile and Ubiquitous Computing
- Linked Data and Semantic Web

The workshop is a forum to discuss the latest research results and challenges in designing, implementing, and evaluating intelligent interfaces in the context of the Social and Semantic Web. The workshop will serve as an opportunity for researchers to gain feedback on their work, and to identify potential collaborations with their peers. We believe that the potential for fostering links between a variety of facets of the IUI community will help to ensure an exciting workshop program.

TOPICS

Topics of interest for workshop discussion include:

- Interfaces
 - Novel visualisation of structured, linked and aggregated data, originating from multiple sources.
 - Novel interfaces for high-volume transient data, e.g. feeds, streams and sensors.
 - ‘Living’ interfaces to constantly evolving data, vocabularies, and emerging links between them.
 - Task-centric interfaces for structured and/or Linked Data.
 - Interface components for displaying/interacting with aggregated, heterogeneous Linked Data, e.g. components for displaying provenance information.
 - Lightweight components and processes for casual users to publish/share their own content on the Web.
 - Ontology-based visualization of collections of data.

• Interaction Paradigms

- Novel interaction paradigms for textual, photos, music, videos, etc. on alternative platforms (e.g. mobile devices, set-top boxes, shared/public displays).
- Novel interaction paradigms with structured, linked and aggregated data.
- Investigation of task-centric interaction paradigms beyond search and browse.
- Ontology-based interaction with collections of data.
- Semantic models for interaction and their reuse on the web

• Empirical Studies and Evaluation

- Empirical studies that can guide the development of interfaces for Linked Data.
- Use cases which present novel visualization requirements and expose interesting interaction challenges on the Social and Semantic Web.
- Lessons learned from user-studies, pilot systems and live deployments in the Social and Semantic Web.

SUBMISSIONS

It is our belief that this workshop has the potential for fostering links between diverse but highly related facets of the IUI community.

In fact, the workshop has attracted submissions on a variety of topics, such as:

- Ontology Based Queries Investigating a Natural Language Interface
- How Last.fm Illustrates the Musical World: User Behavior and Relevant User-Generated Content
- Gaining Musical Insights: Visualizing Multiple Listening Histories
- Cross-media Retrieval System based on Association among Heterogeneous Media

Further details about accepted papers can be found on the workshop webpage.

REFERENCES

1. S. Handschuh, T. Heath, and V. Thai . *Visual interfaces to the social and the semantic web (VISSW 2009)*. In Proceedings of the 13th International Conference on Intelligent User Interfaces (Sanibel Island, Florida, USA, February 08 - 11, 2009). IUI '09. ACM, New York, NY, 499-500.

¹<http://www.smart-ui.org/events/vissw2009/>

²<http://www.smart-ui.org/events/vissw2010/>