

SoMuS: Social Multimedia and Storytelling

Symeon Papadopoulos
CERTH-ITI
Thessaloniki, Greece
papadop@iti.gr

Pablo Cesar
CWI
Amsterdam, The Netherlands
p.s.cesar@cwi.nl

David A. Shamma
Yahoo! Research
San Francisco, USA
aymans@acm.org

Aisling Kelliher
CMU
Pittsburgh, USA
aislingk@andrew.cmu.edu

Ramesh Jain
UC Irvine
San Francisco, USA
jain@ics.uci.edu

Abstract

The pervasive use of media capturing devices and the wide adoption of online social networking platforms have led to the proliferation of online content capturing places and events. Such content holds great potential for forming richer representations of real-world places and events, and creating engaging stories around them. This is not only due to the abundance of diverse multimedia content, but also due to the availability of rich contextual information, ranging from location metadata and textual descriptions to online interactions and user feedback (e.g., in the form of ratings). Therefore, leveraging social multimedia content and its surrounding context offers ample opportunities for better understanding and capturing the real world and for building innovative and engaging applications. However, the uncontrolled nature of user-contributed content and the complexity of the social media life-cycle raise significant research challenges related both to the effective collection, mining, and indexing of social multimedia and to their combination, creative reuse, and presentation. To this end, the first edition of the Social Multimedia and Storytelling (SoMuS) workshop

attempts to explore this exciting new area and highlight the key research challenges and opportunities.

1 Introduction

People increasingly tweet about their daily activities and interesting stories taking place around them; they take pictures of the places they visit and share them in their social network; they make videos of the events they attend and share them in real time. The availability of such social multimedia content - at unprecedented scales - that captures entities and aspects of the real world holds great potential for deriving richer representations of the depicted places, experiences and events. This is not only due to the abundance of diverse multimedia content, but also due to the availability of a large variety of contextual information, such as location and textual metadata, and online interactions (e.g. comments/likes on shared videos).

Leveraging such content and its surrounding online context holds the potential for better capturing and representing the real world and for building novel engaging applications. However, the nature of social multimedia raises a number of research challenges that call for new multimedia retrieval approaches. For instance, much of the content shared through social media is not original, it is often of low or insufficient quality and it frequently lacks sufficient metadata (e.g. lack of location, tags, etc.). Following the different stages within the lifecycle of social multimedia content, there is a profound need for technologies supporting the collection, processing and mining of social multimedia content, as well as for novel means of visualizing information to and of interacting with the storytellers

Copyright © by the paper's authors. Copying permitted only for private and academic purposes.

In: S. Papadopoulos, P. Cesar, D. A. Shamma, A. Kelliher, R. Jain (eds.): Proceedings of the SoMuS ICMR 2014 Workshop, Glasgow, Scotland, 01-04-2014, published at <http://ceur-ws.org>

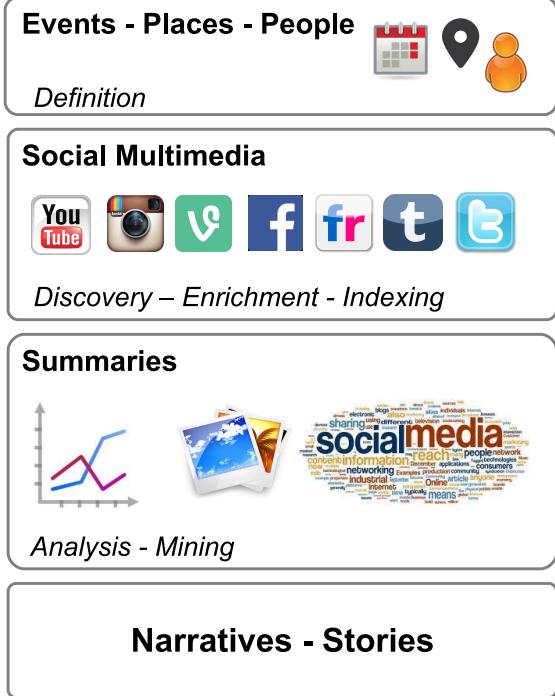


Figure 1: From real-world entities and Social Multimedia to Storytelling

and with those interested in analyzing the narratives developing in the context of online social interactions.

One may visualize the landscape of SoMuS as a process (Figure 1) starting from the definition of a real-world entity, e.g. an event, continuing with an enrichment step, wherein the event is enriched with multimedia content collected from social sources, followed by a summarization step, where different important aspects and elements of the event are extracted. Given appropriate technological means to effectively harness the aforementioned steps, a storyteller may create powerful media-rich stories around real-world entities and could better capture the existing narratives that are born and evolve within the social media space.

Given the above setting, the SoMuS workshop touches upon many significant aspects of multimedia retrieval, including content analysis and understanding, content- and context-based indexing, search and retrieval, HCI technologies, image and video summarization and visualization, and others. To this end, the Social Multimedia and Storytelling workshop (SoMuS) aims at exploring different multimedia retrieval areas converging on the nexus of social multimedia and storytelling around real-world experiences, events and places. Aside the challenging research problems raised by the workshop, its topics are linked to a host of important commercial and creative applications in sectors such as media, entertainment, arts and culture, sports and music. The research and innovations en-

couraged by the workshop are expected to help drive the next wave of multimedia capturing and consumption technologies.

2 Overview of Workshop

The workshop will feature two keynote talks and eight presentations of research papers. The first keynote, by Frank Nack, offers a critical view on the achievements in interactive storytelling and sheds light on the intricate relationship between narrative and social media that might explain why we still do not see generated qualitative storytelling that makes use of social-media story snippets. The second keynote, by Benoit Huet, focuses on media hyperlinking from the news, tackling the task of locating and identifying relevant media items, and displaying them on the second screen. It discusses two approaches for event-based mining of such additional and related information, each of them satisfying a different user information need and addressing different usage scenario; passive vs. active second screening.

The research papers cover a wide spectrum of research topics. Event-focused multimedia attract significant interest: Half the workshop papers deal with the problem of *event-based summarization*, the one making use of latent topics around the event, the second with that of generating subjective summaries around soccer events, and the other two with the problem of collecting and ranking multimedia around events of interest, relying on social media sources and even Wikipedia. Another paper, positioned in the context of event-centric narratives, attempts to study the use of swearing and sentiment markers around soccer matches.

Two workshop papers deal with the use of *video sharing* platforms: The first studies YouTube, the most popular video sharing platform, and offers insights into the problem of tag selection with the goal of increasing video viewership. The second conducts a statistical analysis of Vine, a recently popularized social mobile video platform. Finally, a workshop paper proposes a model that utilizes storytelling to link social media with Corporate Social Responsibility (CSR) tasks, facing the challenge of finding an adequate storytelling structure for automatically generated stories.

3 Summary

The abundance of user-generated content and the online social context built around it offer ample material for constructing and enriching stories and capturing the narratives around real-world places, people and events. As our lives become increasingly more digital and networked, one may expect that technologies capable of managing the challenging nature of social

multimedia and that empower users to leverage such content for creating richer and more engaging stories will become increasingly important.

4 Organizers

SoMuS 2014 was organized by Symeon Papadopoulos, Pablo Cesar, David A. Shamma, Aisling Kelliher and Ramesh Jain. **Symeon Papadopoulos** is a post-doc researcher at the Information Technologies Institute (ITI), part of the Centre for Research and Technology Hellas (CERTH). His research interests are in the area of Multimedia Retrieval in the context of social networks and social media, and in the area of Data Mining and Knowledge Discovery on user-contributed data. **Pablo Cesar** is a researcher at the Distributed and Interactive Systems group at CWI (The National Research Institute for Mathematics and Computer Science in the Netherlands). He has extensive research activity in the areas of multimedia systems and infrastructures, social media sharing, interactive media, multimedia content modeling, and user interaction. **David A. Shamma** is a senior research scientist and head of the HCI Research group at Yahoo! Labs. His personal research investigates synchronous environments and connected experiences both online

and in-the-world, focusing on creative expression and sharing frameworks, systems for multimedia-mediated communication, as well as, targeted methods and metrics for understanding how people communicate online in small environments and at web scale. **Aisling Kelliher** is an associate professor in the School of Design at Carnegie Mellon University, where she also holds an adjunct appointment in the Human Computer Interaction Institute. Aisling creates and studies interactive media systems for enhancing reflection, learning and communication. Her work is grounded within the fields of human-computer-interaction, multimedia, and interaction design. **Ramesh Jain** is an entrepreneur, researcher, and educator. He is a Donald Bren Professor in Information and Computer Sciences at University of California, Irvine where he is doing research in Event Web and experiential computing.

5 Acknowledgments

The work of Symeon Papadopoulos was supported by the SocialSensor FP7 project, partially funded by the EC under grant agreement 287975. The work from Pablo Cesar was supported by the Vconnect project, partially funded by the EC under grant agreement 287760.