Dynamic Social and Media Content Syndication for Second Screen

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ABSTRACT

Social networking apps, sites and technologies offer a wide range of opportunities for businesses and developers to exploit the vast amount of information and user-generated content produced through social networking. In addition, the notion of second screen TV usage appears more influential than ever, with viewers continuously seeking further information and deeper engagement while watching their favourite movies or TV shows. In this work, the authors present SAM, an innovative platform that combines social media, content syndication and targets second screen usage to enhance media content provisioning, renovate the interaction with end-users and enrich their experience. SAM incorporates modern technologies and novel features in the areas of content management, dynamic social media, social mining, semantic annotation and multi-device representation to facilitate an advanced business environment for broadcasters, content and metadata providers, and editors to better exploit their assets and increase their revenues.

Keywords: Content Syndication, Context, Second Screen, Semantics, Social Communities, Social Media

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INTRODUCTION

Social networks and the mass adoption of smart phones and tablet devices have changed the way users are interacting with media, shifting their role from passive and unidirectional recipients to proactive and interactive participants. In this new role and using devices such as smartphones and tablets, users can comment on or rate TV shows or search for related information about characters, places or objects appearing in them. They can follow updates of their friends regarding shows, can participate actively and be part of wider social communities in the context of a program. This type of usage is known as second screen usage; forecasts predict dramatic growth and impact rate for it even if the initial use and facilities of second screen are today limited compared to its business and technological potential (Courtois & D’heer, 2012).

However, there are no second screen standards, protocols or common ways in which users can discover and access additional information related to consumed contents on their second screen devices (Tsekleves, Cruickshank, Hill, Kondo, & Witham, 2007). Users must initiate searches for information by using generic tools (e.g. Twitter, Facebook) to start “participating” in the show, or must access (and install apps for) custom services for each individual show they are interested in. Enterprises that would like to provide services for second screen device usage have to develop custom solutions which are likely to have limited potential in terms of data gathering, a fact that restricts the quality of business intelligence data that can be gathered from second screen users.

This work presents the Socialising Around Media – SAM Platform (SAM EU Research Project, 2014), an ongoing work on an advanced social media delivery environment which is being developed as part of an EU-co-funded research project. The vision for SAM is based on the idea of fusing second screen and content syndication (Heino, Tramp, & Auer, 2011) and on exploiting the advancements in the area of social media. This is achieved by providing new ways of characterising, discovering and syndicating media assets interactively as part of a modern, business-oriented environment. Users will be able to consume and interact with digital assets from different syndicated sources and different synchronised devices (e.g. Connected TVs), thus creating richer experiences around the original media assets.

The ultimate goal of SAM is to develop an advanced Social Media delivery platform based on Second Screen and Content Syndication within a Social Media context.

This is an ongoing work however, a first prototype is already available to an internal group of test users. SAM users will be able to consume and prosume digital assets from different syndicated sources and different synchronised devices (e.g. connected TVs), thus creating richer experiences around the original media assets. SAM incorporates features for the creation of dynamic social communities related to the user and digital asset context (e.g. profiles, preferences and devices connected) in order to enable media content syndication, enriched with comments, ratings, facts, recommendations and new information that will enhance personalised knowledge and satisfaction. The system has been designed around three main pillars that highlight the main research and business directions of this work:

- **Content Syndication**: Based on content syndication techniques, the different types of content providers prepare their assets so that they can be associated to specific media and context. The platform provides mechanisms so that these complex assets can be discovered, associated to the user activity and delivered in the expected format to be consumed in the user context;
- **Social Media**: Social interaction around the media items will provide the context in which the syndicated content will be consumed. Complex context extraction mechanisms based on Natural Language Processing (NLP), sentiment analysis and other semantic related tech-
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