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María José Abásolo · Francisco J. Perales
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Applications and Usability of Interactive TV

4th Iberoamerican Conference, jAUTI 2015
and 6th Congress on Interactive Digital TV, CTVDI 2015
Palma de Mallorca, Spain, October 15–16, 2015
Revised Selected Papers

Springer

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Preface

The 4th Iberoamerican Conference on Applications and Usability of Interactive TV, jAUTI 2015, and the 6th Congress on Interactive Digital TV, CTVDI 2015, were jointly organized by the Multimedia Information Technologies Laboratory (LTIM) and the Graphics and Computer Vision and Artificial Intelligence Unit (UGIV-IA) of the University of the Balearic Islands, and the Thematic Network on Applications and Usability of Interactive Digital Television (RedAUTI), and were held during June 14–16, 2015, in Palma de Mallorca, Spain.

The RedAUTI is sponsored by the CYTED Ibero American Program of Science and Technology for Development and it consists of 238 researchers from 39 groups from Spain, Portugal, and ten Latin American countries.

These proceedings contain a collection of extended selected papers and invited contributions originally presented at jAUTI 2015–CTVDI 2015 that cover the development and deployment of technologies related to interactive digital TV and their applications. The selection rate was 35 % and the extended selected papers were peer reviewed to assure the high quality of this publication.

March 2016

María José Abásolo
Francisco J. Perales
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From Secondary Screens to Socially-Aware and Immersive Experiences

(Invited Talk)

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Abstract. Several years ago, first conceptualizations of the usages of the secondary screen in the television environment were proposed. At the time, the real challenge was to convince stakeholders that interactivity was not a threat, but an opportunity. Ten years later, the mass adoption of smaller devices has reshaped the media landscape, truly enabling interactivity while consuming media content at home. What was perceived as hindering the user experience - the second screen - has resulted into an essential companion to the television. Paradoxically, even though key players are investing on secondary screen applications, there are very few successful examples. In this paper we provide an overview of the present state of the art through representative examples and discuss future possibilities and challenges. In particular, we will focus on the importance of immersion, taking into account the surrounding of the users, and of sociability, involving her social network.

Keywords: Social television · Secondary screen · Immersive experiences

1 Socially-Aware and Immersive Experiences

This paper summarizes my keynote talk at the Interactive Digital TV Congress, that took place in Palma de Mallorca (Spain) from 14th to 16th October 2015. The full talk is freely available here: https://www.youtube.com/watch?v=hCGYdg1qbPI.

The following sections provide some relevant scientific resources, in which the keynote talk is based.

1.1 Past

Over a decade ago, we witnessed a revival of the research area of interactive television and online video. A plethora of new ideas and initiatives started reshaping the field. Unlike previous research that mostly focused on the producer concerns, a new generation of researchers started to predict a more interactive role of the user in selecting, producing and distributing content. A good survey about this area of research is this one [4]. Relevant research directions included human-centered television [1] and social

television [3, 5]. In those times, first conceptualizations of the usages of the secondary screen in the television environment were as well proposed [2].

1.2 Present

In the past years, the research field of online video and television has significantly evolved moving from the lab to the home, with more robust and reliable solutions available for the masses. Areas of research include content creation and production, content recommendation, connected ecosystem of devices and people, and audience feedback and data analysis [9]. Another relevant research area, still attracting attention, is social television [8]. All these areas and topics are the focus of a recent initiative, the ACM International Conference on Interactive Experiences for Online Video and Television (ACM TVX): http://tvx.acm.org. The conference provides a unique space for the discussion of interdisciplinary research around new and emerging media. From developing an understanding of engagement to informing new ways of creation and consumption for a variety of devices and platforms.

1.3 Future

The number of research topics that will further reshape the media landscape is immense: virtual reality and television (http://www.immersiatv.eu), convergence of broadcast and user generated content for interactive ultra-high definition services (http://cognitus-h2020.eu), multi-sensory experiences (http://www.sussex.ac.uk/schi/). Two very interesting research directions include immersive shared experiences and multi-screen experiences.

The first area of research, immersive shared experiences [6, 7], is the result of the confluence of social networking, multimedia, and computer-mediated interaction. The challenge ahead is to move from current static solutions (e.g., “talking heads”) to truly natural and immersive experiences.

The second area of research, multi-screen experiences, is the focus of the EU-funded project 2-IMMERSE. The project is exploring the future of the creation and delivery of shared and personalized multi-screen broadcast and broadband experiences. The project will develop prototype multi-screen experiences for an ‘any device’ environment. These experiences will merge broadcast and broadband content with the benefits of social media. To deliver the prototypes, 2-IMMERSE will build a platform based on a relatively new specification for television called HbbTV2.0. 2-IMMERSE brings together broadcasters, producers, rights holders, technology companies and universities to design, build and test four prototype experiences involving live performance and sport. More information about the project can be found at: https://2immerse.eu.

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