1st Workshop on Empathic Television Experiences (EmpaTeX 2014)

Jan Van den Bergh, Kris Luyten
UHasselt – tUL – iMinds
Wetenschapspark 2
3590 Diepenbeek, Belgium
firstname.lastname@uhasselt.be

Mike Matton
VRT
Auguste Reyerslaan 52,
1043 Brussels, Belgium
mike.matton@vrt.be

Koen Willaert
VUB – SMIT -iMinds
Pleinlaan 9
1050 Brussels, Belgium
koen.willaert@vub.ac.be

ABSTRACT
Empathy is a key ingredient in effective human-to-human communication but is hardly explored in HCI beyond the field of social robotics and virtual agents Current technology is to some extend able to measure expression of people's emotions using a variety of sensors, which is essential but not sufficient to create an empathic experience.

The goal of this workshop is to investigate what empathy can mean within the context of ITV experiences and how to create/design interactive experiences that are recognized by TV viewers as being empathic.

The workshop will be a forum to discuss different enabling technologies, promising application architectures and concepts that will turn the use of television sets and television broadcasts into engaging empathic experiences.

Author Keywords
Empathic technology, ITV, television, affective computing, second screen applications, emotion detection, intention detection, recommendations

ACM Classification Keywords
H.1.2 User/Machine Systems: Software psychology, H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

INTRODUCTION
Television is recognized to be a social medium. An extensive amount of work has been performed to define guidelines to take the social aspects to the next level, even when people are distributed in space (and even time), with or without second screen devices [1,2].

The role of emotions (and intentions) with respect to television experiences has been much less explored, unless when related to advertising [4]. There are some valid reasons for this given that correct emotion assessment, especially when there is no possibility to directly ask a person about this, is a difficult problem. Even when emotions are correctly assessed it is still difficult to define which actions should be taken to correctly take the assessed emotions into account [3]. When humans take appropriate actions given observed emotions and intentions this is called empathy, resulting in a certain 'alignment'.

Similarly, when products or services exhibit this behavior, we call them empathic products instead of mere affective computing products.

In this workshop we want to explore the challenges, opportunities and threats of realizing empathic television experiences.

TOPIC
The overall topic deals with all phases in the realization of empathic television experiences:

Sense: emotion and intention detection.

Think: models of empathy and associated reasoning and/or data analysis techniques that allow processing of the sensed emotions and intentions into meaningful concepts.

Act: open (support systems for human decision makers) or closed (automatic empathic reaction) empathic television systems.

The workshop encompasses both technologies and interaction formats that can work for a single location (e.g. a single living room) or for mass-scale systems (e.g. applications in broadcasting).

RATIONALE
Personalized TV/media experiences are becoming mainstream. Recommender systems and other personalization technology are frequently included in television sets and second screen applications.

Current systems lack one major ability: to grasp and act upon the emotional and social context of TV viewer.

Knowing and predicting their emotions and intentions, upon which (empathic) actions can be taken, is key. Recent evolutions in sensor technology and progress in affective computing are beginning to make this possible. However another key challenge is to design interaction formats that are perceived as being empathic. This means acting with respect to the (emotional and social) context, an appropriate timing and the subtle nature of the interactions.

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GOALS

The workshop has two major goals to advance the state of the art in this domain:

1. Bring together researchers and practitioners that work in the domain of affective computing and social-aware multimedia. We solicit contributions from different viewpoints including interaction and sensing technologies, TV production and distribution, psychology, sociology, human-computer-interaction.
2. Discuss potential contributing technologies as well as (evaluation of) application concepts and services, and identify challenges, opportunities, threats and strengths of these technologies in specific scenarios. These can include, but are not limited to: TV peripherals that can detect intentions or emotions, interaction techniques or social-aware TV applications (that trigger empathic experiences), empathic recommender systems or new program formats.

PARTICIPANTS

Future participants should submit a position statement. This position statement can be under the form of a position paper or using an alternative format, such as a presentation or a video statement. Each position statement should clearly identify the focus (e.g. contributing technologies, television sets, television shows), and a critical reflection including open questions, benefits or limitations.

WORKSHOP FORMAT

The workshop will last a full day with fifteen to twenty participants and consist of two main parts; a first part in which the participants' position statements with respect to empathic television will be presented and discussed. The presentations and discussions that follow as well as prepared topics, which can be illustrated using concrete scenarios that push beyond what is available today, will be will be used to trigger and guide discussion in groups.

These group discussions will last the majority of the afternoon sessions. The workshop will be concluded by a plenary session in which the results of the discussion groups will be presented and discussed.

ORGANIZERS

Dr. Jan Van den Bergh obtained a PhD in computer science (human computer interaction) from Hasselt University in 2006. He performs and guides research on projects that deal with context-aware interaction, including interdisciplinary research projects and theses on participatory interactive television, the use of second screen devices to interact with television applications and non-intrusive detection of emotions and intentions when watching television.

Dr. Mike Matton obtained his PhD in computer science from the KU Leuven in 2009. His Ph.D. research involved example based methods for speech and pattern recognition. He joined the research labs of the VRT broadcasting organization in October 2009 as a researcher in the domain of information management. His main research focusses on applying artificial intelligence techniques in the broadcasting domain, as we as methods for managing metadata. He is an active member of several expert groups within the European Broadcasting Union (EBU).

Koen Willaert obtained a master's degrees in experimental psychology and cultural studies. He is working in the field of user-centered design and human-computer interaction. He is integrating social research within all phases of innovative technology development using a broad range of research techniques. He was involved in numerous interdisciplinary research projects in a variety of application domains such as future TV, 3DTV, immersive communication, context-aware services, digital-out-of-home, virtual worlds and robotics.

Prof. Dr. Kris Luyten is a professor in computer science. His main research interests are situated in Context-Aware User Interfaces, Model-Based and User-Centered Interface Development, Multi-touch Interaction, Mobile Guides, Ubiquitous Computing and Social and Collaborative Software. Kris Luyten has published at top tier venues for these topics, served as a co-chair for the CHI 2008 Work-in-Progress track, full paper co-chair for EICS 2011 and EICS 2013 and short paper co-chair for AMI 2012. He is member of ACM SIGCHI, IFIP working group 2.7/3.14 on UI engineering and the EICS steering committee.

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