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# Playful Experiences and Game Concepts for Multi-Screen Environments

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**Abstract.** In this workshop we will focus on how to design for playful experiences in multi-screen environments (smartphone, tablet, PC and TV), how existing gaming concepts can or cannot be transferred to the design of novel multi-screen formats, and how current insights in sociability, genres and attention can inspire new game concepts. These insights should ultimately lead to novel concepts for multi-screen formats utilising the opportunities offered by the recently increased functionality and interactivity. We will invite experts from industry and academia to discuss the latest research efforts and applications, analyse the current “gamified” media landscape, and formulate essential directions for future research.

**Keywords.** Gaming, playful experiences, multi-screen, sociability, media.

## 1 Introduction

In the past decade many living rooms, and by extension homes, have been turned into multi-screen environments. It is not uncommon to see households with multiple smartphones, tablets, laptops and televisions, often being used at the same time. Research on how people’s consuming behaviours are changing is growing, but research on how to design good multi-screen experiences that use this multitude of screen-based devices is however scarce. An area where the synchronised use of multiple screens is being increasingly studied is that of second-screen applications for television. The uses of second-screen applications include among others Social TV [1], companion apps (e.g. Beamly), and additional content about a drama series such as Game of Thrones<sup>1</sup>. The increased interactivity also allows for playful experiences and gaming. A popular example is the app for the quiz show ‘Blokken’ in Flanders<sup>2</sup>: the quiz involves two people competing by answering questions for points – a traditional

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<sup>1</sup> <http://mashable.com/2014/02/03/second-screen-tv-apps>

<sup>2</sup> <http://deredactie.be/cm/vrtnieuws/cultuur%2Ben%2Bmedia/media/1.2251025>

quiz – and by playing a version of Tetris on the show. For this show a second screen app was created so viewers could play along. The potential of playful experiences within a multi-screen environment are plentiful but still under explored. Our workshop aims to fill this gap by studying how new multi-screen formats can be created that allow for playful experiences with smartphones, tablets, pc's and television.

## 2 Aim

The aim of our workshop is to gather the latest insights, experiences and results on novel formats for multi-screen environments that involve some form of gamification or insights from gaming. We will delve into issues such as (but not limited to):

- **Evaluating game experiences in gamified multi-screen formats.** Current literature on the evaluation of gaming experiences might be reused for gamified multi-screen formats. However, since the latter is not just a game, some of the gaming insights might not (entirely) applicable in the new domain.
- **Social dynamics influencing existing gaming insights.** In the living room different kinds of social interaction occur [6]. Even without multiple screens the complexities of the social dynamics are vast [5]. What is the role of the social mechanics during a gamified show? What are the differences in experience between members of a household playing against each other, and all households watching the show playing against each other in a more widespread competition?
- **The role of the genre.** The genre of a program has an important influence on the social interaction [3] and second-screen interaction it allows [4]. As gaming mechanisms are very likely to augment the experience of novel formats, it is essential to understand with which kinds of programs this would work.
- **Distracting vs. complementing the gaming experience.** Certain game elements might be engaging; they might be more fun than the actual program, but ultimately distract<sup>3</sup> the viewer from the main content on the TV. In what ways can we ensure that the added gamification is really complementary to the entire viewing experience?
- **Engagement with the audience.** How does the addition of game like elements into a program influence the engagement with the audience? What kind of engagement with the audience do broadcasters currently try out? What are the uses, effects of such engagement? What does this demand from the program makers? How can such engagement be strengthened, steered, and measured?
- **The TV as a second screen for games.** Should we make the TV the second screen (or third or fourth) in some cases? How can our TV screen form an excellent addition to games played on tablet or smartphone?

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<sup>3</sup> <https://gigaom.com/2013/09/11/abc-executive-second-screen-apps-can-be-a-distraction>

### 3 Workshop format

Our workshop is aimed at academics and practitioners who are working on gaming and playful formats for multi-screen environments (including smartphones, tablets, pc's and television). We have good relations with several broadcasters (VRT, NPO, RBB, TVC), with development companies delivering innovative second-screen formats (Small Town Heroes, Peoples Playground, Angry Bites), game development companies (Larian, GRIN, Studio 100) and will certainly invite them to participate in our workshop. In addition, we will spread our call for papers in the ACM TVX and Fun & Games communities among others. In total we aim for 20 to 25 participants, possible invitees: Joost Negenman (NPO), Hendrik Dacquin (Small Town Heroes), Ammar Tijani (Peoples Playground).

We foresee the submission deadline on 10/07/2015 and the notification on 14/08/2015. The outcome of our full day workshop will be a mapping of the different aspects of multi-screen entertainment; an indication of which aspects that have been covered by academia and/or by industry; and the gaps which have to be explored in the future. We will a toolkit created to support participatory mapping exercises [5].

#### Schedule:

**1. 09.00h-09.15h: Welcome & Introduction**

**2. 09.15h-10.45h: Pecha Kucha style presentations:** Our participants will be asked to prepare a compelling and feisty presentation about their contribution to the workshop, in order to avoid becoming a passive mini-conference, and at the same time offer them the opportunity to tell their story. In addition, we will strongly encourage participants to read each other's contributions before coming to the workshop.

**3. 11.00h-12.30h: Mapping the workshop contributions:** To get the mapping started and keep the participants awake and active, we will start mapping the relevant aspects in the participants' contributions. They would write down the key concepts on post-its and past them on large sheets of paper or white-boards – one for research contributions, one for industry contributions. After this first phase we will review the current mapping, and review and structure the content properly.

**4. 13.30h-15.15h: Mapping related work:** In this exercise, making use of the structure of the workshop contributions, we will now map important related efforts in academia en industry, and write down the aspects related to formats for multi-screen environments.

**5. 15.30h-16.40h: Bombs away, mortal locks and the big question marks:** Participants now receive 1 bomb, 1 lock and 1 question mark to place on the mapped post-its [5]. The bomb indicates where the participants expect or experience great difficulties - these are then written down. The opposite of the bomb is the lock: these mapping items describe a guaranteed winner in our area. Finally, the areas we still know too little about will be indicated by a question mark. These areas will form important directions for future research.

**6. 16.40h-17.00h: Closing:** At the end of the workshop we will do a wrap-up of the main conclusions and insights gained during the day. Consequently, we will plan

follow-up activities such as a suitable venue for a next workshop, the organisation of a special issue for the Entertainment Computing Journal, and the launch of a community website on this topic.

## 4 Organizers' background

**Jeroen Vanattenhoven** is senior researcher at the Centre for User Experience Research of the iMinds research institute and the KU Leuven. He has been involved in Flemish and EU research and innovation projects on social media, Social TV, and second-screen for more than eight years. Earlier research efforts focused on gaming experience and evaluating different controls in games. Currently, he is working in the TV-RING project focusing on social and contextual recommendations, and second-screen applications for TV. He is also Work-in-Progress chair of ACM TVX2015.

**Dr. David Geerts** has a PhD in Social Sciences at the KU Leuven and is Research Manager of the Centre for User Experience Research (CUO) of KU Leuven and iMinds at the faculty of Social Sciences. David is specialized in human-centered design and evaluation of (social) interactive television. He organized many workshops, special interest groups, and tutorials at international conferences. David Geerts is member of the IFIP TC14 WG6 on Entertainment Computing, is co-founder of the Belgian ACM SIGCHI chapter (CHI Belgium), is part of the TVX steering committee and is general chair of the ACM international conference on interactive experience for television and online video (ACM TVX2015).

## 5 References

1. Basapur, S., Mandalia, H., Chaysinh, S., Lee, Y., Venkitaraman, N., Metcalf, C.: FANFEEDS: Evaluation of Socially Generated Information Feed on Second Screen As a TV Show Companion. Proceedings of the 10th European Conference on Interactive Tv and Video. pp. 87–96. ACM, New York, NY, USA (2012).
2. Dreessen, K., Huybrechts, L., Laureyssens, T., Schepers, S.: MAP-it. A participatory mapping toolkit. Cahiers FAK. 3, (2011).
3. Geerts, D., Cesar, P., Bulterman, D.: The implications of program genres for the design of social television systems. Proceedings of the 1st international conference on Designing interactive user experiences for TV and video. pp. 71–80. ACM, New York, NY, USA (2008).
4. Geerts, D., Leenheer, R., De Grooff, D., Negenman, J., Heijstraten, S.: In Front of and Behind the Second Screen: Viewer and Producer Perspectives on a Companion App. Proceedings of the 2014 ACM International Conference on Interactive Experiences for TV and Online Video. pp. 95–102. ACM, New York, NY, USA (2014).
5. Lull, J.: The Social Uses of Television. *Human Communication Research*. 6, 197–209 (1980).
6. Vanattenhoven, J., Geerts, D.: Second-Screen Use in the Home: An Ethnographic Study. Proceedings 3rd International Workshop on Future Television, EuroITV 2012. p. 12. Springer, Berlin (2012).