Evaluating User Experiences in Games

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TOPIC

Summary

Game players enjoy computer games for their leisure and enjoyment factor, social reasons, the challenge they provide, and to use them as a platform for performance and self expression. However, designing for this kind of user experience is often done intuitively, in a rather ad-hoc fashion and without an appropriate understanding of the criteria, methods, and tools that can guide game designers towards creating a fun or engaging experience.

This workshop addresses current needs in the games developers' community and industry to evaluate the overall user experience of games. New forms of interaction techniques, like gestures, eye-tracking and bio-physiological input and feedback have recently been utilized as evaluation methods for an enhanced user experience, but with mixed results. Mostly standard usability evaluation methods, derived from work applications, are used during game development instead. This workshop intends to bring together practitioners and researchers sharing their experiences using conventional and experimental methods to investigate user experience in games

Keywords

Games, gaming concepts, user experience, fun, funology

ACM Classification Keywords
H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

Evaluation of user experience was addressed during the last five years in several publications and workshops [6, 4]. Various methods and new methodological developments have been proposed to evaluate user experience in various application fields. Most of them did not take into consideration recent developments in the area of gaming, such as gameplay between thousands of players, multi-player audio channels and the use of input devices to encourage physical activity.

Digital games constitute a tremendously varied set of applications in themselves, with a wide range of associated player experiences, defying a one-size-fits-all approach to their conceptualization and measurement. Terms like fun, flow and playability are most often used to explain user experience in game design. However, one of the main challenges facing the gaming research community is a lack of a coherent and fine-grained set of methods and tools that enable the measurement of entertainment experiences in a sensitive, reliable and valid manner. Taking a factor-structure approach to characterizing user experiences in games, several new concepts have

Terms like fun, flow and playability are most often used to explain user experience in game design. However, there is an open discussion to include other factors which might have relevance for games. The number of methods used to evaluate user experience and related concepts is manifold, but no general framework exists showing what kind of methods shall be used to evaluate the various interaction concepts used in game design. This workshop is intended to generate this framework.

Related Work

During the past decade, the number of scientific contributions on game evaluation has grown steadily. As an example, evaluations took place showing the building and influences for social communities within games [1] and how to evaluate them. Other evaluations were taking into account flow, fun or playability of games. Järvinen et al. [5] proposed possible methods to evaluate playability during game play, but no framework building a basis for user experience evaluation does exist. Sweetser et al. [8] presented GameFlow as a possible concept of evaluating user experience in games. Other authors started to adapt 'traditional' usability evaluation methods to address the specifics in games evaluation; for example, Desuvire et al [3] presented an adoption of traditional heuristic guidelines. Zaphiris [9], p. 137 states in the foreword of the special issue on HCI issues in computer games that "Another important topic in this area (and perhaps more interesting in game industry) is that of methodologies in design and evaluation which are most closely related with HCI."

Research Questions

We believe there is no common agreement what kind of usability evaluation methods can and should be used to enhance the design of games. Various aspects can contribute to the evaluation of games. We will focus on the following questions:

- What kind of evaluation concepts and methods are used in the industry, and what are their limitations?

- Do today's game evaluation concepts and methods address industry needs?
- What factors of game experience are measured and have to be measured ?
- How can we evaluate new forms and developments of interaction techniques in gaming – for example emotion or eye-movement as input for games, ambient displays or virtual environments as output?
- Is there a common framework of methods that are appropriate to evaluate the user experience in games?
- How does the concept of user experience apply to "exergames", which aim to include improving fitness [7]?
- Are current approaches just focused on several aspects of user experience - not on a general concept of user experience?
- What can the HCI community do to promote the use of a rigorous methodology approach used in that area?
- What variations of existing methods or totally new approaches are needed? In what form a well definied multi-method approach is able to serve the needs.

Today there is no common agreement what kind of (usability evaluation) methods can and should be used to enhance the design of games [2]. Various aspects can contribute to the evaluation of games. But several questions arise, for example what factors of game experience are measured and have to be measured? Do today's evaluation concepts and methods address industry needs?

Much like the six wise (but blind) men touching the elephant, no single methodological perspective can be said to provide a comprehensive understanding of digital gaming. The goal of the workshop, therefore, is to bring together a diverse range of practitioners and researchers to discuss possible concepts and methods for the evaluation of games. Based on several use-cases and scenarios submitted by the participants, the goal is to work on a framework on what kind of 'traditional' methods in the area of HCI are applicable in the domain of gaming. Second, possible extensions of these methods shall be discussed, and how they overcome current limitations of existing methods. Third, based on the use cases, new ways of evaluation shall be explored, and how these new concepts might better address the needs of the games industry.

Within the workshop the following issues will be addressed:

- To identify the concepts and frameworks applied within the research field and industry area of entertainment and games, and examining how they are used in other application fields to ensure optimal user experience,
- To address the evaluation of gaming concepts from a methodological perspective,
- To look at "good practices" of how to evaluate user experience in games
- To clarify the relation of user experience to other factors like fun, immersiveness, … and the consequences for the methodological set-up.
- To perform a reality check whether methods dreamed up in academia have added value for the gaming industry and are thought of as relevant and easy to apply by game designers.
- To define a roadmap for varied or new approaches.

Outcomes

The goal of the workshop is to bring together practitioners and researchers to discuss possible concepts and methods for the evaluation of games. Based on several use-cases and scenarios submitted by the participants, the goal is to develop a framework of 'traditional' methods in the area of HCI that are applicable in the domain of gaming. Furthermore, possible extensions of these methods will be discussed, focusing on how they overcome current limitations of existing methods. Based on the use cases, new ways of evaluation will be explored, and how these new concepts might better address the needs of the games industry.

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