
Game User Research

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Abstract

Game User Research is an emerging field that ties together Human Computer Interaction, Game Development, and Experimental Psychology, specifically investigating the interaction between players and games. The community of Game User Research has been rapidly evolving for the past few years, extending and modifying existing methodologies used by the HCI community to the environment of digital games. In this workshop, we plan to investigate the different methodologies currently in practice within the field as well as their utilities and drawbacks in measuring game design issues or gaining insight about the players' experience. The outcome of the workshop will be a collection of lessons from the trenches and commonly used techniques published in a public online forum. This will extend the discussion of topics beyond the workshop, and serve as a platform for future use and work. The workshop will be the first of its kind at CHI, tying together HCI research and Game User Research.

Keywords

User Experience; Game Design; Game User Research; Usability; Playability; Experimental Psychology

ACM Classification Keywords

D.2.10 [Software Engineering]: Design – Methodologies;

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General Terms

Human Factors, Experimentation, Measurement.

Introduction

Game User Research (GUR) is a field concerned with developing a set of techniques and tools to measure and the users' behaviors and ultimately improve their experiences as they engage with games. The tools are used mostly for the purpose of evaluation and gaining insights from users to enhance game designs.

Katherine Isbister and Regina Bernhaupt edited two books, respectively, to discuss the current theories and methodologies within the field [3, 4]. However, since this community is new, there is not a cohesive understanding of the state of this research art and science. The community is still divided and unclear when it comes to methodology. What data collection and analysis methods to use and when; and what are their utilities and benefits? Which methods are validated and which are not? What lessons to keep in mind when implementing data collection or analysis procedures to make sure the results are reliable and truthful to the data? All these are still open questions in the field.

In the past few years, several forums have been developed to engage the community in discussions about their methods, results, and techniques. These forums include: the Game User Research Summit 2010 and 2011 held concurrently with the Game Developers Conference with an industry focus, and the player experience workshop that ran as part of the Foundations of Digital Games Conference in 2011. These are just examples of workshops and panels on GUR-themes with no one place to discuss the

methodological issues and questions raised above. This workshop was developed to specifically target this goal and bring together the community in one place for 2 days to discuss these important methodological questions and ensure sharing lessons learned from experienced researchers and professionals.

Workshop Discussion Topics

The workshop will focus on methodologies used for Games User Research, specifically revolving around three discussion points: (a) discussion of methods, their pros and cons, benefits and costs, validation and reliability, (b) discussion of contexts and hidden variables, lessons from the trenches, and (c) relationship between the methods of data collection and analysis and their value in regards to the game design questions or problems, and the general context of game development.

Discussion of Methodologies

Game User Researchers use an amalgam of methods ranging from qualitative user observations, quantitative sensory and physiological measurements to telemetry and large-scale temporal data analysis. Questions of the values or utility of specific techniques, applications to particular contexts, and methodological issues are of importance. We are facilitating discussion of this topic through panels, talks, and open discussions, leaving room for differing opinions and experiences. This workshop is intended to take a snapshot of the current status of methods, both to identify and to discuss them. All discussions will be summarized through the accompanying workshop Wiki. This will allow participants to engage online within and after the workshop.

Depth – Looking at Methods Under the Lens

As we engage in user experience research, we make many experimental design decisions, lay out the elements we want to explore, and select methods that can measure these variables. In addition, there may be elements we discover and uncover during data collection and post-hoc. There are many, sometimes, small and important experimental details that are usually not disseminated. These can be more important than the results communicated in a paper or research results report. We aim through discussions with experts to unravel these mysteries. This will be done through a mix of talks and panels with experts on board. All discussions will also be summarized through the workshop Wiki in real-time.

Bringing the Methodologies Back to the Problem

Selecting methodologies typically depends on the research question or design problem one is attempting to tackle. Thus, we aim to investigate the relationship between methodologies and the problems within the context of game design and evaluation. In particular, we will run several workgroup sessions using real-world selected problems identified by experts in the field. This will allow us to contextualize the selection of methods and methodologies and the discussion of their utilities and values. The discussions from these sessions will also be summarized through the workshop wiki.

Workshop Organization*Pre-Workshop*

We have asked participants to prepare position papers, practice videos, or case study presentation slides, which will be posted on a community website before the workshop (<http://hcigames.businessandit.uoit.ca/chigur/>). We have also put together a Wiki

(http://hcigames.businessandit.uoit.ca/gur/Main_Page)

for the workshop, acting as an anchor point for knowledge building. Participants will be asked to comment on the topics from the community website before the workshop as a way to prepare for the discussions within the workshop, with content migrating to the Wiki on a running basis.

Workshop

The workshop is scheduled as a two-day event. The first day will commence with 5-minute presentations from the position papers, practice videos, and slides that participants have submitted. This will serve to introduce the participants, their positions and primary work.

In addition to the presentations, we will hold several workgroup sessions. During the first day, we will hold one group session to investigate the definition of the methodology, methods, application, techniques and how these are adapted or can be adapted for Game User Research given identified game design investigation questions. The outcome of the group exercise will be presented and documented on the Wiki.

Towards the end of day one, we will hold a panel with the experts invited. In the panel we will discuss the points and comments defined by each workgroup.

On the second day we will facilitate two consecutive workgroups. One will be investigating the pros and cons of the methods defined and discussed in day one given different sets of game design problems and evaluation questions. Specifically, taking on industry and academic hats (i.e., of different disciplines). This exercise will be

done in breakout groups and presented to the entire workshop.

The next workgroup investigation will focus on the hidden information. Specifically, the lessons learned that were never documented, open problems, confounding variables, results that were never replicated, results that are too general, the impact of real game development work and all the elements that go with it, etc. We will ask participants to break out into groups investigating these specific questions and return back to present their findings to the workgroup.

Towards the end of the second day we will mirror day one with another panel discussion discussing the outcomes we found from the group breakouts. Summaries of discussions and presentations will be documented on the websites as well as the panel. At the end of the workshop, we will reflect on the workshop results. As we discuss how to continue the discussion, we will determine how to get the Wiki disseminated to different associated communities.

Post-Workshop

Organizers of the workshop will make sure that summaries of workshop events are documented in a clear and concise way. This will be done through constant review and edits after the workshop.

Outcomes

The goal of the workshop is to push the current discussion forward towards synthesis of methodological knowledge, concerning undocumented successful methods and the undocumented problems or issues that GUR researchers struggle with linked back to the problems of evaluation and gaining user insights. The

outcome will be a cohesive toolkit of methods and lessons learned, available to the community at large through the publicly hosted Wiki.

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