

# Workshop Proposal: Game UI Design, Evaluation, and User Research

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**Abstract**—We propose a workshop that will solicit contributions from the game user research and human-computer interaction communities. The workshop will provide a format for discussion of issues in best practices in user research and experiment methodology, as well as technical contributions in novel game user interfaces.

**Keywords**—game user research, HCI, game UIs, methodology

## I. INTRODUCTION

We propose a full-day IEEE GEM workshop tackling issues of game UI design and evaluation and game user research methods. The community of video game researchers has been rapidly evolving for the past few years, extending and modifying existing methodologies used by the human-computer interaction (HCI) community to the environment of digital games. This one-day workshop focuses on the design, implementation and evaluation of user interfaces in video games development. The outcome of the workshop will be an archive of both the workshop submissions and the materials (posters and group productions). This will extend the discussion of topics beyond the workshop, and serve as a platform for future use and work. The workshop will bring together contributions from practitioners and academics in a yet untapped area of games user research.

Earlier advancements in the games user research field focused on adapting classical HCI methods to player experience evaluation. This was a necessary step when establishing the foundations of a new practice. However, player experience is too complex to solely measure through one technique. Likewise, game UI performance evaluation is challenging due to factors that are not commonly faced in experimental HCI, such as very short “micro-interactions”, difficulty in implementing data logging (e.g., when studying commercial games), and task complexity. To progress the field, we must consolidate the understanding and practice of integrating multiple techniques within a meaningful research study.

Similar previous workshops (for example at CHI conferences) made substantial contributions to games research, with a particular focus on improving and developing new methodologies. There is currently a great deal of interest in this

topic in the wider games and HCI communities, as reflected by multiple sessions on games at the ACM CHI conference. This has also led to the recent formation of the ACM CHI Play conference, focusing exclusively on HCI and games. CHI Play 2015 received around 140 submissions, and was only able to accept around 40, suggesting a clear need for additional submission venues for work targeting this area.

To open the possibilities for broader community building and knowledge sharing we propose a new workshop for IEEE GEM 2015. Rather than focussing on research methodologies in isolation, the object of study for this workshop is design, implementation and evaluation of user interfaces in games. The outcome will be a snapshot of current practices, and a roadmap for future research and collaboration between researchers with different perspectives.

This workshop offers a venue for collaborative knowledge construction, sharing best practices, and engaging in dialogue across the numerous interdisciplinary academic fields and the games industry around the topic of user interfaces in game development.

## II. EXPECTED WORKSHOP OUTCOMES

The main outcome will be publications, solicited via a call for participation (deadline mid-September). Authors will be asked to submit position or technical papers. Position papers should take stance on a particular issue in game UI design and/or evaluation, intended to foster discussion at the workshop. Technical papers should document specific contributions such as the development of a novel game UI. Technical papers will be strongly encouraged to include experimental evaluations, as this will provide further fodder for discussion of evaluation methodology at the workshop.

Following the workshop, we will share with the community a review of the event’s talks and presentations. All accepted submissions will be available on the workshop’s website as well as the videos of the workshop talks, presentations, and highlights. We are also currently investigating journals that could include the proceedings of the workshop as a special issue, as added value to participants. The intention of the outcomes is to facilitate on-going dialogue between attendees and peers in the field.

### III. ORGANIZER BIOS

All organizers have longstanding interest and experience in various aspects of game design, development, user research, and empirical methodology (e.g., experimental HCI).

#### A. *Pejman Mirza-Babaei*

Pejman is an Assistant Professor at UOIT and the User Research Director at Execution Labs. He focuses on triangulation of physiological measurements with other user research methodologies, with regular publications at CHI. He has also led multiple CHI workshops before. With the game industry, he worked on *Crysis 2*, *Split/Second Velocity*, *Brink*, *Buzz! Quiz World* and Sony's *Wonderbooks*.

#### B. *Robert J. Teather*

Rob is a postdoctoral fellow in the Department of Computing and Software at McMaster University. His main research area is human-computer interaction, primarily focusing on 3D user interfaces and comparing human performance characteristics of dramatically different input devices. A lifelong gamer, his work has recently expanded to include game UIs. His current work on the G-SCALE project focuses on usability issues that arise due to the scaling (re-sizing) of video game user interfaces when porting these to different platforms (e.g., from mobile to desktop, or vice versa).

#### C. *Naeem Moosajee*

Naeem recently obtained his Bachelors in IT from the UOIT Game Development & Entrepreneurship program. He is currently pursuing his Masters in Computer Science where his focus is on Human Computer Interaction (HCI) and Games User Research (GUR). Last summer he took part in an internship as a game designer and user researcher working on *Book Brawl*, a game for the Ubisoft Academia competition. Naeem is currently taking part in an internship at Ubisoft Toronto in the User Research Lab. He has always appreciated game design, but he loves conducting experiments testing and improving games- almost like a game scientist! He is also an adrenaline junkie and explorer that enjoys sky/cliff/scuba/anything diving and travelling!

#### D. *Victoria McArthur*

Vicky is a Professor of New Media and User Experience at the Institute of Communication, Culture, Information, and Technology at the University of Toronto Mississauga (UTM). Her research focuses on the study of self-representation in games and social virtual worlds. She mobilizes Actor Network Theory in order to make visible the multitude of factors that contribute to the avatar customization process including interface affordances and co-situated players. She also teaches courses on game design, immersive environments, research methods, and user experience.

#### E. *Jacques Carette*

Jacques is an Associate Professor in the Department of Computing and Software at McMaster University. He holds a Ph.D. in mathematics from the Université de Paris-

Sud. Before joining McMaster in 2002, he worked for eleven years at Maplesoft Inc. in Waterloo, Ontario on all aspects of Maple. His primary research interests are the building of mechanised mathematics systems, metaprogramming, programming languages and game design. He is currently researching digital games and the issue of scalability across multiple display/device sizes. Domain-specific language-based techniques are used to solve these problems. This has led to the CFI and ORF-funded project G-SCALE for developing techniques for scalability.

### IV. OTHER DETAILS

We anticipate attracting roughly 20 attendees to the workshop. We expect they will come from a mixture of graduate students, academics, and game industry professionals.

Since the workshop relies on submissions from the community, we plan to draft and distribute a call for participation in short order. The deadline for submissions will be mid to late September to give adequate time for authors to prepare.

The only anticipated AV needs are a projector and screen, and wireless Internet.