

# Social Learning Through Gaming

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**Categories & Subject Descriptors:** H.1.2 [Information Systems]: User/Machine Systems—*Software Psychology*

**Keywords:** Games, learning, social behavior, collaboration, edutainment, design.

## Introduction

Throughout human history we have played and gamed. According to Eric Berne (1964), author of *Games People Play*, human relationships are in fact comprised of game playing behaviors. Huizinga [1] observes that playing games is one of the most common ways to form new groups – groups formed from playing games tend to become stable. Since playing games is such an important factor in the human socialization process, a natural extension is to believe that we learn social behavior from playing games. But while the general opinion holds this to be true for sports, other types of gaming, in particular computer gaming is rather seen as more anti-social than socializing behavior. This view has recently become challenged from many researchers, both through studies of children gaming behavior and the study of multi-player online role-playing games including MUDs.

## Role-Playing Games Inspired by Theatre

Games inspired by theatre have a long tradition as therapeutic tools, originating in Vienna (and later on in US) with psychiatrist Jacob Levy Moreno's work in the 1920s. Moreno has inspired three types of role playing genres that are in active use in therapy and education today: the psychodrama, intended as a therapeutic tool, the genre of pedagogical theatre, and finally role play for professional training. During the eighties and the nineties the genre extended into live action role playing, a genre that has taken inspiration both from traditional table-top role playing, theatre sport, and historical reenactment. This genre, sometimes called Participatory Theatre, is in rapid development, and there exists professional development of role playing games, such as games focusing on ethical training for high-school students. To further explore the pedagogical and training potentials of gaming, it is important to bring in the experiences from this long tradition of pedagogical gaming into the computer game and simulation game genre [2].

## Social Learning in Games

Games have long provided a structured environment for quickly learning complex behaviors. Most games used in a professional context fall into the following categories: teaching, training, operations research, therapy, and entertainment [3]. Among the fields that most use games for teaching and training are management science, economics, psychology, sociology, political science, military science, and education. Games are often used for training and teaching interpersonal and intercultural communication principles and skills. Social simulation and computer-based role-playing games can help adults explore skills, methods, and concepts rapidly within an engaging nonthreatening environment ripe with experiential and behavioral learning components [4], [5].

Learning in games can be simultaneous and multilevel. Players may learn from (1) contextual information embedded in the dynamics of the game, (2) the organic process generated by the game, and (3) through the risks, benefits, costs, outcomes, and rewards of alternative strategies that result from decision making [6]. Some games provide players the unique opportunity to operate on these levels simultaneously; demonstrating that decision-making and applying newly learned tools or skills in multicultural and multinational organizational contexts is a complex, multilevel social process.

## Social Focus in Game Design

Designing games also provides the design team an opportunity to practice new behaviors and experiment with skills, attitudes, behavioral models, and theoretical perspectives. Shubik [3, p. 189] asserted that "the act of game construction and playing forces us to specify fully scenarios and processes; it challenges imagination and logic. It forces us to pay attention to completeness and consistency, but above all to process and playability." It might be said that game design is itself a game for many designers, and hence an opportunity to become engaged in creative, imaginative, highly focused play. According to Swartout and van Lent [7, p. 33-4], "For conventional software, design is usually driven by a specification or set of requirements. In game design, the driving force is the user's experience. Game designers try to imagine what players will experience as they work their way through the game, trying to deliver the most exciting and compelling experience possible." But what exactly are players and designers learning through game play, or through the design of

compelling experiential activities? If gamers are developing new skills, is this skill development lasting? Are the skills applicable and transferable in diverse contexts? How does compelling game design sustain player discovery and social learning over time?

### The Workshop

We seek to bring together researchers, academics, and designers from several disciplines, including game design, development, communication, psychology, computer science, graphics, visual art, etc. who are deeply interested in understanding more about social learning effects from playing games in technology-mediated settings such as computer or video games, augmented reality games, virtual reality, mobile devices, live action role plays, massively multi-player online role playing games (MMORPG), and so on. We are interested in what (if anything) players learn within the game setting that can be successfully transferred to similar or different situations or social settings outside of the game context—and we are also interested in how we, as game designers, create games that provide learning opportunities for lasting skills development that extend out of the game and into real life.

We aim for a single-day workshop, and will design sessions based around themes that emerge from the accepted position papers. The workshop will be highly interactive, allowing time for questions and discussion. Finally, we invite all workshop participants to submit extended versions of their position papers to a special issue of the journal “Interactive Technology and Smart Education” on learning from gaming technology to be published in the winter of 2005.

### ORGANIZERS' BACKGROUNDS

**Elaine M. Raybourn** has a Ph.D. in Intercultural Communication with an emphasis in Human-Computer Interaction. Her research concerns intelligent community-based systems, social-process simulation games, intercultural learning, and collaborative virtual environments. Current efforts include designing a training game and social simulations that stimulate intercultural awareness and strategic thinking. Elaine was an ERCIM (European Consortium for Research in Informatics and Mathematics) fellow from 2001-2003, is a member of Sandia National Laboratories, and National Laboratory Professor at the University of New Mexico's Department of Communication & Journalism, Institute for Organizational Communication. She has published in various refereed outlets and co-organized several ACM and IEEE workshops including Intercultural Communication as a Framework for Design for GROUP 99; Storytelling in Collaborative Settings for CSCW 02, and CVE 02; Supporting Intercultural Computer-Mediated Discourse for CHI 03, and a 3-day workshop on Evaluating Collaborative Enterprises for IEEE in 02 and 03; and a 3-day workshop on The Impact of Culture on

Space, Nature, and the Built Environment for Summer Institute for Intercultural Communication in 1998.

**Annika Waern** holds a Ph.D. in Computer Science. She has a long background in technology and design of intelligent interfaces, with a particular focus on user-adaptive information systems. She has published in various refereed outlets and previously organized workshops for the Intelligent User Interfaces conference and ERCIM (User Interfaces for All). During the years of 2000-2003, Annika worked as the CTO of the Swedish company Gamefederation, acting as the chief architect for a platform for on-line game services. Annika is now working as a senior researcher at the Swedish Institute of Computer Science. Her current research focus is user- and context-aware games and story-telling systems, with a particular focus on computer support for role-playing games in augmented reality. At SICS, she organizes a multidisciplinary research theme on game research, and recently organized a workshop on interactive narratives at the Stockholm University (September 2003).

\*Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy under Contract DE-AC0494AL85000.

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