



Games and Play SIG: Connecting Through Social and Playful Technologies

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ABSTRACT

Games have always been popular for connecting people, from local single-player and couch co-op, to massively multiplayer online. Throughout the COVID-19 pandemic, remote games that involved and fostered social interactions and connections were a highlight among strategies for staying connected. For this year's games and play SIG, we come together to discuss the relevant and timely topic of social and playful technologies, and how they can be designed to best foster meaningful social connections over a distance. We bring together attendees from not only the games community, but also those in the broader field of CHI focusing on social and playful technologies.

CCS CONCEPTS

• **Human-centered computing** → **Collaborative and social computing**; **Collaborative and social computing devices**.

KEYWORDS

HCI, social technology, play, games, playful interactions

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1 BACKGROUND

Creating and maintaining meaningful social connections is important for our health and well-being. However, this can be a challenge to facilitate and maintain over a distance [9]. Social technologies can help, by strengthening existing relationships and/or helping

to form new ones. For example, technology-enabled communication, such as video chat [18, 27], mobile streaming of experiences [15], connected tangibles [20], and social wearables [6, 17] have helped people feel closer and more connected to one another over a distance. Recently, due to the COVID-19 pandemic, social interactions have increasingly been taking place online. The number of people using online platforms to communicate is rising daily, with Zoom currently supporting over 300 million users per day to virtually meet in both work and personal contexts [19]. The new social dynamics of remote work necessitate clear and effective communication, which can be challenging. Employing technology in a social and playful way can help aid in communication over a distance, adding nuanced social cues to interactions amongst distributed friends, family, and co-workers.

Games have always been popular for connecting people, from local single-player and couch co-op, to massively multiplayer online. Throughout the COVID-19 pandemic, games that involved and fostered social interactions and connections over a distance were a highlight among strategies for staying connected. Games such as *Among us* [31], *Jackbox series* [11] and *Roblox* [5] experienced peaks in players and gained popularity due to the interactions and dynamics they created. Covid lockdowns also resulted in record-breaking usage of casual mobile video games. Players share that the role of these games goes beyond a pastime activity for them; for many is a tool to relax. Through self-reported methods and in-depth interviews with players, game companies have captured how casual mobile games occupy a key role in people's well-being. They equate playing to "me time", unwinding, disconnecting from real world problems and, often, even brain training. For others, these games also have a "social layer" and they use casual games to generate a friendly rivalry with friends and family.

Games and playful technologies have also been used within HCI research for the purpose of connecting distributed people; for example, to help people enhance friendships through social network games [40], to enable seniors to connect by playing online poker together [36], and to support children with mobility disabilities to bond through online multiplayer games [14]. Other work has focused on creating and using custom hardware and sensing devices to augment distributed social playful experiences, such as sports over a distance [28], live-streaming tools that help connect video

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game streamers and spectators [33, 35], and physiological interactions over a distance [34]. Likewise, accessibility of this technology is a top priority [12, 14, 23, 37]. User demographics are shifting as more people turn to games and other social technologies to stay connected. Thus, it is of utmost importance to make sure that these technologies are welcoming for users of all cultures, needs, motivations, or those less experienced with technology. However, addressing these issues is a difficult challenge.

Furthermore, Artificial Intelligence (AI) is one technology that can be harnessed to reduce the sense of distance among people by augmenting social and playful technologies. AI-supported systems take advantage of AI's strengths such as simulation, possibility spaces exploration, and the use of data to create adaptive experiences. For instance, computer-aided design and creativity support tools use AI approaches, such as generative models [4, 21] or user models [22, 30] to enable a variety of interactions and enhance human capabilities. Thus, social and playful technologies could use AI to foster and establish connections, adapt interactions, and be used in different roles to facilitate the connections. A similar idea is used in the AI-mediated communications paradigm (AI-MC). AI-MC argues that interpersonal communication does not need to be just transmitted by technology, but could also be modified, augmented, or generated by AI to achieve some communication goal [13].

2 AIMS OF THE SIG

CHI has a vibrant games community, and has hosted many SIGs on games and play throughout the years [3, 23, 29, 39]. This year, the games and play SIG will focus on the relevant and timely topic of social and playful technologies. We come together to discuss opportunities and challenges with these technologies, and how they can be designed to best foster meaningful connections over a distance. Our goal is to connect people from the different areas of CHI doing work in this domain, and provide a forum for them to plan ways to serve the community best at upcoming CHI conferences. We hope to use the SIG to discuss how different online platforms have been used throughout COVID-19, and what aspects of them could be adapted and extended for the use of connecting people. A few of our goals and action items for the SIG are as follows:

- (1) Bring the community of games and play academics, practitioners, and industry professionals together to share their work on research related to social connection and playful technologies.
- (2) Identify directions for research collaborations to address key topics discussed below.
- (3) Discuss and document community efforts beyond standard publications by extending existing work in research.

2.1 Open Questions

There are a number of open questions about the use of social and playful technologies to connect over distance. The aim of the games and play SIG is to explore which are the most relevant areas and steps to move forward, especially related to the following open questions:

- How can we design social technologies to make it easier for users to form connections that turn into meaningful relationships?
- What lessons can be learned from current online platforms, and how can we leverage these to create more meaningful game experiences?
- What are some ways we can address users' accessibility needs?
- What are new opportunities and challenges from the use of these technologies?
- How can Artificial Intelligence be used within the context of social and playful technologies to foster and establish connections?
- How can we make these technologies more welcoming and accessible for users with little prior experience using this tech?
- How can we avoid unsavoury consequences and address ethical concerns with the tech?
- What are some design guidelines we can use to support interconnectedness?
- How can work-life boundaries be protected within social digital spaces?

3 ORGANIZERS

Raquel Robinson is a postdoctoral fellow at Ontario Tech University. She obtained her PhD at the University of Saskatchewan in 2022. Her research interests broadly include socially connecting people over a distance using physiological signals. She has designed numerous affective game experiences to help players feel connected over a distance, including 'In the Same Boat' and 'Commons Sense' [34, 35].

Pejman Mirza-Babaei is an Associate Professor at Ontario Tech University. He is a co-editor of the Games User Research (2018) book and a co-author of The Game Designer's Playbook: An Introduction to Game Interaction Design [38]. His research and professional work is carried out in collaboration with more than 25 companies spanning different sectors. He currently works at Roblox Insight Lab on various metaverse research projects.

Alberto Alvarez is a Researcher at the Computer Science and Media Technology Department at Malmö University, Sweden. His research focuses on exploring and developing Human-AI collaborative systems to co-create games and creative content, investigating Human-AI roles, properties, and interactions. His research interests and past work includes Human-AI collaboration systems, PCG, Quality-Diversity Algorithms, and Designer Models [1, 2].

Muriel Garreta Domingo is a UX practitioner with 20 years of professional experience. She has worked in Education, Online Marketplaces and Videogames. She currently works at King as a UX Research Director within the Central Insights team. Her current work is focused on knitting the relationship between different research disciplines and how to leverage this collaboration to understand better our players' behavior and motivations.

Regan Mandryk is a Tier 1 Canada Research Chair in Digital Gaming Technologies and Experiences and Professor of Computer Science at the University of Saskatchewan. She focuses on novel ways of understanding players and their experiences within games and esports, but also develops and evaluates games for recovery, health, and wellbeing, and social games that foster interpersonal relationships, while protecting players from the harms of game-based toxicity [7, 8, 10, 32].

Katherine Isbister is Professor of Computational Media and Jack Baskin Endowed Chair in Engineering at the University of California, Santa Cruz, where she directs the Social and Emotional Technology Lab. Isbister has written several books, including *How Games Move Us* [16] about the emotional and social connections that games provide. Isbister's research team is engaged in a multi-year NSF-funded project designing playful augmentations to VR meeting spaces [24–26].

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