

Escaping the Laboratorium of Dr Moustache: Learning About Distanced Play Through Game Design

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EXTENDED ABSTRACT

Tabletop gaming – where participants are traditionally co-located around a table – was singled out during the COVID-19 pandemic as a particularly risky activity (Benham 2020; Coward-Gibbs 2020). Players developed novel methods and creative appropriations of household objects to play tabletop games together during this time despite being physically distanced (Richards, Marcu, and Brewer 2021; Sparrow and Rogerson 2022). Although several researchers have explored the novel design opportunities that such distanced play presents (Yuan et al. 2021; Maurer and Fuchsberger 2019; Rogerson, Sparrow, and Freeman 2022), few games have been designed that specifically accommodate it. Notable exceptions are “distributed” *Letter Jam* (Mills, Neustaedter, and Odom 2021), and the “Corona mode” of *Soviet Kitchen Unleashed* (Wilde 2018).

Drawing on the reflexivity of design practice, we adopted Research through Design to further understand the Distanced Play context, following the iterative process outlined by Zimmerman and Forlizzi (2014) (Figure 1). Research through Design asks what can be learned about a setting through the process of design, with a focus on reflection and understanding rather than on the end products of the design: this process can “make us alive to new aspects of” a human domain of interest” (Bardzell, Bardzell, and Hansen 2015, p. 2096).

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The 5-step Research Through Design process

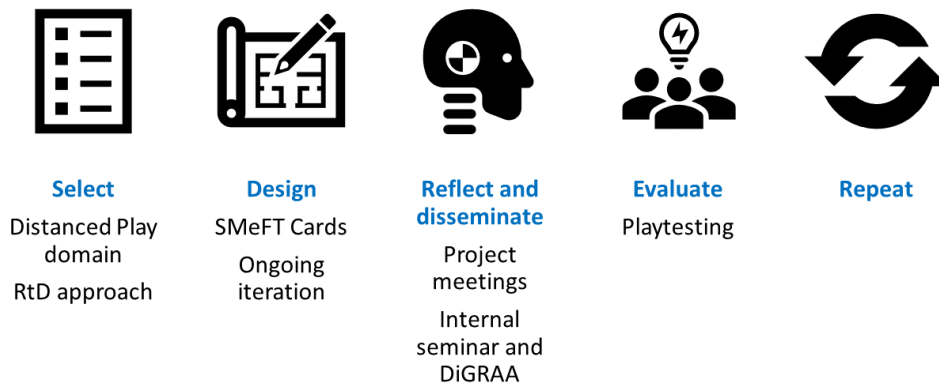


Figure 1 How we followed the Research Through Design process

We conducted two sessions using the SMeFT Decks (Figure 2), which facilitate ideation of games for hybrid distanced play through flexible prompts addressing a game’s Story, Mechanisms, Functions, and Technology (Rogerson et al., 2022). While our first session was exploratory, our second session focused on the interplay between technologies and the functions that they afford (Rogerson, Sparrow, and Gibbs 2021). We selected *proximity sensors* as an interesting technology and *remembering* as the associated function. The story card and mechanism were selected through a random deal.

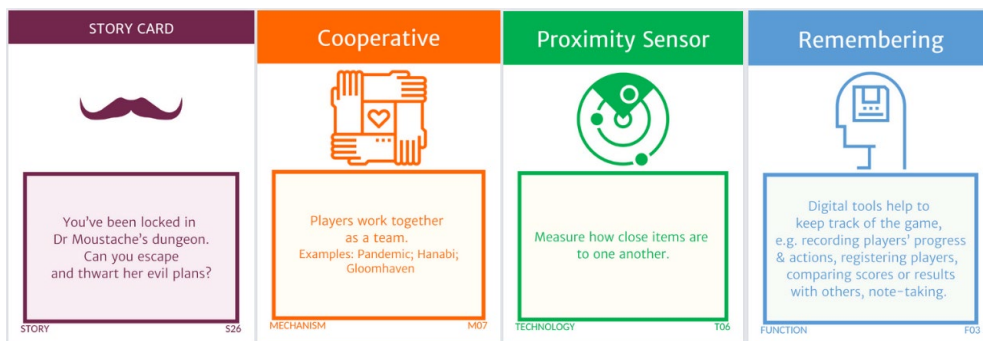


Figure 2 The SMeFT Deck Prompts

Drawing from these card prompts, we designed *Escape from the Laboratorium of Dr Moustache*. In this game, players are elemental princesses who are trapped, alone, in an abandoned laboratory. They move around the game boards (Figure 3) attempting to find one another, collecting resources that allow them to use special skills and abandoned equipment, and to – ultimately – escape together. Speakers allow for voice communication when players’ pieces are in proximity; sensors determine a princess’s location on the board.

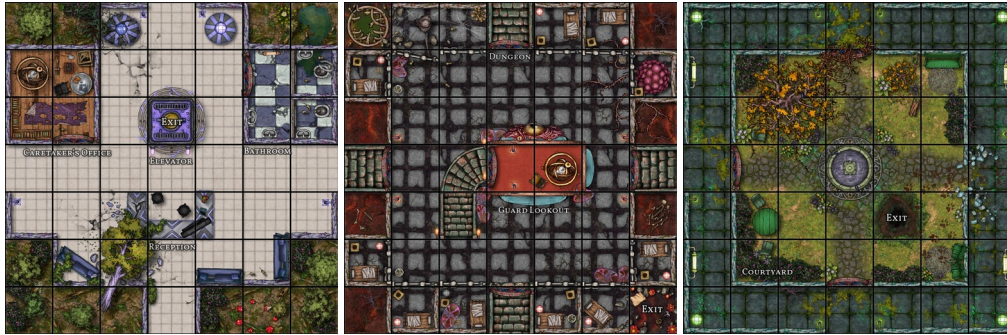


Figure 3 Sample board maps

While iterating our design, we extended our understanding of this complex design space by focusing on questions related to implementation of the game. Our findings and reflections address the use of technology to support a distanced play experience and how technology connects to the timing and storytelling function domains.

Communication

Mills, Neustaedter, and Odom (2021) describe the importance of *shared presence* during distanced play. We found that careful attention must be given to how technology supports players' *communication* during a game when they are not co-located. Unlike Yuan et al. (2021), our focus here is on gameplay rather than on incidental social interactions. We used sound to indicate when two Princesses were in the same section of the laboratory (on the same board), and smart lights to show where resources were located. Players in the same part of the laboratory are able to communicate with one another through an audio feed from each player.

Board Design

Games with multiple boards can become prohibitively expensive if each board is equipped with smart lights, location sensing and other technologies. In *Dr Moustache*, each player has a single actuated board, with card overlays to represent the different sections of the map. This efficient combination of simple overlays and electronic components draws on the earliest-known digital boardgame *Lichtra* (1910) (Museum für Energiegeschichte(n) 2007).

Timing

Both Maurer and Fuchsberger (2019) and Yuan et al. (2021) highlight the importance of promoting a shared sense of time for distanced players. *Dr Moustache* senses movement on the board and operates a count-down timer. The Princesses must escape within a set time, before the laboratory is destroyed. This may be made more or less explicit to players: a large countdown timer might be displayed, or this information could be entirely hidden from players. Ambient options for communicating timing include sounds (e.g. music, creaking of floors, ticking of a bomb) or lighting (e.g. dimming the board's lights as time progresses).

Connecting story and distance through technology

In *Dr Moustache*, the Princesses are distanced, just as the players themselves are. Location sensors drive the game's story. As players move closer to one another, they are able to hear one another, but low light in the abandoned and unpowered laboratory requires them to communicate by sound only. This connection between the

Princesses' and the players' distance supports the key activity of coming together in an unexplored space.

We present *Dr Moustache* as both an artefact and an exercise in RtD, demonstrating this method's value for game design. Our future work will examine additional games that address this design context and explore available technologies that can be used to implement distanced play.

BIOS

Melissa Rogerson is a lecturer in human-computer interaction in the School of Computing and Information Systems at The University of Melbourne. Her research examines the play of boardgames in both physical and digital forms, as well as the characteristics and motivations of hobbyist boardgame players, designers, and developers. She is currently researching the application of digital tools in hybrid digital boardgames and the potential for hybrid distanced play.

Lucy Sparrow is an Associate Lecturer in Human-Computer Interaction with the School of Computing and Information Systems at The University of Melbourne. Her interdisciplinary research lies at the intersection of ethics, digital technology, and games, with a particular focus on the ethics of multiplayer gameplay and design. She is also currently working on projects on hybrid digital boardgames, distanced play, and the ethics of biometric capture in immersive performative environments.

Sophie Freeman is a PhD candidate in the School of Computing and Information Systems at The University of Melbourne. Her research takes an interdisciplinary and user-centric approach to investigate the design and effects of algorithmic features and curation on music recommender systems.

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