

Socially Distanced Games: Exploring the Future Opportunities of Remote Play

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Playing games with friends and family provided a way to stay connected and deal with isolation during the COVID-19 pandemic. However, restrictions introduced to co-located events affected how both regular and casual players scheduled, organised, participated and engaged with various games. Through an online survey, we aimed to gain preliminary insights into how the swift switch from physical to remote play – forced by the circumstances – impacted the gameplay experiences and how different players potentially changed their playing habits. Our preliminary results suggest that computer-mediated communication systems successfully allowed the translation of co-located game sessions, but also highlight the emergence of different points of player friction during remote game experiences, e.g., the tediousness of scheduling and setup, miscommunication or playmates’ wellbeing. We discuss future research and design opportunities that explore the potential to augment social game experiences at a distance and debate the future of remote or hybrid play.

CCS Concepts: • **Human-centered computing** → **Human computer interaction (HCI)**.

Additional Key Words and Phrases: Games, Social Play, Remote Play, COVID-19, HCI

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1 INTRODUCTION

Games are considered a catalyst for social connection and wellbeing support [34]. They offer an opportunity for fun and escapism, and we often play to experience connection with others: to meet new people during Live Action Role Play; try something new with colleagues in an Escape Room; or spend time with family and friends playing board games or quizzes. The COVID-19 pandemic had a profound impact on the way we live, work and play. The restrictions it introduced changed how we interact with others and pushed social connections online [29], ‘forcing’ people to adapt their regular (co-located) game nights to the new medium or to try a completely new way of socialising through remote games. While online videogames have always been used as mediators for remote social gaming [8], the changes triggered by the pandemic have introduced a new cohort of players to experiment with remote play.

In response to these changes, researchers have explored the use of videogames to cope with the pandemic [7, 14, 18], how games could support remote outdoor activities [13] or how digital games have been used as a medium to help move in-person events and celebrations to digital worlds [16]. However, the research has been limited to studying digital games, with little attention to the impact of forcing other game nights to the online medium. As such, we still know very little of how physical board games, table-top role-playing games (TTRPGs hereinafter referred to as RPGs) and other in-person social ludic experiences have been adapted, modified and changed, and what creative solutions have emerged in response to social distancing rules. Therefore, we aimed to understand how people played remote games

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and how they have modified their group gaming practices during the COVID-19 global pandemic to make them work in a computer-mediated environment. In this work-in-progress, we present the preliminary results of an online survey exploring the impact of forced remote play, player experience, and the strategies used to adapt to the new ‘imposed’ medium. We share key findings on the benefits, challenges and strategies of computer-supported play, and discuss the impact of remote play highlighting future opportunities derived from practices during the COVID-19 pandemic.

2 RELATED WORK

Play is a fundamental part of human existence [31]. It also has several benefits, ranging from stress reduction [9] to supporting mental health [35] and creating opportunities for social bonding and interaction [32]. Videogames in particular are a central part of online communities, connecting players with friends and strangers and helping marginalised communities to get together in safe spaces (e.g. Black and queer gamers [11]). Accordingly, it has not been surprising that players have used games to deal with the uncertainty and stay connected during the pandemic. For example, a survey conducted by Cmentowski and Krüger [7] showed that people used online multiplayer games as a tool for communication; however, while people who played videogames started to play more, this did not automatically translate into non-gamers embracing videogames [7]. Similarly, Ballou et al. [2] highlighted the use of gaming in general, specific videogames or particular styles of gaming to compensate for the realities of living through a global pandemic. In addition, the results reported by Kleinman et al. [18] show that in-game interactions were a substitute for real world events or activities, including those not related to gaming. The shift towards remote play accelerated by the pandemic has also been a source of research innovation to allow new ways to play together. For example, Haqq and McCrickard [13] explored remote asymmetric play to enable a shared game experience for players at a distance. They developed a game in which one player engages in physical activity while the other sits at a computer and provides instructions [13], and found that adding elements of gameplay that required cooperation and interdependence helped to support the perception of a shared experience – something that is an important part of play.

Remote play has also been used for other types of games other than videogames. For example, in tabletop RPGs, users act out or perform the part of a person or character. While such games work best in person, remote play and technology can help distinguish between in-character and regular communication [36]. Moreover, board games and card games could also be translated into the remote medium, for instance, to make play more accessible with digital and online versions of already existing games (e.g. Carcassonne Online [4] or Magic the Gathering Online [38] and MtG Arena [37]). However, the digitalisation of games might limit the players’ gameplay experience, as tangible elements of card and board games are important to players [27]. As a result, new tools exist that allow players to engage with tabletop games remotely. For example, Spelltable [39] allows people to play paper Magic: the Gathering cards through a webcam and provides additional digital features such as card recognition, and life and damage tracking. However, little is known how widespread their use is and whether people engaged with these types of games when playing remotely during the pandemic.

COVID-19 and the lockdowns forced people to try new ways of communicating, including new ways to play games together at a distance [14]. Unlike other studies conducted in this area that focus on a single game media (e.g. [2, 18, 40]) or the practicalities of doing research on offline games during the pandemic [28], our goal is to gain a holistic view without limiting ourselves to a specific type of game, and to identify future opportunities. In the next section, we present the preliminary results of our survey that highlight both the positive and negative impact of remote play on individual player experience and wellbeing, game interactions, and social relationships across a wide range of games.

3 METHODOLOGY

The survey consisted of two parts. The first part contained 10 questions covering participants' background and demographics, as well as questions to gather information about their household occupancy (e.g., number of co-habitators and their relationship) to assess if personal circumstances influenced their play habits. The second part focused on play experience. It included 10 specific questions about each of 5 types of games - based on the most popular types of social games: videogames; board/card games; table-top role-playing games (RPGs); DIY or Invented games, and other social games (see Appendix A, Table 1 for definitions). Both parts included conditional questions, i.e. based on participant's answers about the type of games they played, the game experience questions could be answered 0-5 times to cover the different types. The survey also explored how participants used digital tools and physical props to craft virtual play gatherings, and information about specific technologies used. We included four free-text questions exploring positive aspects of the experience, challenges, things to keep for the future (after the pandemic) and optionally indicate how props were used for game support. The full list of questions is available in the Appendix. We used Qualtrics to host the survey, and it was live between May and June 2021. The survey took approx. 25 minutes to complete and participants had the option to enter into a raffle to win one of three £20 shopping vouchers. The study received a favourable ethical opinion from the authors' institution.

We recruited 60 participants through posts on social media and word of mouth; 38 completed the survey. There was an equal number of men and women (18, or 47% each), with one non-binary participant and one person who did not disclose their gender. The participants were mainly 26-35 years old (45%), with an even split between 18-25 and 36-45 year old participants (24% each); only three participants were aged 45-55; none were aged over 55. The majority of participants reported living with at least one other person (84%), usually their partner or wider family; six participants (16%) reported living alone. We used descriptive statistics to summarise the survey responses to provide an insight into wider gaming trends. We also conducted an exploratory analysis of free-text responses. In total, there were 329 open-ended responses, which we analysed thematically [5]. First, we familiarised ourselves with the data by reading the responses and copying them onto virtual post-it notes on a Miro board (<https://miro.com/>) for collaborative analysis. Next, each author used a copy of all post-its to separately organise them into clusters and identify initial codes; the codes were then grouped into provisional themes. We then discussed the classification and groupings, and reviewed the themes, further revising them while drafting and re-drafting the manuscript.

4 FINDINGS

Descriptive statistics and the list of codes that contributed to each theme, and their prevalence, is available in Table 2, Table 3 and Table 4 in the Appendix due to page constraints. Here, we report them in detail. Participants reported playing 1-3 different types of games remotely. The most popular were multiplayer videogames, reported by 28 participants (74%, including 13 participants new to remote play). They were followed by social games such as quizzes or bingo (25 participants, 66%; including 23 new to remote play), card games (15, 39%), board games (14, 37%) and RPGs (12, 32%). Thirteen participants playing card/board games (out of 18) were new to remote play and 8 were new to playing RPGs this way. While the majority reported playing videogames, only two participants did so exclusively. Nine participants did not play any videogames at all, but reported playing other types of games remotely, most notably quizzes and card games. One participant did not play any games remotely because they had no one to play with.

Games served as an opportunity to play remotely with close friends with whom participants talked regularly (34 participants, 89%), those with whom they only talked to in the context of playing games (26, 68%) or to reconnect with

friends with whom they did not talk regularly (9, 24%). Moreover, remote play allowed participants to do something different whilst keeping in touch with close and distant family members (14 participants, 37% and 4 participants, 10%, respectively), work colleagues (12, 32%), and other social groups (e.g., sports clubs, 4 participants, 10%). Additionally, participants reported playing with strangers and people they did not know (12, 32%), or new friends (8, 21%).

Participants reported in equal measure taking the initiative to suggest remote play (27 participants, 71%) or being invited to attend a game night organised by someone else (27, 71%), and only one participant reported discussing and organising a remote play event as a collective decision (P26 regarding videogames). Participants reported that game nights were mostly planned several days in advance (29, 76%) and were often recurring play dates (19, 50%). Nevertheless, some reported there was room for spontaneous initiation of games, preceded by casual chatting (21, 55%), with some game nights being planned just one day in advance (12, 32%).

Participants used a wide variety of tools to support remote play, including PCs (80%), microphones (66%), headphones (59%) smartphones (40%), tablets (19%), consoles (8%) and TVs (8%). Although all participants indicated using text-based messaging services (24%), those who played videogames reported using audio-based and video-based communication services equally. Social, RPG and board game players indicated a preference for video-based services as visual feedback was key to the game experience. Moreover, the use of props was introduced in all types of games except videogames (18%). In order to prepare for game nights, the majority of participants indicated two key tasks: the need to coordinate with playmates (93%) and the negotiation of a date and time to play with them (83%). In addition, non-(traditionally)-digital game players indicated the need to research and negotiate what games to play, whereas videogame players focused on solving technical issues (44%) and installing games (33%). Moreover, RPG players showed less reliance on game negotiation (one participant) and the use of technology (e.g., setting up displays, one participant) whilst prioritising the preparation of food (41%) and additional props.

Overall, based on the free-text responses, most participants were satisfied with their experience and found remote play fun, with only a few participants not finding any positive aspects to the remote setup. Notably, computer-mediated play was reported to support the continuation of shared play. Participants enjoyed the accessibility of the medium and reported being keen to continue playing games remotely to stay in touch with friends and family members they cannot play with in person. However, some reported a desire for remote play to be temporary and a longing to get 'back to normal' with in-person social play. In addition, the quality of the game experience depended on the reliability of technology. Eleven free-text comments mentioned technical issues and further 13 specifically mentioned problems with Internet connection. For example, while some participants complained about their own internet, others pointed out that while their side worked well, it was the connection of others that influenced everyone's experience. We extend these points in more detail in the following sections.

4.1 The Impact of remote play on gameplay and interactions

Participants reported finding several points of friction throughout the game flow, which affected the overall game experience. Most notably, the move from physical game elements to shared screens in the remote setup and the tediousness and complexity of preparation tasks negatively affected participants' play experience. In particular, participants found many challenges prior to commencing the play session with the selection of games to play, the curation of games suitable to the digital medium (e.g., P35: "At times it was also difficult to choose what game to play"), and the appropriateness of selected games (e.g., P37: "Thinking of fun quizzes when everyone is quizzed out"), specially to make sure they were available to everyone (e.g., P36: "Negotiating games that everybody is happy to try/buy and can run on their machines"). Accordingly, the selection of a game to play was important to avoid game frictions. For instance, P9

mentioned experiencing confusion when relying on unofficial versions of existing games: *“We played some free (and fake) online version of Catan, but the interface was awful, and I couldn’t tell what I was meant to do and when”*. Overall, participants reported intentionally seeking to ensure all playmates were familiar with the rules in advance to save time and avoid alienating players unfamiliar with them.

In addition, some participants reported issues with the workflow of remote games as they found it difficult to start the game or get in the flow (e.g., P4: *“Agreeing and actually starting a game [was an issue]. Once you are in the campaign it is easy to continue, but getting kicked off is hard”*). Moreover, dealing with interruptions was a major factor that had negative impact on the experience, in some cases leading to boredom, e.g. when stopping the game to find common ground, check the rules as a group, or deal with cheating. For instance, P34 highlighted the limitations of the remote setup in having a shared view of the game board which led to tension between playmates: *“only one household could be in charge of the physical board game, so they were accusing each other of cheating!”*.

Furthermore, participants engaged with the use of props to augment their gaming experience (e.g., P21: *“We dressed up as the characters we were assigned.”*), or as an element of the gameplay (e.g., P38: *“For taskmaster night - depending on the objective, numerous household items were used to complete the task. Things such as saucepan, hats, sewing machine, food items.”*). Most notably, for some participants props served as the source of inspiration to create new games to play remotely (e.g., P19: *“I’ve played quiz rounds – and run them – where the object is for players to quickly find various items in their own homes and show them to the camera. It gets people up and moving and it’s fun”*). However, some reported the use of props to be overwhelming, never intending to include them in future games or their life (e.g., P20: *“I never want to eat that many fortune cookies again”*).

Participants were often forced to try different ways of playing their existing games and the complexity of the remote setup contributed to the emergence of issues, even when playing online multiplayer games. The more “unusual” the game, the harder it was to navigate the setup as it required multiple components, especially when it needed audio and video input. For instance, P20 reported that when playing videogames, *“Repetitive, technical issues [were annoying, including the] reliance on multiple devices (Jackbox means you have to have a single screen for everyone to watch via Zoom plus a separate device to log in and give answers, which was difficult for some)”*. Moreover, P17 described their experience with remote social games as *“a bit disjointed with sound/video sometimes – and [found challenging] working out who’s next, whose turn to speak, how to share picture rounds”*.

Unfortunately, not all games lend themselves well for appropriate translation to online experiences. For example, when playing card games (such as Magic: the Gathering), some participants reported issues with the overall experience due to the available play space. Such games often involve “bluffing” or checking the number of cards the opponent has in their hand or library, and only seeing the cards that have been played was not appreciated as the overall context of the game was lost. Nevertheless, although the use of technology did not support the move of physical games into the remote setup, participants reported alternatives to make the non-transferable aspects of games work. For example, P5 commented on their experience with board and card games: *“As a game that I have always played with people in person there are aspects of the game that are challenging to translate over a webcam. Also none of us are really playing with super set ups so there can be issues with camera quality and glare, but communication is good so we get by.”*

4.2 The impact of remote play on individual experience

The remote format of game sessions affected participants’ experience. Notably, being able to play with others helped people deal with the everyday stress and uncertainty, and offered mental health support. For example, P27 reported that playing games with others remotely *“reduced my sense of isolation”*, while P5 reported that *“just continuing to play*

games that were regular in person events has helped to diminish the fact that I'm stuck inside". However, some participants described the uncertain situation counteracted the benefits of being able to play remotely. For instance, they were not able to get into an emotional state to engage with the flow of regular play sessions (P33: *"It has sometimes been difficult to get into the right state of mind to role-play during regular sessions while facing the stresses of the pandemic."*). In addition, remote play provided a sense of normality and offered an escape from real-world struggles. In some cases it was also a source of self-improvement and was used as a coping mechanism. For instance, P24 described the use of remote play as a way *"to distract yourself or forget about your problems for a while"*, and P26 reported it was an opportunity for *"More time spent with all my friends together than we would in 'normal' times"*. Similarly, P16 reported benefiting from playing games remotely as they provided *"stress relief during the end of my pregnancy. I haven't had as much time to play them since giving birth"*. Furthermore, P11 described regular remote RPG sessions as a mechanism for communal grieving as playing them *"Kept a group of us together after a member of the group passed away from covid"*. Overall, participants were satisfied with their experience and found it to be a good routine breaker.

Some participants also highlighted the negative impact. One example included the role of emotional state of playmates on the experience, as their poor mental health affected others in the group (e.g., P31: *"Depression of various participants made the role play die out"*). However, there were other issues. For example, some participants expressed concern that the combination of remote game nights and remote work was increasing screen time and led to 'Zoom fatigue' [22] (e.g., P32: *"Screen burnout is real. I work on my computer all day, so having to spend my free time also in front of a computer or phone was quite exhausting"*), which led to the discontinuation of recurring play events (P27: *"It got old quickly as no-one wanted to spend extra time on Zoom"*). Moreover, two participants reported being worried about the influence of remote play on solitary alcohol consumption as virtual drinking games emerged as an opportunity for remote socialization: *"The drinking games tended to mean people were drinking alone in their flat/house, which is not ideal"* (P28).

4.3 The impact of remote play on social interactions and relationships

The impact of remote play on social interactions was largely seen as positive, with participants reporting that remote game nights served as proxies for in-person contact and *'camaraderie'* (P28, videogames). This was invaluable during the lockdowns as it helped people to *"continue a hobby I enjoyed playing in person before the pandemic"* (P3, board/cardgames). Game sessions also helped to strengthen existing relationships (e.g. by *"Staying connected with my girlfriend's family"*; P30, social games) and renew connections with friends and family members who were not close or lived abroad – people with whom participants previously had only limited contact. In addition, for P33, playing social games remotely *"presented a good opportunity to bring together people in my social circle who wouldn't typically interact"*. Furthermore, others reported that it helped to reconnect with *"an old gaming group"* (P10, RPG) or build new connections as they started to play with strangers who became new friends. The games also provided additional, less tangible benefits. For example, P34 reported that when playing quizzes, children answering questions correctly resulted in *"a sense of pride"*, which further strengthened the connection.

Moreover, some participants reported that remote play was more accessible and they acknowledged potential long-term benefits as it showed that they could maintain their gaming schedule (P4: *"When the weather is bad we can still play over Discord rather than canceling"*), and even fit more games into their schedule, even after the pandemic. For example, P16 reported that while in the past they played the role-playing game Dungeons & Dragons once a month or less often, switching to remote play meant that they now *"play nearly every week!"*. The switch to remote play also helped to understand better how to fit games into their routine: *"Now that we have a baby I think playing remotely will*

allow us to continue to be part of our dnd [Dungeons & Dragons] group. Previously we would struggle to meet regularly. It also shows us to have more short sessions rather than very long ones” (P16).

Nevertheless, some participants reported they could not sustain a regular play session as life events limited the space for entertainment, making it difficult to coordinate and schedule regular game sessions. Some participants also mentioned that differences in taste meant that gaming groups were not sustainable (e.g., P27: *“People gradually moved on to other games and we lost that sense of community.”*).

Remote play also led to conflict, often due to communication issues caused by lack of body language and non-verbal cues. For example, when discussing RPGs, P6 said: *“To be together always helps to interpret and communicate better. Being unable to do that, it was easy to miscommunicate”*. Similarly, P21 observed that *“It was fun but a little too... remote! Easier to take in eye contact, gestures, body movement when in a room together”*. The format also made it difficult for everyone to contribute equally or led to delays, especially in large groups (e.g. P8 highlighted the issue of *“People not hearing or talking over each other”*). Moreover, some participants reported that conflicting levels of commitment between their playmates could also lead to disagreements. For example, when talking about videogames, P26 suggested that some people might have treated the games too seriously, possibly because it was their only way of interacting with others during the pandemic: *“People feel hurt/let down when you say you don’t want to play one week or say you’re giving it a rest for a few weeks”*. Patience, or lack thereof, was also reported as a source of conflict, especially when providing technical support (e.g., P8: *“Getting other team members to correctly install and use the software took a while”*) or introducing new games and making sure everyone knows the rules.

The tensions caused by remote play also extended to offline spaces. One example was playing videogames online and trying not to distract other household members who were present at the time (e.g. P33 *“found it difficult to negotiate shared physical space”*). Other examples mentioned children *“becoming a bit stropky”* (P34, board/card games) if another household had control over the game.

5 DISCUSSION AND CONCLUSION

Uncertainty during the COVID-19 health crisis introduced restrictions to co-located social interactions, accelerating the switch to remote ways of staying connected. Unlike contexts in which remote interaction is adopted by choice (e.g., between family members at a distance [3], nomadic work environments [26] or online gaming communities [15]), co-located social games have been ‘forced’ to the online medium, necessitating rapid and effective translation of physical game interaction into the digital world. Our preliminary results support previous research on the use of tabletop [40] and videogames [18] during the COVID-19 pandemic in finding that games served as a catalyst for social connections, well-being support (e.g., to compensate for psychological needs [2]) and a source for escapism. Moreover, we found that remote social game practices afforded great flexibility to schedule play sessions, regardless of game type, facilitating coordination between players and offering an accessible space to introduce playful interaction to ‘non-game-player’ individuals. This verifies the relevance of games to provide social capital and support collective well-being.

Although our study provides a holistic understanding of remote play practices to include fundamentally different types of social games (e.g., digital and physical), our results are in agreement with previous work (e.g., [40]) in identifying the affordances of computer-supported remote play to translate the physicality of the game experience to hybrid/virtual setups, and highlighting issues encountered with the limitation of computer systems. Accordingly, we identified the emergence of different points of user friction during the adapted remote game experiences. For example, translating game dynamics of physical (and originally co-located) games to the digital/hybrid medium; facilitating (non-verbal) communication during gameplay; and sustaining the remote experience in the long term. Participants indicated

encountering issues with the setup, the tediousness of game orchestration, and the emotional state of other individuals. These factors indicate a negative influence on the collective play experience, which led to breaking the momentum to continue playing remotely with others and suggested a desire to return to co-located social play. The appearance of these points of friction leads to a questioning of the resilience of different types of remote games which merits further investigation. As such, future work will gain a deeper understanding of the long term impact of these frictions to expand on whether hybrid/virtual play has prevailed after the lifting of restrictions, and how players have continued engaging (if any) in remote social games over favouring co-located social play.

The use of physical props during game sessions indicates a need to utilise physical proxies during social games. Indeed, the physicality of board games is an essential part of modern board game player experience [27] and the translation of material aspects to remote settings is of great importance. This highlights opportunities to introduce smart artefacts that afford remote communication during in-game interaction, for instance, the use of IoT to augment tabletop games [6] or the design of wearables to support social engagement [20], which necessitates further research on their effect on the player experience at a distance. Moreover, the addition of edible (food and drinks) elements during remote play suggests opportunities for playful human-food interaction [1, 17] by combining the use of remote setup with physical edible props as game components for social games.

Furthermore, the use of additional software for audiovisual communication allows a shared understanding of the game space by all players. However, there could be a lack of equity in the visual access to the game. For example, remote board games rely on the control of what everybody can see in the virtual space by the 'game master'. Their challenge is to guarantee there are no differences in players' perception (remote vs in-person viewpoint) of physical pieces (e.g., as different user orientations influence the appearance of visual occlusion when seeing physical items [30]). As such, remote play necessitates the careful consideration of communication platforms to strive for an equivalent collective game experience, e.g., using video-mediated hybrid collaboration systems to avoid the exclusion of participants [12]. In addition, we found the need for better tools to support non-verbal communication as cues were not satisfactorily translated with video-mediated solutions; for instance, missing eye contact led to feeling social disconnection. This suggests the potential to investigate the integration of emerging input/output devices that could augment the player experience, e.g., gaze interaction to provide the experience of playing together and social presence [21, 25], or haptic props to provide social affective communication [23, 24]. Moreover, we see opportunities to explore the use of novel game interfaces with better remote spatial affordances, for example, the use of shape-changing interfaces [33] that could adopt the shape of the game space at different remote locations (e.g., [10]).

While our preliminary results suggest several opportunities for translating co-located games to a remote setup, we found a fundamental limitation: the infrastructure. The vast majority of participants reported experiencing technical and network issues that tainted their social play experience, which supports previous research highlighting internet access inequalities during the COVID-19 health crisis [19]. As such, this has implications for leveraging blended environments that are both playful and inclusive, and we call for future research to better support remote connections as the field of human-computer interaction in play continues to develop.

In conclusion, play is a tool to connect people through a shared experience and emotional support, even when forced online. As hybrid formats substitute the imposed digital play, our preliminary insights point towards research opportunities for future remote social play derived from practices during the COVID-19 pandemic. While computer-mediated play still has technical shortcomings, there is evidence of a creative and successful translation of physical games into the digital world. Future research should strive for developing new ways to augment players' experience with novel interfaces and augmented physical objects to support accessibility and inclusion of social play.

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A GAME TYPES DESCRIPTION

Table 1. Types of games used in the study with their definitions. The definitions were included in the survey.

Game type	Definition
Videogames	Game experiences that require an electronic device, such as a games console, computer, tablet or smartphone. This includes various genres, e.g. World of Warcraft, Minecraft, Fortnite, Among Us, and digital versions of other game types, such as digital board games (e.g. Talisman Online) or card games (e.g. MtG Arena).
Role-Playing Games	Game experiences that require the player to act out or perform the part of a person or character, such as Dungeons and Dragons or Vampire: The Mascarade, murder mystery events, or escape room experiences.
Board/Card Games	Game experiences that involve playing around a physical board or with a set of cards or tokens. This includes classic games such as Chess, Snakes and Ladders or Dominos; and more mainstream such as Monopoly, Uno, Catan or Carcassone.
DIY or Invented Games	Any games made up by the players (such as drinking games or personalised charades) or existing games (of any type) modified by them, e.g. with changed rules or added additional components.
Other Games	Any other social games that do not fit into previous categories, including those played against other individuals competing in knowledge or chance, including (pub) quizzes, Bingo or children's party games.

B SURVEY QUESTIONS

B.1 Participant Demographics

- (1) What gender do you identify as? [Male; Female; Non-binary / third gender; Prefer to self-describe; Prefer not to say]
- (2) What is your age? [18-25; 26-35; 36-45; 46-55; 56-65; 65+; Prefer not to say]
- (3) Counting yourself, how many people live in your household? [Just me; 2; 3; 4; 5; 6+]
- (4) Could you please tell us who are the members of your household? (For example, "I live with my husband/wife/partner and two children (age 4 and 7)"; or "I live with 3 flatmates") [Open question]

B.2 Participant Classification

- (1) Have you played any of the following types of games virtually/remotely with other people? (Select all that apply) [Multiplayer video games (including smartphone and tablet games); Board games; Card games; Role Playing games; Escape room experiences; Murder mystery experiences; Quizzes (e.g., pub quiz); Bingo; Drinking games; I have invented some games to play with friends remotely; Other (please write); None of these]
- (2) What was your role during these online remote game events? (Select all that apply) [I suggested gathering to play some games; I organised the game night; I contracted a company to organise a game night; I was invited and attended a game night organised by someone else; Other (please write)]
- (3) With whom have you played remotely? (Select all that apply) [Close friends with whom I talk regularly; Friends with whom I do not talk regularly outside playing games; Friends with whom I have reconnected; Close family members; Distant family members; Work colleagues; New friends; Strangers/People I did not know; Other (please write); None of these]

- (4) How have you been arranging to play remotely? (Select all that apply) [It was planned a day in advance; It was planned several days in advance; It is a recurring game night date (e.g., we play every Friday); It was a spontaneous play session (e.g., we were chatting and decided to play a game); Other (please write)]
- (5) If you used to play any of those games in person before the pandemic, what made you stop playing? (Select all that apply) [I have no time to play games; I lack or have limited access to people to play with remotely; I lack resources to be able to play remotely (e.g. adequate devices, computer, game console, ...); I don't know what games to play or what games can be played remotely; Playing remotely is not the same as in person; I have other responsibilities (e.g., caring, home schooling, household management, ...); I do not have access to games; The people I used to play with are not available; Other (please write)]
- (6) (Optional) You can provide more information here if you wish: [Open question]

B.3 Game Experience

- (1) Please list the #GAMES# you have been playing with friends remotely during the pandemic. [Open question]
- (2) What devices and software (if any) have you used to be able to play #GAMES# remotely? (Select all that apply) [Instant text messaging apps (e.g., Whatsapp, Telegram, WeChat, ...); Video calls apps (e.g., Zoom, Skype, Teams, ...); Audio calls apps (e.g., Discord, Phone calls, ...); TV; Smartphone; Tablet; Console; PC/Laptop; Headphones/Earphones; Microphone; Other (please write); None of these]
- (3) What tools or props (if any) have you used to support/complement you playing #GAMES# remotely? (Select all that apply) [Books used as physical support; Pens and paper; Rulebooks; Costumes; Furniture; Cardboard; Other (please write); None of these]
- (4) (Optional) Could you explain how you used those tools and props? [Open question]
- (5) Could you please indicate any preparation tasks or processes you had to perform to play the #GAMES# for the game night(s) you mentioned? (Select all that apply) [Research games we could play remotely; Curate a list of games to play remotely; Negotiate the games to play remotely; Negotiate the game requirements (e.g., whether there is a need to turn the camera on, which platforms for audio communications to use, etc.); Coordinate with friends to play together; Negotiate a date and time to play; Install games to play remotely; Install any other additional software to be able to play remotely; Set up a camera; Set up a microphone or sound system; Set up one or several display devices (e.g., computer, tablet, ...); Accommodate for other people in my household to play; Accommodate for other people in my household to watch while I play; Prepare props and trinkets to play the games; Prepare food and/or drinks; Prepare the game space; Deal with technical issues (e.g., help someone else to set up, connection issues, ...); Other (please write); None of these]
- (6) What have been the most positives outcomes or experiences (if any) you have gained from playing #GAMES# remotely during the pandemic? [Open question]
- (7) What have been the challenges that you have faced during the game sessions you have played #GAMES# during the pandemic? [Open question]
- (8) How satisfied were you with the playing #GAMES# event(s) you mentioned in terms of how much fun you experienced? [Extremely satisfied, Somewhat satisfied, Neither satisfied or dissatisfied; Somewhat dissatisfied; Extremely dissatisfied]
- (9) Did you use to play #GAMES# virtually/remotely before the pandemic? [Yes; Maybe; No]
- (10) From all the aspects you mentioned about playing #GAMES# remotely/virtually, which of them are you going to keep after the pandemic? [Open question]

C RESULTS: SURVEY RESPONSES AND SUMMARY OF CODES THAT CONTRIBUTED TO THE THEMES

Table 2. Survey Responses for Participant Classification Questions.

SURVEY QUESTIONS	PARTICIPANTS (N = 38)
Have you played any of the following types of games virtually/remotely with other people?	
Multiplayer video games	28
Board games	14
Card games	15
Role Playing games	12
Escape room experiences	6
Murder mystery experiences	4
Quizzes	25
Bingo	5
Drinking games	7
DIY	3
Other	3
None of these	1
What was your role during these online remote game events?	
I suggested gathering to play some games	27
I organised the game night	20
I contracted a company to organise a game night	0
I was invited and attended a game night organised by someone else	27
Other	2
With whom have you played remotely?	
Close friends with whom I talk regularly	34
Friends with whom I do not talk regularly outside playing games	16
Friends with whom I have reconnected	9
Close family members	14
Distant family members	4
Work colleagues	12
New friends	8
Strangers/People I did not know	12
Other	4
How have you been arranging to play remotely?	
It was planned a day in advance	12
It was planned several days in advance	29
It is a recurring game night date	19
It was a spontaneous play session	21
Other	0

Table 3. Survey Responses for Game Experience Questions.

SURVEY QUESTIONS	NUMBER OF PARTICIPANTS					
	Type of #GAMES#	Videogames	Card/Board Games	RPGs	Social Games	DIY/Other Games
What devices and software (if any) have you used to be able to play #GAMES# remotely?						
Instant text messaging apps	7	3	5	4	2	2
Video calls apps	14	16	13	20	3	3
Audio calls apps	19	9	5	2	2	2
TV	4	0	0	2	0	0
Smartphone	13	5	5	9	2	2
Tablet	4	3	1	7	1	1
Console	6	0	0	0	0	0
PC/Laptop	21	15	10	18	3	3
Headphones/Earphones	20	9	10	8	3	3
Microphone	19	11	11	12	3	3
Other	1	2	2	3	0	0
None of these	0	1	2	3	3	3
What tools or props (if any) have you used to support/complement you playing #GAMES# remotely?						
Books used as physical support	1	2	2	2	0	0
Pens and paper	5	10	11	16	2	2
Rulebooks	1	0	7	0	0	0
Costumes	2	0	3	3	0	0
Furniture	2	0	1	0	0	0
Cardboard	0	0	0	1	0	0
Other	0	2	2	6	1	1
None of these	22	9	6	5	6	6
Could you please indicate any preparation tasks or processes you had to perform to play the #GAMES# for the game night(s) you mentioned?						
Research games we could play remotely	14	8	4	5	4	4
Curate a list of games to play remotely	6	4	0	3	0	0
Negotiate the games to play remotely	14	9	1	6	0	0
Negotiate the game requirements	5	6	5	5	1	1
Coordinate with friends to play together	25	15	13	17	4	4
Negotiate a date and time to play	21	15	12	14	4	4
Install games to play remotely	22	1	2	0	1	1
Install any other additional software to be able to play remotely	7	3	2	0	1	1
Set up a camera	0	0	0	0	0	0
Set up a microphone or sound system	0	0	0	0	0	0
Set up one or several display devices	6	3	1	8	2	2
Accommodate for other people in my household to play	5	1	2	6	0	0
Accommodate for other people in my household to watch while I play	0	0	0	1	1	1
Prepare props and trinkets to play the games	0	3	7	4	0	0
Prepare food and/or drinks	7	7	6	11	2	2
Prepare the game space	1	4	3	4	0	0
Deal with technical issues	15	6	4	10	0	0
Other	0	1	1	2	1	1
None of these	0	1	3	5	3	3
How satisfied were you with the playing #GAMES# event(s) you mentioned in terms of how much fun you experienced?						
Extremely satisfied	17	6	4	11	3	3
Somewhat satisfied	11	13	10	7	2	2
Neither satisfied or dissatisfied	0	0	3	8	4	4
Somewhat dissatisfied	0	0	0	0	0	0
Extremely dissatisfied	0	0	1	0	0	0
Did you use to play #GAMES# virtually/remotely before the pandemic?						
Yes	13	6	7	2	1	1
No	13	13	8	23	7	7
Maybe	2	0	3	1	1	1

Table 4. Number of open-ended comments mentioning specific topics that were later included in general trends and the key themes.

General Trends	Total	Video games	Social games	Role playing games	Board/card games	DIY games
Will continue playing remotely	44	17	6	9	9	3
Desire to going back to play in person	37	4	14	9	8	2
Reported experiencing fun	21	7	6	1	5	2
Issues with Internet connection	13	5	3	2	3	
May continue playing remotely	13	7	2		3	1
Issues with the use of technology	11	4	2	2	2	1
Nothing negative to mention	11	1	5	4		1
Limitations of technology	11	4	4	1	1	1
Nothing positive to mention	8	1	3	3		1
Enable people to continue playing	4			2	2	
Satisfaction, positive feelings	3	1		1	1	
No change in gaming behaviour	1	1				
Theme 1: Gameplay and Interactions						
Reported using props	49	7	17	12	11	2
Challenges with switching from physical to digital format	15	1	1	5	7	1
Found issues in game flow	14	3	3	3	5	
Game selection	10	3	2	1	4	
Providing tech support	5	3	2			
Complex setup or tedious preparations	3	2		1		
Convenience of the medium	2			1	1	
Found challenges with using props	2				1	1
Theme 2: Individual Experience						
Routine Breaker	12	3	2	4	2	1
Provided sense of normality and escapism	11	5	2	3	1	
Offered mental health support	9	6	1	1	1	
Negative impact on mental health	3	1		2		
Issues with increased screen time and work-life balance	3	1	2			
Worries about increase drinking habit	2		1	1		
Theme 3: Social Interaction and Relationships						
Opportunities for social connections	54	19	14	6	11	4
Challenge to fit in schedule or loss of interest	18	9	2	2	4	1
Emergence of conflicts and miscommunication	10	2	2	4	1	1
Inclusive and accessible	9	3	2	3	1	
Issues with shared spaces	3	2			1	
Made it easier to fit games into schedule	2	1		1		
TOTAL	328	90	86	65	64	24