



## **TABLETOP GAME PLAYER EXPERIENCE IN THE AGE OF DIGITIZATION**

Social and material aspects of play

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# Abstract

This thesis explores physical and social aspects of playing tabletop games physically versus remotely. It also examines the experiences of contemporary players of tabletop games, with focus placed on play during the COVID-19 pandemic. The report begins with an explanation of tabletop games, including social and material aspects as examined in previous work. To explore the thesis' problem area, several tabletop game players were interviewed, resulting in a number of recurring themes.

The interview results suggest that social rituals and material aspects of tabletop games are highly important to players. This has implications for the future of tabletop games, many of which are discussed in the text.

**Keywords:** tabletop games, materialism, consumption, rituals, games, non-digital games, COVID-19, dice

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# 1 Introduction

Tabletop games like board and card games have been played for thousands of years for fun, relaxation, or education. While the rise of computing technology in the modern age has created a plethora of digital gaming alternatives, traditional tabletop games continue to be a strong force in gaming, rivalling and in some cases even outselling digital games in parts of the world. Despite this, there is a problematic lack of studies on tabletop games. Carter, Gibbs and Harrop (*Drafting an Army: The Playful Pastime of Warhammer 40,000*, 2014) write that despite the epistemic foundations of game studies as a discipline being concerned with predigital games, many of the tabletop games that have influenced the design of several popular digital game genres are comparatively understudied. They go on to quote Woods (2008) who argues that this may be due to the inaccurate perception of tabletop games being a niche in decline. Carter, Gibbs and Harrop echo Wood's view that this is inaccurate, arguing that tabletop games "are an established game form that have resisted obsolescence and are both historically and ludologically important." Costikyan and Davidson (2011) further argue that many early game creators were inspired by tabletop games, and that direct lines of descent can be drawn from games like *Tactics II* (1958) to *Call of Duty* (2003), or from *Dungeons & Dragons* (1974) to *World of Warcraft* (2004). Thus, the evolutionary lineage and development of digital games can be better understood by studying tabletop games.

There have been many attempts to digitize tabletop games; in some cases, these attempts have been almost as old as the games themselves. Don Daglow created the game *Dungeon* (1975), one of the first computer role-playing games, due to his frustration *Dungeons & Dragons* – which had released only a year prior. "It was so well suited to simulate on a computer [...] a lot of the things that were most frustrating on paper and time consuming, the computer does all that for you" (Donovan, 2010). 46 years and many video games later, tabletop D&D not only still exists but is also more popular than ever. Similar situations have played out with other popular tabletop games, such as the card game *Magic: The Gathering* (1993), the miniatures war game *Warhammer 40,000* (1987), and the board game *Catan* (1995). Despite repeated attempts at virtually recreating or adapting these games - some of them successful in their own right - their physical editions are still widely played today. The COVID-19 pandemic, however, has made physical gatherings for tabletop games difficult, leading many tabletop players to play these games virtually out of necessity.

This thesis aims to explore the physical and social aspects of playing tabletop games to understand why these games are enduringly popular in the face of digitalization and within the context of materialism. The author also seeks to understand the experience of contemporary tabletop gaming, the COVID-19 pandemic, and the created necessity of playing virtual versions of these tabletop games, have affected the player experience. To accomplish this, previous research on tabletop gaming will be examined, and tabletop players will be interviewed.

Section 2 of this thesis presents background information about tabletop games, including previous research on the area and some information about the medium's current state – including the use of digital tools and the impact of COVID-19 on the tabletop gaming industry.

Section 3 presents the research question(s) and the approach of the study that was conducted, with a basis in earlier research. Section 4 discusses how the study was carried out, including discussion on methodology and ethical aspects that were taken into consideration.

Section 5 is a presentation of the results of the study. In this section, an ontology of sorts is created by identifying themes and patterns in participant responses. Section 6 offers an analysis of the results, presenting the social and material ways in which participants engaged in the tabletop hobby.

Section 7 is the final part of the thesis, where conclusions about the study are drawn and discussed in relation to other research. This section summarizes the study's findings, connecting its conclusions with the research questions while also identifying avenues for future research.

## 2 Background

To examine contemporary tabletop games, an understanding of both tabletop games and earlier research in the area is necessary.

### 2.1 Tabletop games

Carter, Harrop and Gibbs define tabletop games as “the broad category of board, card, role-play, and miniature games that are played sitting around a table including board games like *Settlers of Catan* and *Chess*; card games such as *Magic: The Gathering*, and *Poker*; role-playing games such as *Dungeons and Dragons*; and war games such as *W40K [Warhammer 40,000]* that do not involve the digitization of game processes” (*Drafting an Army: The Playful Pastime of Warhammer 40,000*, 2014).

While a thorough account and examination of the many different types of tabletop games are beyond the scope of this text, an understanding of some of the most popular games mentioned by Carter, Harrop and Gibbs and their positions in the current gaming landscape will be useful for understanding this thesis and its results.

#### 2.1.1 Dungeons & Dragons

*Dungeons & Dragons (D&D)* is a fantasy tabletop roleplaying game, described by publisher *Wizards of the Coast (WOTC)* as a “cooperative storytelling game that harnesses your imagination and invites you to explore a fantastic world of adventure, where heroes battle monsters, find treasures, and overcome quests” (Wizards RPG Team, u.d.). Players control characters that they can create themselves, while one player acts as the *Dungeon Master (DM)* – the person who tells the story of an adventure and controls monsters and other non-player characters. Dice rolls determine the outcomes of player and DM actions. As the term “roleplaying” suggests, part of the experience lies in roleplaying as one’s characters, giving them unique voices and traits and acting out conversations and scenes. The game was originally developed by Gary Gygax and Dave Arneson and published by *Tactical Studies Rules (TSR)* in 1974, quickly becoming a cult phenomenon.

The game has seen renewed interest in the 2010’s, buoyed by an approachable ruleset in its fifth and latest edition and the rise of online tools and live streaming. “We’re kind of riding a wave of RPGs, tabletop RPGs,” said Mike Mearls, co-creator of 5<sup>th</sup> Edition D&D, in an interview with *Polygon.com*. “There’s a bit of renaissance taking place. Because we finally now have online tools. Not necessarily virtual tabletops, although those help. But just things like video chat and streaming games on *Twitch* and *YouTube* and stuff like that” (Hall, 2015). In another interview, franchise vice president Nathan Stewart said that “For the first time in our research, it used to be that friends and family were the number reason someone joined D&D [...] Now, the number one reason is ‘I saw someone playing online and I joined’” (Whitten, 2020). Popular online D&D shows include *Acquisitions Incorporated* (Holkins, Krahulik, Kurtz, Perkins, 2008), a long-running podcast and live show originally created in collaboration with WOTC to promote D&D’s then-new 4<sup>th</sup> Edition (2008), and *The Adventure Zone* (McElroy, McElroy, McElroy, McElroy, 2014), a podcast wherein the McElroy family of online personalities plays 5<sup>th</sup> edition D&D and other role-playing games. Whitten credits in particular *Critical Role* (Geek & Sundry; Critical Role Productions, LLC, 2015), a live-streamed D&D game featuring voice actors, with helping to popularize the game (How *Critical Role* helped spark a *Dungeons & Dragons* renaissance, 2020). These shows

have expanded into cross-media franchises, with comic books, novels, animated series, and merchandise like action figures, miniatures, and clothing. They have also been integrated into official D&D material, with both Acquisitions Incorporated and Critical Role receiving official books -Acquisitions Incorporated (2019) and Explorer's Guide to Wildemount (2020) - and the world and events from Critical Role becoming canonical within the D&D multiverse.

Three to four new 5<sup>th</sup> Edition books are generally released every year, containing new adventure scenarios, rules and errata, character options, and settings. This is alongside accessories and supplementary material like dice, miniatures, maps, board games, and novels. Thanks to the game's success, WOTC president Chris Cocks announced that the company has a goal of "increasing the cadence of those releases" in 2021 (Hasbro, Inc., 2021).

### **2.1.2 Magic: The Gathering**

*Magic: The Gathering* (hereafter abbreviated to M:TG) is a card game in which players take on the role of a 'Planeswalker' and engage in battles with other 'Planeswalkers' (i.e., other players) by drawing, and playing, cards from their card deck to summon creatures and cast spells. 'Planeswalker' is a moniker from the game's extensive lore and serves to narratively position the player as a powerful figure, a sort of wizard or demigod, to explain why they have the power to draw on creatures and spells from the M:TG multiverse. Designed by Richard Garfield and released in 1993 by WOTC, it's been called the "first modern trading card game" (Guinness World Records Limited, u.d.). As that title implies, trading and collecting cards to create decks - or just for its own sake - can be an important part of the experience. Players can acquire new cards in several different ways, with one of the most common methods being to purchase "booster packs" – packs of 15 random cards from different sets that act as expansions to the game. Cards can be traded with, bought from, and sold to other players, in a market that resembles a stock market "complete with speculation, arbitrage and yes, insider trading" (D'Anastasio, 2020). Owens and Helmer (1996) write that "collectible card games are two games in one: playing the cards and collecting the cards. Both games depend on the luck of the draw, as well as your skill in playing the hand you've been dealt". Over 20 billion cards were printed between 2008 and 2016, (Wizards of the Coast, 2017), and by 2018 the game had more than 35 million players worldwide (Webb, 2018).

*Magic: The Gathering Arena* (hereafter abbreviated to M:TGA or Arena) is the latest digital version of the game for computers, tablets, and smartphones. Released in 2019, Arena is described by WOTC as "authentic Magic, reborn digitally for gamers, fans, streamers, and content producers [...] with all the depth, rules, and choices fans love, plus the striking and easy-to-understand visuals" (MTG Arena Public FAQs, u.d.). The game is free to download and play, with players having the option to spend real-world currency to buy booster packs of cards and various cosmetic rewards. Booster packs and decks can also be gained by playing the game.

The monetary value proposition of M:TGA is quite different from the physical version of the game, where booster packs are most often bought with real-world currency and a comparable collection of cards could cost hundreds of dollars. "Players can craft a variety of decks, and if they're playing the more common formats of the game, a deck can cost anywhere from about \$275 to \$834 or more [...] Money is the largest barrier, of course [...]"

As opposed to many video games or board games, a steady stream of money is needed to be considered relevant in the scene. For players interested in retaining any kind of competitive edge, one-time purchases are not enough” (Gordon, 2020). Multiple expansion sets are released for M:TG every year - usually four sets, although there were three in 2020 and five scheduled for 2021. Once per year, when the autumn set is released, the four currently oldest sets in the Standard play format are rotated out – making those cards unusable in official Standard games. Thus, a player who wishes to remain active in official Standard play is likely to have to buy new cards every one to two years (note that other formats exist and that home games don’t need to follow these rules). In this way, how the game is created and distributed has an impact on how it’s played. WOTC are incentivized to keep creating sets to keep the game active and generate further profit, both from new players and from old players who need to update their cards.

### 2.1.3 Warhammer

*Warhammer 40,000* (1987) is a science fiction miniatures war game where players deploy armies of physical figurines to do battle against one another in “the grim darkness of the future” – the 41<sup>st</sup> millennium. There are a variety of factions in the game to play and collect, including Orks, the human Adeptus Astartes, the elf-like Eldar, and the robotic Necrons. The first edition of the game, *Warhammer 40,000: Rogue Trader*, was written by Rick Priestley and published by Games Workshop in 1987. New editions and miniatures continue to be released to this day.

While *Warhammer 40,000* quickly became Games Workshop’s most important property and is now the world’s most popular wargame, it is not the first in the series. That would be *Warhammer The Mass Combat Fantasy Role-Playing Game*, a miniatures game from 1983 that combined “principles of historical wargaming [...] with mythic fantasy – and a new hobby was born” (Games Workshop Limited, u.d.). It is not an exaggeration to say that *Warhammer 40,000* likely would not exist without its miniatures. Games Workshop made their first miniatures in 1979, even before *Warhammer*: “Archetypal characters, as yet without a game of their own, were designed to be used in roleplaying systems or simply collected on their own”. The popularity of their 1986 Space Marine miniature, “the armoured form of a crusading galactic hero”, was the basis for the release of *Warhammer 40,000: Rogue Trader* a year later. Today, *Warhammer* tabletop games consist of two key miniatures war game series – the science-fiction-based *40,000* and the fantasy-based *Age of Sigmar* – as well as a variety of stand-alone boxed games including *Warhammer Underworlds: Shadespire* (2017), *Warhammer Quest: Blackstone Fortress* (2018) and *Necromunda: Dark Uprising* (2019). Aside from playing the games, building and painting miniatures are core pillars of the *Warhammer* hobby, with Games Workshop holding monthly official miniature painting competitions via social media.

Outside of the tabletop games, there are novels, comic books, and all manner of merchandise. Most notably, there is close to one hundred *Warhammer* video games in total, but surprisingly few of these are direct adaptations of their tabletop counterparts. There are no digital tabletop versions of their *Warhammer 40,000* or *Age of Sigmar* games in the vein of M:TGA, for example. A smartphone app containing the game’s ruleset, army building tools and datasheets for individual game units was released in 2020 alongside the game’s 9<sup>th</sup> and latest edition. Many of the app’s features requires a paid subscription, and new rules and content can be unlocked via codes included in physical *Warhammer 40,000* rulebooks.



There is an active online community centered around Warhammer, with content ranging from miniature painting tips and discussions of the games' sprawling narratives and worlds to multi-hour "battle reports", recorded matches of the game that in some cases resemble sports coverage, complete with score tallies and tactics explanations.

Carter, Gibbs and Harrop (2014) argue that to understand a player's experience with Warhammer 40,000, one must look at not only the game during play but the series of interlinked and associated activities that surround the game. These activities include assembling and painting miniatures, choosing units for one's army and engaging with 'fluff' – the game's complex sci-fi narratives, available in the game's rulebooks as well as in hundreds of novels, comics, video games, and other forms of media. All of these were identified as important to Warhammer players interviewed in their study. "By involving fluff as an important component in the way Karl develops his army list, he is able to weave his appreciation for the books in with the battles and modelling components of W40K, creating a more enjoyable experience". They also found many people who collected and painted armies, and/or read Warhammer 40,000 fiction, without ever playing the actual tabletop game - indicating an independent appeal to these activities.

#### **2.1.4 Impact of COVID-19 on tabletop games**

As with many other aspects of daily life, the tabletop gaming hobby was noticeably impacted by the spread of the coronavirus disease (COVID-19) in 2020 and 2021, with it having a wide variety of consequences for both players and companies.

The World Health Organization describes COVID-19 as "an infectious disease caused by a newly discovered coronavirus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness" (World Health Organization, u.d.). COVID-19 was discovered in late 2019 and has disrupted much of the world throughout 2020 and 2021. At the time of writing, the WHO reports a total of over 150 million confirmed cases and over 3 million deaths caused by the virus. The virus appears to spread by respiratory droplets and aerosols, and one of the key recommendations to keep safe from COVID-19 has been to maintain at least a 1-metre distance from others and to avoid meeting others indoors.

Many types of social gatherings have been impacted by these recommendations, including tabletop game play. In March 2020, WOTC cancelled all in-person events for *M:TG* due to the COVID-19 pandemic (Chase, 2020). In their announcement, they directed players toward *M:TGA* and moved the popular weekly event Friday Night Magic online. WOTC also moved organized play of D&D online, using the chat program Discord and digital tabletop platforms like Roll20 and Fantasy Grounds (Hall, 2020). Games Workshop similarly cancelled all scheduled events for its *Warhammer* series of tabletop games, along with in some cases temporarily closing or restricting opening hours of their physical stores (many of which have since re-opened) and cancelling in-store events (Games Workshop, 2020). The lack of in-person play and an official digital alternative has caused many Warhammer players to turn to unofficial options like Tabletop Simulator. A search for "Warhammer" on Tabletop Simulator's Steam Workshop page results in over a thousand pieces of player-made content including rulebooks, maps, dice, tokens and virtual recreations of miniatures. Gen Con, North America's largest and longest-running tabletop gaming convention, cancelled

their 2020 convention due to health and safety concerns, instead holding a virtual convention experience called Gen Con Online (Gen Con LLC, 2020). The author attended a Swedish convention in late February 2020, and in a fit of gallows humour, a board game retailer could be seen selling the popular board game *Pandemic* (2008), in which players try to stop several diseases from spreading across the globe, at a discounted “special COVID-19 price”.

Despite cancelled events and COVID-19-related production and supply issues, tabletop games have seen increased growth during the pandemic. COVID-19 restrictions further catalysed a market that was already gaining in popularity among adult consumers, according to analyst Marc Alonso: “The closure of entertainment and socialising venues, and increasingly digitalised lifestyles, has led many towards more traditional sources of entertainment” (Jarvis, 2021). M:TG and D&D had their biggest years ever in 2020 (Parlock, 2021; Whitten, 2021). Games Workshop managed to grow its sales of games, miniatures and paints during the same year, with analyst Zoe Mills stating that “People have a lot more time on their hands and these models take a lot to time to do well” (Wood, 2021). Mills also highlights the uniqueness of the experience and the fact that “People are spending more time away from their phones and because we are not going into offices some people have got some extra time in the evenings that they don’t necessarily want to spend in front of the television.”

Some materials used to paint miniatures, many of which are produced and sold by Games Workshop (including primer sprays used to coat miniatures), have been out of stock for weeks or months at the time of writing. Games Workshop’s profits indicate that demand for miniatures and hobby supplies have been high, likely due to quarantine. The shortage may also be due to pandemic-related production and shipping issues, but this has not been entirely confirmed – a report of half-yearly results for 2020 from Games Workshop states that “Covid-19 social distancing measures and practices [...] have constrained capacity a little” but they also report a 30% increase in miniature output in 2020 (Games Workshop PLC, 2021). Some 2021 releases of game expansions and books were delayed due to Covid-19-related issues (An Update on Warhammer Releases in 2021, 2020). Since Games Workshop is based in England, The United Kingdom leaving the European Union in 2020 may also have been a factor.

In an interview with the website Polygon, Erik Mona (publisher of the tabletop role-playing game company Paizo) stated that “the shift to online play has been accelerated, I think, by years from where we were at the beginning of this”, noting that tools like Roll20 and the chat program Discord were instrumental in keeping the communities for their games together during the COVID-19 pandemic. “The numbers are obvious [...] A significant portion of the hobby has jumped on to that format to play. We’re seeing numbers on all the VTTs [virtual tabletops] going through the roof” (Hall, 2021). Even before the COVID-19 pandemic, online play of Dungeons & Dragons was rapidly gaining traction, with the player population of the game on Roll20 nearly tripling from 2015 to 2017 (Hall, 2017).

Writer and former professional M:TG player Brian DeMars had mixed feelings about the game in the age of COVID-19. “With the caveat that I don’t particularly find online Magic enjoyable as an activity, I do appreciate that the game has been able to pivot and adapt to become a more competitive video game at a time where paper cards have been taken off the table. At the heart of my critique is a preference for playing and collecting cards with

physically present human beings much more so than playing and collecting a digital game” (DeMars, 2020).

The pandemic has, among other things, contributed to the renaissance of card collecting, especially cards from the Pokémon Trading Card Game (1996). Koebler writes that “Having large swaths of the world largely confined to their homes sends people searching for new hobbies, rediscovering old ones, and searching their closets for old collectibles. All of this has led to a scorching hot Pokémon card market. [...] The resurgent interest [...] has brought multiple major, well-respected companies to their knees, has caused Target stores to consider calling the cops, and has led to shortages and/or price increases of basically anything even remotely attached to the hobby of collecting cards” (Koebler, 2021). Plunkett writes that “Because of the pandemic, the production and distribution of cards has been hit, so stores have had fewer to sell” (Plunkett, 2021). In May 2021, the US retailer Target announced that they would temporarily halt sales of several types of trading cards, including Pokémon cards, after fights had broken out; an argument over sports trading cards outside of a Target in Wisconsin, USA had led to a man being physically assaulted by four other men before pulling out a gun (Williams, 2021). A shopper interviewed about the event was quoted as saying “It’s kind of sad that there are a lot of kids who enjoy opening the packs and seeing what you get, but they can’t even really do that because you can’t find them [...] It just sounds kind of ridiculous that adults got into a fight in the parking lot about trading cards.”

## 2.2 Online tabletop tools

The following are a few of the most popular online tabletop tools.

Roll20 is a browser-based virtual tabletop platform, primarily focusing on role-playing games like D&D, *Pathfinder* (2009) and *Call of Cthulhu* (1981) – with official materials from these games like adventure modules being available on Roll20’s marketplace. Features include automated dice rolling, dynamic lighting for maps, programming functionality to “automate tedious game mechanics” and integrated text and video chat. Some features only require a free account to use, while others require a subscription. With “over 8 million players and GMs [Game Masters]” according to its website, it’s perhaps the most popular virtual tabletop platform.

*Tabletop Simulator* (2015) is a paid game application that allows players to play a variety of tabletop games locally or over the internet. The game’s Steam store page promises endless possibilities, with the tools to create original games, automate games with scripting, manipulate physics and “of course flip the table when you are losing the game”. One of the game’s key features, also highlighted on the Steam store page, is the ability to “play just like you do in real life; pick up, rotate, shake, and throw any object”, with “objects that collide and interact just how you would expect”. The game also supports Virtual Reality headsets and controllers, allowing players to [...]. A common refrain in user reviews of the game was its cost-effectiveness, as purchasing the game gives users access to a nearly infinite supply of tabletop games. Most tabletop games on the market are available on *Tabletop Simulator*, either via official downloadable content (generally less expensive than their physical counterparts) or through the game’s active modding community, as the game allows users to create and share images, custom programming scripts, 3D models et cetera.

D&D Beyond is “an official digital toolset for Dungeons & Dragons fifth edition” (Bradford, 2017), hosting online versions of fifth edition D&D books and tools like character builders,

digital character sheets, monster and spell listings, and digital dice. One could realistically run and play a D&D campaign using only the tools provided by D&D Beyond.

## 2.3 Previous research and literature

While Carter, Harrop and Gibbs argue that many tabletop games are “comparatively understudied” to digital games, there is still a solid foundation of earlier research and writing on the field of tabletop games.

### 2.3.1 Social aspects

A recurring theme in the literature is the social aspect of playing tabletop games. For example, Woods (2012) argues that social interaction is principle for players’ enjoyment of modern European board games (or “Eurogames”, of which *Catan (1995)* is perhaps the most famous example), particularly “the spontaneous interaction that occurs as a by-product of game play” (p. 168).

Fine (1983) studied fantasy roleplaying games during the late 1970’s and early 1980’s, when the genre was still in its infancy. While Fine’s work is almost 40 years old at this point, and both tabletop games and the surrounding culture have changed a great deal since then, it still holds some valuable insights. Fine’s work focuses largely on the ideas of shared fantasy and the creation of cultural systems: “Fantasy gamers create cultural systems as their avocation – worlds of imagination formed by the participants, given the constraints of their own knowledge and the structure provided by the rules. Analyzing these fantasy games provide insight into the creation of group cultures, and the way in which these group cultures transform more extensive cultural systems. Each gaming group interprets, defines, and transforms cultural elements in its sphere of knowledge into the cultural framework of an imagined society. Fantasy games consist of players and referees collectively constructing history and biography for their society and characters. These “experiences” can then be meaningfully referred to by members of the group. [...] When a gaming group exists over several weeks or months, this shared culture can become quite extensive and meaningful for group members [...] Because gaming fantasy is based in shared experiences, it must be constructed through communication” (p. 2-3). Fine argues that “Fun is the central reason – sociological, psychological, and otherwise – why they [roleplaying games] have become so popular”. A player Fine interviewed stated that “I found that gaming develops a camaraderie between gamers that a lot of people I notice outside of gaming don’t necessarily have... Gaming brings people together” (p. 36).

Aytuna (2020) studied differences in player experiences between physical and digital play of M:TG, finding that the social aspect of M:TG was more important to tabletop players than M:TGA players, while the competitive aspect was more important for M:TGA players. One of the key events in the M:TG calendar is Friday Night Magic, a weekly event open to all players that ran in thousands of stores across the world every Friday night pre-COVID-19. WOTC describes it as “The heart and soul of your local Magic community. [...] FNM is a chance to catch up with your friends, make new ones and of course, play some Magic!” An event organizer was quoted as saying “There is something to be said about having some place to go every Friday night. A lot of people have struck up great friendships because of this game. Magic was their common denominator” (Godfrey, Collins, Herold, 2015).

The social aspects of play were in many cases connected to the act of inhabiting shared physical spaces. In Ballinger's "On sex, death and having a chat: What psychoanalysis tells us about Warhammer" (2019), the experience of engaging with *Warhammer* as a hobby is linked to the physical space in which it takes place: "Inside a small shop in West London, a group of boys aged between 10 and 17 sit at a work table, carefully painting miniature plastic warrior figures and chatting quietly. Shelves around the walls display products for sale: books and magazines, paints, glue and paintbrushes, as well as brightly coloured boxes containing warrior figures from armies with names like Dark Angels, Tyranids and Necrons. Two boys stand at another table, throwing dice and moving their armies around the burned-out buildings and withered trees of a contoured battlefield. The room is warm, smelling of glue, paint and teenage locker-room, and the relaxed, friendly atmosphere contrasts with the fearsome appearance of the armies [...] the Warhammer shop becomes a haven, a place where boys can be friendly and co-operative, absorbed in the creative pursuit of building and painting together: *when asked why he preferred to go to the shop rather than paint his models at home, my nephew replied without hesitation: 'To have a chat.'* [emphasis]" Ballinger's writing also deeply connects the material items at hand – books, figurines, paints, glue – to the activities taking place. Meanwhile, a study on Warhammer by Carter, Harrop and Gibbs (Drafting an Army: The Playful Pastime of Warhammer 40,000, 2014) found that "The participants we interviewed identified the social atmosphere of the event to be the primary reason why they choose to attend Arcanacon and Arcanacon only," Arcanacon being a yearly tabletop convention.

In their study of social play in board games, Xu et al. (2011) found that "chores" ("interactions arising from the bookkeeping activities required to maintain and update game state") may seem to be merely functional but are in fact critical for supporting player's engagement with each other. "Chores" like waiting for a turn, moving game pieces or learning rules provide support and opportunities for several kinds of social interactions.

### **2.3.2 Materialism and consumption**

A useful lens through which we can understand the strong emotions and actions exhibited over material goods, such as the Target trading card assault, is materialism. Belk (1984) defines materialism as: "The importance a consumer attaches to worldly possessions. At the highest levels of materialism, such possessions assume a central place in a person's life and are believed to provide the greatest sources of satisfaction and dissatisfaction". In "Game studies' material turn" (2012), Apperley and Jayeman write that game studies are starting to show "an increased concern for the contexts, uses and material qualities of games technologies on the one hand, as well as attentiveness to the situated analysis of play and players on the other". Tabletop games are curiously absent from their discussion, however, which only focuses on digital games.

The concept of consumption is also relevant to this discussion, as it involves "those social relationships, discourses, and practices which focus on the sale, acquisition, use, and disposal of commodities" (Mansvelt, 2017). Morewedge et al. (2021) write that technology-driven evolution of consumption has undermined psychological ownership of goods – "the feeling that a thing is 'MINE.'" Legal ownership of goods has in many cases been replaced with legal access to goods and services owned and used by others, while "solid" material goods have been replaced by "liquid" experiential goods. In a game context, purchasing digital M:TGA cards is more akin to paying for legal access, as the consumer doesn't necessarily own the cards in the same way that they can own physical M:TG cards – M:TGA

cards are not material cards that can be traded or sold. M:TGA's nature as an online digital game also means that access to the cards can be revoked at any point by having one's account banned or by having the servers go offline forever, which will inevitably occur at some point in the future.

Park and Deshpande studied the consumption processes of male Warhammer enthusiasts, basing their study on Cova's work with consumer tribes (1997). Cova suggested that individuals create bonds and form communities through consuming products and experiences together. Some factors that impacted Warhammer consumption were socialization, attraction to imaginary violence, competitiveness, creativity. More discussion of Park and Deshpande's work appears later in this section.

Consumption has, among other things, been tied to rituals. Many have attempted to specify what defines a ritual, with Wang, Sun & Kramer (2021) offering the (somewhat marketing-centric) idea of "a type of behavior, provided by marketers or created by consumers, made up of several steps performed in a fixed sequence with formality, rigidity, and repetition and imbued with a sense of meaning". In their study of food and drink-related rituals such as preparing tea, they argue that rituals can help engender meaning, reduce loneliness and improve consumer well-being.

### **2.3.3 The role of the dice**

In "The roll of the dice in Warhammer 40,000", Carter, Harrop and Gibbs (2014) write that many approaches to digitally augmenting non-digital games have seen rolling dice as something menial or tedious that should be designed away. They disagree with this notion, arguing that the physicality of dice "has a positive effect on players' experience and enjoyment of the game. This occurs through their tangibility, their role as a representational object (situationally, imaginatively and audibly), and through enabling shared experiences".

Dice are sometimes the object of superstitions, with players performing personal rituals and believing some dice and players to be "cursed". Actor Wil Wheaton is famous in gaming circles for consistently rolling poorly in roleplaying and board games, giving rise to a running joke about a "dice curse". Before a climactic battle in the D&D show *Critical Role's* first campaign, Wheaton was filmed touching the game's Dungeon Master (who controls all non-player characters and enemies in the game) and their play space in the hopes of transferring his bad luck (*Critical Scope*, 2016).

The existence of superstition in dice-based games and gambling has been examined by several authors in the past. In his study of the dice game craps, Henslin (1967) found that players did not play solely based on probability and odds but were convinced that they could control the dice by various means. This informed players' beliefs and strategies, and players modified their behaviour to fit their beliefs. Henslin dubbed these beliefs and practices "magic", as there were no logical or empirical connections between players' words and actions and the outcome of the dice. One of the strongest beliefs was that control could be maximised by throwing the dice in the correct way. A hard throw was associated with high rolls, while a soft throw would lead to a low roll. Further control could be exercised by showing concentration and effort, taking one's time and "talkin' to the dice", or by rituals such as rubbing the dice. Meanwhile, not displaying the proper amount of concentration or confidence, or dropping or changing the dice, was believed to have a negative impact on outcomes. Langer and Roth (1975) found that "the more involved people are in a chance task,

the more likely it is that they will experience an illusion of control”. This seems to support Henslin’s findings, where players believed involvement in the game to be an important factor for success. Strickland, Lewicki and Katz (1966) showed that gamblers were more confident about winning when throwing dice themselves, instead of someone else throwing for them, even if the probability of winning was the same in both cases. Bersabé and Arias (2000) found that gamblers “were more confident of winning in the situations in which they had previously happened to win most” and vice versa. A magnetic bracelet became a lucky charm for gamblers who won early throws, while losing gamblers felt less confident about winning when wearing it. The many actions taken by gamblers and dice players could be seen as types of rituals. Brooks et al. (2016) argue that performing rituals can improve performance in everything from public speaking to sports by decreasing anxiety.

In some ways dice can become anthropomorphized, with players forming strong emotions about them depending on their performance. Gil Ramirez, who forged metal dice for cast members of Critical Role, recalls that: “The first I heard any mention of cursing the dice came from Liam that night I handed [the dice to the cast]. He said something along the lines of ‘[f—] you, (turning to me) I mean thank you for the dice, but (turning back to the D20) [f—] you’” (Litorco, 2017). Some players place poorly performing dice in “dice jails”, “shame chairs” or other similar contraptions, evoking images of misbehaving children being punished. “When your dice misbehave on a critical save, attack or ability check then give them a time out in one of our cute little dice jails!”, reads the description of a bestselling dice jail on the Etsy marketplace (Wood M. , u.d.).

#### **2.3.4 Miniatures**

The idea of using miniatures – in this context physical figurines used as game pieces, often depicting people – for playing games may be thousands of years old. Halter (2006) writes that “archeologists have uncovered small sculptures of warriors that may have been used as game pieces” from Egypt and Mesopotamia (p. 6). Egyptian tomb murals dated from around 2000 B.C. appear to depict two men playing the games *senet* and *t’au* with “sculptures that suggest tiny human figures – finger-high pillars topped with head-bulbs (p. 11)”. Chess and its various predecessors could also be seen as early examples of using representational figures. A common ancestor of today’s miniatures wargames is the *kriegspiel*, initially devised by the German Baron von Reisswitz in 1811 and later updated and published by his son in 1824. The game was initially played with small wooden markers representing various military units, but its popularity among the German royalty spawned an improved version with miniature troops carved from porcelain (among other improvements). The baron’s son would add topographical scale maps and replaced the porcelain troops with to-scale metal figures for infantry, cavalry, and artillery units. He also downsized the game from needing an immensely large table to being able to fit all the components in a small, portable case the size of a cigar box. The *kriegspiel* would continue to grow and evolve, remaining a popular pastime for many years and seeing use as a training tool by several European armies. Among other things, it eventually led to collecting and playing games with miniature metal soldiers becoming something of a trend among the elites of early 20<sup>th</sup> century Britain, with famous figures like Robert Louis Stevenson, H.G. Wells and Winston Churchill being known to have engaged in the hobby.

The late 20<sup>th</sup> and early 21<sup>st</sup> century has seen a shift towards plastic miniatures, often depicting characters from science fiction and fantasy worlds. Park and Deshpande (2004) highlight the importance of miniatures in their study of the consumption processes of male

Warhammer enthusiasts, who focused on the actual interactions with physical figurines: “They were drawn by the figurines’ visual appeal and often invested a lot of time and effort in painting and assembling these warrior replicas”. Warhammer players interviewed in Carter, Gibbs’ and Harrop’s “Drafting an Army: The Playful Pastime of Warhammer 40,000” (2014) found that activities such as assembling and painting miniatures and choosing units for one’s army were important. Painting and modelling miniatures was frequently described by players as a “relaxing, chilled out activity”, justifying the cost of miniatures in the craftsmanship and physicality of painting and owning an army. They found that “the aesthetic appearance of an army was very important to players [...] the potential to show off particular painting or conversion skills was very influential on the units that they selected for their army”. Several players collected and painted armies without ever playing the actual tabletop games, indicating that the activity held independent appeal.

### **2.3.5 Cards and booster packs**

One of the main ways to get cards in most trading card games is to purchase packs of cards, often called “booster packs”, containing a set number of random cards. Searching Youtube for booster pack openings results in hundreds of videos, many of them with hundreds of thousands or even millions of views. “That’s a frickin’ Black Lotus!” exclaims Youtube user openboosters in a video with over 6,900,000 views (openboosters, 2014). They proceed to laugh in disbelief at having just opened a pack of vintage M:TG cards and drawn one of the rarest cards in the game. openboosters operates like a surgeon or an art conservationist, carefully cutting open the pack with a hobby knife and thumbing through the cards wearing gloves.

openbooster’s video is noteworthy for their excitement and the value of the drawn cards, but other unboxing videos highlight different aspects of opening packs. Among other things, it has been the subject of many videos intending to induce Autonomous Sensory Meridian Response (ASMR), a supposedly pleasant “previously unstudied sensory phenomenon, in which individuals experience a tingling, static-like sensation across the scalp, back of the neck and at times further areas in response to specific triggering audio and visual stimuli” (Barratt, Davis, 2015) These ASMR videos, many of which reach hundreds of thousands of views, highlight the crinkling and tearing of the booster packs’ plastic and the sounds of shuffling cards. Similar videos for opening digital Magic: The Gathering and Pokémon booster packs do exist, but they generally have significantly less views. Charles Pulliam-Moore writes that unboxing Pokémon cards is “very much a part of the streaming age’s obsession with parasocial relationship-inducing unboxing videos.” (2020)

Aside from the physical and auditory aspects of opening card packs, there is also the smell. As Digges (2008) writes: “I love that smell [...] that wafts out of a just-opened booster pack, clings to the flow wrap, and lingers on the cards as you fan them out [...] It’s that new card smell”. They go on to write that while the smell is not necessarily a pleasant one, it triggers a sort of Pavlovian response in them due to the excitement of getting new cards. Digges is not alone in this enjoyment, either: many posts on forums and social media highlight the sensation of smelling a freshly opened booster pack, with some likening it to drug addiction and others claiming to be able to discern between old and new booster packs based on the smell alone. The description of the M:TG card R&D’s Secret Lair could be interpreted as a joking reference to smelling cards: “Let them complain. As long as the addictive ink is working, we can do anything we want”.



### 3 Problem statement

Carter, Harrop and Gibbs (The roll of the dice in Warhammer 40,000., 2014) argue that “non-digital games as subjects of study are nearly entirely overlooked in the modern discipline of game studies. This is despite tabletop games (encompassing board and strategy games) having had an essential, fundamental influence on the development of the modern digital game”. This not only undermines the historical and ludological importance of tabletop games but is also problematic for our understanding of the history and evolution of both tabletop and digital games. They also argue that to understand some tabletop games like Warhammer 40,000, one must view the playing of the games as “one of a broad variety of inextricably interlinked practices engaged in by players” over “a wide variety of times, locations, and contexts [...] To overlook this is to risk an impoverished understanding of the attraction and enjoyment of the game” (Drafting an Army: The Playful Pastime of Warhammer 40,000, 2014).

This study follows in the footsteps of authors like Carter, Harrop and Gibbs as well as Xu et al. (2011), with the goal examining the experiences of contemporary tabletop game players. What aspects of tabletop games engage them? More specifically, how does playing digital representations of these games affect the player experience compared to physical play? How has COVID-19 impacted play experiences and ability to play? To gain a holistic view of players’ experiences, this study aims to examine both what goes on at the play table and around it, including social aspects like the ones highlighted in the works of Aytuna and Xu et al. Investigating these questions should provide not only a better understanding of tabletop games but may also generate insights about digital games and the digitization of tabletop games – both their present and their future. This study should also act as a form of time capsule, capturing the unique situation tabletop game players have found themselves in due the events of 2020 and 2021.

As this study aims to create an understanding of participants’ experiences of contemporary tabletop game play, an open and qualitative approach will be used in place of establishing and trying to answer any one specific research question. The focus on physical and situated aspects of play in the literature makes materialism a relevant lens through which these player experiences can be understood. This study uses Carter, Harrop and Gibb’s definition of tabletop games as “the broad category of board, card, role-play, and miniature games that are played sitting around a table including board games like Settlers of Catan and Chess; card games such as Magic: The Gathering, and Poker; role-playing games such as Dungeons and Dragons; and war games such as W40K that do not involve the digitization of game processes” (Drafting an Army: The Playful Pastime of Warhammer 40,000, 2014).

## 4 Method

A literature review was carried out to form the background and research question of this thesis. The review consisted of academic literature, online media, investor reports and other material, largely from game-related spaces. Databases used in searching for these materials include Google Scholar, the ToDIGRA archives, LibSearch, ACM Digital Library, SAGE Journals. Non-academic sources include Google and Youtube. Search terms included words and phrases such as “tabletop games”, “materialism”, “consumption”, “dice”, “miniatures”, “board games”, “card games” etcetera. The University of Skövde Library was also utilized to find non-digital books and journals.

To examine contemporary tabletop play, it was decided that interviews would be carried out with several tabletop players.

### 4.1 Recruitment process

To investigate the experience of physical and remote/digital play, the author chose to recruit participants who had experiences playing tabletop games both physically as well as remotely.

Recruitment was done via a combination of convenience sampling, reaching out to game-adjacent communities, and snowball sampling, where participants were asked to recommend friends and members of their gaming groups who could be interested in participating. Convenience sampling was used to recruit four out of six participants, as the author is embedded in several tabletop gaming groups focusing on different types of games. This made it possible to identify information-rich cases with experience and interest in different areas of tabletop gaming, as well as easily verify participants’ experiences. Prior familiarity with the author may also have helped participants be more open in their responses. One participant was recruited via snowball sampling, and one was recruited through contacting a research community.

All the participants recruited via convenience and snowball sampling were men. Two women were contacted via snowball sampling but declined to participate. One participant was non-binary. The use of convenience sampling led to recruitment being constrained largely to a particular type of player. Many participants were part of the same gaming groups, making it highly likely that there would be overlap in their gaming preferences and opinions. While this overlap allowed for multiple perspectives on the same games and practices, readers should keep in mind that this may also have limited the study’s overall range of perspectives and opinions. For further discussion on this topic, see section 7.3.

A pilot test was conducted, the results of which are included in this report as no major changes had to be made to the method based on it. The pilot participant, Lars, was chosen partly due to their prior knowledge with several of the games being studied and partly due to their connection with multiple gaming groups, which helped with snowball sampling.

### 4.2 Interview methodology

To investigate the topics discussed in the problem statement, semi-structured interviews were carried out with players of different tabletop games. 6 players were interviewed using the same set of pre-written questions, with the semi-structured format allowing interviews to evolve naturally based on what each participant played and found important

about their hobby. Questions focused on their game-playing experiences, both before and during the COVID-19 pandemic - what games they played, if and how they played them digitally and how that changed the experience. Questions were also asked about memorable gaming moments and whether participants purchased and engaged with cards, dice, miniatures etcetera. These questions were formulated to provide a holistic view of participants' experiences, as well as uncover their thoughts on physical versus digital play. See Appendix A for the basic questions.

Interviews were carried out over voice and video chat in the online text and voice chat platform Discord. The interviews were recorded with the video recording program OBS Studio to help analysis and were also time-stamped and annotated in real-time. There was no set time limit for the interviews, which ranged in length from roughly one to two hours. In some cases, follow-up questions were asked after the interview by sending Discording messages to the participants. Most of the interviews were carried out in Swedish, with quotes being translated into English. Some quotes were condensed and edited for clarity.

The interview data was analyzed using thematic analysis, where participants' statements were analyzed and compared to find larger themes. This made it possible to create an ontology of sorts out of the results.

### **4.3 Ethical considerations**

This study followed the ethical requirements laid out by the Swedish Research Council (2002) concerning information, consent, confidentiality, anonymity, and data usage. All participants were sent a consent document before their interviews. This document included information about the study's goals, how it would be carried out, and what data would be gathered (including that quotes from their interviews may appear in a publicly available report but would be anonymized). They were informed that participation was voluntary and non-binding and that they had the ability to withdraw their consent at any time, including during or after the interview, without any repercussions – in that case, any data related to them would be deleted as soon as possible. See appendix B for the full consent form. All gathered data was anonymized, and the video recordings were stored locally so that only the author had access to them. The data is set to be deleted upon completion of the thesis.

As this study was highly qualitative, a delicate balance had to be maintained in providing thick enough descriptions of participants so that the readers would understand who they were without compromising participants' anonymity. The author's solution to this was to keep participant descriptions relatively limited, focusing mainly on which games they played and with whom, and allowing the reader to better get to know the participants through the participants' own words in their quotes. Participants were also consulted on how they wished to be identified in the text to protect their identities – each participant chose their own name as it appears in this text. All participants are identified in the text with “they/them” pronouns.

## 5 Results

Lars lived in Sweden and was part of three role-playing groups: one included Chris, and one included the author, Jan, and Timmy. Out of Lars' D&D groups, one had been fully physical, one had evolved from physical to physical mixed with remote to fully remote, and one was fully remote from the beginning. They played role-playing games like D&D and *World of Darkness* (1991-2016) weekly, regularly played physical M:TG and had played some board games. While they were highly invested in building and painting Warhammer miniatures, they had played little to none of the tabletop game(s). They were the pilot test participant.

Chris lived in Sweden. They played role-playing games like D&D and *World of Darkness* weekly together with Lars and had at one point been a regular player of Warhammer 40,000 and board games. They had spent some time building and painting miniatures for their Warhammer armies.

L lived in the USA. They were a regular player of role-playing games like D&D, *Legend* (2013) and *Legend of the Five Rings* (1997). They regularly played physical M:TG before Covid-19 and liked to collect and sell cards.

Emil lived in Sweden. They played primarily board games like *Carcassonne* (2000) and *Twilight Imperium: Fourth Edition* (2017) with the author, as well as M:TG (including Arena), chess, and poker.

Jan lived in Sweden. They primarily played D&D with the author, Lars, and Timmy, and had also spent some time with M:TGA with the author and Timmy.

Timmy lived in Sweden. They played D&D, digital card games like M:TGA and *Yu-Gi-Oh! Duel Links* (2016) as well as board games like *Pandemic* (2008). They built and painted Warhammer 40,000 miniatures, but had not played the game – they did, however, play several board games set in the Warhammer universe such as *Warhammer Underworlds: Shadespire* (2017) and *Warhammer Quest: Blackstone Fortress* (2018).

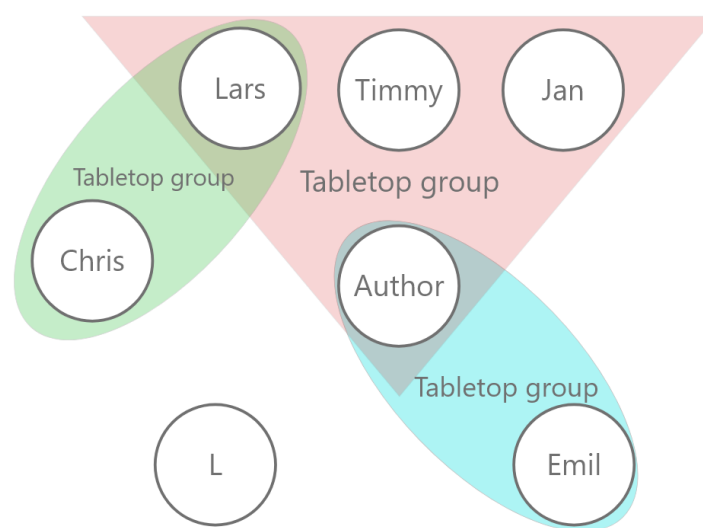


Figure 1. Diagram of participant relationships

## 5.1 Factors influencing remote play

All participants had experience playing tabletop games remotely or in digital form. COVID-19 had different amounts of impact per participant and game, but physical distance was a recurring theme among all participants.

### 5.1.1 COVID-19

Timmy was the participant most immediately affected by COVID-19, as they had actually been infected with the virus. This had forced them to put their tabletop game nights on hold, as they didn't want to meet their group until it felt safe. This impacted not only board games like Warhammer Quest: Blackstone Fortress, but also Warhammer 40,000, which Timmy "absolutely wanted" to start playing but had been unable to, partly due to being infected, and partly because their gaming group lacked the materials needed to assemble their armies – they didn't want to play without having finished painting their miniatures first. They had enough miniatures, but many of the necessary painting materials like primer sprays had been out of stock for weeks – in some cases months - at the time of the interview, likely due to COVID-19 (see Section 2.1.4 for more information on this). However, they had been able to continue playing D&D online, even having slightly more time to do so as they could not work for two weeks.

A player in Chris' D&D group had worked in the restaurant industry and COVID-19 had forced them to leave the group to find work, ending a two-year long campaign in the process. "It was a simple, tragic thing, because we all like that dude, it's very fun to play with him, and he was the DM of one of the campaigns we played. It was straight up a shame to have to shut that down, because we had invested a lot of time into those characters and that friend group was very attached to that campaign. It was the first one that group had played [...] We had maybe half a year left to go, story-wise."

Aside from this, role-playing game play was overall relatively unaffected by COVID-19 - if anything, several participants played them more often than before during the pandemic. This limited impact might be because even before COVID-19, all participants who played role-playing games had shifted to primarily or exclusively playing remotely due to distance (see section 5.1.2).

COVID-19 impacted participants' play of M:TG in different ways. Lars noted that buying specific M:TG cards online had become more difficult "because a lot of people are at home buying cards", but that they had managed to play the game itself far more than usual – they estimated at least twice or three times as many play sessions per month. They played the game physically with what they described as a "safe group" of friends: "You can't go out anywhere, so what do you do? Order a pizza and play a little Magic." L, on the other hand, was playing little to no Magic as they did not have other players physically present. Before COVID-19, they would go to tournaments, pre-release events, Friday Night Magic events, and Wednesday game nights at their local gaming store, partly to get cards but mainly to play with friends and meet people. Emil had only played one physical game of Magic since the pandemic began but had been playing Arena more frequently. They had been to some tournaments and pre-release events before COVID-19 but did not do it regularly, as they did not see M:TG as a way to meet people and were mainly interested in playing the game.

### 5.1.2 Physical distance

Among the participants, playing tabletop games remotely was rarely a choice and more often a necessity. In many cases they had either moved away from their gaming groups and spaces or had others move away from them, necessitating online play. “If we wanted to continue, we had to do it online,” Timmy said about his D&D group, which had begun as a physical game but had to transition to remote play.

Chris had played games physically in the past, but as they and other group members had to move it became increasingly difficult to schedule in-person sessions. Their new, current role-playing group was fully remote and consisted of players living in Sweden, Germany, and the USA, spread out over three different time zones. Chris had also moved away from their Warhammer store to attend university, causing an abrupt, “unfortunate” cut-off in communication with the other players at the store who they had gotten to know. Their play of the game dropped significantly, as they found they did not have the time or energy to find a new group due to schoolwork. Chris did not play any Warhammer tabletop games remotely – they acknowledged that they may be able to do so via Tabletop Simulator, but it was not something they had looked into. Before COVID-19, Chris would travel to a yearly tabletop convention to meet with friends and play games.

L played D&D via Roll20 and Discord as it “just got a little bit easier to play online [...] everyone doesn’t have to be in the same spot”. It was “handy” to be able to call in from different places, as players lived in different parts of the USA. Playing online “has its perks” for them – “it is pretty nice where I can be part of four campaigns at the same time [...] At any given week three of them could be going on.” This would not be possible when playing physically, they meant: “I wouldn’t be able to, y’know, [sigh], there is the physical aspect of going to a place, and also, when you’re playing D&D, I – especially as a PhD student – have so many things I do at the same time... Honestly, whenever it’s not my turn I’m grading papers, I’m writing something, I’m doing something else, when the spotlight if you will is on somebody else and I’m not related to it in the least bit [...] You do your [expletive] while I’m grading papers.”

Emil used to regularly play board games like Carcassonne and *Small World* (2009) physically with a dedicated group, but most of the players (including Emil) had to move to attend different universities across Sweden. Nowadays, Emil and their group played the same games online via video game adaptations of them, although it did not occur nearly as frequently.

## 5.2 Social aspects of play

A clear theme that emerged was the importance of the social aspects of physically playing tabletop games. All participants enjoyed playing physically, preferring it over digital/remote play. A common refrain was that digital play lacked the same “feeling” or “connection” as physical play. “It’s not quite the same feeling [...] it becomes more of a social meeting when you actually meet each other in person [...] the social factor is way better,” said Jan. Chris said that “the physical will always be better, just because of direct reactions and stuff like that [...] even with cameras, it’s not quite the same thing, you don’t really get the same energy and it’s more difficult to talk over each other on Discord than it is in real life. In real life, it’s easy to do it without someone misunderstanding or not hearing.” Lars found that digital play lacked “a certain intimacy from being present.” Timmy highlighted “the physical

camaraderie of being in the same space as your party members [...] you can look at them if you feel like it, have a long discussion that really doesn't have any outcome on the story, but you can have it, there's nothing that can really interrupt it because you're in a physical, heated conversation at that point [...] It's the same thing as... I guess, yeah, hanging in a Discord call and watching a movie together. It's fun and everyone likes it, but it's always more fun to be in a room together - despite it starting to smell like sweat at the end of the night – and being able to talk to someone face to face.”

L gave D&D the nickname “Social Interaction: The Game”. “There is that social aspect that's missing from remote that you get in person [...] at the heart of it [...] you're ordering pizza, you're just sitting around. Maybe if you're, y'know, an adult, you're drinking beer [laughs]. Just get really trashed and play D&D [laughs] [...] it's a huge kind of social game, but it's really hard to accomplish that remotely.” Among other things, they missed the ability to have side conversations with others at the table during physical D&D sessions. “If a DM is interacting with another player, there's three or four players just sitting there, twiddling their thumbs. In person, sometimes what would end up happening [is] the DM is talking to a player, they're going through their scene – while that's happening, me and somebody next to me would be like ‘Oh, okay, cool, so what would you like to do for this next part?’ [...] especially in combat [...] our characters would be talking to one another. [...] That's kind of absent from [the] digital context, because the nature of audio output – that's just the technology. If a bunch of people are talking at the same time but there's only one output when it comes to audio, it's just a huge, mangled mess. Versus in person, you can just lean over to the person next to you and just whisper in their ear – you could do a private chat on Discord and chat with them in that way, but there is that thing where you're sitting at the table whispering in the ear and trying to figure something out and then coming back.”

Emil found that playing games like M:TG physically allowed them to see their opponent and engage with them socially. They also found that M:TG was less competitive when playing physically, but this seemed to depend on what format they were playing. When playing online, they “might as well have played against a bot”. They felt they did not get quite the same connection with other players while playing board games digitally, even with friends, as players often focused on things other than the game. When playing physically, players had to be more present and active at the table – “people don't sit there fidgeting with their phones, because that's rude.” When playing remotely, Jan found that there was the risk of “distractions in a digital environment, because you have the ability to have lots of other windows open on the side [...] You have to make sure that everyone in the group have respect for each other, and respect that you've decided to play together.”

### **5.2.1 Role-playing**

Jan found that “There's a bit more immersion when everyone's together around the table, in the same room, looking at everyone and their roleplaying individually, instead of looking at it on a screen where it's a bit more difficult to see where it's aimed [...] It feels like it might be a bit easier to get immersed in the roleplaying when you're actually physically there together.” Part of this had to do with having the right mindset: “It feels more like a decided thing, now we've decided that everyone gathers here physically at this time and are going to hang out and play D&D together. Everyone has more of a predetermined mindset to what you're going to do more than just connecting digitally.”

Lars enjoyed that playing physically allowed for “theatricality”. Much of one of their D&D campaigns had been played inside the meeting rooms and lecture halls of a university, and they had been able to stand at a podium for the campaign’s climactic final battle. Their voice as the villain booming through the lecture hall as snow fell outside the window had made for a dramatic and memorable ending to the campaign.

### **5.2.2 Game-adjacent activities**

What happened around gameplay - before, during, and after - played a big role for participants. Before an in-person session began, Lars would put on music, open their door, sit on their balcony and see their players arriving. A lot of the experience had to do with meeting people in real life, Lars said. During play, they enjoyed how physically present players could bring snacks, walk around the table, have the TV on in the background, and go out and smoke cigarettes together in between rounds – when playing via Discord they “may as well play a video game.” After a session, they would “perhaps have a few movies ready to watch together.” They felt that playing digitally and logging off after saying goodbye didn’t allow players to “wind down” in the same way as when playing physically, when players could talk while packing up the game, getting their jackets and driving or walking home together. Disconnecting from a Discord call felt more abrupt. At one point Lars only met their first Dungeons & Dragons group two or three times a year. They would make weekend-long events out of playing the game, playing long into the night, talking, drinking wine and eating pizza – when players took breaks for food or drinks, Lars would assemble maps out of Warhammer terrain for the next encounter. Chris liked to play tabletop games with a group of friends, take a break for pizza, play some more and then transition into watching movies later in the evening. Several participants noted getting food before, during, or after play, and all of them named pizza as their food of choice. Emil had taken a lunch break for pizza in the middle of their six-hour long session of the strategy board game Twilight Imperium. This was not only to get food and some exercise, but also to get a break from the intense thinking they had to do during play.

The importance of social aspects also extended to game-related activities like opening booster packs. Both Lars and L only opened Magic: The Gathering booster packs together with others – Lars said it was “more fun” that way, and L could not remember a single time they had opened a pack on their own – “Why would I?” L played formats like Pack Wars, where players have booster packs act as their card decks, expressly to “add more to sociability to opening the box.”

### **5.2.3 Memorable moments**

When participants were asked about their most memorable gaming moments, many of these moments had to do with other players and their strong emotional reactions.

L enraged another M:TG player with the card Gomazoa, which could force them to shuffle their deck. “Long story short, this [expletive] that I was playing with [...] he was so upset that I had two Gomazoas and he was like ‘No, [expletive] that’ [...] He killed it [...] And he just [expletive] went ‘Yes! Yes, your [expletive]’s dead’ [...] he was so mad, and I’m like ‘Got bad news for you buddy – tap three, Gomazoa – [expletive]!’ [laughs] [...] Gomazoa’s hands down one of my low-key favourite cards because of that moment.”

Emil found that their memorable moments were connected to the people playing rather than anything in the games themselves. When they drew four Jacks in a game of poker, it was so



unexpected that they and the others at the table stood up and started yelling – “group psychosis”, as they described it. During another game of poker, they decided to play a prank on a player who had left the table for a bathroom break. All the remaining players at the table organized the deck of poker cards in such a way that the other player would draw a royal straight flush, one of the rarest card hands in the game. Once the player returned from their break and drew the royal straight flush, the rest of the players immediately folded to ensure that they would not get to play their rare hand. It was “fun to mess with [the other player].”

Lars remembered mannerisms that revealed themselves over long periods of time, when a player and their Dungeons & Dragons character would in some ways merge and patterns emerged. It became an in-joke in the group that one character always missed their attacks, as the character had a significant bonus to hit but their player consistently rolled incredibly poor results on their dice – “the best Ranger in the world who can never hit, it becomes a meme, like ‘Oh my god, he did it again’ [laughs].” Another player in the group was particularly strategy-minded; when a fight was going poorly, they would slam the table, stand up, walk around with their hands on their head, lean against walls to do calculations in their head, approach the table and lean over it to measure things, and overall become highly animated because “they were so in it”. Lars was highly animated themselves when retelling this, gesturing and pacing around the room. “They know that when a fight is difficult, [Player name] stands up.”

Jan initially found it difficult to pick any one moment, as there were so many – “it’s often that you get nostalgic memories of old moments, usually when you’re sitting there talking about it together you go ‘Oh, remember that time and that time...’”. One memorable moment was when they had to stop Timmy’s player character Trash from stealing from a non-player character: “We dragged him back into the inn, like ‘No, you’re not gonna get the entire village to just lynch us’ [laughs] [...] in character it was a funny situation, you weren’t thinking that ‘No, [expletive] you, Timmy, because you’re making it difficult’ [laughs], it was more like ‘[Expletive] you, Trash’ [...] That’s just Timmy’s playstyle.” Jan found that “there’s a piece of the same personality in every character, with a new shell on the outside [laughs] [...] it can be difficult to get away from entirely, because in the end it’s the same person who’s made it, so some part of their personality should shine through in the character. Even if they try to make a different type of character, sooner or later bits from their own perspective will probably come in.”

Chris enjoyed moments when players showed off their creativity and quick thinking, particularly in role-playing games. Warhammer, on the other hand, he thought “isn’t flexible enough for me to provide me with any really memorable moments.”

Playing tabletop games like D&D could hold a great amount of meaning to participants. “D&D is very important to, just, a lot of aspects of life,” said L. “A lot of things that I have built around that, and I’ve used D&D in terms of how I navigate through life, how I understand, y’know, how to live in this world.”

### **5.3 Materials**

Participants had strong opinions about the material aspects of tabletop games, like dice, miniatures and cards. These were important for participants’ satisfaction while playing games. Having personal ownership of these items was especially important.

Timmy noted that they had only played one digital board game and did not want to play more, because “it takes away the charm from the real version, which is to roll dice, change the map and move your miniatures and all that [...] It’s very important, at least when it comes to board games, because they usually have good and competent ideas, rules and designs for how the game should work, but a lot of it is also carried by the charm [...] the physical format does a lot for it [...] You have the entire physical playing field in front of you, if you’re an [expletive] you can move it if you want. You have the character you’re playing right in front of you, you don’t have to click ‘move three spaces’ on him, you can pick him up, move him three steps, you can pick him up and just look at him and look at how nicely sculpted he is – and if you’re a nerd you’ve painted him too.” L had tried playing a few board games online, but “I just haven’t gotten much into that [...] it’s pretty similar to why I haven’t played Magic [M:TG] online [...] there’s just something to the physical aspect of sitting around a board game, rolling a dice and moving the little pieces around, or do the cards and [expletive]. There’s just something about that that kind of needs to be there when you play board games. It’s not the same when you play it online.”

Material aspects manifested in some unexpected ways. L revealed during the interview that they wanted to propose to their partner, partly because they played D&D together. They had asked what their partner’s “dump stat” was (their character’s lowest ability score, what they’re weakest at in the game). “It’s Strength. He’s always been very insecure about being strong, because he’s a lanky kind of guy, hasn’t really had a lot of muscle, he didn’t really feel strong [...] On Etsy, I’m gonna get a +1 Strength ring as the engagement ring. Because it’s something we connected a whole lot on, because he got me into The Adventure Zone, and he played with me in D&D, and he’s playing with me in these other two campaigns. We’ve definitely connected a lot over D&D, to the point where I’m like ‘I wanna marry him’ and the ring I’m gonna get is related to D&D.”

The content and release schedule of physical D&D books is something that impacted play for at least one group. While Lars generally created his own worlds and storylines when acting as DM for his group, the group’s other DM (the author) generally used officially published adventure modules and setting books. In this way, WOTC and their financially motivated release of new books strongly influenced what adventures the party would go on and, by extension, what types of stories the players would and could tell together. Even Lars’ original settings would often incorporate newly published monsters, magic spells, and character abilities, subtly but meaningfully impacting these imagined worlds. Both Lars and the author would also “homebrew”, however, an enthusiast term for either altering official materials (such as giving published monsters new abilities) or creating entirely new content like unique rules or magic items. When 5<sup>th</sup> Edition was new, Lars would write and draw maps and encounters on packing slips during lunch breaks at work.

### **5.3.1 Dice**

All participants enjoyed physical dice, and most preferred them physically over digitally. Chris preferred physical dice but alternated between using them when acting as the Dungeon Master in role-playing games and using Roll20’s digital dice when they were a player. They found it “very satisfying” to roll lots of dice when playing Warhammer – it took time and was complicated but added “something extra”. They would like to own several sets of dice if their personal economy allowed it, as there was a “collector’s feel” and some added personality to different dice.

Dice were purely functional to Lars, who gladly switched over to rolling dice digitally when playing role-playing games on Roll20 because it was more convenient. At the same time, they thought that physically rolling dice and having to figure out the results was more exciting than having the results of digital dice appear in a chat box, especially since poor dice rolls could act as slapstick comedy. They also had two notable dice as “fun gimmick things” that could be used for dramatic effect when acting as the Dungeon Master. One was an oversized D20 that they used for important rolls. The other was a D20 painted to look like it was covered in blood – the lower the result, the more blood there was. The bloody dice was used to determine the results of critical, lingering injuries, which were more severe the lower the result was and could leave players with scars and missing limbs and eyes.

L loved physical dice, simultaneously stating that they had too many and that you could never have enough. There was “just something about that sound that is so nostalgic, so iconic to Dungeons & Dragons [...] [the] iconic sound of a d20 rolling on a table [...] You have to roll the dice.” Not rolling physical dice was something they felt “really sucks” about playing online. According to them, touching someone else’s dice set meant bad luck and if a d20 was “being an [expletive], you pop it in the freezer and get rid of all the bad luck.”

Both Jan and Timmy almost exclusively rolled physical dice despite having played D&D over Roll20 for several years. Jan owned five sets of dice, the majority of which were dedicated to specific characters and used only when playing as those characters. “I have something of a soft spot for my yellow set, just because it was the first set I had [...] I used it with my first character [...] There’s absolutely nothing special about them, they’re just totally plain yellow dice with black text, the simplest you can get more or less, but they still have a special spot just because of that.” As they said this, they could be seen looking up at their dice and smiling. “There is one set I have here that I haven’t even used [...] green marble or something like that [...] Because we’ve been in the same campaigns for so long, and the way that I usually do it is that I have a dedicated set for each character. Depending on which character I’m playing, I always use the same set for them [...] I don’t know why I do it, it’s just a fun thing.” Their different sets had developed “weird characteristic stuff”: they felt the yellow set “was being a [expletive] little [expletive] towards me” but was helpful and rolled acceptable results when needed. In both appearance and performance, they were “never anything extra, but stable”, which Jan felt matched the character that the dice were used with. When switching to a new set of teal dice (and a new character) they found them to “behave quite well”, feeling like they rolled better results than the yellow set, while also stating that “it’s all total [expletive], really [laughs].”

Timmy highlighted the satisfaction of holding dice in their hands, feeling the material it was made of, and dropping it and “hearing the sound of it clacking on the table [...] it’s difficult to explain but it’s satisfying to roll a die, it’s even more satisfying to roll multiple dice”. They were a collector of Transformers toys and likened the sound of dice specifically to the tactile feeling and sound of transforming an Optimus Prime with ball joints – “Click, click, click.” They always rolled on hard surfaces because of the sound it made. They felt a strong nostalgic connection to their set of “very beautiful” blue and purple dice, as it was their first set of dice that they owned and didn’t have to borrow from someone else: “It’s the ones I own, they are my dice, only I can roll them and no-one else.” They felt a connection between this dice set and the D&D characters they were used with and having to play with other dice would feel different. They had bought a second set of dice despite not needing them simply because they wanted more. Despite the satisfaction of physical dice, they found that being

able to roll digitally on Roll20 was convenient for when they had misplaced or didn't feel like fetching their dice.

### 5.3.2 Miniatures and components

The function and importance of miniatures was something that changed depending on the type of game. Lars and Chris had almost the exact same opinions, viewing miniatures as incredibly important for miniatures wargames like *Warhammer 40,000* (“display pieces”, said Lars), functionally useful for roleplaying games (Lars enjoyed collecting them, despite their “poor quality”, while Chris mainly used digital tokens) and a nice but non-essential bonus in board games like *Settlers of Catan* or *Carcassonne*. Lars stated that if *Carcassonne* had had “cooler miniatures” they would have bought more of the game's expansions. They also admitted to buying miniatures for games they were not interested in just to collect “cool” ones, throwing away accompanying rules cards etcetera. Chris shared similar sentiments, stating that miniatures “add more” to the play experience.

Lars, Chris, and Timmy engaged in building and painting *Warhammer* miniatures. The amount of time spent doing this had a negative correlation with the amount of time spent playing *Warhammer*. Lars had built and painted the most but had played little to none of the game – Chris, meanwhile, estimated that 70-80% of their time engaging in *Warhammer 40,000* was spent playing the game while the rest was spent on building and modelling. Consequently, Lars found building and painting more important than Chris did, although Chris still kept up to date on new releases and would like to buy more if they could afford it – they were also annoyed that more miniatures were not being released for their favorite army. Timmy had not played *Warhammer 40,000* but had built and painted several boxes of miniatures from the game. They had bought new miniatures shortly before their interview but had not had the time or patience to build and paint them. While they found the act “satisfying [...] relaxing and addictive”, it was also a “time sink [...] that required a lot of preparation and dedication” – they had to really want to build and paint if they were to choose that over activities like playing video games.

Both Lars and Timmy found it more satisfying to build miniatures than to paint them. Both enjoyed the freedom of expression that came with building, like being able to customize poses and equipment. They painted paintings and drew art in their free time and likened the miniature building process to sculpting, drawing and doing puzzles. Lars engaged in “kitbashing”, where they would take pieces from miniatures unrelated to one another and combine them into new, unique creations. Timmy found building and painting together with others to be “very fun” and they found it helpful to get feedback and praise for their work from others. Seeing others work on their miniatures also motivated Timmy and as such they took fewer breaks, likening it to seeing others at the gym – “at three in the morning you're done with all your miniatures, but your back does not feel good.” Lars, meanwhile, saw building and painting as a primarily solitary activity. They called it their “island”, describing their ideal scenario of a dark, rainy day where they wouldn't have to go out and could build miniatures alone with snacks and a “nice old B-movie”. The cup that they dipped their brushes in was “a camping cup made of plastic” that had been with them for multiple years, “mostly for practical reasons but also sentimental.”

Emil believed the quality of components like game pieces, tokens, and tiles could be especially important for how much they enjoyed a board game. They found *Agricola's* (2007) themed wooden game pieces to be a large part of why they enjoyed and remembered the

game. They also enjoyed the “smell of new plastic” when unboxing their new copy of *Twilight Imperium*. They did not feel the same about games like *Small World* and *Dominion* (2008), because “just cards and cardboard tokens” was not as special – they liked that miniatures etcetera were “something extra.” During play, however, Emil “almost [thought] it’s better” to play some board games digitally. Using *Carcassonne* as an example, they did not “get anything out of” placing the cardboard tiles, instead finding it annoying that they could be accidentally bumped and moved. To them, playing it digitally “made more mechanical sense.”

Using physical terrain was attractive to some participants. Lars described it as a “spectacle [...] works of art in miniature form” and was inspired by seeing the large terrain-based maps used in *Acquisitions Incorporated*. Chris had wanted to have maps, terrain, and physical miniatures for their role-playing sessions, but had not had the chance due to distance and finances. They felt they would need a large collection of components to have variety in their game, which could be difficult. They found it easier to make images of maps and tokens (used in place of miniatures) in Adobe Photoshop and importing them into Roll20, taking everywhere from 20 minutes to several hours creating maps for combat encounters. One of their most inspiring moments had been when their players had learned Photoshop to create a map for their in-game hideout – “It’s hard to get greater proof than that that they’re dedicated.” Similarly, while Lars did own a good amount of both physical terrain pieces and miniatures, they often employed the use of whiteboards, printer paper and items like dice cases to create quick and cost-effective maps and environments. Lars was used to this sort of DIY work for tabletop games: one of their first board games was the Swedish title *Drakborgen* (1985), and the malleability of the game was an important factor in their enjoyment. *Drakborgen*’s components were simple and easily replicable, allowing Lars and his friends to easily modify them and add their own mechanics, game modes and characters to the game.

### 5.3.3 Cards

Many of the participants who played card games were first introduced to them as children via games like the Pokémon trading card game, a staple of schoolyards in the late 1990’s and early 2000’s. “Everyone collected cards,” said Timmy. “We ran around, traded, messed things up for each other,” said Lars. L was introduced to M:TG when they were given cards by a cousin “because I was into Pokémon and Yu-Gi-Oh.”

Opening and collecting cards was important for many participants who played physical card games, particularly M:TG. Lars remarked on the smell - “just like opening a plastic toy” – which they associated with nostalgia. The way they opened their booster packs was something that had been impacted by online videos, as they mentioned that they had a “certain way” of doing it which they learned from Youtube videos. Chris preferred physical cards, enjoying the tactile feeling of opening packs and finding it “more involved” than opening digital packs in M:TGA. L opened their booster packs in a way that preserved the plastic as much as possible - “[I] don’t just rip it like a Christmas present.” L was not able to identify why they did this, as they threw the plastic away immediately afterwards. All three participants saw cards as collector’s items, with L owning “almost every” card depicting their favorite Planeswalker, Jace Beleren. Drawing a Jace card at an event was an especially memorable moment for them. Lars likened Pokémon cards to a new type of collector’s item like furniture or cars – “antiquities”. Chris had wanted to play more and collect cards, but they had trouble affording it. Multiple sets of M:TG cards are released every year, which they

saw as a barrier: “You almost have to buy [cards for] a couple thousand [Swedish Crowns] every other year to stay relevant.” Money is “part of the experience”, said L, who had sold an estimated 3000 USD worth of cards over 9 years. M:TGA cards had at one point become a point of tension that almost ended L’s relationship with their partner, as the partner had to take out loans and ended up in debt due to having bought too many cards – all without telling L.

Emil was an outlier when it came to cards. While they enjoyed opening booster packs, they found opening them just to add to their collection to be “worthless”, caring about cards mainly when they could build a playable deck out of them. These opinions were connected to their choice of play format, as they mainly played the Sealed Deck and Booster Draft formats where players construct card decks out of unopened booster packs during play. This differs from the Standard format, where players arrive to the table ready to play with pre-constructed decks. They owned several unopened booster packs, physical as well as digital, preferring to save them until they could play a Sealed Deck or Booster Draft game with them. They found being a “real collector” to be too expensive, stating that they did not see the value in it. Collecting was only ever discussed in connection with physical items – neither Emil nor any other participant, for example, mentioned collecting digital items like M:TGA cards.

Several participants put their cards in plastic card sleeves, for functional as well as aesthetic purposes. Lars found that sleeves not only protected the cards (pizza grease on players’ hands being one of the main risks) but also made shuffling easier. L double-sleeved their cards, once for aesthetics and once for protection. Their sleeves usually depicted attractive female anime characters, partly because they enjoyed the art and partly for “psyching out the opponent [...] like, ooh, look at this hot girl [...] you’re distracted by my sleeve.” Double-sleeving made their decks especially thick, which could potentially have gameplay ramifications – one of the rules of Standard format Magic is that a player must be able to shuffle their deck in their hands unassisted (Wizards of The Coast, u.d.).

Timmy mainly played card games digitally and when they did, they missed “drawing cards and hearing the squeak of plastic and cardboard when you lift it, having to look at cards physically and turning them in your hands”.

## **5.4 Usability/Ease of use**

Ease of use was one of the prominent benefits of digital play. Emil enjoyed playing M:TGA because it made it easier to follow the rules and “do it right”. They found that playing physically could become overwhelming, as one had to keep track of many cards and move them around the play space. When they first started to play the game, before the release of M:TGA, they had found it difficult and inaccessible “because there was no good online client”. Chris found M:TGA “very handy, a la Roll20”, enjoying how it was “user friendly” and that it gave them access to cards. Timmy mainly played card games digitally, as they did not live in an area where they could regularly play physically but could “click a button and always have someone to play with” digitally. They also enjoyed how easy the digital format made it to experiment with different cards and decks. In an ideal situation they would like to play “65% digitally and 35% physically”, as they wanted to play more physically but also found it to be more demanding (“planning, engagement, keeping track of rules”).

When playing digital versions of tabletop games, Timmy highlighted the convenience of having the game keep track of rules and possible actions, as playing physically sometimes

meant they would make errors that the computer could have prevented – “you don’t have to keep track of all the rules in your head – in a board game, you can make a mistake and play for several rounds without realizing that you’ve actually made a mistake”. At the same time, having the computer take care of the rules seemed to lead to some inflexibility. “When you’ve actually learned everything, it’s very satisfying to sit there with the person across from you and several others around you and discuss a bit: what is the most optimal move here? Should I move two steps here?”, said Timmy. “That’s also a thing you can’t do digitally – you can have a form of ‘breaking roleplay’ bit where you go ‘Okay, if I move two steps here and cut this NPC, would that be more effective than moving here instead and securing the objective? You can’t really do that in a digital game, you have the move you can do, and if you’ve done that then you can’t do anything else with it. When playing Magic or something like that in real life, if someone makes a misplay you can always be the gentleman and say ‘Nah, you didn’t do that, re-do it instead, you didn’t play that card.’”

Set-up time was a factor in how much participants were able to play games. Lars found that it took time to set up board games and teach or remind players about rules. Chris had more energy for board games than something like Warhammer 40,000 because board games were comparatively “easy to pick up”, less involved, and required less pre-planning. The complexity of Warhammer 40,000 and the dedication required to play was an especially noticeable barrier for participants. Lars was invested in many aspects of the Warhammer universe - building and painting miniatures, playing video games, reading novels - but had played little to none of the game itself. This was due to “a lot of model-moving”, it being too time-consuming and them lacking a dedicated group to play with. There were also barriers related to transportation - if they had wanted to play the game, they would likely have to buy cases to transport their miniatures in – “very cumbersome”.

In at least one case, poor usability made a participant stop playing a game. Chris thought that the roleplaying game *Scion* (2007) had “a really cool world but really bad books [...] extremely poorly written [in terms of layout] [...] there were really cool powers, very cool world, but the way NPCs were written and how character sheets ended up looking – especially when you got up in levels a bit – it was a mess, it was difficult to parse, especially for a new player to figure out ‘What the [expletive] it is I can do’.” They stated that they would likely still play the game if the layout had been better, “almost guaranteed”. They felt that an app or a digital companion might have been a big help, as the game relied on many keywords that “you didn’t have anywhere on the character sheet or anywhere where you could actually look up what these 20-30 different things actually did, so you had to memorize all of it”.

Chris owned several roleplaying rulebooks but preferred the convenience of searching for role-playing material digitally over having to flip through the books. They didn’t initially own books, having at first used PDF files that “I’m pretty sure weren’t entirely legal [...] When you’re a student, can’t afford them or don’t even know where you can buy them, it was easier to find them for free than to find where to buy them.” Having easy access to information via websites etcetera was convenient for Chris, whether they were building a D&D or World of Darkness character or looking up the rules for a game of Warhammer 40,000. When playing D&D, Jan found it “easier to quickly look up rules, take notes, keep track of character sheets and spell descriptions when everyone can check it on the computer instead of having to look it up in physical books or pull things up on their phone.”

L used Roll20 and a Discord-based dice bot when playing role-playing games, often having a computer calculate things like dice results and damage. “There’s the benefit of not having to think about the numbers [...] it has reduced cognitive load by a lot.” They felt that it had perhaps streamlined the play experience: “All you do is click, so you can really just focus on the storytelling aspect and the character development [...] You don’t have to fumble with the mechanics of the game itself.” Having to flip to a certain page in a book to read about and figure out a rule was something that could disrupt the flow of the game. “If we were in person but there was only one sourcebook, then the DM looks at the book and we’re all waiting to see if he, or she, or they, determine what the rule is [...] access to information definitely increased when it came to being remotely.”

## 5.5 Engagement in related media

Most participants engaged in some form of media related to the tabletop games they played. Books about the story and lore of the various worlds of M:TG, for example, were part of L’s M:TG experience: “just the story behind the Planeswalkers and [expletive] is interesting.” Lars said that “Lore always heightens things”, and they had read several Warhammer 40,000 novels and sometimes based the color schemes of their miniatures on what would be lore-appropriate.

### 5.5.1 Digital games

Digital games (or *video games*, in this case *not* direct adaptations of tabletop games) were a common way for participants to engage with tabletop game franchises. Lars, Chris and Timmy were particularly big fans of Warhammer video games, with Lars and Chris being especially invested in the *Total War: Warhammer* (2016-2021) franchise of real-time strategy games. This was not entirely a replacement for the tabletop game, however; “Nothing could replace it,” said Chris, who would “choose the tabletop game every time” if they could. They saw these games as something that existed “on top of” their interest in the tabletop game because they were so different. Chris believed that the video games had helped them retain their interest in the tabletop game and purchasing miniatures. Both Lars and Chris felt that when playing games based on tabletop games, they would rather have a game that played to the strengths of being a video game rather than trying to directly replicate a tabletop game. 200 troops were unrealistically unwieldy in tabletop Warhammer but was manageable and fun in the Total War: Warhammer games, said Chris – “things that only a video game can [do]”. Lars enjoyed the Total War: Warhammer games for similar reasons, stating that it was “what you imagine the tabletop game to be like.” Lars, Jan, Timmy, and the author regularly played the game *Warhammer: Vermintide 2* (2018) together in a group.

Emil played several video games that directly adapted board games like *Scythe* (2016), *Carcassonne*, and *Small World* (see Section 5.1.2), and had also been introduced to M:TG via a video game version released prior to M:TGA.

### 5.5.2 Online content

For several participants, online content like podcasts, videos, and social media comments were an important part of their hobby, and in many cases, what got them interested in playing tabletop games.



Jan was introduced to D&D via live-streamed game sessions on the streaming platform Twitch. “Of course, it’s a bit different compared to a home session when it’s more produced to be a show.” They looked into more livestreamed sessions (among them Critical Role) and read the rules of the game: “I wanted to play it for myself long before I had the opportunity to do it, but it feels like it’s not always the easiest thing to just find a group to play with. You might find one if you’re open to random groups on Roll20 and asking random people, then I’m sure you can find one, but I’m not super comfortable [laughs] with just talking to random people and strangers.” Jan maintained his interest in D&D via online content for several years. They eventually found a group (consisting of Lars, Timmy, the author and another player) at an organized event at his university, “a very good opportunity to actually meet like-minded people in person and actually get to know people who were interested in it”. Jan continues to watch different D&D groups on Twitch today, especially if they get early access to new official content like adventure modules.

Lars was introduced to D&D via the online video series Counter Monkey (2013), where the host Noah “Spoony” Antweiler would tell stories from old roleplaying campaigns – “if it’s a good session it sounds like a movie”, Lars said. Their key driver for playing the game themselves, however, came from Acquisitions Incorporated, without which “there likely wouldn’t have been any D&D for me [...] it was just normal dudes who sat and made jokes, messed around [...] a very chill, delightful environment, and it was a fun adventure too [...] because from Spoony’s stories, it was very serious, he’s a very intense human being. There’s also that typical look that you had with you of the D&D player, role-players, these nasty, sweaty nerds down in the basement, drinking Mountain Dew with cloaks on. Like, ooh, that’s a bit too nerdy even for me, that’s a bit much. Acquisitions showed that it can just be a fun night with pals, it doesn’t have to be serious.”

Timmy described their impetus for starting to play in 2016 being a “small explosion of videos, blogs, and funny scenarios described by people who played D&D at this point, more than I had ever heard of [...] In my head, I had always thought that D&D was the nerdiest of nerd things, but the more it seemed to pop up the more interested I became.”

While it hadn’t been their introduction to D&D, when asked if L engaged in any online D&D content, their response was “Oh my God yes [...] I listen to The Adventure Zone [...] a lot [...] that was actually something me and my partner really, really connected on [...] Oh my God, I was bawling, I was crying so much at the end, oh man. There were some moments where I was like ‘I didn’t think I’d cry at a D&D podcast and yet here I am.’”

## 6 Analysis

COVID-19 had a variety of effects on participants' tabletop play. While it made many in-person meetings difficult, all participants had already moved much or all of their tabletop gaming online – or put it on hold – due to players moving and not being able to participate in in-person game sessions even before COVID-19. One participant had actually been infected by the virus, while another had a player drop out due to pandemic-related work issues. In several cases, COVID-19 had increased the amount of time participants spent playing tabletop games as they couldn't go to work or bars and clubs. It had some effect on the materials needed to play the games, with items being out of stock or made more expensive by active collector's markets catalyzed by being in quarantine.

The social aspects of play were integral to the experience of tabletop gaming, especially when playing physically. The intimacy of being able to see and engage with other players - especially friends - was particularly important, and many memorable moments had to do with strong emotional reactions from players. Games enabled social interaction even when they were not being actively played, as participants enjoyed the time they spent with others before, outside of and after play. Breaks were a common time for socialization, as was setting up and tearing down games. Participants felt that playing remotely was generally not as good, as it lacked the same feeling of being present with others and made interactions like side conversations difficult. At the same time, playing remotely had allowed them to play with people who would otherwise be located too far away. Remote/digital play was generally done as a complement to physical play or as an alternative out of necessity for when physical play wasn't available, rather than actively replacing or supplanting it.

Material and tactile aspects of games were highly important to participants, whether it was dice, miniatures, components or cards. Playing physically had a unique feeling that digital or remote play could not match. The feel and sound of dice appeared to have an especially strong positive impact on player experience. Participants felt strong connections to their dice, with some having superstitions and rituals related to them and others anthropomorphizing them by assigning them characteristics and behaviors. To several participants, dice were individualized – only to be used by specific players, characters or during certain moments – and having ownership of the dice appeared to be important. Miniatures and components, meanwhile, enhanced the overall experience and made them stand out to the participants. Several participants collected cards and enjoyed opening card packs, with two of them doing it primarily as a social activity – this was also done in a sort of ritualistic manner, with specific ways of opening the packs.

Part of the appeal of tabletop games was the way they allowed for customizability and co-creation. Many of the nondigital games discussed in this study allow for some amount of customization and co-creation, whether that is altering the abilities of a monster in Dungeons & Dragons or inventing a new army regiment within the universe of Warhammer 40,000. This may be factor in their continued success – even if WOTC never released another adventure module for D&D, players have the tools to craft an endless number of adventures by themselves. Customizability was also an important factor for participants' enjoyment of miniatures.

There does seem to be some merit to the idea of digital games competing with nondigital games for participants' time, as tabletop games can require significant time investments and

at least one participant found digital games less demanding and time-consuming to play. At the same time, the results indicate that participants used digital games as an alternate way to engage with tabletop franchises like *Warhammer* and found that it helped maintain their interest in the nondigital game(s). Other related, non-game content like novels, videos, and podcasts filled much the same role, while also helping introduce participants to some of the tabletop games they played. D&D appears to have benefitted most from online content, as it helped de-stigmatize the game for participants, combatting negative stereotypes and presenting the appealing aspects of the games. Participants were emotionally invested in this non-game content, with one participant noting that they had cried over the finale of a D&D podcast.

Participants enjoyed the tools provided by platforms like Roll20, the Warhammer 40,000 app, and D&D Beyond, like being able to search for rules without having to consult their books. Most participants had digitally augmented their tabletop gaming in some way - be it rolling dice, consulting rulebooks or keeping track of health and equipment – even when playing primarily physically. Usability was one of the key benefits of digital play, as several participants enjoyed not having to keep track of rules, micro-manage, perform menial tasks, and make preventable mistakes. One participant felt that some tabletop games were better played digitally, as it made more mechanical sense to them and they were annoyed whenever game components were accidentally bumped and moved during physical play. At the same time, participants valued the flexibility of nondigital games, even as it could lead to them making mistakes, whether it was the malleability of physical components and miniatures allowing them to modify the games, or the ability to explore potential actions and being able to re-do and take back decisions if they made a mistake. Also, while they appreciated the convenience of having a computer handle tasks for them, one participant felt that even simple tasks like moving a game character was more satisfying when they could grab a physical item and move it themselves rather than clicking on a digital representation on a screen.

## 7 Conclusions

In this thesis, the blending of social rituals and materials have been revealed to be fundamental to players' experiences with tabletop games. The social aspect was one of the strongest motivators for playing tabletop games over doing other activities.

Remote play of tabletop games was largely seen as inferior to physical play. This appeared to be primarily due to the social experience that physical play enabled but was also related to material aspects like rolling dice and collecting cards.

Participants enjoyed the convenience of digital tabletop tools and experiences, but completely digital play was relatively rare. Most participants used a mix of digital tools and physical materials to play tabletop games.

Players engaged in tabletop games via a variety of methods – not only playing the games, but also painting and building miniatures, reading novels based on tabletop game settings and consuming related online content.

The results suggest that nondigital and digital games can co-exist thanks to their own unique strengths and the different types of experiences they enable. This could help explain the popularity of nondigital games at a time when digital games are more prevalent than ever. In fact, digital games are increasingly being turned into nondigital games, not just the other way around. Digital games like *Dark Souls* (2011), *Stellaris* (2016), *Horizon Zero Dawn* (2017), *Monster Hunter: World* (2018) and *Frostpunk* (2018) have all made the transition into tabletop games in the last few years.

While participants augmented their play with a variety of digital tools, completely digital play was rare, with most players still using some physical components. This was especially true for dice. This implies that digitalization of tabletop games is not a zero-sum game and that players are likely to mix and match digital and nondigital elements to suit their needs and preferences. Many modern tabletop games – including *Star Wars X-Wing Miniatures Game* (2012), *One Night Ultimate Werewolf* (2014), and *XCOM: The Board Game* (2015) (itself an adaptation of a digital game) - use digital companion apps to help facilitate some aspects of nondigital play. Instead of replacing tabletop games, these apps are meant to be used in conjunction with the games.

### 7.1 Discussion

The results about dice supported many previous studies, particularly Carter, Harrop and Gibbs' study on the role of dice in Warhammer and how they add to the enjoyment of the game. Both rolling and having to figure out results were exciting to participants, even when it could be time-consuming or difficult to do the required math. This supports Carter, Harrop and Gibbs' argument that rolling dice should not be seen as a menial task to be automated away. The results also reflected many of Henslin's findings about craps players, in particular their "magic" beliefs and practices about how dice could and should be controlled and how these lacked logical or empirical connections to the results of the dice rolls. Several participants discussed their "magic" beliefs about their dice, even as one of them acknowledged that it was not logical. This, combined with the preference among participants for owning and rolling their own dice, implies that players may find the perception of being

in control to be important when rolling. Perhaps their dice-rolling rituals helped alleviate performance anxiety, as Brooks et al. suggest.

The results also support Woods', Fine's, and Aytuna's ideas about the importance of the social aspects of tabletop play. Social interaction, especially with friends, was a key reason why participants played tabletop games. Without that element, some participants felt they may as well do something different like playing a video game. The importance of social interaction extended beyond gameplay, continuing into adjacent activities like painting miniatures, opening card packs and beyond. The camaraderie and shared experience of playing together appeared to become increasingly important to players the longer they had been with each other, and participants recalled in-game events and player characters with a similar warmth and nostalgia to when they recalled actual events and people. Together, they created group cultures, entire imagined worlds, inside jokes, and memories. Participants would often refer to their individual player characters or their group's characters as "I" or "we", particularly in role-playing games, implying an association between the player selves and the characters.

Carter, Harrop and Gibbs' idea of seeing the tabletop gaming hobby as a series of interlinked activities is particularly resonant, with most participants in the study engaging in their hobby in multiple overlapping ways – building and painting miniatures to use during play, playing video games, reading books, and engaging in online content like videos and podcasts. Some of these activities even had independent appeal, especially in the case of Warhammer where several participants engaged in miniatures, video games, and books from that universe but played little to none of the actual tabletop game(s). The author argues that interlinked activities go beyond game-related activities or content, as unrelated social rituals like getting food, drinking, and watching movies together were frequently part of the greater experience of playing games together with others.

Belker's ideas of material possessions occupying central roles in people's lives and being sources of satisfaction reverberated through the interviews. Material and tactile aspects of tabletop games were core to participants' satisfaction and enjoyment of these games, with participants valuing high-quality components. Participants took pride in their finest painted miniatures (supporting the findings of Park and Deshpande (2004)), feared losing their favorite dice sets, and valued their material card collections. Participants even highlighted the feel and smell of games' plastic packaging. Set up and space requirement appear to have been factors in the ease of use of playing games, something games like today's Warhammer seems to have in common with the 200-year-old *kriegspiel*. The bigger and more detailed the physical game was, the more difficult it could often be to get it on the table and actually played.

There was a dark side to this materialism, however. One participant's relationship nearly ended because their partner had become addicted to purchasing M:TG cards and fell into debt. Another participant felt that the amount of money they needed to spend kept them from playing more of games like M:TG. Furthermore, the impact of COVID-19-related shortages of items like cards and paints on participant's experiences shows that the unavailability of physical materials negatively affected their ability to engage with tabletop games. Engaging in the consumption of goods like trading cards and miniatures may have been a form of "retail therapy" for many people, quarantined at home with time and money on their hands and wishing to stave off boredom, loneliness and anxiety brought on by the

events of 2020-2021. While this may have provided some consumers with satisfaction, the literature and results suggest that it also caused stress and conflict for others.

While much of the findings had to do with purchased, ready-made game materials, the use of home-made DIY materials for tabletop play should not be overlooked. Many participants used maps drawn on whiteboards, office paper or in Photoshop, for example, especially when playing roleplaying games. Objects like specially made terrain and miniatures evidently added to the experience, but participants were sometimes willing to forego these for the sake of time, efficiency and/or money. This may be a factor in the success of games like D&D: while it can be played with table-sized three-dimensional maps, lights, smoke machines, and all manner of accoutrements, it also be played with pieces of office paper, or even simply one's imagination, and still be a compelling experience.

While participants' statements did not directly align with Xu et al.'s findings, analyzing the study's overall themes indicates some overlap. "Chores" like setting up or tearing down games, dealing cards, keeping track of rules etcetera had allowed for socialization and did seem to positively impact participants' experience, even if some participants appreciated having these tasks automated by a computer. This seeming contradiction may be because the important factors identified by Xu et al. can go unnoticed by players in the moment, but positively contribute to their experience overall. It may also have to do with participants differing in how much they relied on and valued digital tools and assistance. The results imply that while many participants were willing to digitize and automate administrative tasks, like keeping track of health and spells, to make games quicker and easier to play, the social experience of playing with others was not something that a computer could replicate. A computer may be able to play a competent game of M:TGA, but it can't come up with inside jokes, grab drinks with the players, or DM a deeply personal, emotionally rich D&D campaign. Technology was generally brought in as ancillary support, but players were for the most part not open to it taking the place of important material or social components and practices.

## 7.2 Implications for the future

What does the future look like for tabletop games? At the time of writing, it appears that things are beginning to return to normal in some parts of the world. After over a year of cancelled events, Wizards of The Coast recently announced that they will once more allow in-store play of M:TG in the USA starting May 28th 2021, following similar motions in Asia-Pacific, Japan, and Africa. "While exactly when and how will vary store by store per their local guidelines, it means a return to visiting your local game store for that Tuesday night draft, battling at Friday Night Magic, and discovering new cards and combos at an in-store Prerelease event." (Styborski, 2021) It's difficult to say exactly what will happen once the effects of the pandemic are felt less strongly. It seems likely that playing tabletop games remotely will continue to evolve and remain a popular activity for some time, as it negates factors like physical distance. All participants had transitioned to partial or fully remote play, even before COVID-19, due to distance to their formerly physically present players. While participants sometimes found it upsetting to no longer have players physically present, it also allowed them to play with players who could not have participated otherwise. It appears that consumers and designers are already starting to adapt to remote play. The game-focused 2020 Golden Geek Awards (BoardGameGeek, u.d.) included a category called "Most Zoomable Game" for games "you can play on a video conference, such as Zoom, Google

Meet, or Microsoft Teams” (Hall, 2021). The board game *Forgotten Waters* (2020) won the award, owing both to the game’s remote-friendly design as well as a companion app and a web browser-based “remote play assistant”. This has implications for the future of tabletop game design and it’s likely that going forward, more games will be designed with remote play in mind.

It’s also possible that many of those who picked up activities like tabletop gaming and miniatures painting during the pandemic will return to their old routines, especially when (or if) we see a return to offices and spending less time at home. It remains to be seen how many of those who took up tabletop gaming during quarantine will continue to play once their pre-pandemic activities of choice are once again available. It seems likely that those who already played physical tabletop games before the pandemic will return to doing so as soon as it’s safe, as participants agreed that they preferred it over remote/digital play and expressed a desire to go back.

The digitization of tabletop games is likely to continue, as there were accessibility and usability benefits to digital play, but it seems like it will be as a complement to physical games rather than a replacement. This implies that tabletop game makers could benefit from creating digital versions of their games, allowing them to reach audiences who are unable to play the physical version, without much fear that it would impact the success of the physical version. Designers of digital tabletop games should keep in mind the strengths of physical games. This includes not only social aspects and actions like rolling dice, but also more unusual and novel aspects of tabletop play. The ability to take back decisions, for example, is something that designers could explore - perhaps M:TGA could allow players to roll back a turn if all players in the match agreed to it. The results also encourage designers of both digital and nondigital games to encourage customization and social interactions in their games, as these had a positive impact on players’ experiences. Strong emotional reactions from other players were memorable to participants, and multiplayer games may be able to harness this (if it does not devolve into toxicity or hatefulness, of course). Even games without multiplayer functionality can learn from this by incorporating large amounts of feedback such as having in-game characters react strongly to player actions.

More and more cross-media work is being done between different games: *Guildmaster’s Guide To Ravnica* (Wizards RPG Team, 2018) and *Mythic Odysseys of Theros* (Wizards RPG Team, 2020) are two D&D books that allow players to play campaigns in M:TG settings, and M:TG is set to release card sets based on the worlds of both D&D and Warhammer 40,000 in the future. As most participants engaged in several of these games at once, this type of cross-pollination seems like a wise decision. Video games, books, and other ‘fluff’ allowed participants to remain engaged in tabletop game universes even when not playing the games, while online media like videos and podcasts helped to de-stigmatize games and attract many of the participants to the hobby. Allowing consumers to engage in tabletop universes via different forms of media like video games, books, and online content appears to be a successful strategy that other game creators could stand to replicate.

Participants greatly enjoyed miniatures and components. Tabletop game creators may benefit from prioritizing satisfying components during the design process, as they appear to positively impact the overall play experience and memorability of games. This may increase the overall cost of a game, however. To balance things, crowdfunding campaigns for tabletop games such as *V-Commandos* (2016) and *Frostpunk: The Board Game* (2022) have given

players the option to buy games with and without miniatures at different price points. Miniatures makers may also do well to include a variety of parts and building options in their miniatures kits to allow for customization, as this was an important factor for participants.

While the material aspects of tabletop games are one of their biggest strengths, it also makes them uniquely vulnerable to world events and changes in the global economic market. While digital games can be acquired and played entirely online, physical tabletop games require access to physical space and materials. Participants noted problems with acquiring the materials they needed to play various tabletop games due to supply issues likely caused by COVID-19. Compounding this is the fact that since 2018, the US and China have been engaged in a trade war, which has led both countries to “impose tariffs on hundreds of billions of dollars worth of one another's goods” (BBC, 2020) and which has impacted tabletop games. Game designer Mike Selinker wrote that “Like many board game producers, I feel threatened by the Trump administration’s tariff war” (2019). In early 2020, John Stacey, executive director of the Game Manufacturers Association (GAMA), told Polygon that “The U.S. is maintaining 25% tariffs on approximately \$250 billion of Chinese imports, which include many raw materials [needed to make tabletop games] and will likely be a factor for supplies in our industry” (US-China trade agreement lowers the cost of next-gen consoles, but not board games, 2020). These economic factors may pose a threat to the future health of tabletop games.

### **7.3 Limitations**

The recruitment method led to mainly recruiting participants who were male and highly engaged in the tabletop hobby. While this is not necessarily a bad thing in and of itself, and each participant did have unique experiences, it is always valuable to get a wide range of perspectives – would female or transgender players have different experiences? Has digitization and COVID-19 had a different effect on the habits of more casual tabletop players? What is the experience like for those who didn’t play tabletop games at all before COVID-19? There are also those who play tabletop games professionally, and the experience would likely be different for them too – especially if events being cancelled posed a threat to their livelihoods. The participants also did not report any disabilities which may have affected their play. Including participants with disabilities could have provided unique perspectives on the experience of playing tabletop games, especially since accessibility is a topic that has gotten more attention in gaming spaces over the last few years. Age could have been another factor, as different age groups may have different game opinions and rituals. It can be a complex thing to engage in communities if one is not entrenched in those communities from beforehand, but that should not be an excuse not to try. Other recruitment methods and strategies could have been utilized to recruit a potentially larger and more diverse group of participants.

Most of the interviews were carried out with participants who lived in Sweden, which has had relatively limited COVID-19 restrictions compared to many other countries. This may have limited the impact of the pandemic on Swedish participants, as some reported that they still played games physically with groups of close friends from other households without having been vaccinated. This is technically in line with Sweden’s public health agency’s recommendations of socializing only within “small circles” consisting of a few people (The Public Health Agency of Sweden, u.d.). Contrast this with the participant living in the US, who would only play physical games with persons in the same household due to COVID-19



restrictions. It would be interesting to further examine the unique situations of tabletop players in other parts of the world that are dealing with the COVID-19 pandemic differently.

The fact that many of the participants had played remotely for several years before COVID-19 made it so that they had a lot of experience to base their thoughts on. However, it's also possible that the experience would be different for those who had not played remotely before COVID-19.

## 7.4 Future Work

As the chosen topic for this thesis was quite broad there are many areas that could have been explored, but were either not part of the participants' experience, beyond the scope of this thesis, or things that emerged during the study that would benefit from additional research.

COVID-19 is a global event, and as such its effects should be studied in as many places as possible. Future researchers could examine what the tabletop experience has been like in other countries during the pandemic. In the coming years, researchers will also be uniquely positioned to study the long-lasting effects of the pandemic on gaming, and what the experience of transitioning back to in-person play will be like.

Carter, Harrop and Gibb's idea of the Warhammer hobby being a set of interlinked activities could be investigated further, both in the context of Warhammer and other franchises. Studying this could provide a holistic view of the consumption processes of contemporary tabletop game players. Several participants played digital games to engage in the Warhammer hobby, for example, and this is something that game scholars in particular could inspect more closely.

The play of tabletop games is not the only thing about the hobby that's being digitized. Games like the upcoming Model Builder (2021) will allow players to virtually assemble and paint digital model kits and miniatures, with the game's Steam description stating that "your relatives won't be able to complain that you fill every bit of free space with plastic toys that smell of glue and paint." Future research could compare the experience of digital versus physical model-building. Ways to digitize existing miniatures and components could also be an interesting avenue for more technically inclined researchers.

In recent years, game creators have experimented with different ways of providing easy, inexpensive access to tabletop games. Games like Pandemic and Catan have free versions where all necessary components can be printed out on paper. WOTC offers a free PDF file of the basic rules of 5<sup>th</sup> Edition D&D, releases inexpensive 5<sup>th</sup> Edition starter sets, and gives out free M:TGA starter decks to prospective players (M:TGA is also, of course, an inexpensive and accessible way to play the game). The 9<sup>th</sup> Edition of Warhammer 40,000 can more easily be played at a smaller scale than before, thus requiring fewer miniatures, and there are several starter sets at various sizes and price points, "each tailored to a different entry level for maximum accessibility" (Games Workshop, 2020). Print-and-play games, in particular, could be a way to future-proof games against obstacles like material shortages, but as this study has shown it is likely that some satisfaction may be lost when playing without the original, higher-quality components. Future studies could look at what the experience of these games is like compared to playing their "full" versions, as well as examine the effectiveness of these methods for attracting new players.

One area that is both ripe for exploration and currently relevant is what accommodations designers could make to facilitate remote play of their tabletop games. Designers could likely learn lessons from games like *Forgotten Waters* if they wish for their games to be playable remotely without having to create fully digital versions.

Since the social and physical aspects of sharing spaces were a big factor in player's enjoyment of tabletop games, future studies could look at tabletop play in Virtual Reality (VR) settings. This topic went unexplored in this study as participants did not report playing any tabletop games in VR, but it could be a promising avenue for future research. The popular board game *Settlers of Catan* is officially available in VR, and *Tabletop Simulator* being VR-compatible means most tabletop games are technically playable in the format. Aside from direct adaptations, there are also VR games that take heavy inspiration from tabletop games. One of these is *Werewolves Within* (2016), a multiplayer game "that captures the essence and competitive spirit of playing around the table through Virtual Reality" (Ubisoft, u.d.). The game's marketing material highlights how the game's technology allows it to realistically mimic "a real-life party game experience", using "natural gestures that enhance the social experience", allowing players to lean towards each other to whisper secrets "just like in real life", and "creating the feeling of comfortably sitting around the table". Could VR bridge the gap between physical and remote play, or is there too big a difference between the illusion of inhabiting a shared physical space and actually inhabiting a physical space?

With the rise of shows like *Critical Role*, which started as a private home game and evolved into a public web series and a multi-media entertainment company, we are witnessing a new era of the broadcasting, and commodification, of playing tabletop games. There are many ways in which to explore this area. The play experience is likely to be different on and off camera, and a researcher could study some of the many groups who broadcast their game sessions online. Comparisons could also be drawn between watching tabletop games and video game live streams, sports broadcasts, or even narrative television series. Future work could also examine the history of making commercial works out of tabletop game sessions. This is a practice that stretches as far back as at least 1986, when the D&D adventures of Group SNE were transliterated and serialized in the Japanese computer magazine *Comptiq*, evolving into the best-selling *Record of Lodoss War* series of fantasy novels and pioneering a book genre called *replays* (Packwood, 2015).

It would be very interesting to see more tabletop studies that focus on questions of gender identity, particularly in the context of wargaming franchises like *Warhammer*. All the participants in this study who engaged in *Warhammer* were male. In Ballinger's text (2019), the *Warhammer* shop is identified as a primarily male space, positioned as a place where young boys can both safely explore and subvert traditionally masculine ideas and behavior. Ballinger notes how young girls are largely absent from the *Warhammer* shop. In an article titled "Why Are There So Few Women in Wargaming?" (2021), Winkie writes that "a combination of a high barrier to entry and outdated, misogynistic attitudes keep women out of a hobby where they could thrive", noting a survey that estimated that women only made up between 1.5 and 2 percent of the hobby as of 2019. "It's a stark contrast to the similar events held for *Dungeons & Dragons* or *Magic: The Gathering*, which, while still heavily skewing male, have certainly welcomed in a more divergent cast of players in recent years." Winkie highlights (among other things) the cost and complexity of the game as barriers, but one might also wonder if the comparatively low number of miniatures representing female

characters, as well as the Warhammer setting's frequent focus on stereotypical, exaggerated displays of traditional masculinity (the Space Marines, the franchise's most recognizable faction, are emotionally stunted, genetically engineered super-soldiers in the übermensch tradition who live only to wage war) further decrease the appeal. Future studies could examine and challenge the view of Warhammer and tabletop gaming at large as a male activity, in doing so hopefully finding ways in which it can be made more accessible and welcoming to a wider audience.

Finally, only one player stated that they regularly played more traditional tabletop games like the highly popular chess and poker. Future work could be done on topics like online poker, or the history of chess digitization which stretches further back than most of the games discussed in this study. The demographics for these games may also be different from other tabletop games, and as such they could have different opinions on the digitization of games.

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## Appendix A - Basic Interview Questions

- What was your introduction to the tabletop hobby?
- What kinds of non-digital games do you play?
  - Have you played any of these in a digital format?
  - What do you think about playing these games digitally? How is it in comparison?
  - Do you use any digital platforms to play these games?
- How much do you play digitally compared to physically?
- How has Covid-19 affected your tabletop gaming?
- How did you play before COVID-19?
- Have any factors other than covid-19 affected your tabletop gaming?
- What is your most memorable gaming moment?
- Do you buy booster packs, dice, miniatures etc?
  - Can you tell me a bit about that experience?
  - What is your favourite character/miniature/dice/unit? Why? Can you tell me a bit about it?
- Is there anything you miss when playing digitally?

## Appendix B - Consent information document

Hello!

If you're reading this, thanks for being interested in participating in my study!

I need your informed consent to participate, so some information about the test is necessary.

- I'm looking to research player experience and motivation related to playing tabletop games, both in-person and remotely
- I'm aiming to conduct interviews via voice chat, preferably with video, but these are all based on what you're personally comfortable with. Voice chat with no video or just writing messages works just as well!
- The interview will be recorded, and I'll take notes to help my analysis. I can record either video and audio or only audio, depending on what you prefer and are comfortable with. Recordings and notes will be stored locally, anonymized as much as possible and only I will have access to them. Any recordings will be deleted upon completing my thesis. Interview data may be included in my (publicly available) thesis in the form of quotes, data tables etc, but it will in that case be anonymized.
- Participation is completely voluntary and non-binding. You can withdraw your consent at any time, including during or after the interview, without fear of any repercussions. Any data related to you will in that case be deleted as soon as possible.
- Due to not having a budget for this project, I unfortunately cannot offer any compensation for participation

Please don't hesitate to ask me if there's anything more you wish to know!

Wilmer