

STAGING SOCIALITY

IN TEAM-BASED GAMES

TOVE BRANTBERG

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ABSTRACT

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The design of multiplayer games controls the sociality players can engage in. Previous research into player sociality has focused on the viewpoint of the player and especially on sociality in Massive Multiplayer Online Games. This thesis expands on this perspective by studying the design of team-based online multiplayer games and the effect the design has on the players.

Two connected studies are completed. The first study uses formal analysis approach to describe and analyze the social elements and structures of three team-based online multiplayer games. The second study uses participatory observation to analyze how the social structure uncovered affects the player sociality.

The results show that social structure of team-based multiplayer games can be divided into four different stages: The names Lounge, Lobby, Stage and Curtains were chosen to describe the stages. The Lounge is a place for sociability and relaxation. At the Lobby the players make their preparations and negotiate their role within the team. At the Stage, players focus on performing and on instrumental sociality but also create shared memories. The Curtains sees players focus on social validation, social management and negotiating their relationships with the other players.

Knowledge of the social stages and their role in player sociality will help researchers understand the social environments game design creates as well as their effect on player sociality. The results also give game designers a way to inspect the social spaces their games include, and aid in controlling them better.

KEYWORDS

sociality, team-based, games, online games, design

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Pelien suunnittelu vaikuttaa pelaajien sosiaalisuuteen. Aikaisempi tutkimus on keskittynyt tutkimaan sosiaalisuutta pelaajien näkökulmasta ja erityisesti massiivisissa nettimonipeleissä. Tämä lopputyö laajentaa kyseistä näkökulmaa keskittymällä pelaajien sijaan moninpelien rakenteisiin ja niiden vaikutukseen pelaajiin sekä massiivisten nettimoninpelien sijaan ryhmäpohjaisiin moninpeleihin.

Lopputyö koostuu kahdesta kytkeytyneestä tutkimuksesta. Ensimmäinen tutkimus käyttää formaali analyysi -lähestymistapaa ja analysoi kolmen ryhmäpohjaisen nettimoninpelin sosiaalisia osia ja rakenteita. Toisessa tutkimuksessa metodina on osallistuva havainnointi, jossa seurataan sosiaalisten rakenteiden vaikutusta pelaajiin.

Tulokset osoittavat, että ryhmäpohjaisten moninpelien sosiaalinen rakenne voidaan nähdä koostuvan neljästä erilaisesta tilasta: Nimityksiksi tiloille valittiin lämpiö, aula, lava ja esiriippu. Lämpiössä pelaajat ovat seurallisia ja rentoutuneita. Aulassa pelaajat valmistautuvat ja neuvottelevat oman roolinsa ryhmässä. Lavalla pelaajat keskittyvät suorittamiseen ja suorituskeskeiseen sosiaalisuuteen, mutta myös luovat yhteisiä muistoja. Esiriippu-tilassa pelaajat keskittyvät sosiaalisen hyväksynnän saamiseen, hyväksyttävän sosiaalisuuden määrittelyyn ja ihmissuhteiden rakentamiseen.

Tieto sosiaalisista tiloista auttaa tutkijoita ymmärtämään minkälaisia sosiaalisia tiloja pelien suunnittelu luo sekä miten ne vaikuttavat pelaajien sosiaalisuuteen. Tulokset auttavat pelisuunnittelijoita analysoimaan minkälaisia sosiaalisia tiloja heidän pelinsä sisältävät sekä hallitsemaan niitä paremmin.

AVAINSANAT

sosiaalisuus, ryhmät, pelit, nettipelit, suunnittelu

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In the memory of my father,
who taught me the joy of learning
and how to (not) take games too seriously

1 INTRODUCTION

In the following chapter the design of games is argued to hold power over player sociality. Previous research is shown to have focused on the player perspective of sociality and player sociality within Massive Multiplayer Online Games. A case is made to study player sociality from a new perspective by focusing on the social environments the *design* of the team-based multiplayer games creates instead of focusing on the sociality that players engage in. Research focus and questions are also defined in this chapter. The structure of the rest of the thesis is likewise explained.

1.1 BACKGROUND

Games are becoming increasingly social experiences. Today, it is not just Massive Multiplayer Online Games (MMOGs) that are riddled with networked features, friends lists and various ways to earn social capital. In fact, a game from a major publisher without any social connectivity has become a rare sight. Even gaming platforms and consoles have begun incorporating new ways to connect players with each other and to allow players to share the playing experience¹. Multiplayer games are increasingly popular: In January 2017, all of the Top Grossing PC games were online multiplayer experiences with very limited or no single player modes (“Superdata,” 2017).

With the amount of sociality mediated through games, it is important to understand how games guide and structure it. MMOGs have been described as a “petri dish” for social sciences (Castronova & Falk, 2008): They create an environment where both the shape of the world and the possible interactions between the people inhabiting it can be controlled. This has allowed MMOGs to be used to study not only the game as a synthetic world and the people as players but real world phenomena as well. However, the amount of control games hold over their players also explains why studying games themselves as social platforms is so critical. Networked games present a mediated communication environment where players can spend a significant amount of time socialising with friends and strangers alike. As more and more games include these networked elements, an increasing number of people shape a part of their social lives through them. Understanding what kind of restrictions and affordances these game environments create for socialising is paramount for understanding the relationships people forge through them.

There is already an agreement on that game mechanics are a form of social engineering (Yee, 2009) and that the design of the games suggests types of interaction and delimits others (Lazzaro, 2008, p. 337; Stenros, Paavilainen, & Mäyrä, 2009, p. 88). Players are influenced not only by the mechanics but also by the setup and the way they are scored (Voids, Carpendale, & Greenberg, 2010). “The rules of a game determine the communication that takes place, limiting what players can do and say to each other”, write Salen and Zimmerman (2004, p. 463). However, despite a general agreement on the control the game design has over player sociality, there is little research on how the games themselves, through their design and structure, create social environments. Although sociality surrounding games has been studied, the affordances for sociality

¹ Digital gaming platforms such as Steam, Battle.net and Origin all come with a friend list, chat functionality and ways to share screenshots and achievements. On the console side, PlayStation 4 controllers come with a built-in share button and the Nintendo Switch breaks by default into two controllers.

found in the design of the games have thus far been left on the sidelines.

Previous studies on game-related sociality have predominantly had a focus on human behaviour, putting the emphasis on the player instead of the game. Often, these studies “do not even try to tie their observations to game design, but instead focus on describing player cultures or general social behaviour” (Stenros & Waern, 2010, p. 5). Research has looked at what kind of communities players form (for a summary see Warmelink & Siitonen, 2011; O’Connor, Longman, White, & Obst, 2015) and how players manage the social structures and rules of guilds in *World of Warcraft*, an MMOG (Williams et al., 2006). Previous research has also offered perspectives ranging from the economy (Castronova, 2008) to organisation studies (Vesa, 2013). However, our knowledge of how the construction of the games has influenced the forming of these player controlled structures is limited.

Studies looking at sociality from the design perspective are few and far between. Björk and Holopainen (2004) list game design patterns that affect sociality, but they offer no deeper analysis of the effect of these patterns beyond calling them a part of social playing. Rocha, Mascrenhas and Prada (2008) document patterns found in co-operative games, finding general design patterns that encourage players to work together. Yee (2009) offers some descriptions of how design decisions in *EverQuest* (Sony Online Entertainment, 1999) affect the player culture within the game: Altruism is encouraged by making the price of helping low while frequently creating situations where players end up in danger and in need of assistance. Cook et al. (2016), a group of game designers, provide a checklist on how to create gaming settings that facilitate forming of friendships and although insightful, only highlights few design patterns and offers a limited understanding of the social environments these patterns contribute to.

Together these studies offer a scattered set of observations surrounding player sociality, beginning to answer some questions but leaving many others unanswered. Where do these social game design patterns fit in? How important are they for shaping sociality? Yee (2009) describes the effect of a particular design to the culture of a game – are similar interaction mechanics the only tool to shape the culture of a game? How important are possibilities for communication, an area often studied (Peña & Hancock, 2006; Williams, Caplan, & Xiong, 2007; Eklund & Johansson, 2013)? Cook et al. (2016) present many valuable insights but only cover a few psychological concepts and how they are related to game design. None of these studies manages to answer how games are shaped as social environments. How do players enter, exist in and exit them? How are these social in-game spaces defined? To understand the sociality the players engage in, we need to understand the environments they are given to be social in.

Offering the clearest exploration of how the social environment of certain games is structured, two separate studies explored the social landscapes of the genre of social games (Consalvo, 2011; Paavilainen, Alha, & Korhonen, 2016). The results

show that social games as a genre have very little direct interaction between players, explaining why they are often claimed to be lacking in true sociality. However, the findings also reveal that the social games have many features that enhance the sense of social presence. Players encounter reminders of the social connections they have made in the interface elements (friend bars) or embedded in the actions they can take (visiting a friend's game space, leaving notes on a guestbook) making them feel, at least artificially, connected. In other words, although friends are clearly *visible* in social games, the games do not offer possibilities for *doing* things together. The available mechanics place clear restrictions on what kind of social spaces these games offer.

Clearly, looking at the sociality in a game on a structural level is worthwhile. It offers new insights compared to the studies only focusing on the role of the player. By uncovering the connection between player sociality and the game structures, opportunities to engineer the sociality are revealed. Analysing how games come together as social environments will help highlight how player sociality is shaped within the games. This approach has not been used to study player sociality before; it offers a new way to bridge the gap between the player-centric and design-oriented research.

Traditionally, the majority of academic interest in game related sociality has focused on MMOGs (e.g. Snodgrass et al., 2011; Wadley et al., 2015; O'Connor et al., 2015). The MMOGs have been seen as the place where social gaming happens, a 'third place' that offers an environment where to socialise and relax beyond the confines of work and home (Ducheneaut, Moore, & Nickell, 2004). With other types of games now including various connectivity elements and building networks of players and game spaces, it is appropriate to turn the attention away from MMOGs to these new games and explore them in the same manner. Our current understanding of the effect games have on player sociality is based almost entirely on MMOGs; given the current popularity of other types of multiplayer games, they should get their turn in the spotlight.

League of Legends (RIOT Games, 2009), *Overwatch* (Blizzard Entertainment, 2016), *World of Tanks* (Wargaming Minsk, 2010) and *DOTA 2* (Valve Corporation, 2013), which all feature in the top 10 highest grossing games ("Superdata," 2017), represent a type of team-based multiplayer game where the gameplay is structured around short matches where the players come together only for brief periods of time before disbanding. Since the characterising feature of MMOGs is their persistence, compared to them the team-based multiplayer games are constructed differently on a very foundational level. Therefore, exploring how the social environments of team-based multiplayer games are built is likely to reveal new kinds of structures.

To summarise, there is not yet a good understanding of how elements of sociality are structured within games and what kind of social environments the games present the players with. Especially the design of team-based multiplayer games has not been explored. The sociality of a game is not decided by the players alone – what kind of

affordances for sociality the game has to offer will also guide the interactions (Williams et al., 2006; Yee, 2009). Research should reflect this connection and bring together both design considerations and player behaviour. Calls to study designed sociality in games further and holistically have been made (Chen, Duh, Phuah, & Lam, 2006; Christou, Law, Geerts, Nacke, & Zaphiris, 2013). Game designers have also called for more knowledge and better tools to guide player sociality with. Cook et al. write:

“ In many online multiplayer games, players enter as strangers and remain strangers. Due to a variety of unquestioned logistics, economic and social signalling choices, other human beings end up being treated as interchangeable, disposable or abusable. We can do better.

(Cook, Fulton, Gonzales, Bialoskursky, & Fitch, 2016, p. 1)

This thesis aims to investigate the design elements that affect sociality to explain how a set of multiplayer games are structured as social environments. Through knowledge of these structures, the thesis then explores how player sociality is guided by the affordances found within them. The social environments of the games and player sociality are analysed through a two-phased approach: The design of the selected games is analysed through a formal analysis approach which is then followed by an observational study where the connections between the social environments of the games and player sociality are explored. The goal of the thesis is to offer a better understanding of the role of the in-game structures for the sociality encountered in games. It also offers tools for game designers wanting to enhance the sociality of their games.

1.2 RESEARCH QUESTIONS

Exploring how multiplayer games create a social environment and how their structure is connected to player sociality creates two focal points. First, an understanding of the social structure is needed. Then, the structure needs to be connected to sociality demonstrated by the players. Two separate questions were formed to guide the research, each with a slightly different focus. Together, the two questions will bridge from a design-centric view of games to a player oriented one, offering a holistic understanding of player sociality within games. The two questions are:

What kind of designed affordances for sociality do team-based online multiplayer games have?

How do the social structures of the team-based multiplayer games impact the player sociality?

The word 'affordances' (as defined by Gibson, cited in McGrenere & Ho, 2000) was chosen as it refers to all elements of the game that enable sociality and is used instead of 'game design' to include everything from interfaces to game mechanics. This decision is inspired by the work done by Paavilainen et al. (2016) where looking at only the game mechanics was not enough to explain the sociality of the game. Additionally, by demanding that the games studied are online games, it is ensured that the games present a mediated communication environment. Although research has revealed that players will channel their communication through the game even in a co-located setting (Cheung, Chang, & Scott, 2012), focusing on a mediated communication environment allows recording more of the social process as more of it is contained within the game environment.

1.3 THESIS STRUCTURE

The thesis opened with an introductory glance at the topic in chapter one. A quick overview of previous studies in the area was presented as the problem area was highlighted. The first chapter culminated in defining the research questions.

In chapter two, a literature review is presented. Related studies are explored in order to understand what elements make social gameplay. The context of the study is explored in more depth. Central terminology will be presented and defined.

In chapter three, a formal analysis of a set of multiplayer games is completed. The method is detailed before the social elements and environments of the games are explored and analysed. The three games to be analysed are also presented at the

beginning of the chapter. The chapter answers the first of the two research questions and provides an explanation of how the social elements of the games create several different social environments.

The chapter four explains the observational study used to analyse the sociality demonstrated by the players within the different social environments of the games. The chapter includes an explanation of the methodology used, results and analysis of them. The chapter answers the second research question and describes the effect that the social spaces have on the players.

In chapter five, the thesis gathers together the results of the two previous chapters. How the social spaces uncovered might affect players creating meaningful relationships with each other is discussed. The chapter also includes discussion on how the results can be used as a tool to design and analyse the social environments of a game. The limitations of the thesis are also pointed out along with suggestions for future research.

The chapter six is the final chapter of the thesis. In the chapter, answers to the research questions are provided along with a summary of the central arguments of the whole thesis.

2 LITERATURE REVIEW

"[S]ociability is not a new feature, game category or a genre, but a smorgasbord of separate yet partly interrelated phenomena that requires clear thinking to be unravelled," write Stenros et al. (2009, p. 88). Understandably, a wide array of research disciplines and methods have been used to understand sociality in games. In the following chapter, a selection of them are presented. Trends within the player-centric research are quickly explored: The reasons why elements of sociality are important for both the player and the game designer are briefly looked at. The attention is then turned onto more design oriented research where the aim is to explore how sociality in games has already been defined by researchers and what features of games can be seen as 'social'.

2.1 SOCIAL PLAYERS

To spend time with friends and family, to belong to a group and simply to participate are all social motivations for players to engage in games (Lazzaro, 2008; Yee, 2006). Making friends, casual chat as well as finding and giving support are all elements of social motivation for playing MMOGs (Yee, 2006). MMOGs also provide players with communities, social identities and social support (O'Connor et al., 2015), allowing them to be an important part in the social lives of the players. Players benefit from friendships in games as well: Playing with friends has a positive effect on the in-game performance and has been connected to increase in pro-social behaviour (Mason & Clauzet, 2013).

Game designers also have their reasons to support social playing. Playing against other humans adds both challenge and meaning to gameplay situations and the lifespan of a game is also likely to increase if players make friends and create communities around it (Cook et al., 2016; Rouse III, 2005). Supporting this, a study targeting FPS-players found that "the social interaction motive was the strongest predictor of the time actually spend on gaming" (Jansz & Tanis, 2007, p. 135). Within the games industry, player sociality is often used for acquiring new players and enhancing retention rates: The social and casual games industry has been especially eager to harness the power of social play to support their business model (Nieborg, 2015).

Even though sociality is often seen in a positive light, focusing on adding and supporting it is not always desirable. In MMOGs, pleasurable social interaction has been found to enhance enjoyment greatly but with the caveat that this was true primarily for the engaged players who already found the social interaction an essential part of their gaming experience (Chen et al., 2006). Non-engaged players did not value social interaction, and were in fact easily bothered by negative social experiences. Likewise, a study of a gaming site argued that the target audience was interested in simple and anonymous, gameplay focused sociality and deeper sociality was not desired as it would have complicated the environment (McEwan, Gutwin, Mandryk, & Nacke, 2012). Similarly, O'Connor et al. found that "[t]he relative anonymity of WoW-based relationships facilitated seeking emotional social support" (2015, p. 469). It was easier for the players to confide with the other players when there was some distance between. In other words, improving the presentation of people and the communication channels might actually reduce the value of the environments for the players. Additionally, tools designed to aid sociality have also been found to sometimes smother it (Eklund & Johansson, 2013): Taking control of the social situations away from players can harm the games as social environments.

However, controlling the sociality of players is often necessary. Channels for sociality also enable outright anti-social behaviour, and one part of the so called grief play is intentionally going against the social rules of a game, using the social tools

offered (Cook et al., 2016; Foo & Koivisto, 2004). A typical manifestation of anti-social behaviour is using abusive language in chats (Eastin & Griffiths, 2009) and various ways to moderate and punish this behaviour have been tried with mixed success (Johansson, Verhagen, & Kou, 2015; Kou & Nardi, 2013; Lin, 2015). Anonymity has been found to negatively affect player behaviour (Lin, 2015; Peña & Hancock, 2006) along with players becoming 'disposable', someone who the players will never have to interact with again (Cook et al., 2016). There are, in other words, plenty of reasons for game designers to manage the social tools and environments they present the player with.

To conclude, sociality in games is just as multifaceted as sociality in general in the society. Some people are drawn to games for the opportunities for social exchange they offer, and some prefer solitary play. Not all games should try to enhance the social aspects of the games – and black and white thinking where social is always associated with good should be avoided. While many players find being social important others prefer anonymity and simple sociality. Knowing what kind of sociality potential players are looking for should guide the design of a game. Understanding what contributes to the sociality of the game environment is an important element in being able to tailor the game to the needs of the players. In the following section, what makes gameplay social is explored in more detail.

2.2 SOCIAL (GAME)PLAY

There are several partly overlapping definitions for what constitutes as social playing. Salen and Zimmerman define social play as when more than one player participates in the same game (2004, p. 462). However, Lazzaro (2008) argues that "people fun" does not necessarily need other participants; a computer controlled agent can just as well provide the other player. Stenros, Paavilainen and Mäyrä (2009) take this view even further and argue that all gameplay is inherently social - someone playing alone might discuss the game later, look for instructions online and in doing so engage in a social exchange.

Eklund et al. (2012) has criticized Stenros et al. (2009) for mixing up social context and social encounter. Eklund emphasizes that a definition of social play should separate social gameplay from situations where games are part of a social context: Talking about games is not the same as playing them with others. In other words, Stenros et al. (2009) do not narrow the focus of their definition on social gameplay, but on game related sociality in general. Therefore, to focus on social gameplay one needs to place the game event in the centre - which both Salen and Zimmerman (2004) and Lazzaro (2008) have done in their definitions. For the purposes of this thesis, social play is thus understood as social exchange directly with or through a game system that

involves more than one participant. Since this thesis focuses on games where multiple real people will be participating, it chooses not to explore AI-actors taking the role of players, as in Lazzaro's (2008) broader definition.

However, drawing a line between gameplay, social gameplay and social context is not entirely straightforward. For a player, playing a game is always situated in a social context. The social meanings of any actions are dependent on the social expectations, rules and interpretations linked to the player's background, play context and play partners. Gameplay is consequently not social before it has been interpreted by the players. Many have explored this mixing of gameplay and context in social play. Among the various terms used to describe this interplay are stimulated and natural (Zagal, Nussbaum, & Rosas, 2000), external and internal (Salen & Zimmerman, 2004) and designed and played (Eklund & Johansson, 2013; Simon, Boudreau, & Silverman, 2009). In other words, social gameplay situations originate from two sources: Some of the sociality is prompted by the game and some of it comes from the players interacting with it.

The dichotomy of designed/played highlights how human sociality cannot be confined within the game. Although social gameplay is shaped by the affordances of a game as a social environment, the social gameplay will always be influenced by the social context the game is played in. The meaning and final form the social gameplay takes is context dependent, but the forms of social play possible are limited by the game. Some elements acquire a social meaning only when players interact with it (see emergent communication mechanics, Toups et al., 2014). Sometimes designers work to guide sociality but the meaning of their design might change when players actually play with it (see Ducheneaut & Moore, 2004; Eklund & Johansson, 2013). Social gameplay is thus interactions within a game system, interpreted through and changed by the social context of the play, that connect several participants.

Further ways to understand social exchanges include seeing them as either instrumental or socioemotional (Peña & Hancock, 2006). Instrumental actions have a goal, which in games is often aligned with the goal of the game, and socioemotional actions, in contrast, are concerned with relationships, including sharing of stories, greetings, praise and booing. Although socioemotional and instrumental actions need not necessarily be opposite, they do sometimes present a conflict (Ducheneaut & Moore, 2004). Actions that had been designed for connecting players (creating socioemotional situations) became impersonal transactions, because treating the actions in an instrumental manner was more rewarding and effective within the game (ibid). Although socioemotional motives rank high for some players, interactions between players can stay purely instrumental if incentivised by the design of the game. However, a social exchange being instrumental in nature does not hinder it from being part of the social gameplay. Instrumental social events are just as social as socioemotional moments –

the instrumentality of them determines only that players are more focused on the goal than on the sociality needed to reach said goal. Knowing whether gameplay situations, actions and elements are instrumental or socioemotional in nature is a way to describe them, but does not determine if they are social gameplay or not.

To summarise, social gameplay is gameplay which connects several people. The gameplay becomes social as players interact with it, and features that were never designed to be tools of social exchange can become part of social gameplay if players reinterpret and repurpose them for it. Social gameplay is actions either instrumental or socioemotional in nature, which somehow affect the experience of another player. In the following section, the social structure of games is further studied to understand what elements make up the social gameplay.

2.3 SOCIAL ELEMENTS OF GAMES

The social elements of a game are the affordances the game presents for sociality. These elements have also been called the social characteristics (De Kort & Ijsselstein, 2008) and the social architecture of a game (Williams et al., 2006; Yee, 2009). These characteristics and elements of an architecture are simply the different tools players are given by the game environment to engage in social exchange. In the following section, previous research is used as a guide in exploring the different social elements found in games.

Many definitions of ‘social’ in games emphasise the role of interaction between players (Zagal, Nussbaum, & Rosas, 2000; Salen & Zimmerman, 2004). Interaction is, to borrow the definition by Elias et al. (2012, p. 50) “ability to affect each other’s game state”. For the thesis, interaction is additionally defined specifically to not include forms of communication. Although interaction elements can have an interpreted meaning and can become a form of communication, their primary function is to affect the game world, be it by moving the player (jumping) or by harming another player (shooting).

Understanding interactions found in games can be done through tools such as the Game Design Patterns, which are a semiformalized language of describing the design of a game by its interaction components (Björk & Holopainen, 2004). For example, players are guided to act in a cooperative way through patterns such as *complementary player roles*, *actions that target other players* and *shared goals* (Rocha, Mascarenhas, & Prada, 2008) or *special characters targeting lone wolfs* and *limited resources* (Seif El-Nasr, et al., 2010). Other patterns simply create possibilities for player interaction and social exchange. Examples of these are trading, player decided results, cooperation and competition (Björk & Holopainen, 2004).

However, interaction elements of games are not the only elements that affect player sociality. Communication, which the definition of interaction used here excluded, is an area that has been studied extensively. Studies on communication have focused predominantly on analysing in-game chats and MMOGs (Eklund & Johansson, 2013; McCreery, Vallett, & Clark, 2015; Peña & Hancock, 2006; Taylor, 2006). The findings include that in-game text chat is often difficult to use in hectic situations and in fast paced multiplayer games the use of the in-game chat is therefore limited (Manninen, 2003; Manninen & Kujanpää, 2005). For these reasons, voice chat has become commonplace in recent years. However, voice chat has been found to limit anonymity (Wadley, Carter, & Gibbs, 2015; Williams et al., 2007).

Research into communication in games often falls under the traditions of computer-mediated communication (CMC) studies. CMC studies compare the outcomes on different media conditions together and fewer studies focus on the “interaction processes themselves” (Antheunis, Schouten, Valkenburg, & Peter, 2012, p. 758). The studies that apply CMC research onto games often separate the chat logs from the rest of the game and only analyse the words used, offering a limited insight into the role of the game systems in the communication situations. Rare exceptions of this narrow emphasis include having the focus broadened to include emotes² (Ducheneaut & Moore, 2004), work done on the meaning of gaze and distance in virtual spaces (Yee, Bailenson, Urbanek, Chang, & Merget, 2007) and identifying the so called cooperative communication mechanics that essentially explain how games can, besides offering a chat functionality, allow people to communicate (Toups et al., 2014; Vaddi, Toups, Dolgov, Wehbe, & Nacke, 2016).

Lastly, game mechanics and communication are not enough to explain all the sociality of a game. Consalvo (2011) notes that despite a lack of direct interaction many social games have interface elements like the friends bar which remind the players that they are not alone. Similarly, Paavilainen et al. (2016) found non-interactive elements that give a sense of social connectivity. Likewise, players of MMOGs do not necessarily always play with others and end up spending time “alone together” or playing for an audience (Ducheneaut, Yee, Nickell, & Moore, 2006). In fact, audience has been proven to play an important part in player experiences (Holin Lin & Sun, 2011; Kappen et al., 2014). In other words, in addition to direct interaction and communication with other players, there are some elements within games that build awareness of others.

The concept of social presence explains the sense of togetherness that people feel with others (Biocca, Harms, & Burgoon, 2003). In a virtual environment the social connections that people make are dependent on the level of social presence that the

² Some games offer a possibility to make the avatar display moods or simple actions such as dance, wave or high-five.

people feel (Riva, Waterworth, & Murray, 2014). Social presence is connected to social cues available in the environment, which includes both interaction and communication opportunities but also elements such as appearance, facial expressions and posture (see a summary provided by Chan & Cheng, 2004, p. 306). Social presence in games is perhaps best explained through what Levordashka and Utz call ambient awareness:

“ Ambient awareness can be defined as the awareness of social others, arising from the frequent reception of fragmented personal information, such as status updates and various digital footprints, while browsing social media.

(Levordashka & Utz, 2016, p. 147)

The game is the ‘social media’, and in the context of games the digital footprints are scores, the damage other players do in a shooter game, the items they have left behind and the changes they have done to the virtual world. Personal information is shared in various forms in games: As faces in a friend list, as names above characters, and as unique looks for the player characters. Together with communication tools and interaction mechanics, social presence elements present the missing piece that turns the game world into a complete social environment.

The three core categories of social characteristics featured in previous studies are thus elements of communication, player interaction and social presence. The same categories have already been used by Paavilainen, Alha and Korhonen (2016) to analyse the social elements of games, demonstrating that the categories can be used to build a holistic picture of the social characteristics of a game. Lazzaro (2008) presents similar categories when she argues that people fun (socially motivated playing) manifests through players connecting, interacting and expressing themselves. McCreery et al. (2015) also present very similar categories when they argue that social behaviour is connected to the player’s possibilities to recognise other players, to communicate with them and to “engage in group-based activities” (p. 203). De Kort and Ijsselsteijn (2008) likewise argue for including interaction and communication as two major features of sociality in games. Their model, however, treats social presence as something that the two other social elements lead to instead of certain elements directly enabling social presence. However, there is still clear support for seeing communication, interaction and social presence as the three core categories of social elements in games.

An element related to the three categories of social characteristics, but not yet discussed, is incentivising social actions. Incentivising social actions is one of the ways the design of a game can encourage certain kinds of social behaviours. For example, players sometimes acquire additional benefits from belonging to a guild, encouraging

them to join one (Lehtonen & Harviainen, 2016). Shibuya et al. (2015) describe how one could receive points as a reward when they send greetings in certain social games. A common game mechanic in social games is gifting, which both provides players with social ties and in-game rewards (Consalvo, 2011). Despite playing a clear role in guiding the sociality of a game, these incentives fit uneasily within the three categories already devised. Instead of being a clear category, incentives are a meta-level encouragement to engage in certain types of interaction, to communicate in a certain way or present oneself in a particular fashion. Although incentives cannot build a freestanding category, they are most certainly worth paying attention to. Therefore, incentives are to be treated as a category of social elements where each of the elements is also connected to the social elements they are 'incentivising'.

To summarise, the social elements of a game consists of the ways the players can communicate and interact with each other, how social presence is supported and additionally if and how any of the aforementioned are incentivised. Communication elements are ways for players to exchange messages, often through chat and voice but also through other means. Player interaction, on the other hand, is actions that players take that change the experience of the other players, creating a shared experience. Elements that give the players the feeling of playing with other players are elements of social presence. Incentives are in-game or external rewards that players get for engaging in certain behaviour. A summary of the different elements is offered in Table 1.

Table 1. Example elements of social characteristics

Categories of elements	Examples of game elements	Studies
Interaction	Synergies between abilities, abilities that can only be used on another player	(Rocha et al., 2008)
	Peripheral gifting and critical gifting; gifting of infinite and finite resources	(Consalvo, 2011; Paavilainen et al., 2016)
	Forming a team	(Eklund & Johansson, 2013; Paavilainen et al., 2016)
Communication	Ping tools and avatar gestures	(Toups et al., 2014; Vaddi et al., 2016)
	Sending greetings and messages, including simple fixed messages to other players	(Shibuya et al., 2015)
	Private, group and guild chat, spatial chat (heard by all players within a certain radius), zone chat	(Ducheneaut, Yee, Nickell, & Moore, 2006)
Social Presence	Awareness cues that inform of the situation of another player	(Cheung et al., 2012)
	Leader board, friends bar, guestbook	(Consalvo, 2011)
	Avatar appearance, name tag, the active weapon and equipment visible to others	(Manninen & Kujanpää, 2005)
Incentives	Rewards for sending messages	(Shibuya et al., 2015)
	Benefits for belonging in a clan	(Lehtonen & Harviainen, 2016)

3 SOCIAL STRUCTURES IN TEAM-BASED GAMES

In the following chapter, the process of exploring the social structures of three team-based multiplayer games is described. The chapter answers the first research question: “What kind of designed affordances for sociality do team-based online multiplayer games have?” The chosen method is formal analysis, where the social features of the games are documented by playing and exploring them. Supplementary material is also used to guide this process. At the beginning of the chapter, the choice of method is argued for and the three games to be studied are introduced. A description of the implementation of the method is also provided. The rest of the chapter gives an in-depth look into the elements uncovered and their place within the social structure of the games.

3.1 METHOD

The method chosen for acquiring a foundational understanding of the games as social environments is formal analysis, as described by Lankoski and Björk (2015). The formal analysis is concerned with the game itself and leaves the context, players and play situation, aside. The researchers are dealing with features that exist in the game instead of subjective definitions of how they are used. As such, the method is good at drawing out structural elements of a game.

However, the formal analysis approach in itself is not without its criticism. While structural and system oriented approaches have allowed the deconstruction of games as artefacts into their components, they cannot account for the enacted play (Stenros & Waern, 2010, p. 5). Instead of being rigid systems with an unmoving structure, games are constantly in change and being interpreted by the players (ibid). In other words, the criticism is that a structural approach risks not taking the player's influence into account. Stenros and Waern (2010) further argue that their approach of seeing games as an activity, both structured and enacted, "bridges the gap between game design and socially contextualised gameplay" (p. 5). As bridging this gap is one of the aims of the thesis and looking at the interplay of the system and the player is extremely crucial for understanding social elements, this is a potential shortcoming that needs to be addressed.

Even though formal analysis has clear potential as structural analysis, Lankoski and Björk (2015) describe it as a method that can be used to think of games as both artefacts and actions. In fact, they argue that in most cases the distinctions blur because the interactions of the different components and actions are important to understanding the game (Lankoski & Björk, 2015, p. 23). Focusing on social elements means focusing on elements that interact with players: The actions these elements allow and the effects of the actions become a crucial element of the analysis. Therefore, formal analysis allows understanding games as both a structural system as well as an activity.

Furthermore, since the aim of this thesis is to complement the results of the formal analysis approach with player oriented methods when exploring the second research question, this thesis will ultimately look at games through a "double perspective" which Stenros and Waern (2010) argue for, truly tying designed structure and player interaction together. Despite some of its shortcomings, the formal analysis method is therefore well suited for the aims of the research at its current stage. The results of the formal analysis are not complete per se: The complementing material gathered in the second study, where the focus is on players, is needed to explain how the elements react and change when players interact with them. Through combining the formal analysis results with observations of player behaviour in a latter part of the thesis, a true understanding of social affordances in team-based games is possible to achieve.

3.2 IMPLEMENTATION

During a period stretching from November of 2016 to January of 2017, the three games chosen for the analysis were played and observed. The games were both played as a typical player would and explored like a researcher to get a wider perspective of the limits and affordances of the game environment. Although the formal analysis method does not care about the context of the play or the individual players, the games were played both with groups consisting of strangers and groups consisting of friends to ensure that as many playstyles as possible were witnessed and that elements typical for certain playsettings were also found. Instances without the researcher participating in the game were also observed. Additionally, part of the observation material was recorded and the recordings analysed further to ensure that no details were lost during hectic gameplay.

Achieving reliable results through the formal analysis approach relies upon researchers having a good understanding of the games analysed and on conclusions clearly connected to the data (Lankoski & Björk, 2015, p. 27). Doing a formal analysis on a game forces the researcher to essentially reverse engineer it; this process means peering through a layer of interpretation. To provide as complete a description of the social foundation of the games as possible, studying the games from as many perspectives as possible is thus desirable. For this purpose, I chose to consult supplementary material – forums, play guides, talking with other players – to find out about features that a solitary researcher, no matter how open-minded, might miss. The supplementary information was used as a kind of treasure map that guided towards new game mechanics, play patterns and perspectives to the games.

Each of the games was studied until a familiarity with it was reached, and a finalized set of social elements was compiled only after a deeper understanding of the game and its systems was acquired. Notes were taken while playing, after playing as well as based on recordings. Elements with social affordances and instances of gameplay interaction with social consequences were coded using the social characteristics identified in the literature review, given a short name and described. The notes were allowed to evolve and findings allowed to influence future observations, guiding towards more detailed data suitable for answering the research question. Findings were constantly contrasted and compared for insights of social characteristics and of the social structure that encompassed them.

3.3 GAMES

The thesis is interested in team-based multiplayer games that do not fit the definition of MMOGs. To find appropriate games, the following guidelines were followed: The game needs to be an online game with three to 64 participants, in a non-persistent world, featuring a team of players. Since the focus is on how the social characteristics of the games are structured, games with a focus on sociality will be emphasised. For this purpose, games that market themselves as social experiences or that draw crowds and communities to themselves are emphasised. The aim of the thesis is not to prove that all games are social, but to analyse how the games that are social structure and guide the sociality of their players.

Several games were considered before the final selection was made. In the games looked at, most had four players in a team with mainly some wargames breaking from this mold and featuring larger teams. In making the final selection, reasonably popular and recent games were emphasized to ensure active matches to observe. Lastly, one of the criteria for choosing the games was prior familiarity with them so that a deeper understanding of the games is possible to achieve within the time allotted for the research.

Three games were selected: *Helldivers* (Arrowhead Games Studios, 2015), *Warhammer: The End Times – Vermintide* (Fatshark, 2015) and *Overwatch* (Blizzard Entertainment, 2016). All three games feature co-operative play. Competitive gameplay is included in the sample of games through *Overwatch* where two teams are playing against each other. The games also vary on how competitive they are: *Helldivers* and *Vermintide* feature no competitive mode while *Overwatch* has a focus on competitive gameplay but does also feature less serious gameplay modes. The games vary from being small to huge in popularity. The games all target mature players. In general, the games can be argued to present a selective sample of typical team-based games available and should be representative of general patterns within the team-based genre.

HELLDIVERS

Helldivers is a “4 player top-down twin-stick hardcore co-operative shooter” set in a “satirical dystopian future where mankind is ruled by a managed democracy” (“*Helldivers*,” 2017), published by Arrowhead Game Studios. The game is marketed as an extremely co-operative experience. The description offered by the game studio is:

“ With up to four player co-op missions, working together as a team is vital, whether calling in strikes or placing weapons, each action must be totally synchronized to achieve the objectives. This isn’t just a four player co-op game; it’s a co-op game that relies on the global efforts of the entire HELLDIVERS community!

(“*Helldivers*,” 2017)

The game promises to create an experience where players are dependent on each other. The game has teams that must rely upon each other and a community that works together to achieve certain higher level goals such as meeting a collective quota of enemies killed or other objectives. Social engineering has been intentionally included into the game design progress (Patrik Lasota, personal communication, 24.11.2016).

The game can be played on various platforms and both locally and online. For this thesis, only the computer version is focused upon and no co-located play is observed. The game-version played included all the free updates issued before February 2017 as well as the Ranger DLC package. No updates that affected the social structure of the game were added during the analysis period.

WARHAMMER: THE END TIMES - VERMINTIDE

Vermintide is a “co-operative action first person shooter and melee combat adventure set in the End Times of the iconic Warhammer Fantasy world” (“*Vermintide - About the Game*,” 2017), published by Fatshark. The game’s marketing material makes several references to the importance of working together: “Band together with your friends or die alone. *Vermintide* will continuously test the teamwork and skill of you and your friends” and “Learning what it means to work together is key to the group’s survival” are descriptions offered on the game’s webpage. The loot system in the game is also explicitly said to be “[r]ewarding teamwork above all else”.

The game is available on various platforms but only the pc version is included in the thesis. The game offers only online play but AI-controlled bots can take the place of other players. Only instances with at least two other human players will be observed

to meet the definition of at least three players participating. The most recent version of the game was played at the time of collecting data, including all the additional content published and changes they make to the base game. This included both the additional paid content *Schluesselschloss*, *Drachenfels* and *Karak Azgaraz* as well as all free updates available before February 2017.

OVERWATCH

Overwatch is one of the bestselling team-based multiplayer games currently on the market (“Superdata”, 2017), published by Blizzard. The description of the game offered on the homepage of the game is:

“ In *Overwatch*, you control one of several heroes in competitive 6-person team shooting matches. Battle over objectives, take down the other team, and achieve victory.

(“Play *Overwatch*,” 2017)

Focus is placed on building the team to facilitate teamwork: “Consider the map, talk with your teammates, and keep an eye on your team composition when choosing your hero.” Additionally, the marketing of the game mentions several features intended to highlight the contributions of every player in a match. For example, at the end of a match “[a]ll players will be able to see everyone’s contributions, vote on the most valuable players, give feedback on the match, and watch the Play of the Game.”

The game has six different game modes: Practise range, Practise vs A.I., Quick Play, Custom Game, Arcade and Competitive Play. Quick Play and Competitive Play are the two most popular modes with the latter one structured into leagues where players are ranked based on their performance. Both Quick Play and Competitive Play feature a player composition of 6 vs 6 players. Practise vs A.I. allows 6 players to play against the AI and one of the Arcade options is a 3 vs 3 mode. The only mode where a player will play alone is the Practise Range.

The game was played from late December 2016 to the end of February 2017 and all patches and changes made during that timeframe were included into the material studied for the thesis. The game was updated several times during the observation period and is likely to continue to change. However, no major changes which would make the findings outdated were witnessed. Most of the updates focused on changing the game balance of individual heroes instead of altering major social structures.

3.4 RESULTS

3.4.1 SOCIAL PRESENCE

The analysis revealed that the social presence elements are containers of information and many times closely related to communication elements. Nevertheless, an essential difference between social presence elements and communication tools is that the displaying of the former was not controlled by the player themselves and the latter needed the player to actively choose to broadcast information. In other words, social presence elements are passive containers of information while communication elements provide an information broadcasting tool.

The social presence elements can be broadly gathered into three separate groups: Elements that display information crucial for the gameplay, elements that display personal information about the player and elements with historical information. The main purpose of many social presence elements of the first category is to give the ‘life signs’ of a player, often literally. The second category carries information about the player’s personality and often consists of elements that the players can change but cannot actively choose to not broadcast to the other players. The last group displays information about a player’s personal history with the game. If informative social presence elements allow players to plan their gameplay, the latter two of the categories are key in allowing players to interpret a player’s personality and a player’s status within the community. Table 2 at the end of the section provides a summary of the different types of social presence elements.

In *Vermintide*, examples of social presence elements that relay gameplay information include having the active weapon of each player visible to the others, making it possible for everyone to see which potions, if any, players had equipped, their current health level as well as providing other players with additional outlines to make them stand out in the game environment. *Helldivers* makes visible what stratagems players have activated, their alive-status and how everyone as a team are progressing towards their goal. *Overwatch* informs of player deaths and eliminations in the corner of the screen, has spatial sound cues in the form of footsteps and allows players to choose to see the health level of other players above their character. Common to all these elements is that they reflect the current situation and immediate presence in the game world, offering information to base gameplay decisions upon.

Personality and social presence elements often connect in the so called ‘cosmetic’ elements. These are items and aesthetic elements that do not influence the gameplay itself, but only change the look of it. In *Helldivers*, this means selecting the gender of the player character, the colours their armour displays as well as which individual armour parts they wear. *Overwatch* offers the ability to customize and signal

their personality through the look of their character (skin) and the avatar they use. All games also feature the player names in the form of name tags, sometimes attached to their character (*Helldivers*) but always as a part of a player portrait.

Non-cosmetic elements can also be used to display personality and can thus become personality social presence elements. In both *Overwatch* and *Vermintide* one such element is the choice of character. This has a large effect on gameplay as each character has different abilities. As players' personalities also likely affect which types of abilities they prefer, these non-cosmetic choices were significant signals of personality. Here the role of the social presence element and the interaction elements blurs: The choice of character presents a case where a single element encompasses both social presence and interaction components that cannot be properly separated. The 'actions' that come bundled together with the choice of character are interaction elements, but the physical representation of the choice (for example, the character's look and voice) become social presence elements.

The social presence elements displaying a player's history with the game allow others to see what the player has done. Often, a player's history with the game and their status within it are tightly entangled. A good example of how status is built through the social presence elements related to a player's play-history is how the player's level (an indication of playtime but also skill) is displayed. In *Helldivers*, players are not assigned just a numeral value with each level but a military rank: A player starts as a Private and ultimately ends up Admiral of Super Earth. *Overwatch*, similarly, awards players with symbols of rank: In addition to a number representing the level, for every 100 levels the players are awarded a star, and for every 10 levels the frame of a player's portrait grows more elaborate. This sets high level and high status players visibly apart from others.

The social presence elements also display status through leader boards, medals and other badges of honour, which all reflect events from the recent to the distant past. In *Overwatch*, players have a Career Profile where others can inspect the achievements they have completed during their time with the game. In *Helldivers*, players find themselves displayed on several types of leader boards, from short lived to more permanent, all of which reflect their contributions from the most recent mission to everything they have done during the campaign (which last 3 to 4 real weeks).

Vermintide, however, has very few social presence elements concerned with a player's history with the game or status within the community. In addition to displaying a numerical level, it only offers a scoreboard after each mission with no further or lasting references to these scores made anywhere in the game. This might be related to the fact that *Vermintide* is the game with the least focus on a community and there is consequently a limited audience to display the status to.

Table 2. Types of social presence

Type of Social Presence	Example Element	Role
Informative	Current Health, Visible Equipment	Provide information to base gameplay decisions upon
Personality	Look of character, Avatar image, Player Name	Distinguish players from each other
Status (History)	Achievements, Level, Scoreboard	Document a player's past, display status

3.4.2 COMMUNICATION

All three games include a text chat option and support voice-communication. Both communication channels are available throughout the game experience in all three games explored. The core difference in the text and voice chats between the games is how much control the players have over who hears the messages. In *Vermintide*, text chat is limited to the use within the team and does not allow players to chat with a specific individual. *Helldivers* has a similar structure, but in addition to displaying the text chat at the edge of the screen, speech bubbles containing the message are added in the world above the player enhancing the visibility of the chat messages. *Overwatch*, on the other hand, offers several alternative channels: text chat with an individual player, within a group, within a team, within a match, or on a global level. The global level chat is not truly global, but limited to a small group of other players that one has no way of knowing or choosing.

The voice channel in *Overwatch* is limited to use within either a group or within the team, and built so that everyone in the chosen channel can hear people speaking but only those that have opted in on joining the team channel can be heard. Players can additionally decide between an always on and push-to-talk system. As the game updated during the observation period, a button labelled "Join the Team Chat" was added on a prominent place, encouraging people to join the voice-channel. *Vermintide* uses a 'push-to-talk' structure where players must actively choose to broadcast to be heard but no separate channel is needed. *Helldivers*, on the other hand, has players start with the voice-channel on by default and they must opt out in order to not be heard or to move to a push-to-talk mode. The voice chat option is prominently placed on the pause screen, highlighting its existence.

Beside the text and voice chats, the games have additional instrumental communication tools. *Vermintide* offers a way to highlight enemies and objects, accompanied by an audio cue describing what they have highlighted. *Helldivers* allows placing map pings to target players' attention on a specific point as well some pre-recorded voice lines such as 'Roger that!' to signal agreement. Additional communication options in *Overwatch* centre on a communication wheel, which features five commonly

needed expressions: Need Healing, Group with me, Thank You, Understood as well as an update of a player's Ultimate Attack Status.

The communication wheel in *Overwatch* also offers several mainly socioemotional communication forms. These include an audio clip related to the character the player is playing, an emote similarly related to the character as well as a spray-image that the player can paint on surfaces within the game. Each of these elements was originally only one in number, but with the update players can now choose four emotes, audio clips and stencils to communicate with. Neither *Helldivers* or *Vermintide* have similar built-in non-instrumental communication tools.

Additionally, all the games offer tools for voting at different moments. *Vermintide* allows the players to cast their vote before and after a mission on which mission they would like to choose next. *Overwatch* allows voting for the best player. Voting presents an element in the grey area between communication and interaction. Voting is a communication tool in that the similar effect could have been achieved with players communicating their preference – the vote becomes a shorthand for their opinion. However, the vote does have an interaction component in *Vermintide* and *Overwatch* where the most voted alternative takes effect. As such, voting also meets the criteria placed for interaction tool in the two games. In contrast, voting in *Helldivers* does not have any consequences: *Helldivers* allows other players to suggest missions, but the player in leadership position is the only one who can actually make a decision. The voting in *Helldivers* is only about voicing one's opinion without making a change in the game, highlighting the interaction element in the voting process in the other games. However, the effect of the voting tools in *Vermintide* and *Overwatch* is so limited that they are best discussed among communication tools.

Finally, an element of the communication is how it is moderated. Of the three games observed, only *Overwatch* has any moderation available. The game automatically turns a commonly used dismissive comment 'gg ez' (Good game, easy win) into one of a set of predetermined alternatives, ranging from hilarious to respectful (Lahti, 2016). Players can also choose to remove curse words. The game also includes a tool for reporting various abusive behaviour which has the option to report "Abusive Chat". This bans a player from using the chat for a certain period of the time, based on their status as a repeat offender.

3.4.3 INTERACTION

All the games have several different types of social interaction elements. The majority of the interaction elements were naturally related to supporting the players in reaching the gameplay goals. These gameplay focused interactions could be divided into two major categories: supportive and hostile actions. A supportive action found in all the games

was healing others. In *Overwatch*, certain characters are classified into a supporting role and their skills, interaction possibilities, consist often of ways to give back health to other players and in the case of the character Mercy, resurrect them. *Helldivers* has similar patterns in the form of allowing other players to 'resurrect' a fallen comrade by ordering for reinforcements. In *Vermintide*, a type of health potion can be used both on oneself and on others. Additionally, players can help up a fallen co-players. If they do not, the player will 'die' and be transported further away in the level where they will once again have to wait to be rescued.

Directly hostile interactions targeting other players are found in all the games, although with very different framings. *Helldivers* is rather unusual in that players in the same team can harm each other if they accidentally or by purpose shoot at their co-players or a grenade explodes too close to a teammate. In *Overwatch*, similar hostile actions can only be targeted at the players in the enemy team and teammates cannot take any damage from accidental shots at their direction or explosions in their vicinity. *Vermintide* has the smallest amount of outright hostile actions: The only example is how, on higher difficulty levels, other players take damage from explosions but not from normal melee or ranged actions.

Besides gameplay focused actions, another type of interaction was those interaction elements that facilitated group oriented play. Although these elements and the gameplay focused elements sometimes overlapped, especially with supportive interactions, highlighting elements that clearly focused on the group allows exploring the social effects of the interactions. These group oriented interactions could broadly be divided into *collective consequences* and *group gathering* elements.

Collective consequences are interactions where some actions are initiated by one player but the actions affected everyone within the team. In *Vermintide*, if a player picks up a Loot Die (which improves the likelihood of better rewards at the end of a match) or a Grimoire (which sees everyone's hit points drop with a quarter for as long as the grimoire was carried) it has the same effect on everyone. In *Helldivers*, one player collecting a sample (a collectable and currency) sees everyone receive one. In *Overwatch*, no immediate equivalent can be found. However, in all three games the goals of the players within a team are aligned and progress is shared.

The group gathering interactions aid in keeping the players together in the games. These interaction elements vary from clear restrictions to stray apart to punishing those straying away and highly incentivising staying close together. In *Helldivers*, the game camera is centred onto the team, making it impossible for players to stray too far away as they would end up beyond the viewpoint of the camera (One cannot, in fact, move past the view of the camera). In *Vermintide*, some places demand that all living members of the team are present before allowing the players to advance. *Vermintide* also has special enemies meant to punish players moving away from the

group: For example, a Packmaster attacks by capturing a player. A player who ends up captured cannot free themselves and must rely on their team to help them out. The way to counter this type of enemy is to stay close to the group so that the rescue is never far away. *Overwatch* has very few group gathering mechanics that provide punishment or limitation. Instead, working together is encouraged through characters that cannot do everything by themselves. A support character lacks firepower and an attack hero needs defensive help. A similar pattern of interdependent classes was found in all three games.

Besides interactions that are clearly tied to the gameplay, the games also feature relationship forming actions. These are mostly outsourced from the games themselves to the game client. Players of *Helldivers* and *Vermintide* cannot 'friend' each other through the game interface, but can add each other into a friends list through the game client Steam. The Steam friends list can be found in an in-game menu, through which players can join a friend's game session or invite them to join, but only after a connection outside the game environment has been made.

Overwatch integrates its game client, Battle.net, in a more thorough way than the two other games and has several social interaction mechanics within the game because of it. The game has a Social menu where one can see their Battle.net friends, people in their current team and in the opposing team, as well as a history of players they have played against recently. Choosing any player in this menu or by pressing a player's name-tag anywhere allows adding them as a friend, trying to join their game or spectating their game if they are currently playing. In addition to having a list of friends in the game, *Overwatch* players can also belong to temporary groups. A single team can have several groups within it and these group-combinations are displayed in the interface through a line connecting the grouped players. One can build a group by selecting a player and asking them to group up, or through selecting the option "Stay as a Group" after a match. If the request is reciprocal, a group is automatically created. Finally, players have the option of selecting a player and choosing 'prefer this player'. This increases the likelihood that the players are sorted into the same game in the future.

To summarize, there are a multitude of ways to classify the different interaction elements found in the games. For sociality, the individual interaction options are less important than their purpose. The interactions can be generalised into general gameplay interactions, group oriented actions and relationship building actions. Gameplay actions can be either supportive or hostile, but their main purpose is to aid the players on their way towards their gameplay goal. Group oriented actions are interactions and combinations of them that force or encourage players to work together. The line between general gameplay actions and group oriented actions is not clean-cut; gameplay actions can support groups and group oriented actions gameplay. Finally, relationship building actions are those that make changes into the relationships between players.

Table 3. Types of interaction

Type of Interaction	Example Element
Gameplay	Healing, Protecting, Shooting, Punching
Group oriented	Pick-up everyone received, collective progression, group camera, punishment for lone wolves
Relationship building	Adding a friend, building a group, joining a game

3.4.4 INCENTIVES

All incentives can be divided into two broad categories: Incentives that were found during gameplay and those that were awarded after a match. The first category provided immediate gratification while the latter incentives were rewards to look forward to.

Gameplay incentives could take the form of explicitly stated bonuses for certain behaviours. In *Helldivers*, the scoring screen clearly informs that all teammates are awarded extra experience points at the end of a mission for each hero still alive and for a low amount of deaths. Similarly, the score screen in *Overwatch* shows that players receive 20% more experience when they play a match in a group. In *Vermintide*, players can choose to wear equipment that plainly informs them of rewards they receive for certain actions while carrying the item. For example, while wearing the *Dove of Shallya*-trinket, a player healing another player receives a 15% heal on themselves.

Most of the gameplay incentives are found in the combinations of different actions. For example, the main source of incentive to play together and pay attention to the team is the interplay of the characters. The actions available for each character are designed so that players who combine actions strategically together are likely to do better in the game. In *Vermintide* and *Overwatch* all characters are specialised, good in certain situations and weaker in others. This encourages players to choose characters and playstyles that complement each other so that any potential shortcomings are addressed and protected against by another player's strengths. In *Overwatch*, this encouragement can explicitly be seen in the interface of the character selection lobby where based on the characters the players have already chosen, instructions are given to add certain classes to the team composition to balance it out.

The rewards players received after a match can be divided into two categories: In-game rewards and social commendation. In *Vermintide* and *Helldivers* the in-game rewards take the form of new items and currency that can be used towards purchasing new improvements. In-game rewards in *Overwatch*, on the other hand, are cosmetic and have no effect on the gameplay. As such, their value is mostly determined by the players and community through their desirability.

The social commendation takes the form of ranked lists and badges of

honour in the games. Here the social presence elements and incentives are tightly intertwined; being at the centre of attention through social presence elements is in fact the reward. In *Vermintide*, the players are ranked based on their performance within the team in multiple categories. In *Helldivers*, players are ranked on several different scales but most importantly on the ‘galactic scale’ where their contributions are compared on a community scale. The top-3 contributors are displayed in the mission menu and consequently displayed to all players of the game. The players are also ranked among friends (from Steam’s friend list) and the current group, based on their performance over all the missions during a campaign.

Overwatch is the most extravagant in rewarding the players through social commendation. After a match, one of the players in the match is awarded *the Play of the Game*, which is a short recording of an impressive gameplay moment as chosen by an algorithm. After it the players are shown cards that further highlight players who have played well. Three to five cards are shown with each showing the name of a player, their team, the character they have played and an assortment of statistics from their play. All players in the match are then allowed to choose one of these cards to vote for: If a player receives five or more votes, they are declared to be ‘Epic’ by a narrator and their character comments on the honour. The players also receive medals ranging from golden to bronze showing them how they have performed compared to rest of their team in categories ranging from most damage done to most healing given.

To summarise, incentives were found in two locations: during the gameplay and offered as rewards afterwards. The gameplay rewards could be either explicitly stated or implicit and strategical, demanding that the players themselves find combinations of actions that provide them with an advantage. The rewards offered after the gameplay were divided into in-game rewards and social commendation. In-game rewards changed the game by offering the players new items and looks for their characters. Social commendation, on the other hand, was something the players were rewarded by the other players through different mechanics offered by the game. A summary of the types of incentives found is offered in Table 4.

Table 4. Types of incentives

Type of incentive	Subcategory	Example element
Gameplay incentives	Explicitly stated	EXP boost while in group, health while healing others,
	Strategical	Complimentary characters
Rewards	In-game rewards	Better weapons, armour, cosmetic items
	Social commendation	Best player, top of scoreboard

3.4.5 STRUCTURE

During the data collection phase, the placement of the social elements within the flow of the game was also noted down since the placements of the different elements rather than their frequency was found to better explain the social structure of the games and the social affordances of the social environments. Four categories were devised to sort these potential placements: Lounge, Lobby, Stage, and Curtains. Their definitions are offered in Table 5.

Table 5. Definitions of social stages

Placement	Definition
Lounge	A place where players could meet before and between missions. Characterised by a sense of downtime.
Lobby	The moment right before entering a mission or a match. A place for preparation.
Stage	The most game like part of a multiplayer game. These segments were characterised by a sense of urgency and a focus on a goal.
Curtains	The moments after a mission or match has ended, featuring reflection on what happened 'on the stage'

The games have different ways of representing these game stages. In *Vermintide*, the Lounge takes the form of an Inn where the characters gather before and between missions if they feel a need to rest. In this space, players can chat, test their weapons without making any actual damage and interact with the environment. In *Helldivers*, the role of the lounge is taken by the Command Bridge or a player's ship. Here, the players can chat and adjust their equipment as well as decide which mission they will take. Weapons are not visible and players cannot change anything in the environment although they can move freely in it. Although both these spaces allow the players to prepare for future gameplay instances, there is more room to experiment, rethink and do non-essential choices than at Lobby, which is characterised by a sense of preparation.

Overwatch provides three different social spaces that by their function are a Lounge: The spawn zone and the waiting-for-player and the skirmish modes. The spawn zone is a safe space where the players of a team are joined right before a match starts. It is a space where the players can test their weapons, chat and interact with the environment filled with objects they can manipulate. Depending on the mission type, the players either spend a minute locked in this space or are encouraged to enter the rest of the game level to 'prepare their defences'. In both cases, the players are safe from the

other team until the timer has run out. Although the environments present elements of preparation, the Lounge is entered only after the major choices have already been made (the character has been chosen). Any changes made in the Lounge are therefore more like tweaks to an already completed preparation. The preparation is, once more, not the main function of the Lounge space.

The waiting-for-players and the skirmish modes are ways to give the players something to do if it takes time to gather enough players for a match. Both modes allow players of both teams into an actual game level where they are free to wander and play the game without any goals. The greatest difference between these two game modes and a normal game is that there is no win condition nor rewards to be received: it is a pressure free version of a normal game that can end at any moment.

The Lobbies of *Vermintide* are of blink-and-you-miss-it variety. One is presented when a mission is selected and the players need to signal that they are ready. The lobby takes the form of an additional interface element, on top of the Inn-Lounge, showing if others are ready and when the mission is going to start. As such, the Lobby is a non-discrete place that the players exist in simultaneously with the Lounge. The second Lobby in *Vermintide* is presented after a mission has ended. Once again, players get to vote – this time for where the group should head next, a new mission or back to the inn.

In *Helldivers*, selecting the mission presents the players with a Lobby that behaves differently depending on the role of the player as either the group leader or a member of the team. The first does the final decision while the others can suggest missions for them to consider. Players are free to choose whether they join this Lobby. However, once a mission has been selected everyone enters a new Lobby screen where they can choose their equipment and where the map and objectives for the next mission are presented.

Overwatch has several different Lobby stages. The main menu of the game presents a minimalistic Lobby, where players can select a game mode while engaging with the global chat or, if grouped up, use either the group or voice chat within the group. Although players can use this Lobby as a place of relaxation where they inspected their characters in peace, these menus resemble a Lobby more than a Lounge because they offer tools for preparing for a match, including the process of selecting the match type. The main purpose of this environment is to move to a match – not to relax.

Another, and most central, Lobby in *Overwatch* is the character selection screen shown before a match starts. At this Lobby, the players have a short moment together to select their character. Players see which characters others have chosen as well as if they deselect a character. Both text and voice chat are available.

The Stage for all the games is characterised with a clear entrance through a Lobby and an exit through the Curtains. The Stage part for each of the games features a

progression through sub-goals to the ultimate goal. The Stage is the ‘game’ of the games where the gameplay focused interaction elements are found. The Stage concludes after the end goal or a fail-condition is reached, after which the players are moved to the Curtains stage.

In all the games, Curtains is the moment of social validation and commendation. Here, the results from the Stage are displayed and rewards distributed. In *Helldivers*, first the overall results are presented after which, one at a time, the contributions of each of the group members are shown as well as any rewards they receive. *Vermintide* uses the Curtains moment to similarly first present the results of the mission and then show ranked lists to show the contributions of each player. Followed by this, the players are moved to their individual screens where they receive their rewards. If a mission fails, the process is shortened to one screen displaying a consolation prize without any ranked list of player contributions shown. The Curtains moment in *Overwatch* is started by a Play of the Game and goes through all the different status related social presence elements already described in Section 3.4.1. Following all the historical and status social presence elements the players are also informed here if they have received a reward. The contents of this reward will only be revealed after the player leaves the match completely and returns to the main lobby, where opening these rewards is part of preparation for future matches.

3.5 DISCUSSION ON STRUCTURES

3.5.1 STATUS: THE ULTIMATE SIGN OF LIFE

Where informative social presence elements were responsible for giving the life signs of a player, often quite literally, both social presence elements related to personality and status were at the heart of forming relationships and position within the game communities. Players have been found to desire to become friends with high status avatars or avatars with exclusive looks (Utz & Jankowski, 2016). The non-standard look of avatars has also been found to contribute to the amount of friend request the players receive (ibid). Furthermore, the appearance of a player “defines whether that person is considered potentially in the know” (Harviainen & Hamari, 2015, p. 1127). Information within the game worlds can be used as a form of currency: inexperienced players have a low status and those with information can use it to control those without (ibid). Consequently, status elements and those that displayed player personality often intertwined. As players grew in skill and status, they received rewards with cosmetic effects. This meant new skins (*Overwatch*) and clothes (*Helldivers*) and new weapons with new looks (*Vermintide*). Player’s options for displaying their personality increased as they acquired these rewards

and status signs, and correspondingly, their potential status also rose.

In *Helldivers* and *Overwatch*, where community was highlighted as a major draw already in the marketing material, personality and status social presence elements were particularly plentiful, highlighting the role of these social presence elements in the formation of the community. Gathering status symbols and the social desirability related to it became a central incentive for many core gameplay actions. Ducheneaut et al. describe MMOGs as “in essence reputation games” (Ducheneaut et al., 2006, p. 7). The same pattern can be seen in the team-based multiplayer games studied. In fact, *Overwatch* had no rewards with in-game value: All rewards in the game had a social component to them in that all rewards were cosmetic and their value was a composite of the value the game gave them (rarity) and the community had given them (desirability).

Generally, a player’s status was thus created of elements that the game presented as valuable and those the community had deemed desirable. Examples of how the game presented certain elements as valuable is how levels were presented as military ranks (*Helldivers*) and with other symbols of rank such as stripes and stars (*Overwatch*). Similarly, the players were given badges of honour in the form of achievements. Ranked lists were also a form of status element where the game determined what was valuable: The designers had predetermined what actions were scored and could thus be used to climb these scoreboards. This had clear consequences on what actions were valuable: *Vermintide* gave no ranked lists for healing done – *Overwatch* did. The latter made it possible and desirable to focus on healing, the first one did not. Together, all these different elements gave players the opportunity to rise in status on the terms of the game.

Overwatch had an example of a hybrid element where players could influence the ranking of a list predetermined by the game: After a match, players could vote who should be lifted above the others instead of the game automatically determining the best player. Although the social element was important in all the status elements – on itself an elaborate level or a position on a ranked list had no meaning – the direct social commendation in the system found in *Overwatch* is likely to give a heightened sense of admiration, making it a stronger status symbol.

3.5.2 COMMUNICATION: EASE AND RESTRICTIONS

Communication tools were formed to facilitate interaction between players. Since all the games featured co-operative elements, communicating and coordinating actions became a central gameplay element (Vaddi et al., 2016) and the communication tools reflected that. In addition to a text and voice chat which enabled communication within a team, several cooperative communication mechanics of the types identified by Touns et al. (2014) were found. *Helldivers* and *Overwatch* had both a set of predetermined

commands and reactions that the players could activate to quickly react to situations or *constrained automated communication* mechanics. Players of *Vermintide* had the ability to mark an object to highlight it for all players and players of *Helldivers* could place map pings, highlighting a place of the mission environment: Both are examples of *unbound attention-focusing* mechanics. These additional communication tools allowed for quick and precise communication, enhancing the ease of communication.

The ease of use of the communication channels was especially crucial since all the games studied were fast paced. Players had to be aware of *communication overhead* or “the cost of communicating, both to the sender and recipient, in terms of attention, cognition, time, and bandwidth” (Vaddi et al., 2016, p. 41). Only tools that did not create an unnecessary distraction from the gameplay were worth using. For this reason, *Helldivers* and *Vermintide* encouraged the use of voice chat which has been found to be better suited for these kind of real-time, fast paced game environments (Wadley et al., 2015). Additionally, *Overwatch* placed the “Join Team Chat” button on a prominent place and *Helldivers* chose to automatically include people in the voice-chat. Even though all the games provided a text chat, its role within the Stages of the games was de-emphasised by all the alternative communication channels and tools: Voice chat was easier to use during the high paced Stage and the supplementary communication tools offered quick and precise alternatives for situations where players did not wish to use voice.

The supplementary communication tools in *Vermintide* and *Helldivers* all had the same range and reached all players. In *Overwatch* they had different ranges because the game sorted its players into two different teams: Some of the communication tools were visible to both teams and some only for the other. For example, emotes, voice-lines and sprays could be used to communicate with everyone in the game. The predetermined commands and reactions (“Need healing!”, “Group Up with me!”, “Understood” and “Ultimate status”) were limited to one’s own team. The commands in the latter group are instrumental in nature while emotes, voice-lines and sprays, although they can certainly be repurposed, are socioemotional in nature. Peña and Hancock (2006) found socioemotional communication to be more frequent in games. Correspondingly, *Overwatch* does offer more socioemotional communication tools than instrumental and the socioemotional tools are the ones with the largest audience. (The “Thanks!” reaction is, however, an exception and is a socioemotional tool only visible for team members.)

The final restriction presented with communication was how it was moderated. Of the three games analysed, *Overwatch* was the only one with any moderation. Both curse words and game specific dismissive expressions were controlled, but through very different mechanics: Curse words were hidden away while dismissive comments were ridiculed by turning them into completely different statements. Other moderation included a system for players to report abusive behaviour. This system was largely

automatic and silenced players who were abusive in chat and banned from the game for various other offensives (see [Lin, 2015] for further discussion of similar implementations). Since *Overwatch* was the only game with competitive elements, its need for moderation was likely larger, explaining the difference in the moderation found.

3.5.3 TRUE INTERACTION

In contrast to the lack of interaction noticed in the social structures of Social Games (Consalvo, 2011; Paavilainen et al., 2016), the three team-based games all featured several different interaction opportunities. In fact, the games presented very few opportunities for playing “alone together”, which Ducheneaut et al. (2006) observed in World of Warcraft (Blizzard Entertainment, 2004). Both *Vermintide* and *Helldivers* had interaction patterns that punished or restricted such behaviour, *Vermintide* through special enemy types and *Helldivers* through the camera that forced the group to stay together.

In addition to restrictions and negative consequences, game design patterns that encourage interaction between characters could be found. These took the form of cooperative design patterns (Rocha et al., 2008; Seif El-Nasr et al., 2010). The interplay of classes and instructions towards a balanced group composition found in *Overwatch* are examples of *complementary characters*. All games featured *aligned goals*. *Vermintide* and *Overwatch* both featured several *synergies between abilities*.

The new knowledge about the social elements of the games allows breaking these cooperative design patterns further into their social components, explaining how they work to incentivise cooperation. At the heart of each of the cooperative mechanics is a set of interactions that the players get rewarded for combining. The reward often takes the form of an immediate gameplay benefit. Furthermore, since rewards at the end of the game are based on the performance during the match (which is aided by the gameplay benefits the players receive for using cooperative mechanics) players get additional rewards at the end of the match. Finally, in addition to any in-game rewards, well-performing players are awarded status social elements. These benefits on two levels, immediate incentives and rewards afterwards, together make the use of these combinations of interaction desirable.

3.5.4 THE THEATRE OF SOCIAL SPACES

The way the communication, interaction and social presence elements within the different game spaces were structured, truly set the stage for sociality within the game environments. The process of the game flow was choreographed to suit the different characteristics of the game spaces and, similarly, players were encouraged through the

available affordances to engage in certain type of behaviours. To explain the progression through a game and through the different social environments it presented, an analogy of a theatre performance can help explain the specific characteristics of each space.

The Lounge was the place where the players had the opportunity to experiment with their character, communicate with the rest of the team and relax together with them. As a social space, it resembles in many ways the backstage of a theatre before a performance. Players are already in costume but not in their 'role'. The interaction elements presented are a constrained variant of those needed later and have limited consequences. For example, in *Vermintide* players could shoot their ranged weapons freely with unlimited ammunition while in the Inn. In *Overwatch*, no harm could come to players while they were within the spawning zone. The backstage is not the 'main stage' and is therefore more relaxed as the players are not judged for their performance yet.

In many ways, the Lounge resembled the version of 'third place' that Ducheneaut et al. (2007) found when analysing an MMO as a social place. Originally a concept theorised by Simmel (1949, cited in Eklund, 2012) the 'third place' is a place where people can spend time beyond work and home. Characterised by a sense of being a 'levelling' environment where people are welcome no matter their role, with a playful atmosphere, third places provide a respite where to be sociable. Ducheneaut et al. (2007) found that the cantinas within the MMO that they analysed did not fill all these criteria; Players had different roles to fulfil within the cantinas and as such, they did not provide a place of relaxation for everyone. The Lounges of the team-based games fulfil the description of a third place better. They are levelling in the sense that any roles and skill the characters the players normally have are invalid: There is no 'purpose' within the Lounge. All the tools for playful sociability are also present: All games enabled most of their communication options along with several interaction elements in the Lounges. Studying if these elements are used in the playful, sociable sense by the players is something the second study with a player centric focus should look to answer.

The Lobby is the transitional space and moment of preparation between the Lounge and the Stage. Following the logic of a theatre performance it would be the moment of waiting in the curtains, looking forward to getting onto the stage. This is the last moment of preparation with a clear forward momentum. Interaction options are very few here and the social elements focus largely on communication – only the most crucial elements for completing the preparation are available. Conversations about an individual's contribution to a group have been found to focus on the moments of configuration and setup (Volda et al., 2010). The Lobby space supports this tendency by offering tools for communication and comparing the individual to the team. In *Helldivers* and *Overwatch*, all the players in the team were presented next to each other, on a shared screen, making it effortless to compare the role of a single individual to the rest of the team. *Overwatch* additionally commented on the *team composition* of the players

in the interface. This made the consequences of changes one individual made clear to everyone in the team.

Once entering the match, the players enter the Stage. *Overwatch*, with its competitive focus, allows people to literally spectate an ongoing match making the analogue even more appropriate. On the Stage players focus on mastering their role, playing off other's characters (interplay of classes), all the while aware that at the end of the show they will be judged by their performance. The Stage is the most game-like part of the game flow and as such has a clear focus on interaction elements. In addition to most interaction options being focused on the Stage, the informative social presence elements are mainly found here. The focus is also on instrumental communication tools, but socioemotional communication options are still available if likely given a lower priority by the players. Everything works together on the Stage to create as cohesive of a play as possible.

After the match draws towards an end, it is time for the curtain call. Players bow and receive their feedback at the Curtains. Social presence elements take over from interaction elements at this stage of the game flow, and social presence elements related to personality, history and status replace informative social presence elements. Communication options are still available, but interaction is limited or non-existent. Focus is now on the status that the individual players acquired during the match and receiving the coveted moment in the spotlight: Receiving scores has been found to be a pivot point-moment where players move from a group oriented focus to an individual one (Vaida et al., 2010). This is the moment of observing and being observed as an individual player.

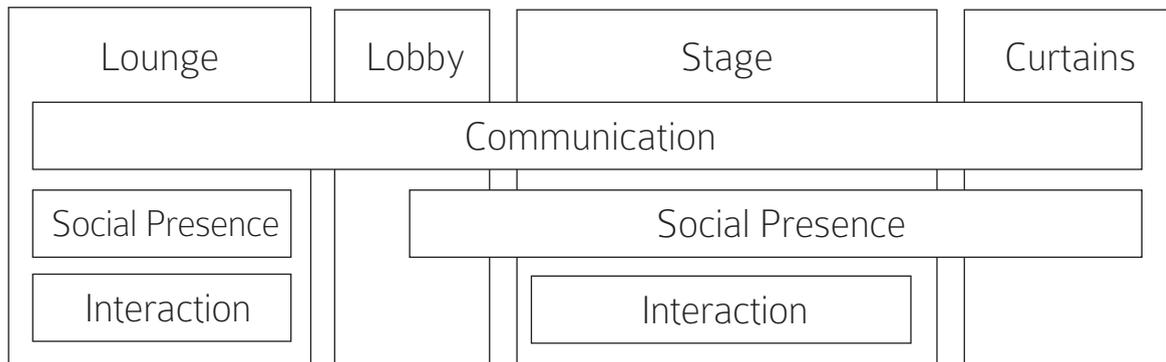
Although the games focus on a team, at the Curtains the consequences are mainly presented on an individual basis. Although interaction during the Stage puts a heavy emphasis on collective consequences, the situation is completely reversed at the Curtains. This is a potential moment of dissonance for the team-spirit. Although the team has worked together to complete the mission in both *Vermintide* and *Overwatch*, one of the players is now crowned as the most accomplished player. This does not take into account how others might have helped them along the way. Only the last, decisive (often hostile) action is now rewarded and the chain of supportive actions ignored. The study focusing on player behaviour should focus on uncovering how and if this is reflected in the player behaviour.

Finally, once the moment in the spotlight is over, the players can choose to return to the backstage and start the process again or leave the game, stepping out of the theatre. The process through the game stages completes only to be soon reiterated. Although the different stages of sociality are here presented as a clear chronological progression, they do not appear in a strict order in the games. Often, Lounge leads to the Lobby, Lobby to the Stage, and the Stage practically always closes with the

Curtains. However, there were some slight variations of this order even in the three games analysed. *Overwatch* had players enter a mission through a Lobby, then move them to a Lounge, which led to the Stage. In some game modes the players moved from the Stage directly to a new Lounge, without seeing the Curtains or a Lobby. In *Vermintide*, players started from the Lounge but returned there only when they decided to do so – without such a decision, the players kept moving between the Stage and Curtains. Therefore, what needs to be emphasised is that the different social spaces are more like a cluster of rooms instead of a hallway. Although they connect to each other, the designers of the games are free to place them in whichever order they want, and choose what connections exist between them.

To conclude, each of the social spaces identified in the games has a different feel to them and present players with different types of opportunities for socialising and relationship building through the social elements present in them (Figure 1). The Lounge and the Stage give the players the largest number of tools for social exchange, presenting the widest range of interaction, communication and social presence elements. The Lounge gives these tools a socioemotional frame while the Stage, through consequences on all actions, encourages instrumental focus. The moment of Curtains, on the other hand, is the most socially loaded of all the different spaces, focusing on social validation, commendation and an individual’s place within the team and the game community. The main purpose of the moment of Curtains is to validate the performance made during the Stage part of the game experience: As such, it was the moment of social exposure. Finally, the Lobby offers relatively limited tools for sociality, has a very limited amount of interaction between players and often a focus on performance. However, the Lobby is also the place where an individual player’s place within the team is negotiated and thus an important part of the social process.

Figure 1. The social elements in the social structure



4 PLAYER SOCIALITY WITHIN SOCIAL STRUCTURES

In the following chapter the social elements and structures are observed in use. The focus is to document how players behave within the different social stages, what social affordances they use and how the available social affordances affect the social exchanges. The chapter answers the question “How do the social structures of the team-based multiplayer games impact the player sociality?”. The method chosen to answer the research question is participant observation with supplementary data used to document community behaviour. The chapter starts with argumentation for the chosen method and description of the implementation. The rest of the chapter is spent on analysing the results.

4.1 METHOD

Participant observation was chosen as the method for gathering data about player behaviour within the social structures of the games. Through the researcher participating in the phenomena being observed the actual experience and insights into the experience can be documented (Denscombe, 2010). This approach allows studying both the behaviour within the social structures and how the social structures affect the experience. Depth is empathized over the breadth of the data and the results offer a “holistic understanding, in which the individual things being studied are examined in terms of their relationships with other parts, and with the whole event or culture” (ibid, p. 207). The method is very well matched with the study since the aim is to take the social structures extracted from the game design back to their original context and gather a holistic understanding of the social elements and their relationships with the players.

However, the main concern with the method is that of ethics. Studying behaviour within an online multiplayer game setting is best done as a participant in the normal gameplay. Asking permission for studying the behaviour at the beginning of a match might still be feasible, but since players often leave and join mid-game, gathering consent from these newcomers is not possible without interrupting the gameplay. Gathering consent from everyone participating in these gaming instances is, therefore, impossible without disrupting the normal gameplay.

Two counterarguments can be made to counter the ethical concerns. First, one can argue that players of these multiplayer games have already consented to being observed. In *Overwatch*, any game can be spectated by multiple people which the player cannot decline from. *Vermintide* and *Helldivers* present more private settings, but even there anyone can join a *public* game. If one is to observe private games only when a consent is acquired and otherwise focus on public games, no-one is being spied upon without consent. This does have the drawback that behaviour typical to private sessions cannot be observed to the same degree as public sessions.

Secondly, players of multiplayer games are presented to other players through their game names – names that offer them a layer of anonymity. Therefore, the true identities of the players are not disclosed even to the researcher. This anonymity offered to the players can further be ensured by not revealing any identifying details in the text of the research, treating all material collected in a confidential manner and storing any material only as long as it is needed. With these precautions, it is possible to ensure that no harm will come to the players observed for this research and observation without previous consent from all the participants can be ethically defended.

4.2 IMPLEMENTATION

The initial observation of the games started simultaneously with collecting material for the formal analysis of the games. This initial observation period, where a general feel for the social culture of the games was acquired, was followed by a period of focused observation, as instructed by Denscombe (2010, p. 208). This focused observation period allowed studying the uncovered social structures and elements as part of the social exchanges between players. Altogether, the games were observed from December of 2016 to the end of February of 2017 with the most intense period of player behaviour observation focusing on the last month of the timeframe. In total, across all the games, 100 hours of gameplay was participated in. The time does not include the hours spent merely observing gameplay or the time spent with supplementary material.

As a frequent player of the types of games observed, it was possible for me to participate as a full member of the community and get access to natural in-game sociality. My experience also colours the understanding of the behaviour witnessed. For a study focusing on the social intricacies of game design, this kind of personal involvement allows deciphering the social customs where a more distanced perspective might only be able to report surface level observations.

Notes were taken while playing and observing the games, after game sessions and based on recordings of play. The focus of the notes was to connect social behaviour to the different social stages identified in the previous chapter as well as further study the social elements and their use.

4.3 RESULTS

4.3.1 SOCIOEMOTIONAL

A general trend in player behaviour was a clear distinction between gameplay stages that were instrumental in nature and those that were socioemotional, or to put it in other words, places where players preferred to focus on the gameplay and where they were being social, goofing around or doing emotional work. Some communication tools and many interaction elements had a clearly defined instrumental (gameplay) role, as discovered in Chapter 3. The observation study revealed that all types of communication and interaction tools could be repurposed and were not tied to their 'main functionality' as enablers of either instrumental or socioemotional play. The player behaviour was thus not tied directly to any individual social elements but rather to the way the different social spaces presented them.

The socioemotional behaviour the players engaged in could be broadly divided into sociability (sociality for the sake of sociality, goofing around) and managing acceptable social behaviour (thanking, consoling, punishing) as well as making decisions about the future of relationships. Goofing around saw player find alternatives to the main gameplay, creating games within the game together with the other players. Managing social behaviour acted as a supplement to the main gameplay by optimising the teamplay and making people work better together by enforcing implicit rules. Making decisions about relationships was the decisive level of socioemotional management where players made decisions of who they wanted to spend time with and what kind of commitment the relationships were worth.

SOCIABILITY

Socioemotional actions related to sociability and goofing around were mainly taking place in the Lounge. There the players frequently repurposed interaction elements for playful purposes, confirming the hypothesis made in the previous chapter (Section 3.5.4) about Lounges providing an environment that invited light-hearted behaviour. For example, in *Helldivers* a player started simply spinning around, lifting their cape in the air in the process, as they waited for the others to be ready to start a new mission. As people were ready with their preparations, they joined in this 'dance' unprompted. In *Vermintide*, players often jumped onto a central table in the inn and started hitting or shooting at a chandelier hanging right above it, trying to make it swing together as a group. In *Overwatch*, especially the spawn zone lounge was equipped with multiple interactive elements that encouraged players to use the (instrumental) interaction mechanics for alternative purposes. For example, in one spawn zone players could 'play' basketball and use their melee attacks to make a ball bounce and to shoot at the ball to manipulate it in the air. Scoring made confetti fly out, clearly encouraging such behaviour. If one player started to 'play' like this, it often became a team activity where players tried to use the skills available to their character to aid in the process.

Besides playing with the interaction elements, players also toyed with the available communication tools. This could most clearly be seen in the Lounge of *Overwatch* where the several additional communication tools available were used to create 'conversations' between the characters. Players could only use the four lines, four sprays and four emotes that they had equipped their character with as well as the predetermined instrumental communication tools (Understood, Need Healing, etc), which severely restricted the conversations people could have and forced people to be creative in order to create these conversations in the first place. In one case, a conversation went as following:

1. A player painted a portrait of their character (themselves) on a wall with one of their sprays.
2. The researcher used their spray, which resulted in a heart drawn around the character portrait.
3. The player turned around to look at the researcher's character.
4. The researcher happened to have the voice line "Love, D.va" equipped and used it, D.va being the character the researcher was playing.
5. The player spent some time before using a predetermined "Understood" and "Thanks!" commands, which resulted in their character saying the lines out loud and a message being written in the team chat.
6. Researcher jumped up and down a few times because there was no good equivalent for "You're Welcome".

Interesting in this exchange is that although the similar 'sentiment' could much more easily have been delivered through either the text or voice chat, neither were used for this purpose. In a sense, the point of these conversations was thus that they were meaningless and that the other players were free to interpret them as they liked. The process of the conversation was more meaningful than the actual meaning; these actions resembled improvisation theatre where the enjoyment was gained from coming up with creative solutions for keeping the conversation going.

This type of improvisation was also sometimes encountered in the Lobby. For example, while playing Mystery Heroes in *Overwatch*, where the player could choose any character but the character they actually ended playing was randomised by the game, the Lobby saw people engage in a 'game' where the point was to get everyone to choose the same character without using words. The way to do this was by changing characters to match the characters of the others and by quickly deselecting and reselecting characters, making them 'blink' for the others. However, this behaviour was only witnessed when the players did not feel a pressure to perform in the following Stage. This is further discussed later in Section 4.3.3.

SOCIAL MANAGEMENT

The second socioemotional behaviour, managing acceptable behaviour, the team and the social culture of the games was mainly centred at the Curtains. Communication and available interaction elements found there were used to thank other players for positive behaviour and punish them for what was deemed negative and harmful for the team – the communication was *reflective* and thus evaluated the sociality of the earlier stages. Through this socioemotional management and evaluation, implicit social rules for the

game were created. These implicit rules in their turn then became the framework for the social culture of the whole game.

Thanking in the games was mainly done through the different communication channels. In *Overwatch*, players could vote for a player after a match. The voting was framed as selecting the best player, but people often used the votes to thank their teammates and especially their healer. One exchange witnessed highlighted this behaviour:

After a game a healer, who had played decently but not especially well, received all the votes from their team and was announced as epic. A member of the opposing team commented on this, saying that the healer had not been good enough to receive that many votes. A member of the healer's team replied that it was common courtesy to thank your healer and it did not matter if they had played 'well enough' to be deserving of the praise.

In other words, healing was seen as a service to the other players and less glorious than playing an aggressive role. The players used the voting tool to encourage people who had chosen to take the 'burden' on themselves. In *Vermintide* and *Helldivers* where voting tools were not present, the text or voice chat were used to occasionally express gratitude for a player who had helped the other out. Thanking the whole team and all the players in the match was also possible. In *Overwatch*, this was done by writing "GG" (Good game) to the match chat and was done practically after every match. Similar behaviour was also witnessed in *Vermintide*, but less frequently. "GG" was used as a signal to say that the game had been enjoyable or generally good: people in general had behaved in an acceptable way.

However, in *Overwatch* where the opposing team consisted of human players, "GG" could also be used sarcastically with the meaning twisted on its head. Similarly, writing "GG EZ" (Good game, easy win) was used to taunt the other players for their poor performance. These were examples of players making it known that the others had not provided an adequate challenge, and thus were not worth respect. This connection between respect and performance highlights a potential source of toxic sociality within games: Performing badly was an unacceptable behaviour and as such socially punishable.

A similar connection between performance and social punishment was found with the Play of the Game found in *Overwatch*. The player who received the Play of the Game frequently commented on the honour in the text chat. If they thought it was deserved, smileys and thank yous were often written into the chat. However, if the Play of the Game was not remarkable enough, the player who received it sometimes commented on it in a dismissive manner to emphasise that they were aware they were

not ‘worthy’ of the honour of a Play of the Game. Unremarkable Play of the Games were also the ones most likely to receive dismissive comments from other players to ensure that players knew what was truly appreciated and what was just an undeserved, algorithmically chosen moment. Related behaviour was also how players sometimes wrote that they had been “robbed” from their Play of the Game if they felt they had contributed with a better gameplay moment than the one awarded by the algorithm. In these cases, the text and voice chat provided an alternative channel to highlight (or dismiss) one’s achievements if the one provided by the game was not ‘correct’.

Finally, dismissive comments were extra likely if the Play of the Game focused on risky, individualistic gameplay moments, answering the question raised up while analysing the social stages in Section 3.5.4 on how the Play of the Game affected player behaviour. Players were aware that the algorithm did not focus on teamplay oriented moments: A player who had not worked with the team could be rewarded it. In fact, the algorithm preferred dramatic moments which could often be achieved by solitary players. This saw some player ‘solo’ and break away from the group to gain the coveted spot. This did, however, not grant them with any extra social commendation as the status that could be gained from the Play of the Game was related to how the others evaluated it. Since the players were aware of the potential cost to the team of a risky Play of the Game, they used dismissive comments to curb this kind of behaviour. Even though the Play of the Game might have been deserved for gameplay reasons, the players were dismissive because on a social level it was undeserved. The effect was very similar to the dismissive comments given after an unimpressive Play of the Game.

Similarly, dismissive comments were also used to curb risk-seeking behaviour in both *Helldivers* and *Vermintide*. A player who scored high at the end of the mission did sometimes receive comments about their poor teamwork and risky playstyle under the match, highlighting that there was a difference between what the game determined as good play and what the players valued. However, this social management was not strong enough to completely prevent players from seeking glory on the cost of the team: Lone wolfs were encountered frequently.

RELATIONSHIP BUILDING

The third type of socioemotional behaviour was making relationship decisions through the different relationship building tools. These actions for forming and deepening relationships – building a group, becoming friends – were either initiated at the Curtains or immediately after, when entering the space following it, if no tools for relationship management were present at the Curtains. In *Overwatch*, where relationships forming tools were included within the game, all these actions were initiated in the Curtains stage. A button for creating a new group was present – and frequently used – at the Curtains screen and friends request were sent there.

In *Helldivers* and *Vermintide*, the relationship forming decisions were made immediately after leaving the Curtains. Since no clear relationship forming tools were present this relationship forming was made through either the communication tools or by making the decision to stay in the group or leave it. Several instances where a player simply left the moment the game transitioned to the Lounge were witnessed in both *Vermintide* and *Helldivers*; leaving was an active decision to stop associating with the group. Communication tools were used for the opposite purpose; they were used to negotiate the future of the team and make a commitment to stay as a group. For example, an exchange witnessed in *Vermintide* had a player suggest that everyone would “stay together” in the next mission to avoid the failure the group had just gone through. One player immediately left the group at this point, but two others agreed by writing “good idea” and “yeah”. The relationship status between the players was not altered by the game, but the players agreed to stay as a group and to follow a shared strategy.

In *Overwatch*, requests to form a group and friend requests were most often sent when the team had been victorious or at least played well. Similarly, in *Vermintide* and *Helldivers* the groups did not disband when the group had been victorious. Communication tools were used to keep the group together when the group had functioned well, but not quite made it, or when the team had succeeded. In *Overwatch*, low level (and status) characters often sent group request to higher level characters, and friend requests were frequently sent to skilful players of higher levels. However, high -evel players did also send friend requests to low-level players, contradicting the tendencies reported by Utz and Jankowski (Utz & Jankowski, 2016) where most requests were sent by low-status players and most requests declined by high-status players. However, no statistical data of the friending behaviour was collected now and no definitive conclusions can be drawn either way.

No friend requests sent through Steam were witnessed while observing *Helldivers* or *Vermintide*. Since neither game included tools for relationship building within the game beyond the possibility of joining a mission, it is likely that the lack of friendship requests is related to the need to use an external tool. Steam-friends are possibly seen as more personal as they gain access to more information about the player than just what they display within one game, and do require players to be invested enough to exit the game in order to create the connection.

4.3.2 INSTRUMENTAL

Whereas socioemotional behaviour concentrated onto the Lounge and the Curtains, the instrumental behaviour focused on gameplay challenges and was mostly found on the Stage and at the Lobby. At the Stage, most communication focused on coordinating gameplay interaction. Predetermined commands were used in every situation they covered and emergent communication methods were devised for the situations they

were inadequate for. Jumping and Cape Twirl were used to draw attention to various things in *Helldivers* ("Nonverbal Communication Guidelines," 2016) and in *Vermintide* people highlighted objects they wanted others to know about and jumped at places they wanted to draw people's attention to. In *Overwatch*, the communication tools available in the communication wheel covered most of the communication needs. In addition, the communication options changed to contextually bound if said while pointing at a target allowing them to cover an even larger range of situations. Similar repurposing of interaction elements into communication tools as with socioemotional communication could, in other words, be found.

At the Lobby, communication and interaction focused largely on optimising the team. Players changed their characters and equipment based on the choices others had made. In *Helldivers*, after one player changed their equipment, others sometimes mirrored this behaviour. For example, if one player focused on healing items, other players could be seen defocusing on them as there was no need to have several similar specialists within the team. Teams also took complimentary weapons and skills to ensure that the largest amount of skills were available for the team. In *Overwatch*, where in most game modes only one player could play a specific character, communication focused often on who would get to play which characters. Lines such as "Can I have [a character]" or "Change away from [character]" were common. Additionally, people often pointed out that a certain character type was missing by writing "Tank?" or "Healer?", two classes which were necessary to include in a good composition. Suggestions for which characters players should choose were also common, as well as voicing of annoyance if certain disliked characters were chosen. This clearly had players focus on their own and other's roles within the team, seeing all the players as instrumental elements of a goal oriented team.

The least amount of team optimisation was witnessed in *Vermintide*. A few instances of players changing to a shield if another player changed away from one were witnessed, but the game provided no easy way to compare the setup of the characters or to make any larger decisions. One contributing factor to the rarity of shared preparation is likely the complexity of the actions which is analysed further in the next section.

4.3.3 COMPLICATING SOCIALITY

Besides the socioemotional or instrumental nature of the social behaviour people engaged in, a core element that determined the shape of sociality was how much effort it presented to the players. The cost of actions was determined by their complexity, the other actions that they competed for resources with and finally the level of disclosure they demanded.

Examples of complex actions were found in the Lobbies of both *Helldivers* and

Vermintide. In *Vermintide*, changing characters needed team-level coordination. Only one instance of each character could be in play at a time, meaning that if two people wanted to switch to each other's characters, one needed to change to another character first before the other could choose the character they had originally wanted. The complexity of this gesture likely affected the frequency of it. People generally accepted one of the 'free' characters or left the group instead of trying to negotiate another one for themselves. Such negotiation of characters was only witnessed in groups of previously familiar players playing with voice chat, suggesting that to succeed in such complex actions more active communication was needed. Similarly, the players had no easy way to see the decision others had already made: In order to coordinate the preparation between players, they would constantly have to confirm and announce what they had chosen, adding to the complexity.

The preparation process included complex moments in *Helldivers* as well. In contrast to *Overwatch*, in *Helldivers* the player did not choose from predetermined characters but modified their own by selecting active skills (stratagems) and weapons. The potential options and combinations were thus exponentially larger and simple shorthand comments like asking for a "tank" could not be used to complete the preparations. In contrast, while playing with the voice channel open, people did discuss the choice of equipment and expressed a preference for certain types of weapons or skills highlighting a connection between complex preparations and a need for broader bandwidth in the core communication channel.

The second element complicating communication was competing actions, which were most frequently found at the Stage. For example, healing in *Helldivers* and *Vermintide* went often uncommented since writing to the chat distracted from other gameplay activities. In *Helldivers*, only one instance where a player used the text chat to write "ty" (thank you) was witnessed – a rare lull in the battle presented itself the moment that the healing happened, giving the player time to write the thank you. In contrast, in *Overwatch*, where a specific 'Thank you' comment could be bound to a single button press (or used through a menu which was also quickly accessed) players used it more frequently and in all matches observed, at least one instance of a thank you was witnessed. In *Vermintide* and *Helldivers*, the communication presented thus a competition for the gameplay because they demanded more attention than the one-button solution offered in *Overwatch*.

The competition between actions could most clearly be seen in the actions that were counted as throwing the game: Using the chat too frequently was a common tactic used to lose deliberately in *Overwatch* and *Vermintide*. Players were all aware of how much effort typing into the text chat or constantly talking took, knowing that it had an effect on the player's effectiveness. Communication and gameplay were thus at odds, increasing the price of communication. However, communicating was only seen as an

example of bad play when it was done extensively. In fact, communities of all three games thought communication was an important element of playing well. Managing the amount of energy spent on communication became essentially one gameplay challenge.

Finally, the cost of disclosure also affected the overall cost of communication. If players were only interested in the effectiveness and compatibility of their communication method, players should predominantly use the voice chat. However, voice chat does also reveal most information about the player which added to its cost. Despite *Overwatch* heavily supporting and promoting the use of voice chat (making it a central element of the interface, promoting it frequently) only a handful of instances of strangers willing to use voice were observed. Even in these cases, the communication was asymmetrical with most players still using the alternative communication tools and text chat. Even though *Helldivers* ostensibly preferred voice communication, having it be by default active and feature prominently in the pause screen, no voice communication was witnessed. In *Vermintide*, similarly, text chat was used instead of the voice chat even though this always distracted momentarily from gameplay.

There were situations where the benefits of voice overweighed its cost. The online community discussion for *Helldivers* did express a preference to using voice ("Nonverbal Communication Guidelines," 2016), making the observed results initially contradictory. However, it is likely that on the highest difficulty levels, which were not observed, using voice is more prominent because the higher-level missions make such demand on the communication channels that more players are willing to waive their need for anonymity. This is supported by the observation that the use of voice was most frequent in *Overwatch* in the high-risk competitive mode where succeeding demanded effective teamwork. The cost of voice was also diminished if the 'price' of disclosure was small. For example, when playing with friends the voice communication did not present a similar disclosure situation as friends were already privy to the information that voice revealed.

4.3.4 FEEDBACK

The behaviour players engaged in was also connected to the feedback the game provided. This feedback could be provided on three different levels: through framing, rewards and punishment as well as visibility. The framing for gameplay actions was what the players based their judgement upon, rewards and punishment directly guided players into certain behaviour patterns and the visibility determined what the players were aware of.

Framing was central in determining what kind of social reactions players had to hostile actions. In *Overwatch*, where hostile actions towards the enemy team were part of the gameplay, hostile actions were rarely commented upon and hostile players

were not given much attention beyond being gameplay challenges. However, players who chose to target their hostile actions on specific players and hounding and harassing them, did incite a reaction. This hounding was against the implicit rules of gameplay – the game always framed the opposition as a team and never encouraged targeting single individuals – and as such conspicuous. The reactions people had on this varied on lashing out in the chat against the hounding player or complaining to one’s own team, asking for help or expressing annoyance. “Get that Genji off me!” was a typical example of a comment in *Overwatch* where a player asked the team to do something about an enemy player focusing intensively on them. Reactions were most likely when a player’s own play was noticeably disrupted to the point that they were practically locked out from the normal gameplay.

In *Vermintide* and *Helldivers*, where there was no enemy team that hostile actions could be acceptable against, players had a noticeably lower level of tolerance towards them. If a player damaged their teammates, but there was plausibility that they did it by accident, people tolerated a few missteps before calling the offending players out, often resorting to insinuating they were bad at the game. “High level and cant (sic) play,” was one such dismissal of a player who accidentally cast a fire spell that damaged other players. In *Helldivers*, where accidental hostile actions were frequent due to the game mechanics, players tolerated more: the game framed a few accidental deaths as practically unavoidable. However, actions causing the team to lose a mission often led to other players leaving the game, sometimes midgame, as a sign of no confidence in the abilities of the offending player.

The group oriented gameplay mechanics offered both rewards and punishment that guided player sociality. On one hand, these interaction elements determined the possible ways for people to go against the good of the group and the punishment for such actions. *Vermintide* had clear restrictions that forced the group to play together. Players that ventured too far from the group were caught by special enemies, the levels frequently included places where advancing was not possible without the whole team gathering up, and additional quest objectives (collecting tomes and grimoires) had clear, collective consequences. This meant that players who tried to play against these rules were often limited in their actions or punished by the game – although throwing the game was fully possible, there was less freedom in how to do it. Possible ways – although not witnessed – could be to decline to join at the point where the whole team was needed or purposely get caught. Likely, the ways that one could throw the game were not enjoyable and therefore not as common.

In contrast, in *Overwatch* most of the group gathering mechanics were based on incentives tied to a balanced group composition and playing as a tight group, showing the group oriented mechanics working as rewards and incentives. The way players could play against the group were thus by avoiding the incentivised actions. This could be seen

clearly during the Lobby part of the game where players who chose characters that did not fit the group composition were often chastised and complained about; they were seen as choosing wrong because they did not select what the game recommended. Similarly, during the Stage, players who strayed far from the group were complained about, because the incentives were tied to staying close together. Finally, at the Curtains, blame was often targeted on these players who had chosen wrong characters and played individually because the incentives were tied to being a group.

Guiding through rewards did not seem to be as effective as providing limits. *Overwatch* had the largest number of instances of a player purposefully playing against their team witnessed and was the game with the least amount of restrictions³. The incentives, although they increase the fun for the players who follow them, did not limit the enjoyment possible to gain from playing outside them. The frequent complaining and chastising witnessed in the chat in *Overwatch* can be seen as a response to this; since the game failed to systematically punish for 'erroneous' behaviour, the players stepped in and provided social policing.

The last form of feedback that guided social interaction is their visibility. For example, thank yous were often expressed when there was a clear, standout action that could be thanked for. In *Overwatch*, a player with a passive healing ability that constantly healed nearby allies was rarely thanked for the supportive action. In contrast, the character who healed in noticeably burst (the player being healed saw their health quickly improve and green arrows rising on their screen) and with specific targets (a beam of light connected the healer to the player they were healing) was frequently thanked when they healed. In *Vermintide*, a player who saved a situation by blocking was only thanked if the other players realised that the action had directly saved their life. In all games, thanks were especially likely if a player had requested an action (healing, focusing on a specific target) and a player responded directly to it, making the cause-consequence clear for everyone.

³ A special case was presented in the Competitive Game mode in *Overwatch*. Here, players who left the game before it had ended were punished by receiving an automatic loss, which affected their rank. Since competitive games can be competitive only if it is fair against all the players, this separate system was put in place to further discourage grief play

4.4 DISCUSSION ON SOCIALITY

4.4.1 INSTRUMENTAL VERSUS SOCIOEMOTIONAL

To summarise the results, the Lounge was clearly a socioemotional environment where players repurposed various interaction mechanics and communication tools to create small, amusing games which had no meaning beyond being social – they became sociable in nature as defined by Simmel (1949; cited in Eklund, 2012). The Curtains were as well clearly socioemotional in nature, but focused more on emotional work and on implicit, social rules. The Stage presented the exact opposite where players focused predominantly on instrumental actions and for example repurposed new communication tools out of interaction mechanics to be able to communicate more effectively.

The Lobby, on the other hand, presented a case where both socioemotional and instrumental behaviour was witnessed. Sometimes the players focused on optimising the team and sometimes they played around in the environment like they did at the Lounge. What the Lobby highlights is the potential conflict that instrumental and socioemotional elements can present (for another example, see Ducheneaut & Moore, 2004). In Lobbies, depending on the consequences of the choices made in it, the level of socioemotional interaction and communication varied. If there were consequences to be aware of, players downplayed the socioemotional ‘play’ because they had to direct more focus onto the instrumental elements. If there were no consequences to be had, such as with the Mystery Heroes game mode in *Overwatch*, the players felt ‘free’ to be sociable. In other words, the Lobby highlights how the conflict between socioemotional and instrumental actions is related to the increasing cost of socioemotional actions in an instrumental context. The cost of different social actions is further analysed in Section 4.4.2.

The socioemotional stages – the Lounge, the Curtains and occasionally the Lobby – provide non-goal focused downtime, which research has suggested provides social support (Ducheneaut et al., 2007; Trepte, Reinecke, & Juechems, 2012). The lack of calm places during and after gaming sessions has been argued to cause players to neglect sociability (Ducheneaut et al., 2007, p. 159): the role of the socioemotional stages is thus not only to provide the players with a place to be social at but also to help them balance instrumentality and sociability in the game as a whole.

Instrumental stages are also important to sociality. Interaction intensity has been proven to increase the amount of sociality (McCreery et al., 2015): The Stage is clearly the social environment where players most frequently interacted. The frequent interactions, on their turn, both see players grow familiar with each other and engage in group-based activity, increasing the sense of shared presence (McCreery et al., 2015, p. 205).

In other words, an interplay exists between the Stage and the social spaces surrounding it. The Lounge and the Curtains are critical places for *maintaining* social ties while the Stage provided players *reasons* to do so. Having grown familiar at the Stage, the players can make informed decisions about using the relationship building tools offered at the Curtains. The Lobby acts an intermediary between the Stage and the other spaces, both in the sense of being a space with both socioemotional and instrumental elements and often being literally situated between the Stage and the other spaces. The Lobby also primes the players for the teamwork and sociality of the Stage, providing expectations of what the player's place is within the team and what the player is expected to do. The Lounge, in its turn, provides a respite from the expectations and work needed in the other spaces.

To summarise, although socioemotional and instrumental sociality existed uneasily in the same social space, between the different spaces socioemotional and instrumental elements worked together to build relationships between the players. Although the Stage is a core space of both sociality and the gameplay, the role of the auxiliary social stages should not be underestimated.

4.4.2 COST OF SOCIALITY

To continue the discussion started in Section 3.5.2 on the ease of communication, the observation study further highlighted how a game as a social environment is filled with constant stimuli, a constant storm of information that the player needs to navigate through to succeed in the game. Sociality within this system exists on the terms of the environment. Players are constantly regulating how much attention and energy they put on the gameplay challenges and how much they put on communicating, interacting and interpreting the actions of their team and the enemy. In Section 3.5.2 the ease of different communication methods was analysed. Supplementary tools allowed for low effort but precise communication and voice was clearly supported in the games because of the broad bandwidth potential it had. In general, the easier a communication channel is to use, the cheaper it is for the player. However, the observation study introduced three new elements that additionally affected the cost: the overall complexity of the social actions, competing actions as well as the level of disclosure demanded.

The observation data suggests that players are generally very willing to negotiate their place in the team as instances of adapting to the group were found in each of the games and especially frequently in *Overwatch*. However, a limit exists to how complex actions players are willing to take to succeed in it. Where the effort to adjust one's role within the group was relatively little, it was most common (*Overwatch*) and where it demanded larger effort from multiple participants (*Vermintide*) it was rare. Playing with friends and while using voice communications, the more complex

preparation actions were taken more often. More complex tasks have been found to demand richer communication media (Connaughton & Daly, 2004, cited in Williams et al., 2007); this suggests that the complexity of the actions was likely to have been reduced by the more effective communication channel.

The competition for resources and the ease of use of the communication channels are clearly connected. The amount of conflict increased when there were no effective communication tools. This can most clearly be seen when contrasting the different games with each other. Thanking for supportive actions was most frequent in *Overwatch* where a communication tool for it was available, making a thank you one button press away. In the two other games where the effort to do the same was larger, the behaviour was witnessed more infrequently because it took more away from the gameplay.

Another side of the same issue is the amount of resources available. Additional social tools can be unwelcome and harm the game experience when added to high action gameplay situations (Barry et al., 2014). The observation showed that people were ready to spend time being social in environments where there was more room for sociality and less gameplay pressure. The Lounge and the Curtains, as already socioemotionally loaded environments, saw thus most the sociality because the sociality was *not at the cost of the gameplay*. More resources were free for sociality when the gameplay put few demands on the players. Similarly, the Lobby, where the focus shifted from instrumental to socioemotional depending on the pressure related to the gameplay mode, saw more sociality when there was less gameplay related pressure.

The last part in the equation of the cost of sociality is the price of disclosure or of anonymity. Despite voice communication providing the best ease of use versus bandwidth of communication, its use was relatively limited. Research suggest that people are wary of using voice with strangers (Wadley et al., 2015). Using voice opens up “a window into [players’] lives. Their microphones not only record their own voices, but also the parent calling them to dinner, the three-year-old son on the player’s lap or the drunk housemates barging into the room” (Schmieder, 2009, p. 13). Voice communication always includes some personal information and a hesitancy to use it is likely related to the need to control how much one discloses (Cook et al., 2016). Disclosure, sharing of intimate details and personal information, is built on trust. The players need to be able to selectively disclose only to the players who they have sufficient trust in - the price of a communication channel increases the broader audience it demands the player to trust.

Relationships are vulnerable and might break if too much information is disclosed too early: Cook et al. (2016) warn against trying to push players to disclose too much, too quickly. Here, they use automatically activated mics as an example, something which *Helldivers* included. The data suggest that people were not welcoming of the always-on-mic in *Helldivers* as no-one using the mic was encountered during the

observation period. People had to have actively closed the mic down instead of using the most effective channel of communication. Another way to encourage players to disclose more is by placing them in high commitment situations (Cook et al., 2016): The competitive game mode in *Overwatch* and the higher difficulty levels of *Helldivers* and *Vermintide* provide exactly this. The pressure to perform was such that the advantage of the extra bandwidth outweighed the need for control over disclosure. The cost of disclosure was thus acceptable when the potential rewards were high enough.

Lastly, while playing with friends and where consequently the trust was not an issue, the voice chat was used practically across all the games. Interestingly, however, while playing the high commitment competitive game mode of *Overwatch* with friends, it was always chosen to move away from the always-on-mic and join the public push-to-talk voice channel, limiting the amount of communication that could be engaged in. The broadest possible bandwidth of communication was thus used for sociability, not instrumental needs. While playing with friends, the role of communication changed from facilitating gameplay to facilitating social connections. A similar pattern was found by Williams et al. (2007) when they studied the use of voice in MMOG groups. They found that voice while playing with familiar people served as “a medium for maintaining relationships” (Williams et al., 2007). However, no broad conclusions can be drawn based on this example. It should only serve to draw attention to the complexity of the issue of disclosure which this study is inadequate to cover. In other words, this study has shown that disclosure is one of the elements that affect the cost of sociality; the various elements that have an effect on the cost of disclosure are beyond the scope of this thesis.

4.4.3 CULTURE THROUGH FEEDBACK

The results showed how implicit social rules were governed by the players through the social management done at the Curtains. Although the implicit, social rules were brought to the game and enforced within it by the players, the games could affect these rules by choosing what kind of feedback it provided the players with. Feedback could be provided on three different levels: How actions are framed, how visible and impactful actions are, and what actions are punished and what actions are rewarded.

Framing, punishments and rewards were all often connected to the group-oriented game mechanics. They encouraged players to work together and hindered unwanted play in different ways by providing restrictions and punishments. The different forms these mechanics can take have been explored in studies focusing on cooperative game mechanics (Rocha et al., 2008; Seif El-Nasr et al., 2010) and cooperative communication mechanics (Toups et al., 2014; Vaddi et al., 2016). The observations here add to this knowledge by showing how players could turn ‘positive group orientation’ into guidelines on which to base social policing on, chastising players who chose ‘wrong’

characters in *Overwatch*. This has had negative consequences when the game designers have not intended the incentives to be enforced in this way. For example, the *Overwatch* community has repurposed the tool for reporting abusive players to reporting players who tried to play alone and with unpopular characters (Hernandez, 2017).

Visibility was the most crucial element in determining if a social interaction, communication or presence element led to social exchange. The feedback players receive from actions they take, especially when they target or are targeted at another player, determines what is significant. What players cannot notice, they do not care about. This was most clearly demonstrated in how thanking for supportive actions was directly related to how much visibility and effect these supportive actions had in the game. When players realise they are being helped, they express gratitude. A similar effect can also be seen in the culture to thank players after a match through “GG” or similar acronyms typed into the chat. In *Overwatch*, the actions receive most visibility because the chat is constantly visible from the end of the Stage to the Curtains where players were most likely to use it. As more people were exposed to it, it became part of the common culture.

The significance and visibility of social actions did not just control the immediate reaction but also the long-term effect: Shared experiences are what social bonds are built upon (Schouten, 2011) and those can only form when people remember what has happened. “Our attitudes toward each other are the products of our histories—memories of past interactions inform expectations of future experiences,” writes Barry et al. (Barry et al., 2014). Xu et al. further argue that it is “the accumulated interaction history that reinforces synchronization of emotions among players” (2011, p. 12). When the game gave appropriate feedback that ensured that people remembered the social exchanges they had participated in, these exchanges became a shared experience that bound the players closer together.

Voida et al. (Voida et al., 2010) offer two insights about players ‘reinforcing their shared history’: Firstly, longer stories were shared when the game did not demand input from the players. Secondly, players reminisced at moments where they were provided with a context that triggered the memories. The Lounge and the Curtains are the two social stages of the games that provide players with low-intensity time to engage in this behaviour. Context triggers can be provided both by the virtual game environment (familiar sights) but also by historical and status social presence elements which work by providing reminders of the past. The Curtains, with the focus on historical social presence elements and no gameplay demands, provides thus both prerequisites for players to reinforce their shared history. This emphasises the Curtains as the space where to manage relationships.

In conclusion, although it is the players who shape the culture of a game, the game can provide guidance by suggesting what behaviours are acceptable and what

punishable. More importantly, the games also control what players can notice and what they remember by controlling the amount of feedback they give for (social) actions. The memories then become the foundation that the players can build both the culture and their relationships on. Of the four social stages, the Stage provides most opportunities for shared experiences and places where to suggest acceptable behaviour. The Curtains, on the other hand, becomes a crucial part in the process of turning these shared experiences into a culture: Reminders (triggers) of shared experiences are displayed at the Curtains through the many historical and status elements and, consequently, managing of the sociality centres most heavily there.

5 DISCUSSION

In this chapter the contributions of the thesis are brought to a wider context. The two central themes of the chapter are how the social stages of the games connect to the process of making friends and how the stages can become a tool to design for sociality. The limitations of the thesis are also discussed and potential areas of future research are brought up.

5.1 SOCIAL STAGES AND THE PROCESS OF MAKING FRIENDS

The social spaces uncovered – the Lounge, the Lobby, the Stage and the Curtains – are places the players move through repeatedly as they play the games. Consequently, the social spaces in themselves do not present a clear, straightforward progression for relationship building. Players visit the spaces numerous times and meet people at different points in their rotation through them. Despite this, looking at the different spaces in the light of Knapp’s (2009) relational development model is valuable. Knapp’s model describes the different phases that relationships go through as they deepen and as they break apart. Movement through the phases is “generally systematic and sequential” as “each stage contains the groundwork for the following stage” (Knapp & Vangelisti, A. L., 2009, p. 151). The five steps of building a relationship are initiating, experimenting, intensifying, integrating and bonding. Knapp’s model has previously been used to analyse the role of Facebook in the forming of relationships (Fox, Warber, & Makstaller, 2013); here a similar approach allows looking at which steps of the relationship development the different social stages support, and where they can be argued to fall short.

INITIATING

The first step of Knapp’s relational development is initiating the social connection (Knapp & Vangelisti, 2009). This is the moment of first impressions and the first interaction. All the different social spaces have the potential to be the first environment where the players encounter each other. In the Lobby and the Stage, the first impressions are offered in an instrumental context: The first impression formed is likely to be positive if the player is judged by the game to be performing well. One of the key factors for forming friendships in-game is to humanise the other players (Barry et al., 2014). This is something that the Lobby and the Stage struggle with. If the first impression of the other players is in the terms of their *usability*, players are less likely to “foster empathy, understanding, and patience” (ibid, p. 2).

The Lounge is a far better environment for a humanised first impression. Lounges have a higher number of personality social presence elements and a variety of communication tools and interaction elements, which players often repurpose for socioemotional activities. Additionally, since the Lounges come without the pressure to perform, there is more room for emotional work. If the goal is to have players focus on each other as humans, they should enter the relationship through a low-pressure environment, where they do not mainly focus on gameplay demands (the Stage) or on preparing for them (the Lobby).

The Curtains has the smallest likelihood to act as the place of initiating a relationship since new players cannot join the match when it has yet not ended in any of the games. The only way to initiate a connection at the Curtains is to join the game

only moments before the match ends, be transported to the Curtains and meet the others for the first time there. As a place for initiating a relationship, the Curtains does offer many personality and status elements to build a first impression upon but has only limited possibilities for an initiating action. However, because of the focus on historical events and reflection on shared experiences of the Stage, a newcomer is an outsider at the Curtains. The Curtains is a good place for observing new connections. For initiating such a connection, it is less suitable.

EXPERIMENTING

The second phase of the relational development is experimenting. During the experimenting phase, the parties are interested in finding more information about the other to determine if they would like to continue deepening the relationship (Knapp & Vangelisti, 2009). Fox, Warber and Makstaller (2013) found that Facebook had become an important tool in the experimenting phase of new relationships because it allows finding information about the other and interacting in a low effort environment. The games provide a similar environment in many of the social spaces. Because status is central in incentivising actions, information about a player's status is scattered in all the different social spaces. These status elements allow inspecting the standing of the player in the community, similarly to how Facebook can be used to find out the social suitability of the other party by finding out what they have done, who their friends are and what they are interested in (Fox et al., 2013). Since status is an important element of social connections in games (Barry et al., 2014) and high status increases the likelihood that a relationship is desirable (Dijkstra, Cillessen, & Borch, 2013; Utz & Jankowski, 2016), the status social elements scattered in the games give the players plenty of opportunities to determine if they are interested in a deeper relationship.

Besides status social presence elements, the players can also make evaluations based on the actions players take. Interaction elements are offered mainly in the Lounge and at the Stage. Therefore, these two spaces offer most opportunities for shared experiences. Shared experiences, on the other hand, have been argued to be the core element for forming relationships as they are a "catalyst for deeper social interaction and relation" as well as "intertwined with all understandings [players have] of each other" (Barry et al., 2014). The Stage, as the social space with the longest duration and highest amount of interaction, presents the most opportunities for building shared experiences. In team-based games, many game mechanics additionally encourage staying and playing together further ensuring that the actions and consequences are shared. The Stage is likewise the environment where players gather their status, even though any acquired status is not prominently displayed until at the Curtains. This suggests that the Stage is the optimal environment for making people wish to move from being strangers to being acquaintances.

INTENSIFYING

The third step of the relationship development process is intensifying, which is the point where an initial commitment to the relationship is made and people start to disclose more about themselves (Knapp & Vangelisti, 2009). Where the Stage offers the reason to intensify a relationship, the Curtains offers a clear social space where to actually change the relationship. Players are not only given status and historical information to base the decision upon but also a need to make a decision about their own immediate future. Are they willing to continue associating with the players they are currently together with? Will they benefit from staying in the group or should they leave? In *Overwatch*, this step was clearly supported by the “Stay as a Group” tool, presented at the Curtains, which allowed players to build a temporary group. *Overwatch* does additionally allow players to friend each other, which might initially sound like a much higher level of commitment than the temporary group, but just like “[a] Facebook friend request is a depersonalized, system generated message that requires minimal effort or emotional investment” (Fox et al., 2013, p. 778), sending a friend request is a relatively small investment. The friendship-mechanic does consequently not directly correlate with the relationships players have with each other: you can be friends within the game without being friends in a real sense. As such, becoming a group and becoming friends are tools which allow people to gradually increase the level of commitment, presenting two levels of intensifying a budding relationship. A similar moment of intensifying can be found in *Helldivers* and *Vermintide* when players decide to enter a second mission with the same team. Although there is no explicit tool to do so, this action is similar in functionality to the “Stay as a Group” button presented in *Overwatch*.

When it comes to the second part of intensifying relationships, disclosing more, the games offer varying levels of tools. Here, the different communication channels are key in determining the power the players have in making this decision. Since all the social stages shared the same core set of communication tools throughout a game, no major differences between the social stages regarding intensifying the relationship can be found. The additional communication tools the games added at the Stage are all constrained, low-effort as well as low-disclosure in nature and cannot, therefore, be used as a tool to ‘take the next step’ in the terms of disclosure in the relationship.

The major differences were found between the games instead. *Overwatch* offers clearly more alternatives compared to *Vermintide* and *Helldivers*. Where in *Overwatch* a player can choose to write text messages directly to an individual, their group, their team or the whole match or the global chat and choose to use voice chat with either their group or their team, in *Vermintide* and *Helldivers* the players are faced only with the decision between using voice and text. A player, therefore, needs to make the decision to disclose more with a whole *group* at a time, which is likely to slow or entirely hinder the process of taking this relational development step. Cook et al. (2016)

already highlighted the role of disclosure when they looked for reasons why games often fail to aid people in building deeper relationships. They call for rich communication tools for players to control how much and who they disclose to (and who are allowed to do the same for them). Although no quantitative data was collected, more instances of building groups as well as becoming acquaintances and friends were witnessed in *Overwatch*, which had richer communication tools than the two other games.

Cook et al. (2016) additionally include two other elements that affect disclosure which can be connected to the different social spaces: quiet opportunities to talk and mechanics that loosen inhibitions. Quiet opportunities are offered mainly in the Lounge and at the Curtains, but also at the Lobby if the players have time from the instrumental preparation that is often the main purpose of the stage. In mechanics that loosen inhibitions Cook et al. include silly outfits that allow experimenting with roles, group encouragement and activities that demand commitment. A core element in all the games is changing roles which allowed for such experimentation. Additionally, all three games included humorous elements, voice lines and exaggerated characters, which were likely to prompt interaction if not disclosure. Higher difficulty missions took more commitment, and correspondingly more disclosure was witnessed with the higher stakes in play. All three of these elements are mainly present at the Stage, further emphasizing its role in providing a reasons to deepen a relationship. The games do thus include various elements that encourage commitment, but with the lack of control on how much to disclose these elements were not fully effective.

INTEGRATING

Integrating is the relational phase when the relationship becomes public and a sense of 'we' is acquired (Knapp & Vangelisti, A. L., 2009). As already stated, a formal commitment within the game is rather cheap. Therefore, in games, it is a lasting sense of 'we' that is harder to achieve and more characteristic of a deepening friendship than the official label of being a 'group'. To have people reach a phase where they are in tune with their group is clearly one of the goals of all the games analysed for this thesis. Not only does their marketing material emphasize teamwork as the central enjoyment of the games, but tips within the games (often on loading screens) frequently frame such group focused thinking as the way to play better. These tips often included encouragement to collaborate and coordinate actions with others and to use voice chat and other communication channels to do so.

However, unless the players have actually passed the earlier relational phases in their relationship, it is unlikely they are going to reach the phase where such a level of trust is acquired that they are willing to put the best of the group ahead of their own need to control how much they disclose, a decision I argue characterises this phase of changing relationships. While playing with friends – i.e. people that already

have gone through the relational phases and with whom a trust is already established – the tools offered by the game are utilised differently than when playing with lower level acquaintances. Voice is preferred over text chat, complex decisions are made at the Lobbies to optimize the team, and the Curtains sees more discussion about the past events as they can be connected to a longer shared history. What happens is that ‘we’ overtakes the ‘I’. The tools that the games offer, that have previously been used from a self-interested perspective, are used for the best of the group. However, reaching this level of group-identity demands that the relationship among the players has reached a stage where everyone in the group can trust the others to similarly work for the good of the group and not abuse the trust placed in them.

In other words, the games do offer the tools to work effectively on a we-phase but present hurdles on the way to getting there. The transition from intensifying to integrating a relationship often forces players to take risks with the other players, trusting the others before they can be sure about their intentions. Cook et al. (2016) call it ‘premature disclosure’ when the game system forces players to “jump to advanced stage before trust is built”. The issue for the three games studied is not that the games would not support effective communication but that it fails to always support players who are not quite ready to use the most effective but often also invasive tools. In their eagerness to have players optimize the gameplay, the games include tools for the ‘advanced’ players and try to have everyone use them even when they fit uneasily with the needs of the player.

BONDING

The final phase in the development of a relationship is the bonding phase, where a public, formal commitment is made (Knapp & Vangelisti, A. L., 2009). In games, a public commitment has often been made rather early on within the game, and the kind of deep connection the bonding phase is concerned with is instead made when moving beyond the game. This puts the cost of becoming friends in *Helldivers* and *Vermintide* very high as they demand the use of the game client situated outside the game, explaining why becoming friends in *Helldivers* and *Vermintide* is actually a significant sign of commitment compared to the same ‘status’ in *Overwatch*. The final phase of friendship is where the games have the least control over the process. The players have to find enough value in each other that they want to continue their friendship beyond the confines of a game: this value cannot be provided by the game alone. What the game can provide is situations where the players get to interact and communicate with each other, in environments where there are enough social cues (presence elements) that they feel connected to each other.

SUMMARY

To summarise, the social stages within the team-based games cannot control the process of becoming friends, but do offer different affordances for the process at its different relational phases. That games often struggle with turning strangers into more than passing acquaintances (Cook et al., 2016) can be seen in how the games support the initial connection and the lower levels of relationships but struggle to give enough control over disclosure that is necessary for further progression. Intensifying the relationship is the relational phase with least amount of support, but once this hurdle has been passed the tools the games have can be used to keep working on the relationships between the players.

The Stage and the Curtains work together to provide a reason (shared history, status) and a place where to make the decision about the future of a relationship. However, the Lounge is better at humanizing players whereas the Stage comes with the risk of framing the other players as interchangeable and, in the worst case, as obstacles that provide an attractive target for abuse. In general, the different affordances the social stages provide change as the relationship between players progresses through the relational phases: players adopt new strategies to use the game environments with people they trust.

5.2 SOCIAL STAGES AS TOOLS OF THE GAME DESIGNER

The social elements and the four social spaces - the Lounge, the Lobby, the Stage and the Curtains – present a game designer with a toolbox for working with player sociality. They allow the game designer to focus the efforts to guide the player sociality at the moments and spaces where it has the most effect. This allows balancing the information that the players are subjected to so that the sociality does not become an unnecessary burden at times when the players are not ready for it, an issue highlighted by Barry et al. (2014). Since all tools for sociality can be abused, knowing to add tools only where they can be used for positive social impact is critical in building a successful social environment. Although more tools mean more potential interaction, too many tools at wrong moments might distract players and provide rich channels of abuse for players that are not bothered by the impact they have on gameplay. A list of the collected insights generated from the material collected for this thesis is available in Table 6. The rest of the chapter is used to open these insights further.

Table 6. Collected insights

Lounge	<p>The Lounge is the stage for humanizing the first connection.</p> <p>Players will repurpose tools they are given for sociability.</p>
Lobby	<p>The Lobby is where players focus on the group. Tools to aid collective preparation and providing simple decision to make will help in the process.</p> <p>The Lobby changes depending on the incentives/pressure of the following Stage.</p>
Stage	<p>The Stage is where players build shared memories. Keeping players together and offering feedback on actions makes players aware of what is happening and ensures that they can remember it.</p> <p>One should be aware of the effect of presenting other players in an instrumental framing.</p> <p>High commitment makes people willing to risk and disclose more, but risks can also backfire.</p> <p>Keeping the price for socioemotional actions as low as possible allows players to take them more often.</p> <p>One should be wary of giving tools when players are unlikely to have the resources to use them – the only one using them in such situations is the player who is ready to waste their resources.</p>
Curtains	<p>Providing memory tools to highlight positive shared experiences at the Curtains facilitates relationship forming.</p> <p>Relationship initiating tools should be situated at the Curtains.</p>

Barry et al. warn that “[p]layers can’t make friends from dehumanized strangers” (2014). Of the four different social spaces, the Lounge offers the best environment where to introduce the players to each other in a context where they have the room to appear human. The lack of pressure and consequences in the Lounge make it an environment where players can experiment and interact with larger flexibility. Joy in the Lounge is found in sociability and improvisatory play-acting that leaves ample of room for building social connections. Correspondingly, providing many interaction elements and a wide variety of communication tools in the Lounges is a good way to enhance the possibility space for sociality. Given the time and permission from the game (the lack of gameplay consequences), players will find new and novel ways to use the tools given them to demonstrate their personality.

The Lobby, on the other hand, is a space where the players focus on preparations. The Lobby is also where individuals focus on negotiating their role within the group (Vaida et al., 2010). Providing tools for preparation is the main purpose of the Lobby, but additional thought should be given to how the team can coordinate together. Transactive Memory Systems is how small groups coordinate and has three indicators: specialization, credibility and coordination (Lewis, 2003, cited in Kahn & Williams, 2015). The games analysed all featured many elements of specialisation through complimentary characters, different skillsets, weapons and roles within the games. The games also gave players tools to validate the credibility of a player through the historical social presence elements and status symbols.

However, “even if there are specialization and credibility, if there is no mechanism to coordinate the knowledge and abilities, this specialization is of little use” (Kahn & Williams, 2015, p. 490). Opportunities to specialise and ways to prove one’s credibility are not enough - providing the tools to coordinate with is extra crucial at the Lobby. The data gathered showed that the players’ willingness to tailor their preparation for the best of the group is connected to both how easy it is for them to see what the group needs as well as how easy it is for them to make the needed adjustments. The players should therefore be given effective communication tools that allow them to coordinate their actions and an easy way to see the current situation of the team. Limiting the amount of options players have to consider will decrease the complexity and consequently increase the amount of coordination players engage in.

With the Lobby, it is also important to acknowledge that as an environment it quickly reacts to the pressure to perform in the following Stage. If important decisions need to be made in the Lobby, players are likely to focus on them instead of socioemotional teambuilding. As such, players can use the Lobby to chastise players who they think are not contributing to the team in the right way which can turn the Lobby into a highly pressurised environment. Lobbies demand extra attention from the game designer: players find clues for how to behave from all incentives, punishment and framing done in the game.

The Stage is the most complex of the different social environments as most of the gameplay of the games focuses there. However, in terms of the sociality the Stage has two major purposes: Creating shared memories and providing opportunities to gather status. To create shared memories, the Stage should provide the players with opportunities to do things together but most importantly provide adequate feedback that ensures that players are aware of what has happened. If players were not aware of the impact an action had, they did not pay attention to it or remember it. By combining group oriented interaction with incentives to stick together and be constantly aware of the rest of the players and by allowing the players to clearly affect each other’s experience, memorable moments are created.

Gathering status on the Stage is an important part in defining the types of behaviour that the community strives for. All actions that are penalised and all actions that are rewarded have the potential to change the shape of the sociality encountered in the games. Rewarding for supportive actions is one way to encourage players to engage in them, and providing most status to individuals taking large risks encourages risk seeking behaviour. One clear way to guide and to understand player sociality in team based multiplayer games is thus to understand how status is awarded within the game. All of this also reflects directly back to the Lobby.

Related to the Stage and to gathering status, the Curtains provides the decisive moment in making decisions about relationships and their future. The main purpose of the Curtains is to gather the results of the Stage and reward the appropriate actions. In addition to this, the Curtains also provides a moment of retrospection: A potential way to facilitate relational development could be to provide more historical presence elements and remind players of the shared experiences they have had. In *Overwatch*, this is achieved through the Play of the Game highlight, which provides a brief glimpse to past events which can then be commented upon which ties the group together. Since shared history and status are two important elements of determining one's interest in a relationship, providing relationship management tools at the Curtains is a natural place for them. If these relationships building experiences are moved further away (as was the case with *Vermintide* and *Helldivers*) the effort needed to find the action worthwhile grows exponentially, hindering and slowing down advances in relationships.

An important element to understand is also the cost of different social actions. In stages such as the Lounge and the Curtains the socioemotional actions are the main focus and players are correspondingly willing to commit more resources on them. However, the Stage and the Lobby are often instrumental in nature and socioemotional actions happen there at the cost of the instrumental actions. As such, it is important to provide appropriate tools for each of the environments. With cheap socioemotional tools, such as shortcut commands for "Thanks!" and "Roger that!", players are willing to use them more freely even at the Stage.

Finally, game designers should understand the need and fear of disclosure. Allowing players to control how much they disclose is an important element in giving them the tools to control their relationships within the game environment. Forcing players to disclose more is possible for example through high commitment gameplay, game modes that demand high performance from the players and thus heavily encourages them to for example use the voice communication tools, or by making the decision for them with an always-on-mic or by revealing personal information without asking. However, this presents the players with a high risk situation where they are placed in a vulnerable position and can be abused. If the players are forced to disclose more than they are ready to they are forced into a situation where they can be badly burned – and

might be unwilling to return to the game again.

To summarise, beyond the collected insights offered here, the social stages can be used to study a game from the perspective of its social environments. In Table 7, a selection of questions is gathered to help explore each of the stages. After identifying how each of these stages (if at all) are presented in the game, these questions can be used to explore their design. The questions instruct the game designer to think about which tools they are giving the players to control their presentation, to analyse the other players, to communicate and to interact in these spaces. Sociality is practically a game on top of the game, intertwined with the gameplay and at the same time separate. For the designer interested in the sociality of the players, the core question they should always ask the design is “how can the player use this to connect with the other players?” This allows designers to see if the players are given the social tools in social environments where they will get the most of them or if sociality is often at the cost of gameplay.

Table 7. Questions for the social stages

Lounge	Where do the players meet for the first time? What kind of interaction and communication tools are the players given? What elements in the Lounge can the players repurpose for sociable interaction?
Lobby	What are the players focused on in the Lobby? Gameplay challenges or the other players? Do the players have the tools they need to coordinate with the group? How complex are the coordination actions? Can the players see the decisions the others have made?
Stage	How intense is the Stage? What encourages players to work with and near each other? Is adequate feedback provided so that players are aware of actions and their effect? What actions give status (are scored, highlighted or stand out)? How expensive are socioemotional actions? Are there communication tools that players cannot afford to use (and which are most likely only used by players who are not invested in the gameplay)?
Curtains	How are the Stage and the Curtains connected in the game? Are players reminded of the shared experiences they have had? What tools are given for forming relationships and where are they most easily accessed?

5.3 LIMITATIONS OF THE THESIS AND FUTURE RESEARCH

One clear limitation of the thesis is the small sample size of three games. Although the three games have their differences, they represent only a limited sample of the different types of team-based online multiplayer games available. However, the study focused on depth over broadness in its approach and the sample of three games was broad enough to provide contrasting material on which to base observations about a general, social structure. The limitation opens directions for future research: Gathering quantitative data of the social stages would provide a valuable contrasting point for the results of this qualitative study. Additionally, a broader selection of games would allow making judgements about the generalizability of the results. Are similar patterns also found in a collocated setting? Studying games with different team sizes would also be beneficial: Team size has been found to affect the composition of the members (Williams et al., 2006).

Another limitation of the thesis is that it focused on player sociality, but did not include any self-reported observations from the players themselves. Although a player perspective was included through the participatory observation, no players were interviewed about their thoughts and opinions of the social stages of the games. All the sociality recorded for the study was therefore based on observed behaviour and could not take into account the reasoning behind behaviour beyond extrapolating from the author's own experience and from adapting already existing material of player sociality to the uncovered social structures. A clear future research direction is thus to gather data directly from the players themselves and find how they feel the social stages affect their sociality.

The balancing between instrumental and socioemotional actions and their cost was a theme that was uncovered during the research. The topic would benefit from further study. Finding out what affects the cost of different actions for different players could help tailoring the social stages better. What is the cost in effort and disclosure of the different communication tools? Although this has been studied already to some degree (Peña & Hancock, 2006; Williams et al., 2007), further investigating of how players balance between social demands and gameplay demands would help in creating games where humanising the players does not necessarily fall only upon the Lounge. Studying further what elements on the different stages are key in moving the players from socioemotional, relaxed sociality to pressured, instrumental sociality all the way to giving up and engaging in grief play is a promising area of study.

Finally, studying how players understand status in gaming environments is an area that should be researched more. Since status was used to incentivise most of the gameplay in the team based games analysed for this thesis, it greatly controlled the behaviour the players strived towards. A more detailed understanding of how status

is understood by the players and how it affects their playing and social relationships would help game designers greatly in controlling the social environments they create in their games.

6 CONCLUSION

The following chapter is the final chapter of the thesis. The social stages of team-based games are provided a summarised explanation. The two research questions are provided with answers as the results of the two studies are presented in a concise form.

6.1 SOCIAL STAGES

The first research question was concerned with the social affordances found in team-based online multiplayer games. Based on previous research, social elements could be divided into communication tools, interaction elements and social presence elements. The first study revealed that communication tools can be sorted into categories based on how much control players had over who the message reaches and how easy they are to use. Interaction tools can be divided into categories based on their purpose within the game: gameplay interaction, group oriented interaction as well as relationship forming interaction. Social presence elements can be categorised based on what kind of information they provide: informational, personality or status/history.

The games were found to have several different social stages that housed these social elements. The social elements found within each of these spaces defined the overall feel and purpose of the stage. The four stages found in team based multiplayer games are the Lounge, the Lobby, the Stage and the Curtains. These stages are more like a cluster of rooms instead of a hallway because players can move through them in various order, based on decisions the players themselves make and how the games have chosen to order the rooms. These four stages are also the Theatre of Sociality; the role of each of the social stages can be explained through an analogy of a theatre performance. For a more detailed explanation, see Section 3.5.4.

The Lounge is a place with interaction, communication and social presence elements. The Lounge is similar to the backstage of a theatre where people meet before a performance, already dressed up but not yet in character. The interaction elements are versions of those available in the Stage, but without or with limited consequences. Communication tools are often similar to the tools available on the Stage but slightly fewer in amount with fewer additional communication tools available. The social presence elements often focus on personality and status within the Lounge and a limited amount of informational social presence elements are present.

The Lobby is characterised by a sense of preparation and offers mainly communication and interaction tools needed to facilitate this preparation process. The presence of social presence elements is limited, but focused on those that signal status and personality. The Lobby presents the group as a team, supporting the role of the Lobby in negotiating an individual's place within the group. The social space reminds of the moment of standing in the curtains, ready to step out onto the stage.

The Stage is the heart of the games and has the highest density of all the different social elements. It resembles the stage of a theatre where everything is focused on the performance. The players are provided with additional instrumental communication tools and interactions that are not found at any of the other stages. The majority of the social presence elements on the stage are informative in nature.

Although socioemotional tools and presence elements are also present, they take the back seat to the instrumental tools.

The Curtains is a space closely related to the Stage and commonly follows right after it. Historical social presence elements are important in connecting the Curtains and the Stage together. These historical elements are additionally important in highlighting the status the players have acquired during the Stage. Interaction elements are very few. Communication elements are often limited to the base set available throughout the different stages. In the analogy of a theatre, the Curtains is the moment the actors take their bows.

6.2 EFFECT ON THE PLAYERS

The second research question was concerned with the effect the social stages have on the players. Compared to MMOGs, the team-based multiplayer games structure the social spaces more explicitly. Whereas players in MMOGs determine the purpose of a space, the analysed multiplayer games predetermined the purpose of each of the stages by controlling the available communication, interaction and social presence elements in them. The behaviour the players engaged in could thus be anticipated by the stage they were at. A summary of typical behaviour at each stage is provided in Figure 2.

The Lounge was found to be the environment where players often engaged in emergent communication and sociable behaviour, using the place to relax and to interact with the other players. The lack of consequences and the many elements that allowed players' personalities to shine through helped create a light-hearted environment. The Lounges were environments for play-acting where the players focused on improvised interaction without meaning, simply for the sake of being social with the other people present. The Lounge was thus found to be reminiscent of a 'third place' as used in a game context by Ducheneat et al. (2004).

The Lobby was the place where the players focused on their own role within the group. If the process of adjusting to the needs of the groups was too demanding, players did not bother with it. In contrast, if the actions were easy to complete and communicate, players generally engaged eagerly in them. Based on the pressure the players felt to perform in the Stage following the Lobby, the Lobby shifted between instrumental and goal oriented sociality and socioemotional, sociable interaction.

The Stage was a place for the players to engage with the game but also to build shared memories. In general, players were willing to engage in socioemotional behaviour, but if the gameplay was too demanding, players were forced to dedicate their energy to it. The Stage was always primarily instrumental in nature with most of the interaction, communication and social presence elements used to enhance one's

performance. However, if players lost their interest in the gameplay, they could move from pursuing the goals to using the social channels to abuse the others.

The Curtains provided players a place to parade their status, but also a place where they closely observed the other players and made decisions of the future of their relationships. Communication was generally reflective in nature and made connections to the shared history among the players. The social culture of the games was also determined mostly by the social management done at the Curtains (or immediately after when more appropriate tools for it were provided elsewhere). When the game itself included relationship management tools, they were frequently used. If the tools were situated outside the game (in the game client), they were much higher in cost and consequently not utilized.

Three additional major insights were also gained related to the use of the different social elements: The cost of sociality was found to affect how much players engage in it. The different elements that make up the cost of sociality are detailed in Section 4.4.2. Instrumental and socioemotional actions created a conflict by competing for the same resources and exist thus uneasily within the same social stage. The power of the social stages was to provide separate environments for the different social needs of the players. Finally, the amount of feedback offered on social actions was important in determining how effective the social actions were in creating shared social experiences. If the Stage did not provide enough memorable experiences, the Curtains could not provide the players a reflective moment when to make relationship decisions.

Figure 2. The general focus of each of the social stages

	Lounge	Lobby	Stage	Curtains
Social Presence	Socioemotional	Socioemotional/ Instrumental	Instrumental	Socioemotional
Communication	Personality/Status	Personality/Status	Informative	Historical/Status
Interaction	Improvisation	Social/Instrumental	Enhanced instrumental	Reflective
	Improvisation	Limited	Extensive	Relationship forming

6.3 SUMMARY

The thesis saw the studying of the different social elements and the structure they reside in through two different studies, one taking a design perspective and the other focusing on player behaviour, in order to provide a holistic view of team-based online

games as social environments. The social elements of three different games, *Overwatch*, *Helldivers* and *Warhammer: End Times – Vermintide*, were consequently documented and analysed.

The results show that the sociality in the team-based multiplayer games is staged using separate social spaces that the players are led through as they enter, exist in and exit the games. The different social stages provide an environment with predetermined tools for the players to use for sociality and most importantly a predetermined purpose for the sociality. Through the available tools (social elements) the games predetermine the role for sociality that the stages serve. Consequently, players were found to move between instrumental and socioemotional mindsets as they moved through the different stages. A concluding summary of the findings is presented in Table 8.

Table 8. Summary of the social spaces and typical elements

Placement	Definition	Typical social elements	The role for sociality
Lounge	A place where players could meet before and between missions. Characterised by a sense of downtime.	Interaction elements with limited consequences, basic communication tools, personality and status social presence elements	A place of relaxation and sociability (sociality for the sake of sociality)
Lobby	The moment right before entering a mission or a match. A place for preparation.	Basic communication tools, limited interaction tools, limited status elements	For negotiating one's role in the team.
Stage	The most game like part of a multiplayer game. These segments were characterised by a sense of urgency and a focus on a goal.	Interaction elements, instrumental communication with supplementary communication tools, informative social presence elements, personality and status social presence elements	To build shared experiences as well as a place to gather status
Curtains	The moments after a mission or match has ended, featuring reflection on what happened 'on the stage'	Basic communication tools, limited interaction or relationship tools, status and historical social presence elements	To display status, and negotiate relationships, social management and defining the social culture

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