



**TURUN
YLIOPISTO**
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RESOURCES, CAPITAL, AND PLAYERS INSIDE THE GAME WORLDS

Bourdiesian approach to game cultures

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Faculty of Humanities
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*To Vippe,
who showed me that it is okay to take rest, not hurry around,
and being kind is always worth it.*

*To Lilli,
who proved to me that reciprocal love and trust requires patience,
effort and understanding.*

*To Tassu,
with his heart of gold showed me that being endlessly curious
can lead to rewarding experiences.*

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ABSTRACT

Online gaming is all the time more ubiquitous. With the World becoming increasingly digitized and inter-connected, it is no wonder that the most popular pastime, gaming, is reachable quite literally anywhere. With this popularity comes the multitude of choices to fulfil any gamer's needs and satisfaction for interactive media as companies are trying to tap into the ever-growing market. Some play to spend time with family and friends, some play to dominate others, some play to become rich, and everything in-between. The online game worlds, especially the games in the genre of Massively Multiplayer Online Role-Playing Games, can house inhabitants of all backgrounds, with all types of motivations, and offer more than enough activities for the inhabitants to enjoy.

Despite the immense success of certain games that have defined the future of their respective genre, the research into the immersive and complex virtual worlds has been heavily focusing on aspects and effects external to the game and the act of gaming itself. There is a stern lack of focus on the happenings and lives of the inhabitants of the virtual worlds, apart from very few autoethnographies that attempt to go beneath the surface to explain the affordances that exists. Studies still largely focus on the players before and after they play the games where the in-game actions are rather nuance than the focus.

This dissertation shifts the focus upside-down and explores, and explains, deeply through the resources circulating in and around the online multiplayer game worlds with the players themselves being rather side-lined. Used methods include quantitative survey, scoping review, qualitative, and frequency count. This dissertation shows that there just as many ways to live inside the game worlds as there are players. Thus, the main arguments of the work are related to: 1) socializing, the numerous ways to do so, and the importance of it inside the game worlds; 2) the ways avatars and players are able to, or willing to, accumulate resources; 3) using Bourdieusian approach to resources as types of capital is feasible and offers unique insight into the happenings of game worlds; 4) the types of capital as they have more nuance to them in the domain of video games than their broad definitions might let one expect.

The results promote the view, that despite the sheer power of statistical analysis to categorize players, there can be found unique approaches to the games varying from the motivations and demographical attributes to focusing on the betterment of

the game's community through discussion forums. Every instance and every approach to gaming is just as valid as any other, which might seem like an obvious statement, but it is clear that the player-bases and sometimes even scholars forget about those playstyles that are in the margin. Further, the results increase the knowledge of how resourceful avatars can be, and what are possibly some intra-game and extra-game limiting factors on how well an entity can utilize the possible affordances. The academia has studies about the social life inside the game worlds, and studies about capital as resource around the game worlds, but they are rarely combined. Even more rare are the comprehensive studies taking a wider look on the life of the citizen of the game worlds with specific research aims or questions in mind. This dissertation gives multi-layered insight into this phenomenon with tangible examples to deliver a very precise message.

For one to understand the avatars of games, one must think and approach them as conscious entities rather than only as tools for enjoyment. There is so much more going in the virtual worlds than one mere dissertation can ever include within its pages.

KEYWORDS: Games, Video Games, Sociology, Capital, Resources, MMORPGs, Avatars, Hero Shooters, Online, Quantitative, Qualitative, Frequency Count, Bourdieu, Consalvo

TURUN YLIOPISTO

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Historian, kulttuurin ja taiteiden tutkimuksen laitos

Digitaalinen Kulttuuri

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TIIVISTELMÄ

Verkkopelaaminen on enenevässä määrin kaikkialla läsnä. Maailman muuttuessa jatkuvasti digitaalisemmaksi ja verkostoituneemmaksi, ei ole ihme, että suosituin vapaa-ajan viete, pelaaminen, on saavuttanut lähes jokaisen kodin. Tämä kasvava suosio takaa sen, että jokaiselle pelaajalle on useita vaihtoehtoja, miten lähestyä ja käyttää interaktiivista mediaa, sillä yritykset taistelevat siivusta markkinoilla. Jotkut pelaavat viettääkseen aikaa kavereiden ja perheen kanssa, jotkut taas dominoidakseen toisia, joillekin rikkaus on ainoa tavoite, ja kaikkea tältä väliltä. Verkossa olevat pelimaailmat, etenkin massiivisten monen pelaajan verkkoroolipelien genreen kuuluvat, pystyvät tarjoamaan kodin pelaajille taustasta ja motivaatiosta huolimatta, sekä tarjoamaan heille enemmän kuin tarpeeksi aktiviteetteja ja tekemistä.

Huolimatta tiettyjen pelien valtavasta menestyksestä, jotka ovat määrittäneet oman genrensä tulevaisuuden, tutkimus mukaansatempaaviin ja monimutkaisiin virtuaalimaailmoihin on keskittynyt voimakkaasti pelin ja itse pelaamisen ulkopuolisiin näkökohtiin ja vaikutuksiin. Virtuaalimaailmojen asukkaiden tapahtumiin ja elämiin keskittyvässä tutkimuksessa on suuria puutteita, lukuun ottamatta hyvin harvoja autoetnografioita, jotka yrittävät mennä pinnan alle selittääkseen kuinka erilaista kahden eri avatarin elämä voikaan olla. Tutkimukset keskittyvät edelleen suurelta osin pelaajiin ennen ja jälkeen itse pelisessioiden, jolloin pelin sisäiset toimet ovat enemmän vivahde kuin painopiste.

Tämä väitöskirja kääntää painopisteen ylösalaisin ja tutkii sekä selittää syvällisesti verkkomoninpelien maailmoissa ja niiden ympärillä liikkuvia resursseja pelaajien itsensä ollessa melko sivussa. Käytettyihin menetelmiin sisältyy kvantitatiivinen kysely, kartoittava tarkastelu, laadullinen tutkimus sekä frekvenssilaskenta. Tämä väitöskirja osoittaa, että tapoja elää pelimaailmoissa on yhtä monta kuin pelaajiakin. Siten työn pääargumentit liittyvät: 1) lukuisiin tapoihin sosialisoida ja sen tärkeyteen pelimaailmassa; 2) tapoihin, joilla niin avatarit kuin pelaajat voivat, tai haluavat, kerätä resursseja; 3) Bourdieulaiseen lähestymistapaan, jossa pääomatyyppit käsitellään resursseina, on käyttökelpoista ja tarjoaa ainutlaatuisen käsityksen pelimaailmojen tapahtumista; 4) pääomatyyppeihin, sillä niillä on enemmän vivahteita videopelien piirissä kuin niiden laajat määritelmät antavat odottaa.

Tulokset tukevat näkemystä, että vaikka tilastollisen analyysin voimasta kategorisoida pelaajia, pelitutkimukseen voidaan löytää ainutlaatuisia lähestymistapoja, jotka vaihtelevat motivaatioista ja demografisista ominaisuuksista peliyhteisön parantamiseen keskustelufoorumien kautta. Jokainen tapaus ja jokainen lähestymistapa pelaamiseen on yhtä pätevä kuin mikä tahansa muu, mikä saattaa tuntua itsestään selvältä väitteeltä, mutta on selvää, että pelaajakannat ja joskus jopa tutkijat unohtavat marginaalissa olevat pelityylit. Lisäksi tulokset lisäävät tietoa siitä, kuinka neuvokkaita avatarit voivat olla ja mitkä ovat mahdollisesti joitain pelin sisäisiä ja pelin ulkopuolisia rajoittavia tekijöitä sille, kuinka hyvin he voivat hyödyntää resursseja. Akatemiassa on tutkimuksia pelimaailmojen sosiaalisesta elämästä ja tutkimuksia pääomasta resurssina pelimaailmoissa, mutta niitä yhdistetään harvoin. Vielä harvinaisempia ovat kattavat tutkimukset, jotka tarkastelevat pelimaailmaa asuttavien pelaajien elämää laajemmin erityisiä tutkimustavoitteita tai kysymyksiä silmällä pitäen. Tämä väitöskirja antaa monitasoisen käsityksen tästä ilmiöstä konkreettisten esimerkkien avulla.

Ymmärtääkseen pelien avatareja, niitä täytyy ajatella ja lähestyä tietoisina kokonaisuuksina eikä vain viihteen työkaluna. Virtuaalisissa maailmoissa tapahtuu paljon enemmän kuin yksi väitöskirja voi koskaan pitää sisällään.

ASIASANAT: Pelit, Videopelit, Sosiologia, Pääoma, Resurssit, MMORPG:t, Avatarit, Hero Shooters, Verkko, Kvantitatiivinen, Laadullinen, Frekvenssilaskenta, Bourdieu, Consalvo

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In Tampere on the 17th of April 2023
Henry Korkeila

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List of Original Publications

This dissertation is based on the following original publications, which are referred to in the text by their Roman numerals:

- I Korkeila, Henry & Hamari, Juho. Avatar capital: The relationships between player orientation and their avatar's social, symbolic, economic and cultural capital. *Computers in Human Behavior*, 2020; 102: 14–21.
- II Korkeila, Henry, Koivisto, Jonna & Hamari, Juho. Demographic differences in accumulated types of capital in Massively Multiplayer Online Role-Playing Games. In *Academic Mindtrek 2020* (Mindtrek 2020), 29-30 January, 2020, Tampere, Finland.
- III Korkeila, Henry. Social Capital in Video Game Studies: A Scoping Review. *New Media & Society*, 2021; 1–16.
- IV Korkeila, Henry, Dashiell, Steven & Harviainen, J. Tuomas. Gaming capital on Overwatch's Official Forums. *Games and Culture*, 2023; in-review.

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1 Introduction

1.1 Situating the Dissertation and Research Questions

Gaming and playing, especially digital gaming, has gained immense popularity and has become more and more popular as global connectivity allows people to engage with various platforms that have started to specialize in certain types of games and monetization systems (Entertainment Software Association, 2021; Shin & Shin, 2011). Other forms of gaming than digital gaming are still more than relevant with a recent resurgence in attention to Dungeons & Dragons (Tactical Studies Rules, 1974-) and Magic: The Gathering (Wizards of the Coast, 1993-), not to mention tabletop games that provide endless hours of fun for partygoers and families (Statista, 2022). For now, it seems that digital gaming will become as normalized a hobby or passion like playing ice hockey or aiming to be an Olympian in gymnastics. But from a research perspective, as the playing of video games and gaming in general becomes more popular, there always will be more studies to conduct and interesting approaches to explore (Mäyrä, 2022; Williams et al., 2008).

The draw of online video games resides in the possibility of meeting other players who share an innate interest in a same hobby – namely the game they are playing (Yee, 2006). While there are very popular and successful single-player offline games (and rightly so), online video games keep drawing people back to them year after year (Hooi & Cho, 2017; Hsiao & Chiou, 2012a). Examples of these are the Counter-Strike series (Valve Corporation, 2000-), Dota 2 (Valve Corporation, 2013), or Final Fantasy XIV Online (FFXIV: Square Enix, 2010), and while each of these games is relatively old in terms of internet age, they are still relevant today in the global gaming sphere. This dissertation asks and answers the following questions: “What happens inside the game worlds themselves?”, and “Where can the line be drawn between the avatar and players’ skills and resources?”

In many ways, online game worlds are intentionally different, but they share similar concepts with the real world, especially when it comes to abstractly transferrable properties such as social status and resources. There are written and unwritten rules, trading, reputation, and means of presentation available for each player, and how each chooses to approach these aspects is up to them. Overall, online

game worlds offer an equality of opportunity, and also a plethora of things to do and focus on. Some players choose to utilize online game worlds as a modern “third place” (Oldenburg & Brissett, 1982), and instead of going to a cafe or the movies, some choose to escape reality and spend their free time as the mightiest wizard (Crawford, 2015). Some may look for like-minded people and bond with them while tackling various group activities, or some may choose to become the richest player on a server. Yet collectively, these players are called “gamers” or “gamers of <game title>”, even if they might never meet each other in-game or share anything in common other than their interest to play the same game. It is these unique affordances are in many ways the focus of this dissertation.

The vast majority of the scholarly attention towards online video game worlds (later: game worlds) and their inhabitants has focused on external rather than in-game factors and attributes (see e.g., Hsu et al., 2009; Kneer et al., 2016; Mancini & Sibilla, 2017). There are extensive amounts of studies categorizing players into one or more types to make sense of “who plays?” or “why they play?” (Ghuman & Griffiths, 2012; Hamari & Keronen, 2017; Yee, 2007). I believe there is a historical reason for this focus on external attributes, and that is the negative stigma of ‘nerd-culture’ that gaming has received all the way back to the 1970’s. For many years, playing tabletop or video games was stigmatized as child’s play, and ‘no adult’ should seriously spend their time in front of a screen or with rule leaflets (Tocci, 2009; Woo 2012). The ubiquitousness of the Internet has further pushed the interest in video games as a hobby and a profession forward, as every player can technically play with others around the world.

In some sense, I claim that these categorizations of gamers have been part of a long defensive battle to break some of the stigmas and myths surrounding gamers. One of the more direct studies against the stigma was conducted by Williams, Yee and Caplan in 2008 and it is titled “Who plays, how much, and why? Debunking the stereotypical gamer profile”. While the study focused solely on one game as a stimulus, it still speaks volumes as the authors found that the average age of the players studied was 31 years, that older players play more than younger players, and that the mean hours played on any given week was almost 26 – that is a considerable time spent playing just one game per week. The results of more recently completed quantitative surveys on MMORPG players do not differ that much from these earlier results, and the only significant difference is the rise in the number of female players (Korkeila & Hamari, 2020). But since that 2008 study, there have been multiple shifts in how games are portrayed and marketed, and now it is common to see (at least in Finland) adverts for various video games year-long, which helps to normalize gaming as simply a hobby amongst other hobbies.

To give this phenomenon of the normalization of ‘being a gamer’ a more tangible name, in her book “Cheating: Gaining Advantage in Videogames”, Mia Consalvo

(2007) presented the concept of “gaming capital”. Here, Consalvo explored what motivates players to cheat, and from which sources they may have learned about cheats, abuse glitches or bugs in games, in order to play them in unintended ways. Gaming capital steps in when players talk about their exploits and feats in games to others, regardless of whether they are gamers or not. This means that when gamers discuss their own approach and experiences of a game or games, they can also be thought of as turning those perspectives into a resource. This resource is, in essence, gaming capital. According to Mäyrä (2010) “gaming capital” refers to “the role knowledge, experience and skill have both for an individual, but also for the larger cultural and economic system that surrounds digital games”. Thus, gaming capital refers to the player’s collective understanding of a game or games, and gaming as a hobby and work.

Consalvo and Mäyrä have both situated gaming capital as an extension to Bourdieu’s (1986) cultural capital. It must be noted that gaming capital is not a sub-category of cultural capital or any of its three forms (institutionalized, objectified, and embodied) that Bourdieu (1986) presented. Institutionalized cultural capital refers to knowledge gained by an individual from a recognized institution, for example education and other qualifications. Objectified cultural capital means more tangible items with a value given through understanding their worth, and this includes various works of art, books, and video games in certain approaches. The final form of cultural capital is embodied, and includes an entity’s language, mannerisms, and certain preferences. This is the vaguest of the three forms given that how an entity operates in any given situation varies, and as such, things like the language and mannerisms that are used will also change. In some ways, gaming capital can be thought to resemble embodied cultural capital as gamers absorb information of the game worlds, and learn how to play and navigate them. Thus, players have an embodied understanding of the game and can use battle skills without too much conscious thinking, or they know how to obtain an item through the knowledge they have and gather. This cultural capital of both the game and gaming in general is transformed into gaming capital when the players discuss these with others.

However, while gaming capital has been situated deeply to be a form and extension of cultural capital, I claim that it is not. I say that gaming capital is as much social capital as it is cultural capital, and to a lesser degree, a form of symbolic capital. The knowledge of the games themselves is indeed cultural capital and gaming capital simultaneously, as video games are a rather interesting exception to how entertainment is consumed as they situate the consumer (gamers) into an interactive role. Yet, like so many other types of knowledge, the true value is realized only when socially interacting with others, and thus social capital is part of the gaming capital. Social interactions set the amount of gaming capital one has into

perspective, as it becomes possible to compare the amounts of knowledge of games an individual has more or less directly. This in turn makes it feasible to approach gaming capital as a resource as it can be increased through various means, and “exchanged” to form social status and social capital. This is an approach that has been rarely studied, and one of the few examples is a study by Walsh and Apperley from 2008 where they surveyed a school class to see if they play, how much they play, and what they think of others’ playing status and habits. This places gaming capital into somewhat uncertain terrain as gaming capital is treated more as gaming knowledge, and any symbolic value (capital) gained from the gaming is not recognized until others (in this case classmates) discuss their experiences of and thoughts on games. Accordingly, gaming capital is not just an accumulated knowledge of games and gaming.

To explore this approach further, it is first needed to make it feasible to transfer the resource approach taken from outside games (extra-game) inside to the game worlds (intra-game). Furthermore, one needs to quantify one’s intra-game actions into surveyable variables, and develop the quantifiable data into tangible explanations. While this is a somewhat massive undertaking, it is not impossible. What follows is a short discussion around the topic of “the resourcefulness of avatars and player characters in and out of the online game worlds” that serves to explain further why gaming capital is more than cultural capital, and that social capital plays a bigger role than has previously been acknowledged in academic discourse. Much of the work of this dissertation would have been considerably more difficult to rationalize had Walsh and Apperley’s (2008) work never been undertaken, as it would have required a more thorough reasoning as to why quantifying intra-game actions and motivations into a survey tool is firstly a feasible approach, and also why it makes for a worth-while addition to the game studies field. Thanks to that specific article, arguments exist in favour of utilizing Bourdieu’s (1986) framework of forms of capital, as at the most basic level it is possible to say that it has previously been used. But the difference, of course, is that their study is situated in the extra-game context, whereas this dissertation focuses largely on intra-game aspects. However, as will become clear in the following discussions, gaming as a hobby and profession is still social even if one plays offline or single-player games, and some might say that these are sadly no longer synonyms of each other.

Gaming, especially online gaming (henceforth referred to as gaming) is an inherently social activity (Benefield et al., 2016; Castillo, 2019; Zhang & Kaufman, 2015), and even more so when it comes to multiplayer gaming like first-person shooters (FPS), multiplayer online battle arenas (MOBA), hero shooters, and massively multiplayer online games (MMOs). This sociability of gaming has been studied in the academic literature for a long time in order to understand the phenomenon of gaming, and also the changes the surrounding phenomena have on

both the individual and society, especially in regard to the social aspects involved. There has been some fear that gaming reduces the sociability of the gamers because they are not utilizing so-called ‘third places’ (such as cafés or gyms, as per Oldenburg and Brissett, 1982) after work or school, but instead choose to stay home. However, numerous studies have shown that gaming is more social than many think, and a many players satisfy their social needs through gaming, be it intense socializing with a tight-knit group or just enjoying the distant presence of others in the same game-world, and everything in-between.

To see how social capital has been studied across the academic literature in the domain of video games, Article III offers a scoping review into the topic (Korkeila, 2021). Importantly, it found that there is no singular way how social capital has been studied, as its uses varied greatly and no utilization was dominant over others. The only exception to this was the methodology of the studies utilizing social capital which tended to heavily lean towards quantitative survey studies into Massively Multiplayer Online Role-Playing Games (MMORPGs), but is indicative more of the methodology of the studies than how social capital was actually utilized. That said, the wide variety of the usage of social capital to study and explore gaming means that it is possible to infer that gaming is more than just child’s play or that there is something “wrong” with adults who play games as a hobby. The scoping review revealed that while there are a lot of studies using the social capital aspect intra-game, it was still often used to reflect real-life variables such as loneliness and well-being, or to enable a direct comparison of the amount of social capital extra- and intra-game. Thus, it is still rare for studies to limit the resource approach to stay within the studied game, rather than thinking, for example, which variables might affect one’s social capital in games.

Naturally, it follows that there has been interest in exactly who plays games, how, and for what reasons. Academia has approached gamers through various approaches, and not just debunking the negative stigmas of gaming. Numerous socio-psychological categorizations exist to make some tangible sense of the huge mass of players of online multiplayer games living through and even as their avatars in enormous game worlds. However, one problem with most, if not all, of the typologies and categorizations that have been developed in the last two decades is their focus on variables outside the games, or that their interest is rooted in games or gaming before the action itself happens (e.g., choosing which game to play and with what mindset, who to play with, etc.).

I believe that for the continued interest towards gaming as a hobby and identifying various gamer types to flourish, there is a need to see what happens inside these ever-living and ever-changing game worlds. Some of the extra-game categorizations are more about marketing-tools for players who already know they are players and what they prefer, and many categorization surveys conclude with

various recommendations for video games that the respondent could enjoy (Vahlo et al., 2017; Yee & Ducheneaut, 2018). Anecdotally, these tend to focus only on blockbuster (otherwise known as “AAA” or “Triple A”) games that are already known to everyone, or focus on genres that more active players already know a lot about. While there are indeed scientific and business benefits from these types of categorizations, they fail to touch on the affordances the games themselves have. Many popular games such as Overwatch (Blizzard Entertainment, 2016), Fortnite (Epic Games, 2017), FFXIV (Square Enix, 2010), League of Legends (Riot Games, 2009) have different ways of playing them, even if their major selling point is a single genre, such as hero shooter, battle royale, MMORPG, and MOBA respectively. After all, there is a reason why many games exist inside the same genre, but which have enough differences compared to their direct competitors to be appealing to various gamers.

The affordances inside the game are what keeps the gamers playing the after their first rush of interest, and this is where the variance in player profiles starts to come to the fore; prompting the question of whether there is enough to do for players who approach the game differently from each other. By differently, I do not mean that someone is intentionally trying to play a hero shooter game like it was a non-shooter game, but rather that within the same sandbox, these players might take opposite approaches and in multiple ways: for example, competitive versus casual, or damage versus support. Of course, these are not the only pairings and differences in a hero shooter game, and other genres have different and perhaps more ways to binarize the approaches towards a game or genre (or more about the approaches to choices in games and gaming, see Muriel and Crawford’s article “Video Games and Agency in Contemporary Society” (2018)).

All of the above aspects form a premise to the research questions and aims of this dissertation. These will be discussed through the theoretical approach on why, how, and what was done, and also in the results section. Specifically, the sections of this dissertation will focus on the impact of the outcomes as individual studies and as something larger benefitting game studies through a different approach to player typologies, advancing the concept of gaming capital, and strictly focusing inside the magic circle of game communities and interactions. To this end, the research questions and aims of the dissertation are as follows:

RQ1: Avatarization – How does our culture and the virtualization of ourselves change us?

RQ2: Holistic Understanding – How are the types of capital and the issue of dignity defined in the virtualized and digitalized communities?

RQ3: Identity and Personality – How do avatars modify our identity, and how do we modify avatars?

RQ4: Widening the Horizon – How can we expand the horizon of capital research so that it can reach almost everywhere in these virtualized realities, avatars included?

1.2 Structure of the dissertation

This dissertation is based on four articles revolving around capital in the immediate sphere of influence of online multiplayer games, and each article in turn answers one or more of the presented research questions. Although these works answer the presented research questions, there will undoubtedly be other types of approaches and answers, and these articles can additionally work as reference point or even serve to answer completely different research questions that lie outside the focus of this dissertation. Furthermore, apart from the paragraphs immediately following this, the dissertation focuses on the synthesis of the types of capital inside and around video game worlds, and what can be found about them both individually and collectively to expand the discussion of capitals and resources within video game studies. It should be noted that even though this dissertation focuses largely on types of capital to study the presented phenomena, they are just one of the many ways the richness of in-game societal and cultural worlds can be studied, and are in no way inherently better or more important than any other approach one might want to adopt or utilize.

Article I is called “Avatar capital: The relationships between player orientation and their avatar’s social, symbolic, economic and cultural capital” (Korkeila & Hamari, 2020), and focuses more intensely on the RQ2, RQ3 and somewhat on the RQ4 presented in this dissertation. Alongside Article II, it brings capital research through a Bourdieusian lens to the forefront as a viable way to study game communities and intra-game affordances for resource accumulation and consumption. Article I partially answers the research questions as follows: RQ2: Offers a questionnaire for measuring cultural, economic and symbolic capital in quantitative manner that proves utilizing the framework of types of capital in video game context is feasible; RQ3: The results reveal which types of capital are predicted by which motivation types, which in turn gives insight into the distribution of motivation types and an approximation of the resources their avatar has in-game; RQ4: The study is one of the first to utilize Bourdieu’s “forms of capital” in a modern game world context with a game-agnostic approach. I am the lead author of Article I, and I participated in design and ideation, and wrote the majority of Article I. I was responsible for the data collection, and both authors designed the survey used for the data collection and analyzed the data. I acted as the corresponding author of the Article I.

Article II titled “Demographic differences in accumulated types of capital in Massively Multiplayer Online Role-Playing Games” (Korkeila et al., 2020),

similarly in its own right gives partial answers to the RQ2, RQ3 and RQ4. Whereas Article I approached in-game resources through the motivations that predicted them, Article II focuses on which demographic attributes predict in-game resources, and gives a different approach to the survey data analysis. Thus, it provides more reference points to the age and gender distribution of the player-base of a game world which other studies can use to see the changes that have taken place from the results of earlier studies from 2006 and even further back. Moreover, Article II offers further answers to the research questions as follows: RQ2: Much like Article I, but focus of the study is more on how the gamers themselves give value and definition to the avatars; RQ3: The results reveal discrepancies in how the gamer's age, gender, and game-time affect the resources their avatar has in-game (e.g. there's a difference on how social gamers are based on their age); RQ4: The study reveals how well Bourdieu's framework for "types of capital" works in a setting like this, and also how capital types can be used predicted variables to advance the theoretical part of the framework. I am the lead author for Article II. Like Article I, I had the same responsibilities on the same parts of the article. All authors participated in the data analysis and fine-tuning the article's tone. The second author was responsible for linking the data into tables. I acted as the corresponding author of the article.

Article III operates as an overview of one type of capital and is titled "Social Capital in Video Game Studies" (Korkeila, 2021). Article III has partial answers to all of the research questions because it is a scoping review on how social capital has been studied and utilized in academic literature. In its own way the work offers partial answers to each of the research questions, in terms of: RQ1: How the social culture surrounding gaming is studied, and the effects gaming has on gamers; RQ2: How social capital is defined and utilized in studies focusing on intra-game interactions and affordances; RQ3: How social skills and motivation to socialize affect gamers' interactions around gaming; RQ4: An overall view of the social capital studies with very limited filtration allows for a mapping of part of the horizon regarding the capital research in video games. I was the sole author responsible for planning and performing the study, including writing the article, and acting as the corresponding author.

Article IV, "Gaming capital on Overwatch's Official Forums" (Korkeila et al., 2023, in-review), takes a bit of a different approach to the resources that as forms and types of capital, a gamer has in their possession within the sphere of influence of a game. Changing genres from MMORPGs to Hero Shooters, Article IV also uses a different methodological approach of directed content analysis, rather than a quantitative survey. This time the focus was forum messages posted during a random one-month period on the general and public forums on Overwatch's (Blizzard Entertainment, 2016) official web pages. There are many interesting results (some of which are outlined above), but regarding the research questions of this

dissertation, the article can provide some answers to the RQ1, RQ2 and RQ4. RQ1: The interaction between players does not happen through their in-game avatars, but rather through forum avatars (or alter egos). These avatars are to a point anonymized which gives leeway for some people to try to act or actually be a different version of themselves that writes or reacts in a certain way that is different from face-to-face communication, and differs between online communities; RQ2: The dignity or 'worth' of an entity (in this case the forum avatar) is given value through their communication skills, the topic they respond to, and the style of interaction, which means the members of the community define one's value, and not the writer themselves; the results reveal that cultural capital is being more highly valued than economic capital, at least in the case of Overwatch (Blizzard Entertainment, 2016); RQ4: Bourdieu's "forms of capital" framework (as utilized in the survey used in Articles I and II) is used as a baseline to draw findings in regard to various intra-game communities using game-specific language – especially, analysing them through the framework is proven feasible in Article IV. I am the lead author on this article and was responsible for the data collection, analysis, and writing the article. All authors participated in the planning of the data collection, with the second and third author working in a supportive role to further analyse the data, and structure the article into the required form. I acted as the corresponding author of the article.

Stemming from the above presented information and the further discussions of this dissertation:

This dissertation argues that the inside of online game worlds is just as rich as the outside world, and that there are many ways to approach, study, and explore them from multiple points of view.

The structure of the dissertation revolves around the iterations of the five types of capital (social, economic, cultural, symbolic and gaming) from three different points of view. The first iteration situates and presents them in Chapter 3, along with necessary neighbouring concepts and their further contextualization to this dissertation. The second iteration arises in Chapter 5 where the results of the articles included in this dissertation are thematically approached in terms of the type of capital. The third iteration is presented in Chapter 6, where the types of capital are discussed through the respective lens of the articles, and further expanded upon to provide explanations for the nuances of how and where the types of capital are present in the context of online multiplayer video games. While the titles of the subchapters might seem repetitive, the structure of this dissertation and the methodological approaches utilized require going through the same concepts in this structured manner.

To understand what avatars do inside the game worlds and how they work, two particular types of stimuli are used in this dissertation and are described in Chapter 2. I will go through what online multiplayer games essentially are, and then focus on the two stimuli of Massively Multiplayer Online Role-Playing Games and Hero Shooters. Further situation and understanding are offered through tangible examples. Additionally, I will provide some critical outlook for the stimuli and genres utilized in this dissertation, with additional discussion on how the stimuli compare or differ to their peers in the same genre.

Chapter 3 presents previous relevant studies and concepts, and defines and situates the used types of capital and important neighbouring concepts that are used throughout this dissertation. Some aspects are covered in more specific detail to provide more context, for example the survey instrument used in Article I and Article II. The purpose of the chapter is to introduce the reader to an adapted version of Mäyrä's (2008) layering of games and gaming, Bourdieu's (1986) framework of types of capital, Consalvo's (2007) concept of gaming capital, and Williams' (2006) Internet Social Capital Scale. Other tools are used in the articles, but these are specific to their respective studies with no link to the types of capital under discussion. Importantly, the chapter shows how the types of capital are utilizable in the field of video game studies, and how they have been previously studied.

In Chapter 4, I will go through the methodological choices and data used in the articles that are part of this dissertation. The purpose of the chapter is to give a short overview of each of the used methodologies, namely: quantitative through an internet survey, scoping review to map out the use of social capital in academic discourse, and qualitative content analysis combined with frequency count to discern the presence of different types of capital in forum discussions. As the positioning of the dissertation is strictly in the field of video game studies, it has been necessary to utilize methodologies and approaches used widely in other scientific domains. How these methods were used will be discussed separately for each article, while the overview of the methodologies themselves remains at a more general level. The issues of data collection, handling and analysis will be discussed separately for each article.

In Chapter 5, I will discuss how the types of capital present in the data and in the analysis of the articles. The chapter provides an insight on how each type of capital emerged, and which variables affect their accumulation and spending. Each of the subchapters that focus on a particular type of capital is further divided into two approaches, so as to clearly present the findings of the articles concerned.

I will discuss the implications of the findings from the data in Chapter 6. I will go through the types of capital once more, but with an aim of broadening the discussion from being discussions limited to the articles themselves, to a broader consideration of the genre of the games or of online multiplayer gaming as a whole

through examples. Furthermore, I will provide arguments and various points of view regarding the nuances of the lives of avatars and players inside the game worlds. There are many similarities to be seen between games and even to how group dynamics work in real life, and yet, there are equal number of differences that need to be briefly considered.

Finally, I will summarize the dissertation's main results and contributions to the field of video game studies in Chapter 7. I will reflect on my journey through the research process and also the limitations of the research. I will return to each of the presented research questions and give a definite answer to each of them. I will conclude the chapter with suggestions of how online multiplayer video games and their worlds should be approached, studied, and explored in the future.

In this dissertation, when I discuss or mention games as an umbrella term, I am referring to online multiplayer video games. It should also be noted that like the methodologies utilized in this dissertation, the scene of video games and their study will change over time. Thus, like the entities mentioned above, this dissertation should be approached as a product of its time as the future is impossible to predict. The games and methods I mention and discuss might also change in their usage, affordances, or description from the form they are presented in at the time of writing, and some games might even become inaccessible, the methodologies I employ updated, or new methods invented.

2 Inside the Stimulus

2.1 Online Multiplayer Games

While there is myriad of game genres in existence, and each would deserve their own spotlight regarding the topics of this dissertation (gaming capital and the intra-game resources of players). But for the purpose of breaching the surface of such possibilities, this dissertation includes games from two genres: Massively Multiplayer Online Role-Playing Game and Hero Shooter. Both are online multiplayer video games which in many ways makes studying them as a place for social interaction and social needs satisfaction fulfilment easier than, for example, trying to find how social players of games such as *The Witcher 3: Wild Hunt* (CD Projekt Red, 2015) might be. The in-game social interaction between the players and in its immediate sphere of influence gives way for more attributes and variables to be studied, as one can not truly play alone, even if players do not socially interact with other players in its strictest definition.

The games used as a stimulus for this dissertation's articles were both released in the 2010s, meaning that they are not the first in their genres, but newcomers to a market that is somewhat challenging to break into. Especially the game *Final Fantasy XIV* has had its biggest competition with itself (pre-“*A Realm Reborn*” era, 2010 to 2013), which attracted a very critical reception and eventually led to a change in leadership and the direction of the game. The game's servers also went down for a long period of time while the development team implemented “*FFXIV* version 2.0” which was released in August 2013. Then, *FFXIV* had to continue fighting with *World of Warcraft* (Blizzard Entertainment, 2004) for the place of the biggest and most popular MMORPG in the market, especially among those games that had subscription fees. Square Enix also took an enormous gamble, but has so far been a huge success due to the reboot of the MMORPG with a new director and producer (Square Enix, 2022).

Overwatch (Blizzard Entertainment) was released in 2016, and presents the second-generation of hero shooters and serves as the hallmark for other similar games to live up to. The first games that could be called hero shooters were typically called tactical shooters, where it was possible to choose from a variety of specific roles so that each game would come with its own set of abilities and game style.

Examples of such games are *Battlefield 1942* (Digital Illusions CE & EA Games, 2002) and *Team Fortress Classic* (Valve, 1999). Especially the first *Star Wars: Battlefront* (Pandemic Studios & LucasArts, 2004) and its sequel (Pandemic Studios & LucasArts, 2005), and *Team Fortress 2* (Valve Corporation, 2007) work as prime examples of early hero shooters. After *Overwatch* was launched in 2016, it set the scene for the current generation of hero shooters, and indeed the market has seen a rise in competition with such releases as *Paladins* (Hi-Rez Studios) in 2016, *Apex Legends* (Respawn Entertainment & Electronic Arts) in 2019, and *Valorant* (Riot Games) in 2020. What follows is a short introduction to the world of MMORPGs and Hero Shooters, and how feasible it has been to use genre representative games as a stimulus for data gathering and analysis, starting with MMORPGs.

2.2 MMOs, MMORPGs

MMORPGs are in essence a subgenre of MMOs, and for over two decades there have been a range of MMORPGs and MMOs available for players to enjoy and use as “third places” to socialize, relax, find something to set their mind to, and to challenge themselves (Steinkuehler & Williams, 2006; Bourgonjon et al., 2016). To go even further back in the history of the game genre, MMOs are a derivative of Multi-User Dungeons (commonly referred to as MUDs) that started to spread in universities in the Internet’s early years for people to enjoy and have adventures in, while sharing the space with other similar-minded people (Crawford et al., 2011). In this thesis, the term MMORPGs is used to refer to those games with graphical interfaces and either 2D or 3D game worlds for players that can support dozens of players simultaneously in the same area, and that have a persistent game world that includes some form of player progression system, or a number of them. The term MMO in this dissertation means more general MMOGs such as *Second Life* (Linden Lab, 2003) and other persistent game worlds that support dozens of simultaneous players in an area of the game, but which do not necessarily have a role-play-esque character progression or feature. Castronova (2005) talks about this phenomenon in terms of synthetic worlds, rather than virtual or game worlds. These worlds are so large and filled with so many activities, that in many ways the avatars can be argued to be ‘alive’ in these synthetically crafted environments. MUDs refer to the very first online game worlds that were text-based. However, *Ultima Online* (Origin Systems & Electronic Arts) can be said to have popularized the term and genre of MMORPGs already back in 1997.

The current generation of MMORPGs can be said to be the third generation that started with *World of Warcraft* in 2004 (Blizzard Entertainment). The explosive success of *World of Warcraft* has almost ensured that every other MMORPG arriving on the market must bear some resemblance to *World of Warcraft* in terms

of its game play and functions. Be it the “holy trinity” of player roles (tank, damage, healer), an open and explorable world, massive dungeons for dozens of players to enjoy together, offering numerous activities that are both combat- and non-combat-based, and so on – these games all offer both short-term and long-term goals for players to strive towards. In some discussions, these MMORPGs are denoted as “theme park games” (Bartle, 2021). Yet the purpose of this dissertation is not to go against this comparison, as in many ways it is rather correct. Both can have hundreds (if not thousands) of simultaneous visitors in various parts of the “play area”, and there are various attractions and challenges that visitors are free to take on at their own pace and choose freely in which order to go through them. Furthermore, both offer strong experiences in their own way, and regardless of how one uses their time in either of them, there are multiple rich experiences that might encourage players to return again. Of course, for MMORPGs it is much easier to return day after day and do the same things again, or focus completely on another section of the area. So, from the perspective of entertainment and enjoyment, this differs from the amusement parks that are visited only once or twice during the opening season, and many visitors want to experience it all during one long visit.

Final Fantasy XIV (Square Enix, 2010) is no exception to this rule. It has clearly defined roles for every class (called a ‘job’ in-game), and has a wide range of both combat-based and non-combat-based attractions for players to focus on and thrive in while being ‘in the zone’ (akin to an amusement park ride) with hundreds of players who can chat with or see each other. In similar way, Guild Wars 2 (ArenaNet & NCsoft, 2012), Elder Scrolls Online (Zenimax Online Studios & Bethesda Softworks, 2014) and RuneScape (Jagex, 2001) are other prime examples of current generation of MMORPGs that present affordances for seeing more players than one’s computer can possibly render in certain hot spots of the game world. Each of these examples have systems and functions for personal character growth through levels, equipment, abilities, and traits. While their similarities are many; their terminology, the value of their in-game currencies, the importance of certain rides/attractions, together with their social dynamics, setting and stories are wildly different. This is positive thing for an individual player that might in general love high fantasy settings, but for one reason or another does not like how one game plays or “feels” (be it the story or combat-wise), yet they find immense pleasure in another. However, all of these examples have one distinctive feature in common, in that their game worlds are persistent and always accessible, regardless of other players’ presence, and inaccessibility only occurs during maintenance breaks forced by the developers (Castronova, 2005).

Currently, there are no strictly defined definitions as to what an MMORPG is and is not. But a certain degree of definition is required here, not because there is a need to criticize the academic literature and its utilization of the term MMORPG or

how it is approached, although there are certain problematic cases in popular journals. Particularly, a definition is needed to make a distinction that can be applied to the marketing campaigns of games that represent themselves as being an MMORPG, when they clearly are not. For MMOs it is somewhat more difficult to determine how much can be included under the term, but this is still an important issue to raise.

Shortly put, there are very popular games using the term “MMO” or “MMORPG” as part of their marketing campaign, in order to lure players into their game worlds. However, when one starts to look more closely at the gameplay and functionalities of a game, it sometimes becomes noticeable that it is not a persistent game world, and that there is no character progression apart from various skins that can be unlocked for the character (customization with non-combat items is a trending thing to do in games: Lehdonvirta, 2009). In some cases, even the account or character levels do not technically mean anything, but work more as psychological feedback for players to feel better about themselves when they have advanced to a new level. Especially, many mobile online games use “MMO” in their tags, but it is actually fully instanced gameplay with a global chat and a certain degree of guild-like elements, and this is the extent of the “MMO” parts. One could argue that “MMO” does not in fact refer in these cases to Massively Multiplayer Online games, but rather to Mobile Multiplayer Online games, and linguistically that is correct. But it would be incorrect to fully accept that given the term “MMO” has been used for a longer term than that of online multiplayer mobile game development, then utilizing the terminology from another domain to make a product more lucrative is something that academia (as both researchers and consumers of these products) need to be more aware of.

Other MMOs are touched upon in the articles, but only FFXIV (Square Enix, 2010) presents the genre of MMOs and MMORPGs as a stimulus in Article I and Article II. World of Warcraft (Blizzard Entertainment, 2004), EVE Online (CCP Games, 2003), RuneScape (Jagex, 2001), Dark Age of Camelot (Mythic Entertainment & Vivendi Games, 2001), Lineage II (NCsoft, 2003) and Second Life (Linden Lab, 2003) each have a small mention or data points in one or more articles. Each of these are hallmark examples of the MMORPG genre with Second Life being a prime example of an MMO. The game world is persistent in each of the mentioned games where the game world keeps existing even when a player is offline, and this is unlike, for example, World of Tanks (Wargaming.net, 2010) or Fortnite (Epic Games, 2017) where the game world’s play areas are reset or re-initiated at certain intervals.

There are, naturally, certain game-design technicalities where enemies keep respawning while canonically the player character only kills something once, be it a bandit assaulting a trade wagon or the leader of an enemy faction. Gameplay loops

revolve around fulfilling daily or weekly objectives after the story and levelling processes have been completed. I argue that this is one of the only strictly technical overlaps with a game world being somewhat reset, but only at the scale of respawning enemies. But while the Dark Souls series (FromSoftware, 2011-) uses interacting with a bonfire to respawn enemies, in MMORPGs they are for the major part on a timer in order to keep enemies inhabiting the game world and be ready for players as quest objectives.

The second big divide is more linguistic in nature. MMO stands for Massively Multiplayer Online, and I want to bring focus to the first word ‘Massively’ and specifically its suffix “-ly”. There is a big difference between a Massive Multiplayer Online game and a Massively Multiplayer Online game. The first denotes that the game world itself is massive in its scale, but makes no mention of the Multiplayer part, only that the game world is shared with other players. A good example of a Massive (not Massively) Multiplayer Online RPG is Secret World Legends (Funcom, 2012), where it is intentional that outside of a big lobby or hub, players scarcely see each other in the game world, as the maps in which players operate are huge. This fits the canon of the game where the player character represents one of the free secret societies (Illuminati, Dragons, or Templars) and works behind the scenes as a lone agent. Massively Multiplayer Online RPGs denotes that it is possible to see or interact with a massive number of players basically anywhere in the game world, be it city hubs or questing areas. Of course, certain instanced areas that are strictly limited to a specific number of players are an exception, but here I am referring to the general gameplay session of these games. In terms of the “massive number of players”, while there is no strict number limit, being able to see, for example, 50 player characters on one’s screen at any given time and read all of the chat texts and emotes they do is much more akin to a Massively Multiplayer Online game than just knowing that the player is sharing the game world with 99 others, but only ever seeing perhaps 0 to 15 of them every 30 minutes before a new game round begins.

The third divide I briefly raise is that some marketing campaigns use the popularity of a game to give it “massively” tag. This is also false, as regardless of the massive popularity of any given name, it does not necessarily make it an MMO. Call of Duty and Apex Legends are both massively popular video games that focus on and are known for their online multiplayer game style. Thanks to World of Warcraft absolutely popularizing and dominating the online multiplayer game market for years, the term “MMO(RPG)” has become alluring for marketing campaigns as it can technically mean more than just what the game World of Warcraft presents. Thus, it is nigh impossible to start nit-picking marketing campaigns or even the game developers themselves as mis-defining their game as an “MMO”, but this is something that consumers, players and also academia should

become stricter on and not mention something as an “MMO” simply because someone from the marketing team does so.

2.3 Hero shooter(s)

As lined above, hero shooters in contrast are first- or third-person shooter games where players control a character with unique abilities, equipment or skillsets, in order to gain the upper hand in the battlefield. While the genre has existed for years, it was originally referred to as ‘tactical shooter’, and only after *Overwatch* (Blizzard Entertainment) was released in 2016 was the term ‘hero shooter’ popularized and used to consign earlier games from the same genre such as *Team Fortress 2* (Valve Corporation, 2007). *Overwatch* (Blizzard Entertainment, 2016) currently has more than 30 characters to choose from, divided into three roles: tank, support, and damage. Each hero(ine) has their own set of abilities, and they excel in various ways to allow teams to field the best possible composition of characters on the battlefield. For example, there are support characters that can heal or cause damage by shooting from afar much like a sniper would, and support that passively heals or can boost the movement speed of team members in a certain radius. Similarly, there are different approaches to the other roles of tank and damage.

Overwatch’s team size is six players per team which makes the game extremely complicated as the number of variables one needs to take into account in order to successfully defeat the enemy team is rather high. There are also combinations and synergies between two or more characters, both on the player’s own and the enemy team, as well as individual character abilities to be aware of, and also how each map and game mode alters how certain composition approaches might best achieve the objectives. Some maps have tight bottlenecks for teams to push through, while others have wide open areas with multiple routes to the objective. As such, following the professional scene of the game is often difficult to grasp because there can simultaneously be twelve players using three to four abilities each in a timespan of only 20 seconds, and keeping track of so many variables is not always pleasant or easy. Only after the battle is over is it possible to start recapping the key points that turned the tide towards one team. But then, only 30 seconds to a minute later another skirmish breaks out as teams have respawned and are going in for another organized attack.

For the sequel of *Overwatch* (Blizzard Entertainment, 2016) that was released in 2022, the team size was downshifted to five members. This allows for a more pleasant viewing experience, and really pushing the abilities of the hero(ine)s to the maximum as each players’ contribution becomes more important. One can also speculate that the reduction in team size allows more direct competition with other first-person shooters, and *Valorant* (Riot Games, 2020) and *Counter-Strike: Global*

Offensive (Hidden Path Entertainment & Valve Corporation, 2012) are the two biggest game franchises in the genre and professional scene. From the game developer standpoint, having a smaller team size allows, at a theoretical level, faster and more precise balance changes to re-adjust some over- or under-performing characters, and if needed, break out from stale metas. Here, a stale meta refers to a point in balancing where there is only one feasible team composition to play any given map or game mode, because the synergies between certain characters are too strong. So, while certain variations might exist for niche purposes to capture a particular objective, teams (especially professional teams) tend to play just the same handful of characters.

As Overwatch (Blizzard Entertainment, 2016) and other hero shooter games are online multiplayer games, they regularly introduce new content to keep the game feeling fresh and to entice players back to the game. This means adding new maps to the game modes to enable a wider variety of gameplay, and also characters to make new approaches possible. But apart from these game-affecting additions, online multiplayer games focus on adding huge quantities of ‘vanity items’ for players to customize their favoured characters with. In Overwatch’s (Blizzard Entertainment, 2016) case, this includes character skins, sprays, voice lines, emotes, post-game winning pose, and “play of the game” features with introduction videos and the player account’s icon.

In the articles, other hero shooters or competitor games to Overwatch (Blizzard Entertainment, 2016) are mentioned in name only, apart from Counter-Strike: Global Offensive (Hidden Path Entertainment & Valve Corporation, 2012) which has some data points for analysis. Article IV focuses solely on Overwatch (Blizzard Entertainment, 2016) and its forums as the stimulus for the study, and that is the extent to which this dissertation touches the Hero Shooter genre. For the sake of clarity, mentioning Overwatch (Blizzard Entertainment, 2016) refers to the first instalment of the game series as the data gathering, analysis and writing of the sections regarding the game were written before the sequel was released in 2022.

2.4 Summary

In this chapter I have outlined and defined the two types of game stimuli utilized in the articles of this dissertation. The aim of this chapter is to give a short overview on what MMORPGs and hero shooters are, and how they differ from each other and from neighbouring game genres. For MMORPGs, a good comparison would be VRChat (VRChat, 2014) or Second Life (Linden Lab, 2003) compared to World of Warcraft (Blizzard Entertainment, 2004) or Final Fantasy XIV (Square Enix, 2010). Both are multiplayer online games with fairly persistent world that can be inhabited simultaneously by dozens of people. But hero shooters are a mix of ability- or class-

based games and first-person shooters. Directly comparing Overwatch (Blizzard Entertainment, 2016) to a multiplayer online battle arena (MOBA) game like Dota 2 (Valve Corporation, 2013), or to a first-person shooter game series like Counter-Strike (Valve Corporation, 2000-) is therefore feasible, but at the same time, also incorrect.

In the next chapter, I will present the theoretical and background literature that situates the types of capital present throughout this dissertation.

3 The First Iteration: The Setting

3.1 Mäyrä's Dimensions of Gaming

In his book “An Introduction to Game Studies” (2008), Frans Mäyrä brought out one very important aspect of video game studies (especially those surrounding online multiplayer video games): the multidimensional nature of the games and gaming. For clarity, he separated the concept of game into two dimensions: the core and shell. Here, the core refers to the gameplay itself, as in the act of actively playing a game. The shell refers to the representation of the game, and its sign or language system(s). These two dimensions work together to form the whole sphere of a game or gaming, but with different purposes and outlooks towards the players themselves, and also those who are not playing but who are subjected to the influence of games in some way, for example, by game adverts.

Using chess as an example (as Mäyrä did in his book), the game of chess is bound by the rules which reside in the shell dimension, while the actual game play is an interactive set of events, and the end result is only governed by the actions of the players in accordance with the rules set before the gameplay starts. However, the game of chess is not tied to the exact aesthetic or even soundscape as it was when first presented, or that which is most common nowadays. The only required specifications for the “game world” or the physical accoutrements of chess that need to be fulfilled before the rules of the game can be applied to steer and limit the gameplay are a gameboard with two alternating square colours with a dimension of eight squares per side, six different and recognizable types of game pieces through which the gameplay happens on the gameboard, and that these six different pieces are in two different teams of equal number. The physical and visual presentation of the game pieces affects how the game is experienced, and in digital versions there are often audio-visual effects that can be added to further emphasize the experience of the gameplay. All of these aspects link to the presentation or shell dimension of chess.

Mäyrä also discussed one digital artefact: Sid Meyer's Civilization (MicroPose, 1991-). In that game (series), the player controls a nation of their choosing from the early ages of humankind to victory in the way they feel is the best or most appropriate. At the shell dimension, Civilization markets itself as a game of “4X”

strategy (eXplore, eXpand, eXploit, and eXterminate) that is inspired by and to some slight degree tied to the historical events of the World. Namely, you can only choose a civilization that has existed at some point in history, and discover technologies and tools, and build landmarks that have existed or still exist. This premise makes the game feel like a game of historical accuracy, but in fact is quite far from the truth. Only the terminology, events, civilizations and landmarks are based on real entities. How the player chooses to play the game or how the core experience manifests, are not touched by the rules at the shell dimensions. Thus, it is possible for a player guiding the Indian empire to be the first to develop and complete the Manhattan project, in order to gain superiority in that game of Civilization. So, while the game has authentic pieces of human history, it is not a realistic one.

To offer another example, any Massively Multiplayer Online Role-Playing Game has multiple aspects at the shell dimension which each steer the expectations, motivations and affordances of the core dimension. These include the characters (both player and non-player), the navigable game world, soundscape, visual aesthetics, effects, mechanics, functionalities, story, and the setting of the game. These have their own effect on the game experience itself, and as the current generation of the genre of Massively Multiplayer Online Role-Playing Games are sometimes called “amusement park” games, there is no right or wrong way to play the game. For every player, the pre-game experience is subjective and unique, and the shell dimension sets certain expectations for what they can or want to do during the gameplay. Therefore, the actual or perceived core dimensions vary between players, games, platforms, and community perceptions.

Mäyrä later notes that “any study of virtual worlds as games has the challenge of properly acknowledging the multiple layers where gameplay takes place” (2008, 133). He is correct in saying that when the gaming happens in shared virtual worlds, the dual dimensional approach is rather limited. Yet, categorizing gaming into these types of dimensions is helpful in situating the studies and various other discussions about video games. Therefore, this dissertation adapts the dimensional approach and is used throughout the remaining chapters to give a proper and precise context in terms of which dimension or layer the particular topic resides in.

In this dissertation, the adaption comes from the addition of a further dimension: the outer shell. For the purposes of this dissertation, it is more fruitful and feasible to approach the sphere of games and their influence as tri-dimensional entity that consists of an outer shell, an inner shell, and a core. The outer shell refers to discussions or events that happen outside any of the game’s own contexts. These may include, for example, generic YouTube channels about games or game reviews, academic journals, discussions between people in general about games and gaming, and game-agnostic community groups. In these mediums, the topic of the discussions is pointing “away” from the games or gaming itself.

The inner shell refers to the same things as Mäyrä listed, but includes game- or even genre-specific forums and community groups such as Facebook groups or guilds' Discord servers. This dimension is where the gameplay itself is not happening, but where the game-specific terminology is still in effect and widely used in usual conversation. These conversations are based on the rules, world, and story of the games, and while dependant on the structure of the game, they do not act as a direct component to the playing. Finally, the term core refers to the same concept as Mäyrä's definition: the gameplay itself. Moreover, the core dimension refers to any and all things that happens while inside the game, and regardless of the type of gaming or how active it is, it is still deemed to be 'at the core'.

3.2 Overview of Bourdieu's types of capital

The French sociologist Pierre Bourdieu is known for his studies into French society, and more into the inherent class system present in it (*Distinction*, 1984). This inherent class system in one of the richest countries in the world is approached through the lens of cultural capital – the non-financial assets that an entity has at their disposal. The lack of access to cultural capital (e.g. education) means that one cannot move up in the social caste without achieving economic gain from somewhere else. Bourdieu brought the societal level of injustice and culture to new light through the separation of the assets or resources an entity has, in order to better focus on what was “working” and what was not in French culture and society. He did this by introducing cultural and social capital at the same level as economic capital in regard to one's value can be, and is, determined in communities and societies. Later, he presented another dimension of symbolic capital (Bourdieu, 1986). In the gaming context, this dissertation focuses on analysing the avatar's and player's resources through the Bourdieu's framework.

Of course, no system or critique of the said system is perfect, and Bourdieu has gained his share of criticism, especially the situating of 'habitus'. As one of Bourdieu's more prominent and known critiques, Richard Jenkins has looked at Bourdieu's theories from various angles, but with a concise approach. Most notably, Jenkin's introduction to Bourdieu's work (1992) gives a short and to the point critical view on what is successful, and what Jenkins considers as failure. Jenkins argues that Bourdieu's cultural capital (or more specifically habitus) is a circular loop where “objective structures produce culture, which determines practice, which reproduces those objective structures – this project necessarily fails” (Jenkins, 1992). This loop negates the chance for change in the culture and society concerned, making it stagnate. King (2000) has argued that Bourdieu's theory of habitus is incompatible with his “practical theory” that “emphasizes virtuosic interactions between

individuals”, and because habitus turns into objectivism. However, neither of these authors dismiss Bourdieu’s work as is, but rather use criticism as a way of flattery.

The framework of four forms of capital features robust differences between the forms of capital. These were originally divided from a strictly economic viewpoint. Bourdieu (1986) conceptualized cultural capital to consist of three subtypes: embodied, objectified, and institutionalized. Symbolic capital was presented in a later publication (1986) to conceptualize the value and appreciation of one's feats and accumulated resources.

To conceptualize the circulation and fluctuation of the types of capital, Bourdieu (1986) offered the following example. With a high amount of economic capital, parents can buy their children better and higher education, leading to an increase in cultural capital. Over time, this turns into social capital as they have a higher and better education than many others, in the form of titles and credibility. One’s symbolic capital is accumulated simultaneously as a combination of all three. However, symbolic capital cannot be accumulated on its own because it is tied to and reliant to some degree on other people’s acknowledgment (social capital) of one’s skills (cultural capital) that they have gained with education in a private school that has required money (economic capital). In virtual worlds, however, the circulation of types of capital an avatar has is not similar, as they are not so interchangeable due to their limited contexts and the limitations of the game worlds. (Article II.)

The following chapters focus on each type of capital Bourdieu presented and studied, and further situate the dissertation to the already existing scholarly field of capital theory. Additionally, Consalvo’s (2007) ‘gaming capital’ is added as fifth type of capital to further contextualize the rest of the dissertation.

3.3 Social capital, the most studied

The first modern mention of “social capital” in the context it is used and understood in today was 110 years ago (Hanifan, 1916). Social capital focuses on the various social aspects one has in the relevant frameworks and contexts, and most social science studies focus on support, well-being and hierarchical position gain/loss from expenditure, and the accumulation of social capital for the entity (which can be an individual, group, or whole community) has at any given time.

Despite existing for over a century (see Hanifan, 1916), social capital has received increasing scholarly attention since the late 1980s, when Bourdieu (1986) presented a framework in which social capital constitutes one type of capital. Coleman (1988) examined the concept and types of social capital, and Lin (1982), whose work continues to this day, first approached social structures and capital through network theory and analysis. Social capital as a concept does not have a

single definition; rather, it is defined as an interface for transforming various social concepts and issues into a resource, which is given more concrete form and context to better utilize and study it (Neves & Fonseca, 2015; Villalonga-Olives & Kawachi, 2015a, 2015b). (Article III.)

Increasingly ubiquitous access to the Internet, digitalization, and the recent surge in how mobile devices are used in people's everyday lives have transformed the social functionalities of societies. These advances and changes have given opportunities for academics to critically examine contemporary social life and its various aspects, contemporary resources and needs, and how such changes have affected the ways in which they are accumulated and used (Fussey & Roth, 2020; Hilbert, 2020). Numerous assessment tools and questionnaires exist to measure social capital. The oldest tool for assessing social capital was already published in the late 1970s by McCallister and Fischer (1978), and like many similar studies at the time, it focused on social networks. Since then, the focus has shifted to an individual's social capital (Chen et al., 2014; Wang et al., 2014; Williams, 2006), and additional assessment tools have been published, especially during the 2010s (Salisu & Hashim, 2017). (Article III.)

Bourdieu argued that it is near impossible to reason properly for the functions of the social world exclusively through economic capital theory, and to conceptualize his argument he introduced more forms of capital as a way to further study societies and their nuances (1986). The digitalization of societies has drastically changed how the term 'capital' is currently defined and what it includes. However, capital theory can be used to explore social relations at a societal and individual level (Bourdieu & Nice, 1984; Hanifan, 1916; Putnam, 1995, 2000).

Thus far, only social capital has been extensively studied in the context of virtual and game worlds (see e.g., Ducheneaut et al., 2006; Hsu et al., 2009; Oh et al., 2004; Shen & Chen, 2015; Williams et al., 2006). Yet, some studies have expanded the scope of social capital and its utilization in the video game context (Article III). For example, prior research has explored "group social capital" (Oh et al., 2004) and "online social capital" (Williams et al., 2006). Most commonly, game research has utilized the social capital framework proposed by Putnam (1995, 2000) that was subsequently popularized for digital contexts by Williams (2006) in the form a survey (Article II).

The socialness of virtual worlds has been studied from numerous angles to gain a better understanding of how players spend their time inhabiting fictional worlds, and why so many choose to do so (see e.g., Benefield et al., 2016; Ducheneaut et al., 2006; Hsu et al., 2009; Shen & Chen, 2015; Williams et al., 2006). Some studies have also focused on social capital as a tool of expression (Balnaves et al., 2012) and as a means for increasing reciprocity (Boudreau & Consalvo, 2015; Meachem, 2012), as well as its relation to continuance intention (Hsiao & Chiou, 2012b; Kim

et al., 2013) and in-game aggression (Lee et al., 2015). (Article II.) In particular, notable theoretical approaches related to video game studies have utilized works from and by Granovetter (1973), Putnam (1995, 2000), Williams (2006), Coleman (1988), Nahapiet and Ghoshal (1988), and Adler and Kwon (2002).

The rise in popularity of video games has raised questions as to whether gaming contains more flaws than strengths, and more threats than possibilities for individuals. As such, video games have long been stigmatized and received much attention by academics as to their exact effects on people. (Article II.)

Video game related social capital studies focus on the number of in- and extra-game friends, as well as social interaction frequencies and their motivations. Most of these studies have utilized William's Internet Social Capital Scale (2006) that is a derivative of Putnam's (1995, 2000) work on social capital at the societal level. (Article II.)

Social capital in virtual worlds consists of the quality and quantity of social networks, and also the ties between avatars. Social capital is visible and quantifiable through features such as friend lists, groups, and specialized communities. Players can, for example, add other avatars to a friend list, from where they can choose how to interact with other avatars. Similarly, it is possible to block all communication from certain avatars. Avatars can show their allegiance to a group with a visible tag such as a guild name, and can be part of numerous in-game communities. (Article II.) Furthermore, the aspect of "invisible" social capital can be approached through social behaviour, such as who gamers play with (friends, family, randoms), whether they prefer solo or group play, what kind of group play, and how often they play in groups.

3.4 Economic capital, the most associated

Ordinarily, the term 'capital' is associated with economical contexts as part of the production cycle, such as cash, tools and other available resources. The term capital can be defined as "accumulated, human labour" (Bourdieu, 1986, 241), however, in the last three decades, the usage of the term has expanded to cover social and cultural aspects of societies (Bourdieu & Nice, 1984; Ra, 2011).

Economic capital also focuses on the assets an entity holds, and makes a distinction between liquid and non-liquid assets which are given different values, for example, stock market, salary, housing market, owning a car, and buying power and the differences in buying power between countries (for which the Big Mac index has been widely used for comparison).

In the video game context, the currencies available for an avatar are vastly numerous, yet the trading that takes place between players usually happens only through one main currency of the game. Social trading (like playbour or an exchange

of items) also happens, but is harder to measure. However, some MMORPGs have hired economists to keep tabs on their player trading, most notably in *Guild Wars 2* (Smith, 2012).

Depending on the game, either almost everything or nothing can be liquified to money through trading, and this includes wearable items, vanity items, and consumables. Some games have a distinction between items that are player-made (crafted) or which have been received from other sources in regard to whether the item is tradable or not, so as to keep the economy from collapsing too much (for example, in *Lost Ark* log in bonuses give some consumables that can also be crafted: Smilegate, 2019).

Economic capital in MMORPGs manifests very differently than the assets and currencies in our everyday lives. Furthermore, economic capital in the “real” world has multiple sub-types and functionalities that are not present in MMORPGs, such as stock trading and liquid capital. In an MMORPG, there is often one main currency which is used to value all other items and their prices. The tools of the trade are limited mainly to direct trading, auction houses, and owning tradeable resources using the main currency. Other ways of generating the game’s main currency also commonly exist, but the volume of the currency is aimed mostly towards paying running costs like repairs and travel. However, as MMORPGs are digital games, the resources found in the game are virtually limitless as the only limiting factor for e.g., gathering ores or picking flowers is the time taken to do so. This creates a market that highlights the flux of prices depending purely on a demand-supply ratio. In MMORPGs, every avatar starts from zero and is therefore competing for resources, money, and collectibles such as vanity pets. (Article II.)

3.5 Cultural capital, the most disputed

When approached from the cultural angle, capital is defined as conceptualizing the cultural understanding and knowledge of objects and ideologies (Bourdieu, 1986). Cultural capital is one of the types of capital presented by Bourdieu, and can be further broken down into three different subcategories that amount to the totality of cultural capital that combines the knowledge and habitus of an entity. These three subcategories are embodied, institutionalized, and objectified. There are some overlaps in their definitions, and in some studies these categories are ignored due to overlaps in their adjusted utilization. Also, the concept of doxa (what is known for everyone, as per Bourdieu & Nice, 1977) can be included in cultural capital. This is the most vague and difficult type of capital to define in terms of what cultural capital exactly is and what it is not, as its utilization and usage can be very different depending on the needs of the studies.

In the context of video games, cultural capital is commonly associated with in-game knowledge, and the usage of the terminology of the game or genre through correct words and abbreviations when interacting with other players. For the purposes of this dissertation, the correct usage of language comprises the following concepts: doxa, linguistic capital, and habitus. Doxa, shortly put, refers to “the natural and social world [that] appears as self-evident” (Bourdieu & Nice, 1977), meaning players understand without explanation, for example, what the spell “fireball” refers to. Linguistic capital refers to one’s skills and ability to convey meaning and status through spoken or written speech (Bourdieu, 1977). Habitus means the ways one perceives and operates in their position in relation to the environment they are in. For the purposes of this dissertation, it is meaningful to conceptualize habitus as a synthesis of doxa and linguistic capital. In-game knowledge can further be split into various categories that can match the subcategories of cultural capital to some degree: terminology and lore (embodied), and functionalities such as skills and mechanics (institutionalized indirectly through achievements and feats).

Searching for and sharing learnt information is cultural capital, but it is also in some ways simultaneously social capital through the gaming capital aspect at the shell dimensions. Comparatively speaking, cultural capital is considerably vaguer than social or symbolic capital. Cultural capital portrays the knowledge and habitus of the player. The various indicators of cultural capital in games can be seen in the style one answers questions, one’s efficiency in combat scenarios, portraying an understanding of the game’s functions by using available tools to their limit, and understanding the game world’s canon, locations and inhabitants including player avatars and non-player characters. As MMORPGs are just one genre of games, some of the knowledge gained about a game’s functions and mechanics are usable to some degree in other games. Navigating the game world, utilizing the user interface properly, understanding the Dungeons & Dragons style character sheet building, and the basics of damage number variance are just couple of examples of skills that are increased over time for both the avatar and player behind them. (Article II.)

Methodologically, cultural capital can be used to measure a player’s understanding of the game’s various elements, and in what ways the player possibly shares their gained knowledge with others. This approach can include topics and questions measuring the player’s or the avatar’s knowledge and understanding of the game’s functionalities, mechanics, lore, and the amount of achievement points they have. (Article I.)

Sometimes the prefix overrides its origin, such as with “gaming capital” (Consalvo, 2007) that is an extended version of Bourdieu’s cultural capital. Bourdieu’s framework for approaching types of capital as distinctive from each other has been used in the video game context, even though the publications rarely cite

Bourdieu's work. (Article II.) This is further discussed later, and throughout the dissertation, starting in Chapter 3.7.

3.6 Symbolic capital, the least discussed

The concept of symbolic capital was also presented by Bourdieu (1986), but focuses on the recognition of one's feats (cultural capital) that are validated through social interaction that gives status to an entity. Like cultural capital, symbolic capital can be rather vague in its definitions, but it is workable entity on its own, as it is mostly a combination of cultural and social capital. Accordingly, one could perhaps argue that gaming capital is close to symbolic capital in type when laid out like this. However, symbolic capital is also close to Bourdieu's institutionalized cultural capital where a proof (like a certificate or some sorts) of one's education denotes a skill set or qualification.

In the video game contexts, one's in-game achievements, equipment, and numerous vanity items can be shown off to other players, and are effectively symbolic capital. But such symbolic capital is only manifested when other players recognize it through their own cultural capital. This recognition might be direct with a comment like "Nice mount, how long did it take you to get it?", or indirectly by asking something like "Hey, where did you get your mount from?". Therefore, from the perspective of symbolic capital, it is feasible for an individual to focus on the rarer items and feats the game has to offer.

Symbolic capital manifests in the form of being recognized for one's accomplishments. Recognition (both good and bad) can originate in many ways. An avatar can gain recognition by dressing fashionably or in a confrontational manner, being part of a hardcore player group, displaying rare collectibles (such as titles or pets), standing out by behaving in a certain way, or by just being active on the server's public chat channels. For an avatar to gain symbolic capital, any accomplishment must be acknowledged by other players. For example, having a rare title is somewhat meaningless unless others recognize it as such. A rare title can be earned from defeating the hardest boss in the game, and for the avatar to earn it, the player must show enough knowledge of the game's systems (cultural capital) to win the encounter. Only after being recognized by other players can an accomplishment's value be realized as symbolic capital. Thus, social capital is required for the exchange and transformation of different types of capital to other types, in order for this to happen. (Article II.)

3.7 Gaming capital and its relation to the four types of capital

As a concept, gaming capital has been coined and presented by Mia Consalvo in her book “Cheating: Gaining an advantage” (2007). Consalvo utilizes the term when referring to “the role knowledge, experience and skill have both for an individual, but also for the larger cultural and economic system that surrounds digital games” (Mäyrä, 2010). Consalvo situated gaming capital to be an extension or even a reworking of Bourdieu’s (1986) cultural capital, where the knowledge and habitus are in effect at inner shell and core layers, or within the magic circle of video games. This means that all of the relevant capital has something to do with one’s knowledge, interests and aims towards games and gaming. This has included reading written guides from magazines (Consalvo, 2007), watching YouTube videos for guidance and tips (Consalvo, 2019), forum discussions related to a game (Korkeila et al., 2022, in-review), and talking face-to-face with peers (Walsh & Apperley, 2008).

Yet, gaming is much more than information seeking and exchange. To give more context on how gaming capital is approached, utilized and developed in this dissertation, a properly presented and contextualized account of the layering that is present when talking about gaming capital is required. Starting with the root of gaming capital, cultural capital and its relation to it is discussed, followed by how other types of capital can have their presence in someone’s pile of gaming capital, and then finishing with a layered explanation to give a holistic yet detailed perspective on what gaming capital is, and could be. It might therefore be more feasible to approach gaming capital as a sum of different types of capital (much in the way that human capital is defined), rather than just an extension of cultural capital where gaming capital is limited by what, essentially, one thinks of as cultural capital.

About cultural capital. Cultural capital is not something with a clear definition, and similar other types of capital, has multiple ways it may be approached. This makes situating gaming capital as “an extension or a reworking of cultural capital” rather complex. Different games within the same genre (for example World of Warcraft and Final Fantasy XIV as representative of MMORPGs) have various design and development choices that make a direct comparison nigh impossible, not to mention the different ways that players utilize similar affordances. However, it is possible to further break these differences into categories of player-game interaction and player-player interaction. Therein, anything that the game tells and shows to the player is seen as “player-game interaction”, and this means that the worldbuilding through the dialogue, dialect, and style of story-telling the non-player characters (NPCs) offer to a player fall into this category.

Additionally, the audio-visual presentation of the game gives more context and meaning to the worldbuilding through the NPCs offering quests and conversation pieces in various ways. Also, to be considered is information that can be seen on the

meta level, meaning information that is not innate of the world but known to the players themselves, and includes the rules of engagement and interaction with the game world such as precise descriptions of the player character's abilities, limits on inventory and bank space, limits on available loot from bosses, and so on. There are many game mechanics that would perhaps break the strict immersion players could have, but if they do not interfere too much with the gaming experience, they will not be focused on. For example, a player can have hundreds of mounts to choose from, but can only use one at a time. So, while this is outrageously incomparable to real-life (for example someone having hundreds of motorized vehicles at their instant disposal), it is not necessarily a bad thing because you can operate only one at a time.

This is just a very short example of the complexity of player-game interaction regarding information and its types that players are fed by the game. Storytelling, world-building and navigating the game differs from game to game, not to mention the big focus of developers put into these aspects of the game. This is in effect gaming capital that is passively gained and accumulated by playing the game, but which cannot be exchanged for anything without the social interaction with others. Thus, it is feasible to think of gaming capital that is earned through player-game interaction purely as cultural capital, and in line with the gaming capital conceptions of Consalvo (2007, 2019) and Burk (2009).

Player-player interaction refers to the information that is gained, shared and exchanged regarding a game or gaming through interacting with other players. This type of interaction overlaps with social capital, but for the sake clarity, player-player interaction in this section focuses purely on the information shared, and not on any social status gained or lost through these interactions. This can be also broken down into two categories of indirect and direct interaction. Indirect interaction between players (or those who are knowledgeable) is to read or watch guides, tips, cheats or reviews from magazines and videos to learn something from a game or to get interested in trying a game. These ways of player-player interaction are rather one-way because the topic is already decided, talked about and published when the consumer starts to go through it. Furthermore, there are minimal chances of asking further questions or for clarifications, or to even challenge what is being said. Other indirect means of interaction are the forums where messages are sent in asynchronous fashion. Forum discussions can vary between very long messages that take time to write and read, to chat-like short responses.

Direct ways of interacting between players are in-game chats, voice chats, face-to-face discussions, and other means of live communication where the information flow is more fast-paced. These player-player interactions are the first step in legitimizing and validating one's gaming capital so that it can be accumulated and exchanged. The topics of these player-player interactions often revolve around asking for explanations on how an ability actually works or how to beat a difficult

dungeon boss, or reading about small tips and tricks to gain an advantage over both the game and over other players.

Apperley has referred to the importance of player-player interaction, viewing that “gaming capital is distinct in that the contact, knowledge sharing, negotiations, and contextualization’s all have face-to-face and live components that engender social contacts, extending outside of the time and space of play itself” (2010, 71). Walsh and Apperley (2008) have discussed how gaming capital can be turned into “gamer identity” when school peers are talking with each other about games and what “gaming” is. Furthermore, Consalvo talked about returning to a game after a pause, only to realize that they are not aware of what has changed in a game, and much less what is “good” to use – making them look for information online, and in that case, through YouTube videos (2019).

About social capital. It can be inferred from the previous section that gaming capital is also gained through social interactions. This section focuses more on the social status gained from these player-player interactions, rather than on the information gained from them. This is an important distinction to be made, as the multimodal nature of engagement with other players is seen as more than either negotiating status or sharing information, but a combination of both. Contextualizing how gaming capital is present in social capital or social situations is complex as well, but for different reasons. While both types of capital have a certain degree of vagueness in their definitions, in the academic literature, both are used and utilized in numerous ways in order to explain the approach of their respective studies. Yet, social capital and its relation to gaming capital is rather straight-forward because one can gain a title (be it positively or negatively associated) from social interactions regarding games that denotes a person’s perceived ‘status’ in the community.

Nerd, noob (newbie) and no-lifer are just some of the examples where someone’s social actions are given a negative “name” and how a person is thought of. Similarly, *gamer*, *pro*, and *most valuable player* are some of the positively associated titles. Regardless of how much gaming capital (as cultural capital) one has, the how, why, when, and where of social interactions play their part in deciding one’s social status within the game’s communities, be it being infamous for something in-game, or being hailed as a helpful community member through publishing guides. These negotiations of social status also happen within the game’s servers in tight-knit small guilds, just as they happen in wider gaming communities and even outside them in social media. Merely playing a lot and gaining a large amount of gaming capital is not “much” if the player never interacts with other players to exchange ideas, complain about a change, or to learn new tips.

Every player approaches games and gaming differently, and this difference offers the best affordance for gaining gaming capital. If one does not want to be exposed to particular video games or gaming interaction in general, it is still possible

to accrue gaming capital. But by merely playing the game, they might miss critical information on skill synergies that would make their own solo journey in any game easier or more manageable, because the game itself does not explain these affordances and functionalities clearly.

There is a stigma associated with being a gamer, and this is especially so when the gamer happens to be female. Not only is there a gendered gatekeeping regarding the nature of a “true” gamer or who is allowed to call themselves a gamer, the gatekeeping goes as far as to pronounce on which platform people should play, how often, which games, and how one should play games. For example, female gamers receive far more harassment (especially in online multiplayer games) based only on their sex. Regardless of how well the team accomplishes its objectives, females still get targeted with more harassment than their male counterparts. This can extend even to the point where female gamers do not want to be labelled as gamers because the term carries such a negative connotation for them. (Braithwaite, 2014; Crawford & Gosling, 2005; Friman & Ruotsalainen, 2022; Shaw, 2012) This alone negatively affects the social capital a person can have, and limits the ways one can accumulate social capital through gaming capital exchange. Stigmas (especially ones that are strongly negative) make it so that community members start to gatekeep those wanting to be part of the group, and even expel those who some deem not to meet whatever qualifications are ‘required’ to remain a member. Thus, social identity and status have a strong play on how social capital affects the gaming capital one can access.

It is worth briefly mentioning a neighbouring concept to social capital within these discussions of the effect of gaming capital, aptly termed as “gaming social capital”. The concept presented by Molyneux et al. (2015) to “act as a mediating step between multiplayer gaming and offline social capital”. Molyneux et al. (2015) made a distinction between Consalvo’s (2007) the social aspects of gaming capital, and gaming social capital. Consalvo’s (2007) gaming capital focuses on “achievement in the game environment through a combination of ability and resources”, whereas gaming social capital has more to do with “social ties among gamers, the positive interactions and teamwork that may arise during digitally collocated, collaborative gameplay” (Molyneux et al., 2015).

It might seem at first glance that these concepts overlap too much for there to be any reason to make a distinction in the first place, but two important differing aspects exist. First, gaming social capital focuses solely on the game worlds themselves (as in the social interactions happening inside the game worlds), whereas gaming capital is used more broadly to cover interest, knowledge, and skills in gaming. To clarify this further, gaming capital is most often treated as something external to the game worlds and also to the act of gameplay, whereas gaming social capital is created, and in effect, only inside the gameplay and its immediate contexts such as forums,

dedicated discord servers, and so on. Second, Molyneux et al. (2015) use the term “during [...] gameplay” and there have been studies stating that gaming capital has the unique property of not reducing the capital or it’s meaning even when the act of gaming is not taking place (Mäyrä, 2010; Sotamaa, 2009). This study does not focus on this side of gaming and social capital, but later discussions in the dissertation will highlight how it overlaps with some of the included publications of the overall study.

About symbolic capital. The previously mentioned game titles (be they stemming from the game and via achievements or other feats, or given by community members) accumulate symbolic capital for the player. In their short essay, Consalvo (2012) talks about the unrealized importance of achievements for one’s playing motivation. In the context of playing *Dragon Age* (BioWare & Electronic Arts, 2009-) and reflecting the gameplay experiences through the achievement screen, Consalvo states: “I started to become mildly curious about earning more achievements, and sometimes altered my gameplay to try and meet various goals.” It was around the late 2000’s when achievements became a stable part of video games, and even more so as the global access afforded by the Internet exploded (Blair, 2011) and the Steam platform took over as the main way of distributing games to the players (Lin et al., 2016).

Achievements serve the purpose of a game’s recognition of a player’s feats within that particular game. This can be anywhere from passing a tutorial level, to mindlessly killing enemies for something extremely rare or accumulating enough kills on monsters. Depending on the game, they serve to incentivize players to replay the game to find a missing item, or to undertake side quests to get more achievements alongside more generalist achievements that one gets purely by completing the game’s story or main goals. However, there are some games that seem to mock the achievement system by either rewarding achievements very easily or making them incredibly hard to get, even more so when those achievements do not serve any other purpose than to “meta game” the innate achievement system.

As Consalvo (2012) stated: some people try to get all the achievements in a game in order to look better in the rankings, regardless of whether they have fun while playing as such. Some people think that gaining all of the achievements in a game means a one-hundred percent completion, but to be extremely technical there is often more to these achievements than simply something the game offers someone to do. For example, there are content creators for the *Diablo II* (Blizzard Entertainment, 2000) game that aim to have every single item appear as a drop from enemies. The game has almost 400 items with unique names¹ (excluding other types of items that the game has), and some of those items reportedly have a 1:40610 drop chance with

¹ https://www.reddit.com/r/diablo2/comments/6d6st0/how_many_unique_items_are_there/

some items dropping only from a specific monster on a specific difficulty setting. However, achievements do indeed steer and motivate players to explore every substantial part of the game, including areas that are seldom (if at all) touched on in the game's main story, or incredibly frustrating areas and tasks requiring patience or luck.

In terms of gaming capital, achievements can also have meaning for the players themselves. Earning achievements is a direct legitimization of one's own gaming (cultural) capital by the game or the platform itself. These achievements can be shown to others as 'proof' of one's mettle, and in this way one can gain social capital through symbolic capital, and not the other way around as symbolic capital accumulation is often approached (cultural capital -> social capital -> symbolic capital).

For some, satisfaction is gained from the achievement hunt, but for others, finishing the game might be "enough", even if not all of the achievements have been earned. These players are not playing so much for social status within their gaming networks, but for the recognition that games themselves give them. Naturally, there are games that have hundreds, if not thousands, of achievements to be earned, and more are added when an expansion or other additional content is published, making the chase of earning most or all of the achievements a never-ending treadmill (widely referred to in gaming as "grind"). Especially, MMORPGs are hallmark examples of these types of games that keep on adding achievements for the players to earn and achieve.

An additional layer of symbolic capital within the gaming capital concept are the "titles" or the recognition given by the other players, which can give or restrict access to resources, so allowing for the further accumulation of gaming capital. Particularly, if one shows off their skills in a successful manner, they might be given recognition for those skills, netting them both social status and symbolic capital. A prime example of this are the professional gamers who compete at the global level where mostly their skill affects the symbolic capital they gain from winning tournaments. On the other side are those who are given title of "gamer" just by touching the games or wanting to play because their partner or family member is playing. These are cases of where gaming capital is expended, as the status of being a "gamer" gives meaning to their identity and adds context to their relationships. The aforementioned act of gatekeeping (enacted by limiting one's access to resources such as specialized guides or communities in which to exchange ideas with other members) limits the symbolic capital of players through the denial of social capital.

However, negative symbolic capital can also be seen in the inevitable decay of the value of such recognition. Whatever achievements one may have gained ten years ago holds little value when compared to today's trending achievements from popular games or newer tournaments in the e-Sports scene. This is because over time there

will be new achievements and new games that will overthrow old giants in popularity, making them the de facto games to play if one wants to gain gaming capital in their respective social networks. For many this is not an issue as such, but for professional players and content creators, anything new or any changes in a game means that they have to study the game again, re-learn it, and put their knowledge to use. Professional players go up against each other in tournaments, and content creators need to publish videos and guides, or otherwise provide commentary for their followers and other consumers of their content. Consalvo (2019) addressed the issue of content creator's gaming capital and its inevitable decay as games are updated over time, as keeping "YouTubers busy examining and explaining how the game should be optimally played—this week, this month, this year."

Furthermore, constant balance changes to the games means that this decay can happen rather fast, as previous tactics used by professional players are made void or the videos which have been uploaded become moot. Consalvo (2019) continues on this topic that through the updates, "gaming capital is constantly draining away, much like the elixir that players consume. To ignore an update for even one unit risks one's guides and strategies falling into irrelevance, disuse, and the YouTuber lacking credibility with the larger player community. The loss of credibility can lead to the loss of revenue".

Studying gaming capital through achievements is not an easy task, and as Consalvo (2012) put it:

"...studying someone's achievements, trophies or badges as some kind of measure of gaming capital is likely to be fraught with errors and inconsistencies. Sometimes players will use one another's accounts or systems, either accidentally or on purpose. Other times, hard drives fail, or the red ring of death appears, perhaps wiping out 'legitimate' progress."

Consalvo also raises the issue of validity of legitimized feats by asking whether they are truly earned and belong to the owner of the account, and whether the legitimacy of one's experience and knowledge of the game is removed if the proof of one's achievements is somehow lost?

About economic capital. As concepts, economic capital and gaming capital are somewhat far away from each other, but it is possible to draw some connections. Having extra-game economic capital (for example stable work or income) can give access to games or their content as it is possible to buy them. But not every player can, or is willing, to spend money to buy a full game or certain additional content for them. A lack of access to games or their content naturally limits the amount of gaming capital one can accumulate. Another aspect of how economic capital affects gaming capital is the hardware required, meaning the physical components such as

a PlayStation (Sony Computer Entertainment, 1994-) or personal computer that games are played on. But economic restrictions are not limited solely to the initial purchase, and while someone might have a budget for buying games or paying their monthly subscription fees, they might lack the resources that allow them to upgrade or buy the needed components for enjoyable gameplay experiences, or even the ability to continue playing the game.

Another aspect to the economic capital surrounding gaming capital is that certain players can earn their livelihood from playing the game or otherwise operating within the gaming context. This includes e-Sports players, content creators, hosts and casters for e-Sports tournaments, players pushing for world first clears of dungeons, or bosses that gain their income from sponsorship deals, views and donations from viewers or consumers. In this case, cultural capital is turned into economic capital either directly (by selling guides or providing them through monetized channels), or indirectly where symbolic and/or social capital work as an extra step or mediator.

In-game economic capital is highly separated from gaming capital as it has been discussed so far. The riches one has in-game does not turn into real life wealth, or give much else outside of the game world itself. Amassing wealth in games is more about exploiting and utilizing knowledge to know how to make money (and the time investment to do so), if the player is to get rich through legitimate ways. However, one's economic capital outside the game can bleed into the games when a player purchases in-game items from the game's shop. These shops can contain things like vanity items, boosts to skip stories or levelling, or in-game currencies, to name a few. Often, these items are unique to the stores and otherwise unavailable to the players. Thus, expending one's economic capital in this way will give the player symbolic capital when other players recognize the item being worn or used.

About gaming capital. From the discussions in the subchapters above, it is becoming clearer that gaming capital is layered, consisting of more than “just” an extension of cultural capital, and overlapping between the types of capital depending on which medium or context the gaming capital is approached from. The shortest way to describe how gaming capital is defined and utilized in this study is that when approached through Bourdieu's framework of types of capital, gaming capital is the *overarching ever-changing sum of social, economic, cultural, and symbolic capital.*

3.8 How the articles have utilized gaming capital

Even though gaming capital is simultaneously an overarching type of capital present throughout the types of capital and also its own definite concept, it is important to present it in this dissertation in the ways that the four articles of this dissertation relate to gaming capital, directly or indirectly. Thus, this chapter adds extends the

discussion about gaming capital, and its applicability, usage and descriptiveness of gaming culture, gamer culture and player communities of one game or genre, and also why this is a relevant discussion topic. Describing and presenting gaming capital in this way to argue for its relevance is more difficult than figuring out why Bourdieu is so relevant even to this day, when his biggest works are over 35 years old and in one society (1984). Gaming capital is a collection of types of capital that has its own specific value and relevance in the applicable contexts, and the more one moves towards vagueness or general or superficial topics, the less weight it has and the more assumptions and associations others (“those outside the magic circle” on the outer shell) give to its definitions and meanings.

Starting with Article I: without the article saying anything about gaming capital, it shows that game knowledge is turned into gaming capital as symbolic capital through interaction with other players. How much gaming capital the player or entity has, cannot be inferred from the motivation part of the study (Yee, 2007), as this is measured as the variables effecting the amount of in-game capital. Furthermore, Article I does not reflect on how much of the in-game capital can actually be turned into gaming capital outside of the game’s effective area of influence. Article II shares the same quantitative data as Article I, and thus is identical in how the article can be said to approach or touch upon gaming capital. Article III does not focus or mention gaming capital at all, and is therefore excluded from this chapter.

Article IV focuses greatly on gaming capital and its presence in forum discussions. It offers arguments for the claim that defining and approaching gaming capital solely through cultural capital is insufficient in contemporary views. But when viewed in the study setting and as representative of an online community, the results cannot be generalized to be similar in other gaming communities or forums. For single-player games it might be enough to approach gaming capital through cultural capital. However, for purely multiplayer online games, it becomes more complicated as the other players act as a modifying factor, allowing gaming capital to also house other types of capital.

For example, in Article IV it was found that gaming capital is used to validate users’ own views and arguments for the credibility of the user and their messages. This adds a layer of the importance of one’s linguistic capabilities, where the proper use of the game’s terminology, understanding it, and other things related to one’s writing skills are the defining factors. However, the topics covered in the forums revolve around virtually any topic relating to the game, all the way to daily news items discussed in the forums’ off-topic sections. These messages can be thought of as a form of “gaming capital” (Consalvo, 2007) when they are somehow related to the game itself. Gaming capital involves the player’s collective understanding of a game or games, and gaming as a hobby and work. For those uninitiated in gaming, setting foot into the world of video games or a new genre can be a high wall to climb,

and it will take time for these players to learn how to navigate and function in the game worlds. Bogost (2008) calls this the development of procedural literacies (the abilities to read a particular system (a game) and its requirements), and compares it to other existing systems such as other games or the non-digital world.

Gaming capital is an incredibly feasible concept to utilize when studying how value is negotiated, accumulated and expended in public forum discussions. Gaming capital is present in more than just telling one's feats or cheats that have been found to a friend outside the game's magic circle or in extra-game spaces. However, it gives both a holistic and specific enough framework to read and analyse these types of messages. When combined with other types of capital, it forms a solid foundation to demonstrate how gaming capital is born, as well as how it can be seen in a strictly extra-game setting. Gaming capital is a resource that cannot be reduced, but its value as a relevant capital will change over time, making the dialectic power showdown of the forums a more tangible form.

Of note is that the value of one's gaming capital will go down over time unless it is added to, or even changed to reflect newer and more relevant information. For example, it is not a particularly valuable amount of gaming capital to know who the antagonist in the world of *Overwatch* (Blizzard Entertainment, 2016) is, but the knowledge is still added to one's total capital. Similarly, in the forums, gaming capital gives context to what information that is shared or discussed is seen as relevant. This is a reflection of the community giving and taking away the value attributed to one's gaming capital, and means that thinking about gaming capital purely as an extension to Bourdieu's cultural capital does not show the whole picture. So, while this dissertation attempts to shed more light onto this claim, re-defining what gaming capital is, or could be, falls outside the scope of the study.

Experienced gamers approach the ludic space differently, as they have developed a flexible gaming capital which allows them to start a new journey with an alternative account or in a new game. In this case, veterans have specialized gaming capital associated with a particular game or game genre, which might be different from that of any other gamer (Sotamaa, 2009). New players are certain to have many questions, and sometimes these are asked in a forum to receive answers from other members of the community, and often from more experienced players.

The gaming capital relating to *Overwatch* (Blizzard Entertainment, 2016) or any other game is specific gaming capital, and also capital which is specific to the field of practice. While gaming capital seems to superficially align with cultural capital, there are elements of it which are social, economic, and symbolic in nature. For instance, certain aspects of *Overwatch* (Blizzard Entertainment, 2016) can be applied outside its prevalent domains as they share similarities which are seen across the genre of games, such as a familiarity of movement in shooter games, understanding game modes, and the roles of playable characters.

Through social interactions, one's game knowledge and understanding are made real as being able to answer questions a player's gaming capital is legitimized, and they gain symbolic capital within that topic of discussion through social capital (Harviainen & Savolainen, 2014; Walsh & Apperley, 2008). Gaming capital is in a way an answer to explaining the issue of "subculture" by giving a group of players a more concrete form of description of the functionality of the group (Consalvo, 2007; Mäyrä, 2010). Thus, gaming capital can be understood through Bourdieu's lens as a synthesis of cultural and social capital. While some authors have attempted to examine games through other forms of capital (such as symbolic and linguistic capital), these analyses have looked at the capital involved in gaming, rather than the configuration of gaming capital (Dashiell, 2017).

Furthermore, studying Overwatch's (Blizzard Entertainment, 2016) official forums indicates that gaming capital is not merely cultural capital, but rather an ever-changing sum of other types of capital which varies depending on the game and framework the capital is present in. This study attempts to build upon previous studies (see above, and Harviainen & Savolainen, 2014; Mäyrä, 2010; Walsh & Apperley, 2008), in order to expand the discussion that gaming capital is multimodal through an analysis of discussion forums of Overwatch (Blizzard Entertainment, 2016).

Overall, anecdotes were quite a common feature as some information was stated as fact, despite back up information rarely being provided by the writers. While some information was indeed correct, often the claims were presented as an opinion piece, or something that "everyone should know". This is effectively gatekeeping others from gaining capital by requiring a certain degree of doxa, yet the actual demands as to what is required for a satisfactory showing of one's Overwatch (Blizzard Entertainment, 2016) capital is rarely elucidated. This is in line with earlier research which has suggested that information sharing relating to a game is not just a matter of giving assistance to other players, but also an application of power done for the purpose of gathering capital (e.g., Harviainen & Hamari, 2015).

Merely focusing on gaming capital through a cultural capital lens is not enough to explain how the status or one's identity as gamer or the accumulation of gaming capital occurs. Rather, it is more the social interactions with other members of one's social networks that give value to the game and gaming knowledge. In this approach, gaming capital is very close to being seen as symbolic capital, as the knowledge is legitimized through social capital. Thus, it is more feasible to start approaching gaming capital in the context of online multiplayer games as a synthesis of social and cultural capital when approached through the Bourdieusian lens.

That being said, gaming capital is not just symbolic capital with different wording, as gaming capital is also used to describe the larger cultural and economic system surrounding games and gaming (Mäyrä, 2010). It is therefore feasible to

further define gaming capital as more than “just” an extension of cultural capital. Consalvo (2007) approached gaming capital as a reworking of Bourdieu’s (1986) cultural capital that encapsulates more than what the term “subculture” is able to capture. Focusing on the information on games and gaming, and also how it circulates, is in very short essence what Consalvo named as gaming capital.

It might be hard to draw definitive lines between habitus, doxa, cultural and symbolic capital as to how they present themselves, or how they can accommodate changes between games, genres and players. Consequently, this raises a question as to whether these lines should even be drawn, or is gaming capital some kind of interesting overlap of all of these aspects that is realized and valued through social interactions?

3.9 The types of capital in the tri-dimensional framework

The purpose of this subchapter is to situate all of the types of capital presented above into the tri-dimensional sphere of games and gaming (outer shell, inner shell, core, adapted from Mäyrä, 2008). From this subchapter forwards, the types of capital are by default discussed at the dimension in which they are most in effect, unless otherwise specified. This situating is not aimed to be comprehensive and generalizable to wider use or utilization, but to give a proper contextualization to the reader with the dimension or layer being discussed.

First, social capital is in effect at every dimension, and is the most important type of capital because without it there would be no symbolic or gaming capital. However, based on the articles that are part of this dissertation, the social capital is most effective at the core, then the inner shell, and lastly the outer shell. This means that social interactions within the game world or during gameplay are the default dimension through which social capital is approached, and thus what social capital refers to. Second, economic capital is the odd one out, as it is only in effect at the core dimension because it is not possible for players to take their in-game wealth outside the game to forums or real-life. Third, cultural capital is difficult to order because a great deal of knowledge of the game and gameplay can be gained from the outer and inner shell dimensions. But from the perspective of relevance and as the most effective way to garner cultural capital, it is first and foremost at the core dimension, then the inner shell, and lastly the outer shell. Fourth, as defined earlier, symbolic capital is a type of resource that is manifested or accrued only through social interactions that give value to one’s feats or possessions. Therefore, it is meaningful to equate the gain of symbolic capital at the core and inner shell dimensions because it can be gained just as well in-game or through flexing at forums or acting as a prominent person within the community.

In regard to gaming capital – this dissertation draws many similarities to symbolic and gaming capital as both transform one’s cultural or economic capital to an immaterial resource through social interactions. However, they have an important distinction in relation to the layer they are effective at. Whereas symbolic capital is effective at both the inner shell and core dimensions, gaming capital is largely only in effect at the outer shell dimension. This is due to how the player communities approach one’s feats, and their acknowledgement in wider societies. For example, reporting news about a team being the first in the world to beat a challenging dungeon will have very different styles of writing and audiences in mind when an interview is published on a fan-run website or by Forbes.

Table 1 depicts the types of capital at the dimensional layers for further clarification. “Amassed” means the dimension the type of capital is discussed at its default position when it comes to games or the gameplay’s sphere of influence. Meaning that the collection or accumulation of said type of capital primarily happens at this layer. “In effect” explains that the type of capital holds some relevant value, but is not greatly amassed or gained, referring to the fact that functionally at this layer the type of capital is not gained, but seen. “Operational” refers to the dimension at which the type of capital still has some residual effectiveness, but it is rather used to explain one’s actions or position in the hierarchy of the game’s communities and societies, but lacks certain level of context and framing for it to be understood completely. “Not Applicable” means that for the purposes of this dissertation, it is not feasible to take into account niche or highly specific cases where the type of capital would be amassed or be in effect as such.

Table 1. Types of capital at the tri-dimensional layers.

Capital / Dimension	Core	Inner Shell	Outer Shell
Social	Amassed	In Effect	Operational
Economic	Amassed	Not Applicable	Not Applicable
Cultural	Amassed	Amassed	Operational
Symbolic	In Effect	Amassed	Operational
Gaming	Operational	In Effect	Amassed

3.10 Putnam's social capital commentary

Putnam's concept of social capital has three components: moral obligations and norms, social values (especially trust), and social networks (particularly voluntary associations). Putnam's central thesis is that if a region has a well-functioning economic system and a high level of political integration, these are the result of the region's successful accumulation of social capital (1993). In the United States, many social problems are caused by the decline of social capital, which is a tendency that has been going on for the last three decades. In their short article titled "Putnam on social capital – democratic or civic perspective" from 2015, Tristan Claridge excellently summarizes Putnam's contribution to social capital and its research:

Putnam treated social capital as a public good—the amount of participatory potential, civic orientation, and trust in others available to cities, states, or nations (Putnam 1993, 2000). This contrasts with Bourdieu's theory of social capital, with Coleman's definition residing somewhere in the middle. In Putnam's conceptualization social capital is elevated from a feature of individuals to a feature of large population aggregates. Social capital becomes a collective trait functioning at the aggregate level.

Putnam made the argument that social capital is essentially the 'amount' of 'trust' available and is the main stock characterizing the political culture of modern societies. For Putnam (1993) social capital refers to 'features of social organizations, such as networks, norms and trust that facilitate action and cooperation for mutual benefit'. Putnam follows Coleman's belief that social capital is a quality that can be a facilitator of interpersonal cooperation. In Putnam's view, such a feature can be considered an aggregate trait to such a degree that it can become automatically comparable across cities, regions and even countries.

Putnam has been widely criticized for fundamental conceptual and methodological flaws. Perhaps most problematic is the drastic oversimplification of complex and interrelated processes to a single or small set of factors, i.e., trust as an aggregate indicator of social capital. This is further complicated by logical circularity. As a property of communities and nations rather than individuals, social capital is simultaneously a cause and an effect.

Much of the Putnam's approach and possible explanations for the decline of social capital are tied to the era in which they were written and published. How people socialize now is very different from what it was around the change of the millennium. Not only has the Internet reached an almost ubiquitous status, but it has

also become (along with digitalization) such a big part of our everyday lives, that we are more or less dependent on it. When Putnam published his work on the decline of social capital, he noted that people were not utilizing “third places” for their social needs. At the time, the Internet was only just reaching the global population, but already opening the doors for larger than ever before communities, and making information spread faster and farther than earlier seen in history. Since then, the world has changed drastically, and particularly so in regard to how people socialize, as contemporary societies communicate daily through various digital platforms such as Facebook, Twitter, Snapchat, Discord, and so on, in order to satisfy their needs in one way or another.

Digitalization has also allowed people to choose precisely how, when and with whom they communicate, and having this level of control of the social aspects of life is an immense boon. Before digital platforms allowed people to exchange ideas or just chat, one’s social networks were generally limited to work/school, hobbies, and family. Now, essentially, the whole world is potentially one’s community for anything, be it discussing the newest plot-twist in a tv series, hyping an upcoming video game release, or organizing virtual watch parties with a global friend circle to see sport or video game events live. But despite its global reach, all of these actions can be achieved from the comfort of one’s home, and digital platforms further allow everyone to choose how they portray themselves online in terms of their profile or avatar picture, what they share, how often they share, and any nicknames they choose to use.

As such, Putnam’s social capital commentary should not be used ‘as is’ and then critiqued, but rather it is important to find common aspects and overlaps in digital platforms and see where the commentary still holds true and where it falls short. Ultimately, while this change in socialization does not take away from Putnam’s theory, it also does not work as a band aid for the critique Putnam’s theory has received. Accordingly, this philosophical approach to many theories and theoretical frameworks (especially those published before digital era) should be brought to the fore, and I argue there is a dire need for a wide re-examination of certain frameworks and re-situating and contextifying them to the digital era so that they can be used without too many disclaimers and adjustments until the next era of humanity begins, whenever and however that happens.

3.11 Summary

In this chapter I have presented a tri-dimensional approach to the online gaming that is at the centre of this dissertation, and given a presentation of how each type of capital is situated at each layer. I have discussed the definitions of the types of capital used in this dissertation, their roots, and also how the types of capital are and can be

related to the video game studies by providing examples of their possible means of manifestation and accumulation. It is acknowledged that there are even more ways to define and approach types of capital, and also that there are more types of capital than those presented here. However, those which are presented provide the tangible positioning and framing of the dissertation, and how the types of capital are utilized in it. Furthermore, I have discussed gaming capital as it has been defined by Consalvo, and provided additional insight into how gaming capital is related to the other four types of capital within the context of video games and gaming. I have shortly commented on the immensely important work Putnam has done for social capital conceptualization in the digital era, and raised the seldom discussed topic of the time-sensitiveness of this particular study, observing that it is a product of its time, and should be treated as such.

Each of the types of capital have their distinctive definitions, and their ways of utilization outside the scope of video games are seldom talked of in conjunction with each other. I have pointed out that within video game studies, player studies, and especially inside the game worlds, the lines between the types of capital are not so clear because of how effectively reliant one type of capital is on other types of capital. It is worthy to mention that gaming capital has its effect increased outside the game world and the acts of gaming itself, and can take many forms and be fuelled by the other types of capital. However, gaming capital is not intended to be the overarching umbrella term to combine all of the types of capital a player has inside or outside the video game worlds, but something that is accumulated outside them through social interactions.

In the next chapter, I will discuss the methods and data used in this dissertation and the studies it is comprised of.

4 Methodology and data

4.1 Overview

As (video) gaming has been most commonly studied through a social lens, it is natural that various methodologies and approaches from social sciences are utilized in the field. Furthermore, since video games take a twist on entertainment from the perspective of a consumer moving from being a passive to an active actor, and also the steady year-by-year global revenue growth that video games are generating, approaches have been used from the fields of mathematics, history, and lately game development cultures (Li et al., 2019; Sotamaa, 2021; Suominen & Sivula, 2021). All of these ways of studying the phenomena of video games help to explore the utilization, users, motivations, and various patterns focusing on video games as a whole, or on more specific settings like MMORPGs or shooter games. This dissertation largely focuses on the resources and interactions that happen inside the game worlds, or in their immediate communities such as forums. One of the most common ways for scholars to study the various social aspects and effects of playing multiplayer online video games is surveys. The participants for the survey used in this work were self-selected, meaning that the survey was advertised as a link in various community channels, and the participants chose themselves to complete the survey. This method was used in Article I and Article II.

Video game studies are relatively new, and the used approaches vary greatly because there are no established or default ways as such to study a phenomenon, unlike some other fields. Furthermore, the traditions of other research fields are commonly used to explore and understand the blooming new global interest in games. Not only are there studies conducting philosophical discussions that consider what games are (Myers, 2017), or how you define them (Arjoranta, 2019), there are studies conducting overviews of discussions and chats to explore how the community in question perceives the game rules or talks about unwritten rules regarding gaming (Parker, 2008; Taylor, 2009).

At a more theoretical level, there are studies exploring how certain research traditions or frameworks are utilized in video game studies, for example design practices (Kultima, 2018), game production studies (Sotamaa, 2021), or how well players of the games exhibit certain psychological traits of behavioural patterns

(Nacke et al., 2014). The articles included in this dissertation focus on the players of online multiplayer video games, and more so on their actions and activity within the game worlds. As such, they can be seen as either players or consumers in behaviour studies conducted through pre-existing research frameworks.

Article III is an exception to the other articles in regard to its focus and aim. Unlike the other included articles, Article III focuses on mapping out how sociality and social aspects have been approached in the field of video game studies. Thus, the article can be seen as an exploratory study in how one concept is being and has been utilized, as it used a scoping review methodology. A range of literature review types are commonly used in academia to find out the aggregate and averages of a certain topic, in order to reduce or minimize the risk of generalizing results based on only one or two studies. These review studies are heavy in workload, but necessary for scholars and practitioners, so as to have a holistic understanding of certain topics, or to understand what the current trends are within certain approaches.

The dissertation as a whole can be seen as capital or resource research, inside the stimuli leaning on Bourdieu's (1986) and Consalvo's (2007) capital theories while utilizing applicable frameworks from other authors to complement and situate the studies properly to advance the field. Understanding what happens inside the stimuli (here, the game worlds and game communities) can help to explain the various reasons that people play games, what purpose the games serve in the players' lives, and what kinds of rich and eventful lives their avatars have online.

It has been viewed that there is no one right way to play a game, but there are many wrong ways to play a game, and near countless ways to play a game in-between these two (Stenros & Bowman, 2018). This dissertation does not focus on whether or not someone is playing their game correctly or properly, but rather advances the discussion for future studies to build upon.

The articles that form the basis for the dissertation include quantitative, qualitative, and mixed methods approaches, with an emphasis on quantitative research. Article I and Article II share their dataset, whereas Article III and Article IV have their own separate datasets. One of the weaknesses of this approach is that while there are multiple approaches to the phenomena of capital in video games, they are still rather focused on one game, with Article III focusing on reviewing previous studies without a specific focus on a particular game, gaming style, or on how social capital is utilized. This limits the wider generalizability of the studies themselves, as no game within its genre is too similar, and the differences between genres is sometimes significant.

However, a strength of the work is that by approaching the phenomenon from multiple points of view with multiple datasets, sources and methods, it has been possible to feasibly capture different extents of the research questions. Thus, the dissertation offers an improved and holistic view of the manifestations of types of

capital in the video game context, and what affects them. As capital research is seldom conducted in the manner used in this dissertation and with video games as a scientific field, there is lack of academic understanding of the lives of avatars and other inhabitants of virtual worlds. Therefore, it is important to offer a wider view that dives beneath the superficiality, and raises questions and issues which can be continued in further research avenues.

The nature of the research in this dissertation is predominantly exploratory and descriptive. **Table 2** presents the target, stimulus, data type and used method of the included articles in this dissertation. MMORPGs and hero shooter are a sizeable part of a rapidly changing, adapting, and developing field that requires scholars to stay on top of their game with new and bold approaches, in order to find and utilize information that can be used to understand the current status of the phenomena in question.

Especially in exploratory research, the subjectivity and relative position to the field must be acknowledged, and its effect must be treated carefully. While subjectivity can and will provide additional expertise, it must not steer the hypothesis formation, much less the analysis of the datasets or the conclusions that can be drawn from the data. Additionally, being too objective (as in cases where the level of knowledge of the stimulus or field is relatively low) can have a negative effect, as there are miscommunications and misconceptions on how to apply certain research traditions or practices. Three of the studies are co-authored with other colleagues and researchers involved in the writing and study process, and this has ensured that the subjectivity or objectivity have a proper balance, focusing on the best sides of both. However, the lack of feasible, suitable or validated theories have required that the theory formation of the included studies and this dissertation are in many ways inductive.

Table 2. The research targets, stimuli, data type and method of the included articles.

	Target	Stimulus	Data Type	Methodology
Article I	Players	FFXIV, MMORPG	Survey	Quantitative
Article II	Players	FFXIV, MMORPG	Survey	Quantitative
Article III	Social Capital	Video Games	Academic Articles	Qualitative, mixed
Article IV	Forums	Overwatch, FPS	Content Analysis	Qualitative, mixed

4.2 Data and methods

4.2.1 Quantitative survey

Surveys, especially quantitative surveys, are cost effective ways to gather data, with less labour involved in the process. They are ideally suited for asking and querying opinions on various topics and matters. Commonly, questions in these types of surveys utilize a Likert scale technique where each item is given an odd number of response choices (usually five or seven) varying from “strongly disagree” to “strongly agree” (Likert, 1932). These answers are then coded or paired with a numerical value that is easy to set up for statistical analysis. This method works for sensitive topics, and the survey can address numerous topics at one time (see Article I and Article II). Depending on the design of the survey, it can be generalized, or adapted for use in other domains with relatively little difficulty. Furthermore, these types of surveys can guarantee anonymity, and respondents can take their own time if they choose to respond (Nardi, 2018; Stockemer, 2019).

In the context of video games and surveys, quantitative approaches are commonly used (see Article III for more about the methods used regarding social capital). There are two reasons why quantitative surveys are used in the field of video game studies. First, they complement the server log data and can reveal attitudes and motivations behind stored and observed behaviour. Log data can only give factual points of data such as the time a player logged in, how long they were logged in for, where they spent their time, with who, and what they did. But these points of data do not answer the question “why?” in any way. Second, many researchers do not have access to server log data. This forces researchers to convey their interest regarding certain phenomenon through surveys, be it an interview or a quantitative self-reported questionnaire.

It needs to be emphasized that the survey used in Articles I and II was self-reported, meaning that the respondents who decided to fill out the survey were self-selected. This methodology is expected to affect the results somewhat as the respondents might have answered to make themselves look better, or have tried to answer in a way they think might be beneficial for the study (Kahn et al., 2014). Not only can there be mistakes from the respondent’s side that are seen as “playing” the survey, but the questionnaire itself might also be at fault. Quantitative surveys are not suitable for eliciting open-ended responses, and enquiries that are overly restrictive can be seen as insensitive. Certain topics in surveys (especially regarding culture or attitudes) can include loaded questions that reveal the subjectivity of the researchers, or that try to lead responses towards a certain opinion. Furthermore, the respondent’s own skills regarding the language used (which might relate to e.g., age or education) can as much skew the answers as they can lead the questions

themselves to be misunderstood. Thus, researchers who are conducting quantitative studies regarding video games need to be on top of their game, and formulate questions precisely using clear and concise language, so as to minimize mistakes or errors in the resulting data.

Article I studied the relationship between the traits related to players' gaming motivations and four forms of capital (social, economic, cultural, and symbolic). The article aimed to find out which motivations an avatar has in the Massively Multiplayer Online Role-Playing Game, Final Fantasy XIV (Square Enix, 2010), and how they steer the amount of in-game capital. Exploring the numerous motivation models that players have regarding their preferences towards gaming has been a topic of interest in the academic literature, but their connection to in-game action and resources is extremely scarce. The article aimed to highlight that avatars do have rich and complex lives in the virtual world they inhabit, and that focusing on what happens inside the worlds is just as viable and feasible as studying the players outside of the gaming sessions, or before or after them. The article builds upon Bourdieu's (1986) framework of types of capital, together Walsh and Apperley's (2008) article about the exchangeability of types of capital as resources.

Article I conducted an online survey for the players of Final Fantasy XIV (Square Enix, 2010). The players were self-selected and were recruited from various social media platforms, including the game's official forums' English-speaking section, the game's subreddit, the general Discord server, and three Facebook groups. For each of these groups, the respective moderators and admins were contacted before-hand and asked for permission to post a link to the survey. After gaining the permissions, the survey was distributed throughout the community, and open for all interested FFXIV players from March 16th to April 14th, 2017. Once the survey was taken down, there were a total of 1002 completed responses. After removing responses that were incorrectly completed, a total of 905 responses remained. The 97 removed responses were due to respondents having selected the same option every time, or failing to choose correct option for a control question that was intentionally positioned in the latter half of the survey. On average it took respondents around 20-25 minutes to complete the whole survey.

The survey consisted of two main categories, Bourdieu's (1986) types of capital and Yee's "Motivations for Play in Online Games" (2007). As much as possible, existing instruments that measure types of capital and motivations were utilized. These comprised of the adapted social capital section based on Williams' "Internet Social Capital Scale" (2006), and Yee's measurement items for achievement, social, and immersion orientations (2007).

The total number of items used in the analysis for this study was 111, and was spread across the subcategories as follows: Social capital was measured with 18 items, economic capital with 22, cultural capital with 16, and symbolic capital with

20 items. For the motivation orientations as per Yee's work, the Achievement category was measured with 14 items spread across its three subcategories, Advancement with 6 items, Mechanics with 4 items, and Competition 4 items. The Social category was measured using 11 items, with the Socializing subcategory having 4 items, Relationship 3 items, and Teamwork 4 items. Finally, the Immersion subcategory had 14 items spread out over four subcategories as follows: Discovery 5 items, Role-Playing 4 items, Customization 3 items, and Escapism 3 items.

The results were analysed utilizing component-based structural equation modelling in the SmartPLS 3.0 (Ringle et al., 2015) program, which is suitable for prediction-oriented studies and when the research model includes reflective latent and formative variables (Chin, 1988; Hair et al., 2014). The data was moved from SurveyGizmo's own format to Excel as the first round of data formatting. The next step included importing the data to SmartPLS into proper categories one item at a time, so that the research model matches the categories that items were placed in for the survey. After the calculations were done, the resulting data was exported back into Excel for final data analysis, and an interpretation of the mathematical results.

Article II uses the same data as Article I, thus the following account focuses on the article-specific details regarding methodology and data. Instead of motivation orientations, the article focused on the relationship between the effect of players' demographic attributes on the capital that their avatar has in the game. Therefore, the items pertaining to types of capital are identical to those of used in Article I. The data used for Article I instead consists of the respondents' age, how long they had subscribed to the game, their weekly game time in hours, gender, and whether or not they participate in the forum discussions related to the game in some way.

At the time the survey was taken down, the self-reported age difference was 41 years between the youngest (14) and oldest (55) respondents, with the average age of respondents being 27.2 years. FFXIV has an internal metric that to some degree denotes how long the player has been subscribed to the game, called the "Veteran rank". This rank increases once the player has subscribed for a certain number of days, and it is possible to subscribe in intervals of 30, 60, 90 or 180 days. At the time of data collection, the maximum veteran rank was 14, but this has since been largely abolished, so that the current maximum rank is 4 and is reached with 330 days (eleven months) subscription. These do not have to be concurrent days, just the total combined number of days.

During the data collection, the maximum rank of 14 was reached once the player had been subscribed for 4 years, or 1440 days. To further complicate the calculations of the veteran rank accumulation, the number of subscribed days varied between ranks. For one to reach ranks 1 through 3, an additional 30 days was needed; for ranks 4 through 11, an additional 90 days; for ranks 12 and 13, an additional 120 days, and for the last rank, 14, an additional 360 days. Respondents reported their

weekly game-time to be on average 25 hours, which falls in line with previous studies (Ghuman & Griffiths, 2012; Yee, 2006). Regarding the gender distribution, the number of female players for this data set was considerably higher than previous studies regarding MMO-players, with females consisting of 34.1% of the respondents, up from 14.6% (Yee, 2006).

4.2.2 Scoping Reviews

Article III utilized a trending methodology of the scoping review. For the purposes of the study at hand, it was deemed the most feasible for several reasons. First, game studies are a relatively recent scholarly subject, and consequently there is a lack of defined specific frameworks to be used in the field. This becomes even more apparent as the terminology and definitions utilized in studies varies greatly, and are sometimes used interchangeably (Nieborg & Hermes, 2008). Second, game studies present somewhat debatable discoveries due to the newness of the field. Further, game studies are trying to keep up with the swift technological and scientific advancements in the field, and also with ever-changing video game trends, making it problematic to set definitive frames and borders. Third, game studies methodologies are not widely recognized at this point, and thus, there is a need to utilize research concepts taken from other fields (see for example, Aarseth, 2019; Lammes, 2007; Rozali et al., 2007; Zagal & Bruckman, 2008).

For these reasons, it was feasible to employ a scoping review as the methodology of choice because prior studies have not focused on any particular journals, publishers, conferences, or other publication venues. In some ways, this makes conducting a literature review or systematic analysis extremely difficult as there may not be enough relevant studies, or existing studies might be hard to find or even inaccessible. Using scoping reviews as a method can help circumvent some of these obstacles since they can be used to chart concepts in emerging scientific fields, or to provide an overview or clarity for particular research questions or aims (Levac et al., 2010). Thus, the purpose of Article III was not to provide an insightful dialogue into how social capital has been utilized as a concept in video game studies, other than a brief synopsis of the results in its 'Discussion' section.

Arksey and O'Malley's (2005) five-step framework for conducting a scoping review was used, as it has been outlined in studies about advancing scoping reviews by Levac, Colquhoun and O'Brien (2010), and Sucharew (2019). The first step is to identify the research question or aim, which in Article III was about exploring the utilization of social capital in the context of video game studies. Finding the relevant articles is the second step, and in the case of Article III, it included the selection of databases, executing the search queries, and screening the search results. The third step of study selection involved generating post hoc inclusion and exclusion criteria

for the screened studies. Charting the data is the next step, which comprised of listing the fundamental questions and items analysed with a description of the methodologies used in the studies. In the fifth and final step, the results are presented in a clear and comprehensible way. Arksey & O'Malley's framework also has an optional sixth step that is tied to the external actors involved in the study who have provided further insight, namely consumers and stakeholders. This step was not applicable because the study was not conducted for an external party.

A reproducibility of the search results is one of the key elements in any scientific study. However, with scoping reviews, the method should be reproducible 'as is', rather than the results themselves. As more and more articles that fit the search criteria are published, an exact reproduction of the study becomes nigh impossible, unless one somehow has access to the archived versions of the visited and utilized databases. Therefore, it is advisable to approach scoping review studies as a product of their time, and not as a means of conveying definitive truths on a topic that itself is in flux. Lastly, it should be acknowledged that these resource and practicality limitations restrict the absolute robustness of scoping reviews.

Article III is methodologically set apart from the other articles included for this dissertation. Whereas the other three articles focus on the players and their actions within the games' immediate influence, this article studied one of the resources itself – namely, social capital. The article studied the ways that social capital has been utilized and approached in the academic literature. As the chosen methodology and research aims are more open than in other review article approaches, the more traditional method of literature review was not feasible, and the reasons for conducting a scoping review instead of a more standard literature review have been outlined above.

The study used five different criteria to eliminate unsuitable or irrelevant studies from the search results for closer inspection. Briefly, the criteria were as follows. First, social capital must be mentioned more than once in the body of the text, and at least one in the reference section. Second, the study setting of the publication must be within the context or framework of video games in some way. Third, social capital must be defined in the study with a proper citation to a published study to support the definition given. Fourth, social capital must be part of the study setting, meaning that social capital must be the focus of the study or have been utilized in some way. Fifth, the study must be a scientific publication, such as a journal article, a book chapter, or a doctoral thesis.

To further differentiate the methodology from standard literature reviews, Article III mainly utilized the search results from Google Scholar, with complementary results from the Web of Science and Scopus databases. Whereas other review studies utilize strict and very definitive query or question formulations, and then the combined findings from multiple databases, this article had intentionally

loose research aims and a focus on fewer databases. Google Scholar was chosen because of the less strict limitations on what type of publications their results return. The search results include book chapters, conference proceedings and doctoral theses, and each type of publication was present in the dataset compiled for this study.

Because Google Scholar includes more than peer-reviewed journal articles, it is better suited for conducting a scoping review than a systematic or meta-analysis, or literature reviews that focus on a specific or singular research question. The database search of Google Scholar was conducted on March 6th, 2020, and was repeated by colleagues in multiple countries to ensure the validity of the search results. The number of results were the same: 14,100. Google Scholar only gives access to the first 1000 results. For the study it was enough, and the relevance of the search results lowered significantly after 500 results. All of the 1000 accessible results were inspected, nonetheless. To offer more arguments in favour of using Google Scholar for scoping reviews, and to complement the search results, the Web of Science and Scopus databases were also inspected. The inspection of Web of Science was done on January 16th, 2021, and returned 17 results. Scopus was searched on February 12th, 2021, and resulted in 427 publications.

In total, 245 publications across the three databases were selected for further inspection based on their title, abstract, keywords or a combination of them. 223 articles were from Google Scholar, and 22 from Scopus. Web of Science did not provide additional studies to the screening as nine were already included in the results from Google Scholar and the remaining eight did not pass the criterion check. After removing duplicates and unavailable studies, 239 publications remained for the criterion phase, and ultimately 74 publications remained for the actual analysis. The elimination rounds were not executed in linear fashion because some of the publications violated multiple criteria simultaneously.

4.2.3 Qualitative content analysis

Qualitative content analysis offers a practical way to handle the flexibility of discussions that can transpire in a game's forums. Bell (2021) and Braithwaite (2014) have conducted studies that are similar in methodology and approach to Article IV. In these types of studies, qualitative content analysis is used to find patterns in decentralized or seemingly unfocused data (Elo et al., 2014; Forman & Damschroder, 2007; Kohlbacher, 2006). From the three approaches to qualitative content analysis as presented by Hsieh and Shannon (2005), Article IV follows the style of "directed content analysis" where "... analysis starts with a theory or relevant research findings as guidance for initial codes". The other two approaches they present are "conventional content analysis" and "summative content analysis".

While both of these methods have their merits for Article IV in terms of feasibility, the focus was to find the usage of variables as categorized by pre-existing research concepts and theories, with additional categories added as required, based on the discoveries. To support the qualitative content analysis methodology in discovering possible new categories and findings that might give more context or meaning to the categories set up before the analysis, Article IV utilized frequency count to elicit feasible and holistic conclusions. The data set is large a qualitative study, and the way Article IV was planned, applying a mixed methods approach was deemed the most feasible way forward. Article IV leans on previous studies in terms of its methodology and theory. As such, there was no attempt to advance the theoretical side of either qualitative content analysis or frequency count. However, the study attempted to advance the dialogue of what gaming capital is, and how it presents in an asynchronous open discussion platform. In Article IV, the data consists of the top fifty most viewed threads on the forums during a one-month period in 2021 between May 16th to June 16th.

Article IV is similar to Article I and Article II as it focuses on the players, player interactions, and the types of resources they have at the inner shell dimension. While Article I and Article II focus strictly on what happens inside the games, Article IV focuses on forum discussions outside the game world and act of gaming itself, but still within the magic circle of the game. Or as Mäyrä (2008) has put it, inside the shell of the game's effective range. The methodology of Article IV is qualitative content analysis that is mixed with frequency count due to the high number singular messages analysed (550 in total including thread opening messages). All of the messages were manually analysed because of the intentionally vague limitations of the data selection (i.e., the top fifty most viewed forum threads over a 30-day period without any limitations or restrictions in regard to topics or included keywords). The threads analysed replies were limited to the first ten, so as to gauge the initial reactions to the most viewed threads, and to make the study feasible for manual inspection.

A total of 26 categories were formed for the study. For each reply and message, 26 different aspects were analysed, and some further categories were added during the analysis phase as is normal and perhaps even expected in qualitative content analysis studies (Hsieh & Shannon, 2005). The base categories were the presence of types of capital based on Bourdieu's framework of capital (social, economic, cultural and symbolic), Consalvo's concept of gaming capital; the topic of the thread, ID of the user starting the thread or replying to the threads, their post count at the time of data collection, date the thread was posted, dates of the first ten replies, role of the users, and the linguistic type of the message (question, explanation, confirmatory, conflicting, challenging, affirming).

Furthermore, social capital was broken down into five subcategories as the type of study and data and the analysis is heavily reliant on social interactions. The five subcategories for social capital were networking (based on Lin's theory), quantity, quality (based on Williams' work), support, and the community at large. Later added categories were the tone of the threads (negative, neutral, positive), and the number of hearts (the equivalent of likes) it received. This made the data analysis yield more than ten thousand data points, but this was needed for a thorough and holistic view of how the types of capital were present, and what form (if any) they took.

4.3 Summary

In this chapter I have presented the types of methodologies used in this dissertation and offered arguments as to why they were the most feasible approaches to each article. Furthermore, I have elaborated on the data gathering and analysis sections of the articles, while providing additional descriptive information on how the types of data were analysed.

The focus of my research is both quantitative and qualitative, but the main interests and take aways are the video games themselves, and the virtual worlds' inhabitants and the lives they lead in them. The quantitative sections of the research have been exceptionally helpful in supporting my research's initial research questions about the spread and presence of different types of capital within the context of online multiplayer video games. Quantitative studies also strongly supported Walsh and Apperley's (2008) findings about players or gamers having more than one type of capital at their disposal at any given time, and the same applies to the avatars inside the game worlds. Qualitative sections have been used to do preliminary and exploratory research into seldom studied topics, in order to both gain an understanding on a topic or to provide holistic view of how social capital has been previously utilized in the academic literature. Due to the sheer volume of qualitatively analysable data points, it was needed to perform a scoping review and frequency count for Article III and Article IV respectively, effectively turning them into mixed methods studies rather than strictly staying within the realm of qualitative studies.

In the next chapter, I will combine the topics of this and the previous chapters to further present how different types of capital are present in the studies of the dissertation, and how each type of capital is considered from both inside and outside the game world.

5 The Second Iteration: The Presence in the Data

Now that gaming and what it means to be a gamer has been presented through definitions, it is necessary to present and explore at the surface-level some of the well-known capital theories to explain and articulate approaches used in the dissertation. First is Bourdieu's (1986) "Forms of Capital", split into four chapters with each focusing on one type of capital and situating it to this study. The fifth section will be a short outlook on Consalvo's (2007) "Gaming Capital", followed by a final section where I situate my research against and towards "Gaming Capital", in order to offer new arguments regarding what "Gaming Capital" is and is not, and how the Bourdieu's capital framework plays into that discussion.

5.1 Social capital, the multidimensional

In this dissertation, social capital is approached mainly in three ways. Firstly, how the academic literature has situated and utilized social capital over the last two decades. Secondly, its situation and use outside the games' themselves, at the inner shell dimension, and mainly in forums. Thirdly, at the dimension, inside the games' themselves by way of Williams' (2006) Internet Social Capital Scale (ISCS), various affordances for socializing in the games, and the social category of Yee's (2007) "Motivations for Play in Online Games" questionnaire. Furthermore, the players themselves are involved through their demographic variables, how they socially engage inside and outside of the games, and what social benefits gaming can give them.

5.1.1 Academia utilization

Starting with social capital and its utilization in academic literature within the context of video games, Article III (Korkeila, 2021) focuses mainly on this topic, with Article I (Korkeila & Hamari, 2020), Article II (Korkeila et al., 2020) and Article IV (Korkeila, et al., 2023, in review) giving some additional insight through referenced works. Article III does not focus on the players themselves or have a bias

towards extra- or intra-game approaches of social capital, but gives a holistic and broad overview on the history of social capital within video game studies. The article does not attempt to re-define social capital or steer the discussion in that direction, nor does it offer any necessarily new information per se. However, concatenating information into data points drawn from over 70 articles with over 15 different analysed variables per article reveals (as per the study of Article III) that social capital has been utilized almost equally both as an extra- and in-game variable.

Additionally, social capital was found to be used as both a predictor and predicted variable, and even in some cases on “both sides” of the path model of the studies so as to directly compare social capital in and out of the game. When it comes to the players themselves, in the analysed studies, social capital was used in conjunction with civic engagement, the number of social relations and their quality, aggression, performance, theoretical models (Adler & Kwon, 2002; Granovetter, 1973; Williams, 2006), continuance intention, passion towards gaming, presence, group play frequency, life satisfaction, and trust. It is evident that there is no one way to study social capital or even define it, as over 90 works were cited when defining social capital, and some definitions were a paragraph long.

Social capital is a flexible concept, and can be utilized in ways from being a superficial variable to a highly quantified set of items, and everything in-between. The intention with Article III was to collect unbiased information about how social capital has been studied, and to determine whether something unexpected or interesting could be brought from the data. The findings of Article III surely confirm some of the thoughts and hunches scholars have regarding social capital, and how it can and has been utilized. But aside from that, there are no previous studies to lean on to either challenge or confirm their results. However, Article III does provide a new utilization of the scoping review approach instead of the literature review (or its variants) which are commonly used. This method choice allowed for a better outlook on social capital and its definitions by being intentionally agnostic in the sense of publication type – certain criteria permitting (see Article III for the criteria).

It is worth mentioning that Article I and Article II do not focus on how the used stimulus supports Williams’ ISCS (2006) through affordances in social interaction, or how participants perceive their social relationships within that stimulus. This means that the validity of the tool itself is not considered in these studies, but rather the validity and reliability of the answers and the results themselves. These two articles focus on the quality and quantity of social relations through 10 items on bonding (quality) social capital, and 10 items on bridging (quantity) social capital. Additionally, Article I utilizes the social category of Yee’s (2007) questionnaire to study how motivations regarding social intentions steer and predict the quantity and quality of social relations. Article II focuses on forum usage and various

demographical variables, and how they predict in-game social capital through Williams' ISCS (2006).

Article IV utilizes social capital in a different way than Articles I and II, as the focus is on the forum discussions of a game. The article approaches social interactions on a forum discussion through five different approaches to social capital: Nan Lin's (1982) network theory, well-being and personal support gained from the interactions, and community (belonging); and Granovetter's (1973) theory on strong and weak social ties which Putnam (1995, 2000) and Williams (2006) have added to. The types of social ties Granovetter (1973) presented have been described as bonding/internal (strong) and bridging/external (weak) social capital. The meaning-making of the social capital and resources gained through communicative affordances are tied together through linguistic capital that focuses on "how" messages were written, whereas other parts have focused on "what".

Each article leans towards Walsh and Apperley's (2008) article on situating gamer status between pupils by supporting their end argument that each player (and by extension person) holds multiple types of capital simultaneously at any given time and they are realized through the social interaction with others, and that interaction influences one's social status. Naturally, the discussion level affects the amount of social capital gained or expended, especially considering the nature of the discussion using specific "meta" compositions at the professional level and how it differs from discussions of limited-time event skins. Through these findings, Article I, Article II and Article IV also add to the discussion of gaming capital and the way that is used to approach gaming, rather more than cultural capital.

In this regard, the articles have approached social capital in binary forms. Mainly this has been achieved through the bonding/bridging social capital framework (Article I and Article II), with binary coding on whether a message touched some of the social capital theories (Article IV). The binary framework refers to the dual approach to social capital where it is seen as either bonding or bridging social capital. Even though Article I and Article II used Yee's (2007) scale to map out the motivations that drive players to focus on one or more things inside the game worlds, its three social dimensions are not examined theoretically, but used to divide in-game social capital resources into either bridging or bonding categories. Article IV utilizes more than two approaches to social capital, but the binary approach comes from the polarity of messages where they either exhibit or include social capital or not, and if they do, which type.

Article IV further utilizes the concept of doxa to situate the innate language of the game, including its terminology and definitions. Doxa itself is more in-between cultural and social capital because as a concept it entails "what goes without saying" (Bourdieu, 1977) – in this context what the words "tank" or "economy" mean and refer to.

5.1.2 Outer shell dimension

Article I and Article II did not measure or take interest in extra-game social variables as such, even though there are surely individual and sociocultural differences to the degree that they could be analyzed from the data. However, they were not the focus of these articles. Article II added ‘forum activity’ to the measurable variables that can be categorized into extra-game social capital.

Article III does not itself attempt to study the extra-game aspect of social capital, but the analyzed articles include numerous studies that utilize social capital outside the game world. The focus of Article III is listing and interpreting how social capital has been utilized, and not about that it is being used as such (e.g., by searching for studies that focus solely on extra-game social capital). Thus, Article III does not provide much discussion of extra- or in-game approaches. However, there are multiple approaches utilized in the analyzed studies which include Williams’ ISCS (2006), Yee’s (2007) motivation scale, well-being, addiction, civic engagement, reciprocity, expression, continuance intention, loneliness, self-esteem, self-disclosure, and escapism. All of these listed approaches are virtually present in any online multiplayer game, albeit that the exact functionality and presentation differs from game to game. Additionally, the following aspects of social interactions themselves were found, in terms of the number of friends, interaction with friends and family, the strength of social ties, how much social support is gained from these relationships, and why they play with other players. In eleven cases social capital was predicted, and in eleven cases social capital was seen as the predictor when the studies utilized social capital as a one-way variable.

Article IV focuses mostly on this aspect regarding the types of capital (social capital included). The focus is on the extra-game activities as analysed through the discussions on the game’s official forums. The language used and the definitions of terminology are specific to that domain. Social capital is divided into five distinct categories that can overlap, and additionally, a linguistic capital concept is formulated to measure the style of writing instead of the content. In total, social capital has eleven dimensions, and most can overlap with each other, as numerous types of social capital can be found in a message’s writing style and what it is about. In the article’s dataset, the ‘community’ aspect of social capital was most prominently present through a positive response, or if the message was aimed towards the wider audience of the community in an attempt to gain some type of validation for the message itself and the writer’s own arguments. Furthermore, the analysis was broken down into the starting messages of each thread and the first ten replies to each thread, with fifty threads and five hundred replies being manually analysed and charted.

Out of the fifty thread starting messages (Original Posts, OP), twenty-six included social capital in some way. Regarding the linguistic capital and the style of

the OPs, 15 were asking something, 31 were explaining, 10 were looking for a conflict, 20 were challenging a topic or theme, and 17 were confirmatory in their style. Out of the 500 messages, 402 were neutral in their tone, 49 negative and 43 positive. 495 messages were written by regular forum users. Five were from an MVP (Most Valuable Poster – a regular but recognized user) and all five messages were in the same thread. Additionally, the number of hearts (equivalents of “likes”) were analysed whether or not the message was part of a sub-thread, together with the message’s tone. On average, OPs had 14.19 hearts with a median of 7. 312 messages as part of a sub-thread. Of those, 231 messages were neutral in their tone. Of the 500 messages, 54 were questioning something in their style, 10 were confirmatory, 21 conflict-seeking, 126 challenges, and 112 supportive/affirmative in tone.

5.1.3 Inner dimensions

Article I and II utilized Williams’ ISCS (2006), with a focus on the quantity and quality of the social aspects themselves inside the game world, rather than how the game offers ways for socializing. An intra-game comparison of the ways that socialization can take place can be a study for another time, as each game has their own functions and affordances regarding this aspect. The two articles do not go into detail how the respondents themselves perceive social relations and friendships. However, Williams’ ISCS (2006) included ten questions about the quality and ten questions about the quantity of the social relations that an entity has.

Article III has a similar approach to “inside” rather than “outside”, where the study itself does not focus on what happens inside the stimuli but can draw some conclusions based on the analysed studies. Analysing the 74 featured studies revealed that social capital has been utilized as, and approached through, Williams’ ISCS (2006), reciprocity, expression, aggression, group identity, and group belonging. The number of in-game friends and the interaction between and with friends, guild members, family members and with strangers, as well as who they play with, how much, and why they play with others, have been the topics of these studies. In studies utilizing social capital from a one-way perspective (as in it only predicts or is being predicted), thirteen featured social capital as a predictor, and eleven as predicted.

Article IV mainly focuses on extra-game activities and phenomena, but from the dataset it can be found that some of the messages analysed concern if, how, and which communication channels of the game players use while in a match (text chat, voice lines, voice chat).

5.2 Economic capital, the surprisingly complicated

5.2.1 Academia utilization

Economic capital has rarely been approached in the academic literature as it is in this dissertation. Instead of focusing on the making of in-game economy and studying it or taking a close-read on developers' blogs and presentations at conferences (such as the annual Game Developers Conference), this dissertation approaches economic capital much in the same way as social capital was approached through a questionnaire, together with other ways that game-related currencies are amassed and consumed. Furthermore, economic capital in FFXIV (Square Enix, 2010) is in many ways similar to the current capitalistic free market, but also very limited and different. Mainly, there are no regulations on the prices themselves by a governing entity, but there are set transaction fees and taxes (being 5% of the item's listing price). However, every server has their own economy with different prices for goods, and a focus on demand and supply.

However, in-game economic capital comes from possessions that can be liquified into cash currency, or sizeable non-tradable purchases such as expensive mounts or the ownership of an in-game house. These are in a way affecting the owner's social status both in- and extra-game in forums and other game related networks (e.g., Facebook groups, Reddit, real-life friendship circles). Article I and Article II utilized a questionnaire purposefully created by me to map out various ways that economic capital is amassed, how it is spent, and some numbers relating to the cash currency itself. Article I maps how motivations affect the economic capital in-game, and Article II maps how gender, age, gametime and loyalty (continuance intention), and forum activity in their own right steer the economic capital an avatar had in its possession at the time of data gathering.

The results of Article I revealed that economic capital is affected by the following player motivations (as per Yee's scale, 2007): social-relationships, social-networks, and achievement-orientation. The results of Article II show that the amount of in-game wealth is predicted by weekly game-time and how long the player has played the game, and that age and gender revealed no statistically significant differences in how value is generated and consumed in-game.

Article III did not touch on economic capital in-game in any way, and thus adds no discussion to this topic. In a somewhat similar fashion, Article IV did not find economic capital in its data set from the forum discussions, but the reasons for that can be many, and may have been influenced by the volatility of hot topics in the forums, and/or how the game approaches currencies (and trading which does not exist). However, some comparison can be drawn from the monetization that can be made with free-to-play games such as World of Tanks (Wargaming.net, 2010), and

this strain of research will no-doubt gain popularity now that the sequel to Overwatch (Blizzard Entertainment, 2016) has been released.

5.2.2 Outer shell dimension

Apart from the variable of occupation, for statistical reasons, Article I and Article II did not touch economic capital in extra-game contexts such as real-life income or class, nor the more gaming related assets such as the hardware and accessories that are used to play, or money used for merchandise. Furthermore, exploring such things would not denote the economic capital of the player or avatar such that would be considered economic capital in the presented research framework.

Despite Article IV not setting any limitations on which type of threads were analysed based on the topic itself, economic capital was tangentially present in only two of the threads. One focused on how the OP has to, essentially, ruin other people's games while they are climbing the ranks on their alternative or secondary account – economic capital here is reflected in the fact that the OP has bought more than one game license. The second thread was concerned that a possible increase in minimum system requirements/specifications would force them to upgrade their hardware in order to continue playing the game franchise.

5.2.3 Inner Dimensions

As mentioned earlier, the questionnaire (used in Article I and Article II) focuses on the ways and means that avatars earn money in-game, and mostly on the only currency that players can trade between each other. The same currency is used for repairs, travelling, buying goods, and so on. Similar to other role-playing games, the game has more than two dozen items that could be classified as currency: i.e., you can earn them by doing something, and they can then be traded (at the time of writing, only) to NPCs for exclusive or other myriad items, thus making valuing these a rather time-consuming task for little to no impact on the research or the in-game monetary economy at large.

The analysis of the messages in Article IV did not find any discussions about the in-game economy. In Overwatch (Blizzard Entertainment, 2016), the term “economy” rather refers to the “ultimate ability economy” (ult economy) rather than any tradable or exchangeable currency. An Ult Economy refers to teams' abilities to rotate, chain use and combo each of the heroes' ultimate abilities together for gaining a devastating effect to gain the upper hand in team fights. But in the more usual sense of economy, the game has one currency that can be used to buy things (credits), and that can only be earned through queueing as an “in need” role that is used as an incentive, or by opening loot boxes (which then again can be bought with real-life

money). However, credits are also used to buy vanity items for the heroes, or to customize an account profile that is visible to other players.

5.3 Cultural capital, the most ambiguous

5.3.1 Academia utilization

Article I and Article II approached cultural capital through a survey that has items presenting cultural capital as Bourdieu (1986) defined it. Instead of splitting cultural capital into smaller categories like social capital has been (external/internal), it was measured as a collection of variables of how the avatar and player understand the game world, whether they know where to get information from to find answers, where they look for these answers, whether they role-play or immerse themselves in other ways, and if they share information with others (through both intra- and extra-game channels). Situating cultural capital is complex and rather difficult because Bourdieu has already divided it into three categories (see the earlier discussion about institutionalized, embodied, and objectified cultural capital), with Consalvo's (2007) gaming capital being very close to cultural capital in many ways.

Although gaming capital was not the focus of the articles, some connections can still be drawn. Thus, it is better to not start dividing the twenty-item questionnaire into small categories that have overlaps with each other, and depending on the stimulus, the relationships between items (variables) and factors might change. For these studies, cultural capital has been moved from knowledge and habitus to the digitized environment in the form of a quantitative survey making any reliance on pre-existing theories or studies difficult. This is because these previous explorations into cultural capital and gaming have been mostly on a theoretical level, and definitely more reliant on a qualitative methodology. However, the results do give more insight as to which motivations (Article I) and demographic attributes (Article II) steer the amount of cultural capital an entity (in these cases, an in-game avatar) has in regard to game knowledge such as the game story/lore, the game world, characters, side stories, and functionalities such as skills, tactics to defeat enemies, dungeons, trading and interactions between player characters, tricks to save time, and so on.

5.3.2 Outer shell dimension

Article I and Article II focus on cultural capital almost solely in relation to how it is present inside the stimulus. Yet, there are some items in the questionnaire where the line between strictly in-game or extra-game is difficult to discern, and in these studies, it means the information shared about the game through various mediums to

different audiences, for example videos, streaming, text, visual guides, and answering people's questions on the forums.

In Article IV out of the 50 threads, 26 featured cultural capital, and 56 of the 500 messages showed some type of cultural capital. Anecdotes were really common in the messages to support one's arguments. The most common topic where cultural capital was present was the sequel's change from a 6v6 format to 5v5, and how the game starts to contend its competitors on the FPS scene (like Counter-Strike (Valve Corporation, 2000-) and Valorant (Riot Games, 2020)), as the 5v5 format is the most common team size in popular electronic sport scenes. Other prominent topics were users' wishes and worries regarding the upcoming hero changes, in-game seasonal and limited time events, and the vanity items tied to said events. Overwatch capital (or game-specific doxa) is in effect present inside the game to some degree, but when approached through gaming capital, it is mostly extra-game capital that is realized and even validated in various ways through social interactions on the forums. The amount cultural capital one has can only increase, especially in the case of online multiplayer games where adding new content to the game (new maps, play modes, skins, heroes, achievements, and so on) is crucial for its success. Furthermore, cultural capital can be boosted by talking and asking questions on the forums, and it simultaneously increases the symbolic capital when someone agrees or expresses thanks for the player's input on the forums.

5.3.3 Inner dimensions

In Article I and Article II, the cultural capital an avatar has inside the game was one of the main foci of the studies, and to measure that, a set of items to measure and analyse cultural capital through quantitative methods needed to be created. In total, sixteen items were used to measure cultural capital, and the items touched on numerous topics as cultural capital can manifest in-game in the form of answering questions in the zone chat, efficiency in combat, understanding how the game functions by utilizing available tools to their maximum, and understanding the game world's lore, locations and people including avatars and non-player characters. Finally, the items investigated whether the players know where to go to find additional or needed information to find answers or to advance in the game should they get stuck on something.

Article IV utilized cultural capital through how game knowledge or game-specific doxa (including terminology) can be used to further the understanding of the innate relations between a game's functionalities. More specifically, linguistic capital and the "what" rather than "how" part of the messages both reveal and indicate some level of one's cultural capital regarding the game. This is rather complicated because there can be a lot of wrong understanding of the relations even

if the message is utilizing certain terminology correctly, meaning that the message may be great on “how”, even if not ideal on the “what” style of writing. The chosen approach gives more support to the claim that gaming capital is still a relevant concept for analysing game communities, games, and their players – especially through a cultural capital lens. Through that approach it is possible to give more context to thoughts and things said between the lines, and draw some reliable generalizations when there are enough data points to analyse.

Furthermore, in Article IV, cultural capital and its in-game amount is solely present through the game knowledge that users display in the messages, which while not displaying the totality of their game knowledge, includes knowledge of the game’s functionalities and things like maps, playable characters, the abilities of characters, play modes, finding tricks and synergies to gain advantage, how to customize an avatar and unlock customization options, and how to get better at the game. It must be noted that for players of different backgrounds and skill levels, the game presents itself in very different light, and some of these “pairings” include (but are not limited to) casual or hardcore attitudes, those with game production education or knowledge and those without, and whether the player prefers organized team play or plays purely solo.

5.4 Symbolic capital, the most intertwined

5.4.1 Academia utilization

Symbolic capital is an assortment of other types of capitals, yet unlike outside the game worlds and their contexts, symbolic capital has ever-changing value and is tied more to the time and cycle of the game rather than increasing steadily over the eras, such as can be observed with paintings or sculptures. In Article I and Article II, symbolic capital is tied to the number of one-time collectibles or hard to earn achievements and other feats, as that is the game community’s main way of gauging an avatar’s value based on the aforementioned collected vanities. This includes the number of rare mounts, titles, minions, and the total number of achievement points. In some ways, Article I and Article II lean towards the notion that certain elements of symbolic capital can be argued to be gaming capital, and thus more as cultural capital rather than the community valued aspects of gaming itself. However, very little research has touched upon the symbolic capital side of online multiplayer games, and Article I and Article II aimed to shed some light onto which motivations and demographic attributes steer the amount of symbolic capital an avatar has.

The analysis in Article I revealed that symbolic capital is predicted by (or associated with) the following of Yee’s (2006) motivation scale’s attributes: Achievement related components (advancement, competition, mechanics), Social-

Relationship, Social-teamwork, and veteran rank (how long one has stayed subscribed to the game in months). Article II adds that symbolic capital is additionally predicted by forum activity and weekly game-time. These results mean that focusing on the game's functions themselves and socializing over a long period of time nets the avatar the most symbolic capital, but not when a player focuses on the game world and story itself.

Article III does not touch on symbolic capital at all, even though some tangential conclusions could be drawn.

Article IV brings discussion to symbolic capital through the forum users' claims and attempts at attaining a status of some relevance amongst the player-base who read the forums. Symbolic capital in this context can be thought to be a derivative or even a synonym to gaming capital due the inherent "doxa" required to write and read messages where players articulate and argue various aspects of game play through their own experiences. The article does not aim to advance symbolic or gaming capital as such on a theoretical or conceptual level, but does add arguments to both being relevant in their own way and at different layers of gaming. Situating symbolic capital is also difficult and complex as no established questionnaire or definitions exist as to what it is and is not.

In Article IV, symbolic capital is gained from the following chain of capital exchange and transfer: game knowledge is gained by playing, which through social interactions is then turned or added to status and symbolic capital. This is conceptually very close to gaming capital, and it is apparent that the game community itself defines what achievements or feats are more valuable than others, and especially in the case of online multiplayer video games, the value of feats fluctuates from one patch cycle to another as content is added, re-balanced, and even removed.

Additionally, Article IV adds to the discussion of self-presentation through an avatar in some way, and the importance of it. For many, it is important to be able to create an idealized version of themselves or to be able to present themselves as close to a real-life version as possible, whereas others want to explore something completely different, including gender-bending, role-playing, creating stories for characters, and even as a mock-up of celebrities. In *Overwatch* (Blizzard Entertainment, 2016), this is possible in limited ways, and for example certain playable characters and the skin options chosen for them can create a combination that allows some way to impersonate someone else.

5.4.2 Outer shell dimension

In Article I and Article II, the symbolic capital only exists or has any tangible value to its holder outside the game world, such as in game forums or on social media.

This makes determining what parts of an avatar's capital domain are inside the game world and which outside rather difficult. The questionnaire items used in the articles focused purely on the in-game aspects of symbolic capital, meaning things such as collectibles and achievements.

Article IV approaches symbolic capital through forum messages, and how one attempts to either assert legitimacy to their arguments through feats or how other users agree or disagree with the said messages. Status is one additional variable on the forums that plays into symbolic capital, and revolves around whether the user is regular, an MVP, or an active and known user/player. Out of 26 of 50 OPs, some kind of attempt can be seen at making the thread opener's message read as more legitimate, and thus more believable. Examples are "I've played this since open beta", "As a person from a third world country", or "As a female player". In the messages themselves, 21 out of 500 had symbolic capital in them. Most of these were in threads about in-game presentation, and more generally within threads talking about how Pride month is, or should be, visible and present in-game. For some, the sequel and the forced reset meant that many account-level things like rank might be lost, and that setback is big thing as they can't proudly present their commitment or skills in-game anymore as the sequel starts from a clean slate.

5.4.3 Inner dimensions

In Article I and Article II, symbolic capital is measured more in-depth through a questionnaire developed by me for the study. It contains twenty items about the ownership of rare items such as mounts, titles or minions, and whether the respondent feels their avatar is recognized somehow within the game's context (e.g., through feats, behaviour, achievements, or the aforementioned collectibles). Article IV also shows symbolic capital through the user's account level (in-game), competitive ladder ranking and historical peak, and the age of the account.

6 The Third Iteration: Dialogue and Discussion

Now that the types of capital have been presented, situated, and examined through the articles, it is time to turn to the discussion part of this dissertation. This chapter and its following subchapters will follow the style of previous chapters by going through each of type of capital as its own discussion and talk more about “what it means” and what interesting notions can be brought up from the aforementioned topics, the concepts of which are touched on in the articles. Starting with social capital, and followed by economic, cultural, symbolic and gaming capital, this major chapter takes various approaches on the prevalent topics and digs deeper than simply the what, how, and why of the topics.

6.1 Social capital, the most ubiquitous

Focusing on the socialness in MMORPGs and games in general, this subchapter goes through the articles’ discussion sections about social capital and expands upon them.

Article I hypothesized that socially oriented players would more likely own a greater amount of social capital than those focusing mainly on other aspects of the game. While this might seem a rather obvious hypothesis to test, it still needed to be tested to confirm that the social aspects of the stimulus can be focused enough on within it, rather than social capital being something that is accumulated as a by-product. Especially more so, it was important to confirm whether the game (world) itself offers suitable affordances for entities to act mainly via socially oriented motivations within it, or would the social capital be purely present in extra-game contexts – as a stark example, in the game of chess.

The results from Article I regarding what types of capital an entity accumulates based on their motivation also revealed that the socially leaning immersion subcategories of Yee’s (2007) scale were associated with social motivations. This refers to escapism, role-play, and the customization subcategories. These types of motivation foci are not inherently concerned with socialness but are still steered by social motivations. The reasons for this can be many, but escaping from the real

world to an alternate one can be lucrative, in order to reset mentally from everyday life.

For some, the option to escape into a virtual world is one of the few things (and in some extreme cases the only thing) keeping them afloat and functional. Role-playing is a relatively niche part of MMORPGs, but they are still active social circles with their own rules and hierarchies. One cannot role-play as well on their own as they can during an in-game Live Action Role-Play event where the events of the night tend to closely follow those of real-life. For these and smaller role-play events, it is expected that players who participate dress or customize their avatar appropriately. Avatars are either customized to the player's liking or to ensure reactions from their co-players, and the ability to heavily customize one's avatar has been of growing importance in recent years.

In a similar vein, Article II found that the more time a player spends in a virtual game, the more likely they are to form meaningful social relationships. Once again this might seem a rather self-evident claim, but it is one that cannot be generalized as such. There are bound to be numerous amounts of people that enjoy sharing the game world with other players, but their social interactions with them may be limited for some reason. For example, it may be that they are too shy, have had bad experiences, do not feel like they fit in, have misconceptions about what a guild is or how they operate, or that they feel that their schedule to play prevents them from finding a suitable group or network, and so on.

Yet, it can be inferred that those who focus on social aspects of gaming will most likely form some type of social relationship that can be categorized under the term of "bonding social capital". Be it friendships, belonging to a same guild, finding a group to challenge content with, or belonging to server-wide invite-only chat channels focusing on certain themes or topics – all of these forms of socialness bring a sense of belonging to the player as the social networks are rather stable with a low to minimal turnover rate. This is excluding all of the extra-game social networks that are becoming more and more integral to social gaming, for example Discord servers where people can join focused communities to find similar-minded players to chat and interact with.

About bonding social capital. Article II found that players who identify as female form (or have the highest likelihood of forming) more close relationships when compared to those identifying as male or other genders. This is rather interesting because it has been shown time and time again that female players are subject to constant harassment from co-players, giving anyone receiving even a tiny bit of harassment a reason not to continue playing the game, or at least within the same social circles. Those female players that have found a properly functioning group to play with are more likely to commit to those groups based on the higher amount of bonding social capital they own. This is sensible, as in those safe groups they are not

subject to harassment and can actually focus on playing the game and socializing just like anyone else should be allowed to – as another human being with a shared interest in the game. But switching groups from time to time or not being able to commit for whatever reason means that the player’s social status needs to be re-negotiated again, and many female gamers want to keep their gender hidden until they feel safe to do so.

Furthermore, younger players were found to have more bonding social capital than older players. This is not as straightforward. One could think that older players with their relatively more limited game time would focus on finding stable groups to share their adventures with in-game. The older one gets, statistically, the more prone one becomes to have a family and full-time job compared to younger players. Yet the results go against this line of thinking. So, it might be that older players are not so much bound to the game worlds or the players that inhabit them, but are simply playing for their own enjoyment – regardless of the size of their social networks or the amount of social capital they have. There might also be a generational gap in effect where the younger generation focuses much more on the social aspects of the game due to their lives being entwined with digital communication, as they have grown up with digital environments and are able to navigate them more easily to find fitting groups that allow them to really get the most out of their gaming. This is not to say that older gamers would not be able to handle digital communication just as well, but there are underlying approach differences that might explain why younger players have more bonding capital.

About bridging social capital. Article II’s results indicate that the amount of time a player has been subscribed to the game does not mean they have a higher amount of social capital. This means that players may not be playing much in order to have time to socialize with other players, or simply they choose not to for whatever reason. While it is true that the longer an entity is exposed to something (in this example to social interactions) the higher the chance they will “stop resisting” it, the number of subscribed weeks, months or years is not an indicator of anything more than just that – it does not work as an indicator of engagement in any way or anything else, at least on its own. Interestingly, Article II proposes that female, and younger players are likely to have more bridging social capital as well. Leaning on the arguments of the previous paragraphs, it becomes evident that males and older players are simply not as social. However, the data does not show why that is, and speculating from incomplete data will most likely lead to incoherent and weak findings with not enough support.

To complement the social interactions that happen at the inner shell dimension, Article IV focused solely on extra-game interactions, namely the forum discussions of one stimulus. This means that the language that is used has not “escaped” the domain of the stimulus, but it is also not solely within the game world itself. The

study looked for types of capital and their possible manifestations through messages, alongside starting a discussion on how the concept of gaming capital could be reconfigured from its earlier conceptions and how it is currently used, to more contemporary settings.

It was found that a little over 50% of the thread starting messages had some form of social capital in them, and in 39 messages of the 500 that were analysed. This means that there is more effort put into opening a thread than responding to one, regardless of the type of thread or how long it is. This gives into the thought that the analysed messages are more akin to reactionary responses, rather than longer time-consuming responses focusing greatly on one or more aspects of the starting message. Moreover, there is a greater interest to focus on the language used in the forum discussions, which is defined in the article as linguistic capital and “social doxa”. How messages are written and what they are about is specific to just this one domain. Notably, linguistic capital is more relevant under the cultural capital domain and will be given more focus in the chapter.

Article III solely focused on social capital and its utilization in academia when the context or framework of the studies is video games. The study is rather large in terms of the manual labour that the study required, and a lot of limitations had to be imposed for the study to be readily understandable. The five-criterion used in the study were difficult to lay out in a way that the study could be repeated in the future, and so that it does not stray too much from the reporting methods for scoping reviews outlined by Arksey and O’Malley (2005). The study did not attempt to re-define, re-purpose, or push social capital as concept and utilization tool in any way, but settled on reporting findings with enough context around them. Thus, the study needed limitations and boundaries that even at the time felt very vague and too specific. This applied not only to the “social capital” part of the study, but also the “video game” aspect because many otherwise applicable articles do not utilize “video game” in their title, abstract or keywords, so causing them to be left out from the search engine results. Social capital was not defined, so as to allow as wide a range of utilizations to be present in the study as possible. Yet, a skewness towards certain methods or frameworks was expected.

Another problematic knot to be untangled was how social capital was defined in the studies that passed the criterion phase. There were both very short definitions and paragraph long definitions to be seen, that situated and contextualized social capital and how it was used in that particular study. The total number of cited works from over 70 studies was 102, which is unusually high, meaning that not only has social capital been utilized in numerous ways, but it is also defined and situated in almost just as many ways.

It was also noted that some definitions leaned on backing citations to give further context to the framework presented, and to gain support from their perspective fields.

This meant that studies published in journals focusing on e.g., psychology or history would use different supportive citations respectively. It was not a surprise, however, to find that certain works were cited more often than others, particularly works by Putnam (1995, 2000), Coleman (1988), Williams (2006) and Bourdieu (1984, 1986). Williams (2006) based their work on Putnam's (2000) conceptualization of social capital. Williams' (2006) work was often cited because many of the analysed studies used a quantitative method as their approach to utilizing social capital. Most of the studies citing Williams (2006) utilized his Internet Social Capital Scale to measure and explore social capital in various ways regarding the sociability of video games and virtual worlds. However, Putnam (2000), Coleman (1988) and Bourdieu (1986) each have their own approach to social capital and are very well known in their respective fields. Thus, it is only natural that their works are being used as the grounding for other studies.

Most commonly, according to Article III, social capital is being utilized to measure various social aspects, with the effects of video game consumption on well-being, civic engagement, and continuance intention as the most common focus points being investigated. Other ways that social capital has been applied include communication frequency, familiarity, motivation to play, community, and social proximity. It is apparent, that just as social capital can be utilized in numerous ways, the field of video game studies does not hamper the possibilities for utilizing pre-existing constructs and frameworks. Well-being is something that was found to be studied indirectly by combining various indicators to present well-being numerically for statistical analysis. Well-being itself was additionally studied from the various standpoints of life satisfaction, self-esteem, self-disclosure, loneliness, and escapism. These are seen and approached as variables that are affected by many things, from which social aspects are highlighted as playing a very important role.

Nevertheless, it is difficult to explain why someone plays (online) video games, and their gain from doing so. So, while it is clear that one can play for entertainment, to meet new people, to challenge themselves, and so on; the actual positive effect on life from the gaming activity varies. It can be that video games offer a means of escape from the real world regardless of what is being done in the game, allowing for social and mental recovery or simply a break from everyday life. Whether or not the video game motivations and analysable gains and positive effects match, is hard to say. Furthermore, many use online multiplayer video game worlds as a "third place" (as per Oldenburg's theory) where they do not do casual dates or meetings, but instead gain their social needs satisfaction from the Internet. This naturally has more effects on the surrounding world as some critiques think that sitting in front of a screen is bad for someone's health or socializing, or that local businesses suffer because the money is not being spent on them (other than takeout or fast-food joints), with the additional or surplus money going into gaming services.

From the results of Article III, it can be inferred that social capital has been studied rather equally both inside and outside the games' sphere of influence. This is rather peculiar as many studies still try to focus largely on gaming's effects on extra-game life in many ways. Particularly, while this means studying social capital inside or outside the game world, the true focus is on finding what those effects are on real life, in terms of how gaming bleeds into everyday life or affects it. But there are studies comparing in-game social capital to real-life social capital, and naturally, the measured variables are somewhat different from each other. Similarities include the number of social interactions and who they spend time with. Differences in the variables studied were the number of friends, or the size of the social network in the game worlds, whereas the unique variable for extra-game studies was the social support gained from those interactions. Thus, while a direct comparison is largely possible, there are nuances and important differences that play an influential role.

Finally, Article IV focused on two research questions or aims that revolve around how gaming and other types of capital circulate and are manifested in forum discussions. It was found that there is capital circulating and taking form, but not through the types of capital as presented by Bourdieu (1986). Rather, they are formed through the linguistic capital and doxa related to the game and style of messaging, rather than presenting as specific styles of capital (e.g., social, or economic capital). The article showed that for legitimization of capital to happen, social interactions are needed. These interactions between entities acting within the specific field give the knowledge its specific value that fluctuates over the patches and years.

In this case, social interaction manifests through an asynchronous messaging with very little limitation as to who has access to the threads or the messages in them. For the forum messages, it was rather common for someone to ask questions or make a claim that others then responded to in some way. In this context, social interactivity is lacking the nuances that body-language, non-anonymity, or voice bring, and there is no exception for instant or proper forms of reciprocal communication. Thus, social capital in Article IV is not so much about expanding social networks or someone navigating their role in them, but more how social capital is utilized via linguistic capital to transform cultural capital into symbolic and gaming capital. Thus, social capital, in this situation, only serves as a tool, not as a resource.

To summarize this chapter so far, and how social capital is approached, utilized, and defined in this dissertation, it is necessary to focus more on the broader concept of social capital. Furthermore, in the scope of this dissertation the following questions arise about the multimodality of social capital: What is social capital? What is it not? Which domains or fields does it affect? Are there overlapping spaces?

When it comes to video game studies, these are very relevant questions that are seldom asked or focused on from a theoretical perspective. Drawing the line of social capital is not easy, as can be seen from the number of different definitions and

utilizations that are present in the academic literature. Particularly, the line between in-game and extra-game social capital and interactions is difficult to draw because it varies greatly between the genres of games, and even between games in the same genre. As acknowledged in Article III, there are no easy answers to any of these questions, and the answers rely on how the social capital is utilized and approached in the studies. Especially, if the study focuses solely on the size of the social networks or who they play with, there is little to no context on how they interact with others in the same space.

In some studies, social capital as a resource to an entity is reduced to a couple numerical values. This leads to the issue of lacking the full context and nuance that the social capital has. There are more variables affecting the social capital an entity has, or how they operate with it. For example, there are cultural and economic aspects that have indirect and underlying effects on many aspects of social capital, and especially when it is quantitatively studied. Consequently, some of the nuances of social capital can be lost in the application phase of social capital for the study, as the reasons for the limitations imposed on the analysis can be many (for example there is no interest, the journal-imposed restrictions on length do not allow coverage, or that there is already enough understanding on the application of social capital).

It is, thus somewhat misleading for studies to generalize social capital from one game or genre to cover virtually all types of video gaming. For example, social media platforms share many similarities, but it would be untruthful to say that Facebook's social capital is evenly comparable to Twitter. The same applies to video games and their genres. Naturally, these nuances can be small and technical with little functional difference. But sometimes they will make a significant difference, for example in comparisons of how guilds operate differently in say *Guild Wars 2* (ArenaNet & NCsoft, 2012) and *Elder Scrolls Online* (Zenimax Online Studios & Bethesda Softworks, 2014) in which it is possible to be part of a maximum of five guilds at the same time, whereas usually it is only possible to belong to one guild or clan in online video games. Some studies state such generalizability issues in their limitations section or elsewhere in the work, but it comes off as a bit of a moot sentence when the rest of the study speaks about the phenomena in the broad sense of a genre (MMOs, FPS) or even concerning the totality of video gaming.

Thus, we get to a very short answer to the question of what is and what is not social capital inside online video games. It has many forms and studying it merely through the number of in-game friends or the size of social network one has in the game has been the mainstream approach. But it is how one utilizes these affordances, and not just the quantity that is important. While it is easy to say that numerous in-game friends mean more social capital, it is better to approach it that the entity has a wider access to social capital, because the numbers themselves do not tell much in themselves. Similarly, the type of the social contacts only denotes the type of the

social capital: bridging or bonding. Yet, how one utilizes the social capital is often left out. In sum, social capital is the complex web of social interactions an entity has at their disposal, their freedom to move within them, their chances of changing or acquiring more connections, or the intensity of the interactions.

Not only this, but depending on the game, each character can have their own networks, and depending on the purpose of alternative characters, social capital can either overlap greatly or be completely different in-game. Naturally, there is another important view that needs to be brought up. If one starts to apply more and more variables to accurately depict a phenomenon, the study starts to resemble more a simulation than an attempt to understand the phenomenon itself.

It is not needed to double or triple the variables, but a proper contextualization and delimiting is sorely needed for social capital to be depicted more accurately in the future from the point of view of video game studies. To give more context (and perhaps in some ways to further complicate how social capital is present in video games), the importance of social interactions needs to be briefly discussed. There are games that have either limited or next to no social interaction through in-game chat, or it does not play as significant a role as in other games. So many different games fall under the broad umbrella term of ‘multiplayer online video game’ that there are bound to be stark differences between them. For example, there are very limited options to even interact with other players in the game *Journey* (Thatgamecompany, 2012), but the *Jackbox Party Pack* game series (Jackbox Games, 2014-) revolves solely around social interaction. So, what form might social capital take in those games, and how might it relate or be comparable to social capital in MMORPGs? Then there are games that blur the lines between in-game and extra-game social actions in some way. For example, *AION* (MMORPG published by NCSoft, 2008) has integrated Twitter in their client in a way that allowed users to set up a Twitter account and then share screenshots straight from the game through those accounts (NCsoft, 2010). Furthermore, there are some plugins for games that allow users to use Discord chat straight from the game client. So, the social interaction (and by extension the social capital) between video games is unclear, and most likely inconsistent.

From this it is natural to wonder what is actually meant by in-game in the social context, and how much of this context must be negotiated when drawing a line between purely in-game or extra-game social interaction. Where in-game social capital ends is another prominent question that solely depends on the game and platform, the affordances of both, and ultimately on how the player community socially forms around the game. For some players, their in-game social interactions stay strictly within the game and do not “leak” or “bleed” outside it, even to Discord servers. Then again, for some, the gaming itself is socially motivated and they want to find a group of similarly minded people that they can have plethora of games to

play with. In these cases, the social capital of the person's gaming is not tied to any single game, but spread across multiple games while still having their core group's social capital as the main drive to play.

Strictly speaking, the in-game social capital stops being a resource to be utilized or even acting as a resource, the moment one's social actions do not alter the in-game social hierarchy in some way. This means that if there are no social changes between log ins, then from this perspective the social capital remains the same. But outside the game, pretty much anything could have happened that alters how one plays after the events, such as drama between members in Discord, a wedding, childbirth, the death of a colleague, and so on. These sorts of events can, and will, alter how much time or which motivations drive the player, but if the player does not, for example, leave their guild, or remove or add friends in-game, the social capital is unchanged.

Finally, one needs to consider the overlaps and the effectiveness of the social spaces of social capital. In many ways, the line between in-game and extra-game sociability has become blurred as social media and the affordances around them have developed. The popularity of Discord has had an especially notable impact. For example, there are Discord channels for a very specific purpose related to a particular game. For FFXIV (Square Enix, 2010), there are player recruitment servers, a community run server that organizes group events for specific dungeons or chain-killing dangerous monsters. All of these are somewhat known in the social domain of FFXIV (Square Enix, 2010), and the most common ways of conducting them are recognized in-game, even when the organization itself happens outside the game. Thus, the social capital that resides at the core dimension of a game or gaming still applies, but it is greatly influenced by extra-game actions and social affordances.

But purely from a technical standpoint, these types of social capital do not bleed as such into real-life. How 'known' one is in the communities surrounding games often has little to no effect on one's life beyond the screen. Exceptions to this are the content creators that present themselves to others via commentary, streaming, guide videos, or other entertainment pieces. There are more people that are only known by their screen name that put the player itself forward rather than the character they are playing. For example, in FFXIV (Square Enix, 2010) there is a character named "Door Wedge" who has only been seen sitting in front of a huge open door, and "Mr Face" that features in couple of YouTube videos depicting their adventures in the game world. These characters' social capital will increase in-game thanks to the symbolic capital they have gathered in both in-game and extra-game venues. Therefore, drawing the line between in-game and extra-game is not as clear cut as might be wished for in this context.

Even Mäyrä's (2008) binary division of "shell" and "core" gaming is not holistic enough to touch upon the nuances of how social gaming can be, and how far outside the game social affordances go. One option would be to start adding sub-core and

sub-shell elements, or otherwise further dividing the concept that Mäyrä (2008) presented, but that would take away from its original idealization. It could be more worth thinking in terms of a “twilight zone” where questions of ‘What is in-game?’ and ‘What is extra-game?’ can be considered at a more general level. For individuals, they are case-by-case considerations, and it is difficult to draw arguably good conclusions from a limited data set.

To conclude this chapter on social capital, the most important remark made is that in-game social capital and how it functions in steering the analytical results is much more colourful and nuanced than perhaps previously thought. Approaching social capital as something that is merely outside the game, or that the reason for socializing is to socially gain something through gaming, is in today’s game scene rather limited and even an improper way of exploring multiplayer online video games. What happens inside the games is often much more meaningful for the player than any real-life social or other needs that might be satisfied through gaming.

However, it has been found that many players do not critically think about their own gaming and the habits surrounding it. This might be because players “just want to play and hangout” with other players without putting too much thought into why or for what purpose they do it, other than for relaxation and entertainment. After the activities are ended for the night, they are left with a satisfactory feeling that it was an “ok” or “nice” day, and that is perhaps what players ultimately need for themselves. But merely connecting the number of in-game friends to ideas of real-life support is a weak argument to make, not only because the quantity of social ties does not always correlate with or even explain the quality of social ties, even if there is some overlap with these social networks. Furthermore, social affordances and interactions function in many ways completely differently than those stemming from face to face or other social media platforms, and making assumptions that they would be dangerous. As an example, what can be considered as a feasible conclusion or interpretation brought up from analysing data in Twitter or Reddit interactions, is unlikely to be directly transferable when it comes to interactions within the games’ core or in the game worlds themselves.

6.2 Economic capital, the clearly divided

To preface this chapter properly, in terms of economic capital, there is a stricter line between the extra- and intra-game, or rather what belongs to avatars and what does not, than for any other type of capital. Namely, the raw amount of in-game money the entity has is considered to be the avatar’s, whereas the status derived from it can be both for the avatar and the player. Economic capital is more binary in its utilizations and affordances, as the wealth one has is not (in the vast majority of cases) reflective of the other side of the equation. Some influences of this capital

include real-life money (sociocultural aspects, life situations, addictiveness, motivation to spend money) and how it effects in-game access or affordances (subscription, real money shop, vanity items, official boosts, various tokens, buying from the third parties).

In-game money and wealth as it is understood under the concept of economic capital can mean the money a character has, the tradeable items they have, the possessions they own, and any other resources that are used to unlock or trade items. There are very limited number of cases where in-game wealth can be seen outside the game. The “WoW tokens” are the best example of this as the in-game money can be taken out of the game, but it still stays within the ecosystem of Blizzard (Blizzard Entertainment, 2015). This means that players can buy a “WoW token” with in-game gold, and exchange the token for either a one month subscription for the game or add an equivalent sum to their battle.net account. The exchanged sum can then be used to buy services, or other games or vanity items within the economic system of Blizzard. This was introduced as Blizzard’s way of circumventing rampant real-money trading (RMT) by offering players a legitimate way of buying in-game gold with real-life money. Thus, the players can effectively only insert money to Blizzard’s economic circulation, but not take it out without breaking the rules and risking an account penalty or even a ban.

Apart from this one example, online multiplayer video games have a very strict and clearly defined line between in-game and extra-game wealth, as it is not possible (as such) to turn real life wealth into in-game wealth. From this perspective, all players start with the same opportunities and from the same line, but their goals and playing habits steer the actual in-game wealth they might have. Article I brought up the motivations that steer players to amass wealth in an MMO. The results of the study indicate that those players (or their characters) that push for advancement and an understanding of the game will have access to rarer and more lucrative assets that can be sold or shown to other players. Furthermore, the results showed that bonding social ties correlated with in-game wealth, giving into the idea that having close ties or a regular group to play with gives access to more economic assets, be it motivating people to help others with in-game money, receive in-game money, or selling rare items found exploring with a group of people. In a similar vein, Article II found that in-game wealth takes time to accumulate as economic capital, and was associated with time spent playing and how long a player has been subscribed to the game.

In the case of FFXIV (Square Enix, 2010), there are many ways for players to accumulate in-game money or ‘gil’ over time that will cover way more than is necessary to navigate the ever-expanding game world, repair gear, or the purchase gear or items needed to tackle various content. Over time and with continuous play, this gil income will turn into a surplus. One of the biggest (at the time of writing) motivations for players to amass millions of gil is to have the chance of buying and

owning their personal house. These houses are extremely limited in supply, and work directly show off one's wealth as the value of the plots or houses do not go down. However, there is a real life catch to owning a house. Once a player becomes an owner of a house (be it personal or for one's free company (which is the equivalent of a guild or clan)), they must step inside the house at least once every 44 days or the plot will be automatically demolished and released for sale. Thus, players must commit to the very limited supply of owning a house by keeping up a near continuous subscription. This is the developers' attempt to make housing less of a ghost town, or preventing players buying a house, then stopping playing and never releasing the plot for circulation.

The motivations to advance the player (namely through levels, skills, and knowledge) often turn into a fair amount of gil, as long as the player actually keeps playing or participating in content that can award gil steadily, or through trading with other players. In MMORPGs, the economy is additionally restricted to just one server, server group, or region. Depending on the game and its player-base, games take different approaches to how they want to manage the trading between the players. In FFXIV (Square Enix, 2010), WoW (Blizzard Entertainment, 2004), GW2 (ArenaNet & NCsoft, 2012), and RuneScape (Jagex, 2001), player trading works in two ways: the first is through an auction house or market board where players put items up for sale and wait for them to sell before picking up their money from in-game mail or at the broker NPC. The second is via direct trading that is announced in various channels to skip the brokering process, or to exchange items prohibited from the auction house.

For some players, amassing as much in-game money as possible is their sole goal. Much like in real life, getting incredibly rich is reliant on other players, as the games themselves do not realistically allow for a fast gain in money, even though the resources and items that can be sold to NPC vendors are virtually unlimited. The prices of selling items to players and player-made items is much higher and takes relatively little effort. In these cases, the players' advancement motivations are driven by their will to learn how to make money, and then execute that knowledge by learning the nuances and how tied to a weekly schedule or patch releases maximizing profits are.

To oversee how the in-game economies are performing across the whole player-base or between server groups, some game developers have hired economists to keep an eye on their market development. Their purpose is to see if certain types of items are being sold in masses as part of an exploit, whether the economy is showing signs of inflation or deflation, if it is slowing down, and so on. Encouraging trading between players is one of many key points that developers are promoting to make various types of gaming lucrative, and that there is always a suitable number of resources available for players to sell and buy. Naturally, there are differences in

how the trading between players actually works and how big part of the trading is player-driven, but the developer regulated market plays a noticeable part in the average gaming session.

Another important note to make is the ever-present bots and RMT advertisers that have their effect on the economies. Regardless of how developers try to hinder the presence of bots or people breaking the terms of use and end-user license agreements with multi-boxing (players running and controlling multiple copies of the game simultaneously on the same computer or through a centralized unit), there have always been people optimizing the money that the game gives out in some way. Be it going through the same instanced area over and over again to gain money or gathering resources in such quantity that they can overshadow certain markets for normal players; this money is then attempted to be sold illegitimately to players through third party websites and platforms. Developers are aware of these trades happening, where two people that have never met or interacted before just seem to give one of them millions of gil or gold, and never interact again.

For the individual buying the in-game money through these third parties, it saves time and energy as they now can afford most, if not all, of the items they have wished to buy and so give the money back to the server economy, regardless of how the seller of the money has made it (for example by trading, selling items to vendors, etc.). When developers become interested in these trades, the individual buyer will risk the trade being nullified, or the character or account penalized or even banned. For the sellers, the developers know that banning singular characters or throwaway accounts is not an effective measure, as the business is often booming and lucrative enough for these organized third-party groups to just buy a new copy of the game.

Thus, while detrimental for players having to battle against bots and RMT players, developers usually ban offending accounts permanently in waves in an attempt to hinder the RMT, and strike down groups of accounts while fixing or patching new-found exploits to keep the RMT going. However, some players use botting programs to gain wealth only for themselves by having the game run non-stop while they are at work or sleeping, so nullifying the active time and effort they would otherwise need to put into it.

The economy is different in every group and instance of the economy. This is apparent from the varying prices between them, and the items are lucrative to that server's community. For example, a basic gatherable item can barely sell above what the NPCs give for them while in another server, so for one to make money, it is better to sell gatherable items rather than crafted items (e.g., a potion or meal used in battles for temporary boons).

However, the economies can also behave differently, and the bigger the economy (in terms of how global it is), the more stable the prices become with clear cut profit margins that remain stable for a considerable amount of time. On the other hand, the

smaller the economy is the more volatility the supply and demand will have (with a knock-on effect on prices) as they are more susceptible to changes made by the developers, or where in the patch cycle the game is.

Final aspect of economic capital in the MMORPG scene is the act of selling one's account or character, or other services for real money. These acts are always against the Terms of Service and End User License Agreement, yet there are people that want to buy an account or a character that has either everything or a very specific set of items that they desire. The exact reasons for these trades against real money are many, and can vary from wanting to skip the time and effort spent on acquiring the items themselves, to wanting to jump straight to the maximum level content with sufficient resources to do so.

But one additional motivation to buy accounts or characters (and perhaps in some ways even greater than these other reasons) is the status they gain from it. Often, when players see a new or rare title, mount, minion or piece of gear, they wonder where it is from and ask the holder for the source. Depending on the answer, the user will gain symbolic capital from the interaction of other players asking about their character's or account's possessions. This need to be admired is important for many, but what drives this is not so clear. Gaining social status is sometimes the sole reason to play, even if it is masked behind "admiring the challenge" of the game, or amassing lots of gold. Also, some players feel the need to be able to boast about what they have achieved or what they possess, regardless of how or when they have gained or earned the object.

The prices for accounts and characters being sold vary from mere tens of euros all the way to thousands of euros, depending how prestigious the account or character being sold is. This is rather counter-intuitive in many ways as MMORPGs continue to get new content over the years, and every new expansion effectively wipes out the relevance of previously earned feats as new challenges await. While there are some very exclusive titles available in MMORPGs that are no longer available and were only earnable over ten years ago, they do not bear much current relevance or information about the title holder's skills or motivations. Given that the games have changed so much, and players most likely have changed their approach to the game as well, what that title now presents is merely a nostalgic feat of the past. So, while it still holds symbolic value, it is not social capital or able to be used to gain social capital through expanding or negotiating status in social networks.

Article IV approached the presence of types of capital through forum discussions of *Overwatch* (Blizzard Entertainment, 2016). This is in many ways a very different approach to seeing whether economic capital is present or not than in MMORPGs. *Overwatch* (Blizzard Entertainment, 2016) is a game with one singular fee to play, no subscription fees, and all of the additional content is also free for all players. Furthermore, the methodology of the study relies on a sample of forum posts rather

than self-selected questionnaire answers. The economic capital in *Overwatch* (Blizzard Entertainment, 2016) can be present in the following ways: the budget for in-game purchases of loot boxes, budget for upgrading hardware to keep playing the game or its sequel, buying new copies of the game for new aliases and accounts, or spending in-game credits in vanity items.

Unlike MMORPGs, *Overwatch* (Blizzard Entertainment, 2016) has only a single currency (credits), and it is only used to buy various skins and other vanity items for the playable characters. Interestingly, the credits can not be bought straight up with real money, but are earned from playing the game and opening loot boxes. Loot boxes themselves are purchasable with real money, and this serves as the game's main source of income after the selling of game copies (for more about loot boxes, see Macey & Hamari, 2019). Thus, the absence of other monetization practices that other similar or free-to-play games have makes this approach unique. When compared to *World of Tanks* (Wargaming.net, 2010) or *Fortnite* (Epic Games, 2017), the means of income for developers, and the ways for players to spend real money are very limited. This might change in the future when the sequel is released, and the ways of additional monetization are made public. Some of these might happen after the release, and some might be adjusted after the release. However, there was no mention of this aspect of economic capital at all in the forum messages, for example in way of complaining about the price of limited time event skins, or that the ways of gaining credits is very limited making stockpiling credits for upcoming skins and other vanity items a lucrative approach.

Another aspect of economic capital external to the game is buying new copies of the game. Some may buy new copies after their previous account has been banned for some reason, while some buy new copies to escape "match-making jail" (where the ranking system the game uses can seemingly lock the player into a certain competitive rank bracket, making it rather difficult to climb into a higher bracket). Buying a new account to get round the game's intended system to keep games fair in skill and experience, is for many an attempt to reach a higher rank than they have been able to with their previous account(s). For some, they feel that they should be able to climb higher as they perceive themselves to be better than the bracket they are in, which is ultimately for nothing more than boosting their self-perception and social status.

Some players are purposefully rather toxic towards others as they know they can just get a new copy for free or very cheaply, making throwaway accounts for their own enjoyment while being very detrimental to others. A third category of players that buy additional copies of the game are various content creators (with streamers at the head), who buy a new copy of the game and start playing the game from the start while trying to reach a desired competitive rank as fast as possible. This is seen often in a negative light as they are effectively ruining the games for those who

belong to lower brackets by being far above the others in terms of game skills, making matches very one-sided and not truly representative of what the developers have intended.

While economic capital is seldom studied or approached in the same way as social capital, there are intriguing aspects to the economies and economic aspects that are present inside the game worlds. The games' trading and liquid assets operate at the basic level in the same way than in real life: you have a possession that can be sold or traded to other entities either as single items or in larger batches. But that is often where the similarities end, as especially in MMORPGs, the economy is player-controlled with very little input from the developers apart from listing the fees and various taxes that are deducted when selling items through auction houses or market boards.

The main currency of each game is used for many things like repairing gear, travelling, and buying various items, or even bribing NPCs. Yet these multiplayer online games have dozens of other tokens that can be classified as a currency, because one is able to accumulate them in various ways and then trade them for a specific set of items that are unobtainable from anywhere else. Furthermore, the amount of money one has in *World of Warcraft* (Blizzard Entertainment, 2004) is rather difficult to compare to that of *FFXIV* (Square Enix, 2010) or *Guild Wars 2* (ArenaNet & NCsoft, 2012), as each game operates on their own rules and has a different weight on the things that can be bought and for what purpose. Even less comparable in terms of in-game economies and the amounts of money one has are games from different genres. For example, ten thousand credits in *Overwatch* (Blizzard Entertainment, 2016) are completely different than having the same amount of gil in *FFXIV* (Square Enix, 2010) or gold in *Guild Wars 2* (ArenaNet & NCsoft, 2012). Yet, the economic capital does offer an interesting window into the functionalities and affordances of multiplayer online games, as they can impact and affect one's other forms of capital from the perspectives of social status, knowledge gathering or abuse, or being recognized as a rich or materialistic avatar.

6.3 Cultural capital, still the most indefinite

In many ways, cultural capital is the most flexible of the types of capital in this study. Not only because it can be defined, limited and expanded to cover numerous approaches and frameworks regarding gaming, but also in how it can be interpreted and applied in many different ways. In academia, different schools of science have their own ideas and meanings as to what cultural capital is and what it encompasses. In gaming (and especially within the scope of multiplayer video game playing), this can be defined more precisely because the knowledge, habitus, and other instances

of which cultural capital is made, are limited with only a certain range of possible applications.

In play and gaming, the concept of the “magic circle” is often considered as the default framework. Huizinga (1970) presented the magic circle within which real world rules stop being applied or relevant, and are replaced with those of a game and its world. In this study the magic circle means the rules of the games themselves, their language, and the communities they create. This is in line with how Bourdieu (1986) described cultural capital in its three forms: institutionalized, objectified, and embodied. All three forms are present in multiplayer online video games, and most of the forms and resources an entity gains from playing are only in effect within the magic circle. However, while any further comparison between Huizinga’s (1970) conceptualization of the magic circle and Bourdieu’s cultural capital is not relevant to this study, this example helps to further situate and make the aspect of inconstant cultural capital a more tangible touching point. Thus, this chapter provides the interpretation of cultural capital as it was used in the articles, and builds upon that interpretation while not challenging other interpretations or making any claim that they are wrong.

Much like symbolic capital, cultural capital is somewhat reliant on social interactions for entities to be able to amass it more than they could on their own. Whereas symbolic capital is purely reliant on others, cultural capital can be accrued on one’s own. But for the player to elevate the amount of knowledge they can feasibly get access to, they need to be socially active. For example, they can ask questions in-game, participate in forum discussions, read guides and wiki pages, and watch videos about the game to find out information they might have understood wrongly, realize pop-culture references, get explanations as to why something is happening or why NPCs or players behave and communicate in a certain way, and so on. In other words, knowledge itself is cultural capital when it comes to online multiplayer video games, and the types of cultural capital take different forms that have different values and weighing between games and even more so between genres.

Article I and Article II both approached cultural capital as an abstract form of resource that contains the knowledge of the game, its world, lore, an avatar’s skills, and other functions the game has that are needed to be understood at some level for the gaming to actually happen in a smooth fashion. Article I found that the cultural capital an entity has is tied to their motivation towards understanding the game’s functions, the game world itself, and communicating with others outside strictly goal-oriented social circles. This in itself can be felt to be a rather self-fulfilling claim, yet for immersiveness to play a bigger role than the game mechanics or socializing for information exchange is intriguing. But given the discussions in Reddit, official forums and Discord servers about game mechanics, functionalities,

and the interest in the game world and its inhabitants, it was somewhat unexpected to find this aspect to be that strong.

Other interesting findings were that escapism and the customization of the avatar also played a big role in steering cultural capital. Escapism does make sense when approached from the function it incorporates, in terms of forgetting real life and its worries for a while as the game keeps the mind and body occupied. This is especially true for those suffering from depression and anxiety, as the gaming offers them a channel to re-energize and engulf themselves in a completely different environment that is free of the bureaucracy of their countries, paying bills, or trying to find the energy to finally get an appointment for a dentist or psychiatric nurse. Customization of an avatar and opening the possibilities for customizing further than the game offers at the point of character creation needs time investment and knowledge. Time investment is required as the game must be played for a prolonged amount of time so that new customization options can be unlocked. Knowledge is required as the player must learn, discover or be given answers where to find the customization options they want or may be interested in.

These customization options can be fancy looking gear, titles, or minions or mounts that shape the style of the avatar in the direction the player wants. Naturally, the style of the avatar will change over the time because new and shiny options become available, or the player feels that some degree of change is in order. The change in avatar style can also be because the player did something simple in real life such as dying their hair, and wants to reflect that on their avatar, or they have seen an amazing style on the internet (called transmogrification in WoW (Blizzard Entertainment, 2004) and glamour in FFXIV (Square Enix, 2010)), and want to copy or draw inspiration from that. The capacity for social interactions to increase cultural capital is tied to social interactions between the players to exchange various types of information about the game – much in the same way that Consalvo (2007) presented gaming capital. This topic is discussed more in the next chapter.

Article II focused on how the players themselves steer the cultural capital they have in-game. To give further contextualization to the findings of Article I, the only aspects of that which has a tangible effect on cultural capital is the time they spent playing. Gender, age, and forum activity did not matter as such, only how much they play the game. That is a natural conclusion, as the more one subjects themselves to an environment, the more they will learn and understand about it. Combined with the motivations of the player, the willingness to immerse oneself into the game world and its communities are the main factors for the cultural capital that might be amassed.

It is true, however, that one can get cultural capital on their own by playing alone, even in MMORPGs, but the effort they need to go through to reach the same level of knowledge or understanding of the game is exponentially higher than if they

would socialize within the game world and its related extra-game communities. After all, many things in MMORPGs are meant to be found by exploring, by chance or luck, or through sheer dedication. Especially for MMORPGs, it is impossible to see all of the lore a game has to offer and explain everything just by completing the story with one character or class, as there are sometimes overlaps between the class stories in which a certain degree of nuance and meaning is unknown until the player re-plays the story through the point of view of other classes or characters with different choices.

One of the biggest problems with designing the survey to measure cultural capital accurately and feasibly was to find a way to break cultural capital into smaller but not too specific pieces. Going with Bourdieu's (1986) definition of cultural capital and his three subcategories yielded sufficient but not enough tangible aspects to generate the questionnaire items from. It was firstly realized that it was not feasible to focus on all three subcategories of cultural capital, but rather to go with a broader sense of what the capital conveys in terms of knowledge, and how to "spend" and gain it. Thus, the items are about how the player operates inside the game when looking for information about various things such as the game world itself, locations, NPCs, stories, how coherent they feel the game world is from various perspectives (via an indirect question about immersivity), if the player shares their information with others, and how confident they feel in their own information usage to help their game sessions. All of these topics of quantitatively measured cultural capital intentionally focus on the player's information resources, which allows the questionnaire to be used to measure cultural capital games from other genres, and maybe even single-player games. Therein, anything that has to do with understanding the value or importance or effort of others' feats would be symbolic capital.

Article IV approaches cultural capital in two different ways. First is the way Bourdieu (1986) defined and presented it, and how it can be present in asynchronous forum discussions. Namely, by showing off one's knowledge of the game by naming characters, maps, modes, objectives and abilities properly, and by providing insight to those asking a question or for help. This is somewhat tied to the second approach which is the concept of doxa (Bourdieu, 1977), and its prevalence in the communication between players. In terms of how cultural capital is at the shell dimensions of a game and how it grows; from the perspective of forum discussions, it is reliant on players exchanging thoughts and ideas using game-specific terminology. Game-specific language means more than knowing the unique names for heroes or playable characters, but also the terminology that can be found in other games in the same or different genres.

As an example, the term "support" carries quite a different meaning in Overwatch (Blizzard Entertainment, 2016) than it does in FFXIV (Square Enix,

2010). The discussions revolving around a playable character's abilities and how past or upcoming changes might affect their perceived playability or feasibility in competitive game play are the purest example of the fluidity of cultural capital. As the game changes, so the players are forced to re-learn things about the game. There are static elements of the game and its world that often act as the basic amount of cultural capital a player has and needs to acquire before taking part in more advanced discussions and topics, because they require varying levels of doxa. For example, "The pirate ship comp on Junk attack was cheesy" does not necessarily tell much to those just starting to play *Overwatch* (Blizzard Entertainment, 2016) or who were present when the "pirate ship" was given a name. Yet the above phrase has information about a very specific team composition of characters, a map name (Junkertown) and the playmode that is played on that specific map, and also that the team executing the composition is on the attacker side. The sentence includes a more generalist term used in gaming of "cheese", which denotes that someone is using a way of playing the game that gives an inherent advantage or makes specific challenges of the game (e.g., a boss battle in other games) more or less trivial. To understand this, one has to have been playing the game enough to know what this type of terminology usage conveys, and when they can understand it and take part in discussions with similar linguistic capabilities, they are exerting doxa and a cultural capital of their own. Finally, it is not needed for players to be aware or know the etymology of the terminology and language used, as long as they understand what it means and conveys.

The concept of doxa has been utilized in Article IV to denote the innate level of game knowledge, game understanding, and exhibited behaviours related to game. Out of the three types of cultural capital (as per Bourdieu: institutionalized, objectified, or embodied), doxa is closest to embodied cultural capital. Both focus on the learned and unwritten rules and information that the participating members of any given community are expected to not only be aware of, but also to abide by so as not to break the ideals of the group. Doxa in video games is something that, much like the types of capital, can only go up in terms of an absolute amount of resource or knowledge, but what is deemed as relevant changes over time. Doxa is clearly present in forum discussions, as the "slang" used in those discussions is very contextual and has either less or even a minimal amount of relevance outside that particular game's communities.

Inside the game worlds, the doxa is somewhat tested when a player browses through various party or group finder listings. As stated in the above example, they often include very playmode- or encounter-specific terminology on how the party or lobby will go on once the group is full. Not only are these terminologies and abbreviations often difficult to grasp for those who are uninitiated, but they can be difficult for people who are well-versed in that type of content. This is because they

might be playing with a static group that has their own “language” for referring to certain strategies, or because of their lack of a need to utilize a party finder, they are not subjected to the server- or community-wide strategies and might not know all the slang that the party finder commonly utilizes.

This raises the questions of where people go to for knowledge, how they share it, where they share it, and with whom. The complex answer is (as usual) that it depends on the individual. Some are completely reliant and fine with what the information their own guild members provide, some are looking for information from numerous Discord servers, subreddits, following Twitter accounts and so on, and some only utilize YouTube for information seeking without thinking of alternative sources like wiki pages, helpful communities, and player-run websites (one of the most known examples is WoWhead.com for World of Warcraft). These examples further provoke investigations of the players themselves. How much or how often do they explore themselves as a player, and why are they satisfied with the information avenues they currently have? Is it because they do not feel they could use more or different ways of obtaining information, or are they merely just not aware of options other than the ones they are currently using? At this level of questioning, the domain is no longer focused on cultural capital itself, but more on how and why it is being accumulated.

There is one peculiar aspect to cultural capital that other types of capital do not show, and that is the effect of one’s memory or forgetfulness as a way to lose cultural capital. Essentially, does someone know less about the game from the perspective of cultural capital if they can’t remember everything or certain bits from their gaming sessions? This once again depends on the point of view, and for scholars looking for objective measurements, the answer could be yes. But for the player the answer would be no, as they have experienced the game and do not deem it important to know or remember everything, but simply enough to keep them functioning as part of the communities and their social networks.

The communities decide through doxa what relevant knowledge is, and the “expected” habitus of the members will vary between the groups and individual players. This is an extra-game cultural capital approach to the topic of knowledge, but the avatar itself and its knowledge must be touched upon as well. Purely, from a game canon point of view, the avatar has done it all, remembers it all, and is in many a rather literal avatar of a god-like being or even a god themselves. From a canonical perspective, the avatar that players control and live through do not forget, are there to help others in need without questioning the task at hand.

Naturally, some MMORPGs allow players to be more impactful in their choices on how they want to function in the game world, prime example being Star Wars: The Old Republic (BioWare & Electronic Arts, 2011). In the game, players are sometimes given choices on how they want to resolve certain situations, and these

can vary from saving hostages or launching them out of the spaceship. Especially in MMORPGs, these kinds of choices are rather superficial as the main story remains the same for everyone, and it just gets a different coating of colour depending on the choices that are made. Furthermore, the games themselves do not attempt to nag or punish players for not partaking in side quests or other additional content, as they are often there to give more context and an insight into the surrounding areas, races or happenings, rather than working as major missable storylines that explain certain scenes or behaviours.

One example is the FFXIV's (Square Enix, 2010) first raid series that was released during the game version 2.x era: The Coils of Bahamut. This story line expands certain important plot points that happened between the game's infamous 1.x era and the critically acclaimed 2.x era. Namely, what happened to certain characters, how it was possible for player characters to do a "time skip", and to put an end to the threat revealed in the closing cinematic of the 1.x era. Yet, when MMORPGs receive new playable content, the game world normally assumes that the avatars have done everything as there are often references to side quests or even some changes in dialogue, regardless of whether the player has done them or not.

Thus, we return to the complex questions of what cultural capital is, who has it, and how is it being accumulated? Much like social and symbolic capital, some parts of the cultural capital are for the player only, some for the avatar only, and some for both. What cultural capital means ultimately depends on the study it is utilized in. For instance, it can mean knowledge about places to play tabletop games, rules of a role-play club, or receiving certificates that denote membership to these clubs. But these examples (and so far, the vast majority of studies in the field of game studies) actually focus on extra-game cultural capital, lessening the impact and importance of what happens inside the games.

Naturally, focusing on the effects that in-game cultural capital has on the player or gaming is comparatively unfeasible in "one shot" tabletop game sessions. A similar notion can be extended towards video games where the game session or loop lasts a relatively short time with game world being reset after each session, for example in the majority of FPS games or certain sports games. In these cases, as in *Overwatch* (Blizzard Entertainment, 2016), the cultural capital is not tied to any one playable character, but to the account that gains levels, unlocks new vanity items, knows how the game functions, abuses the knowledge to gain an edge over competition, and presents itself through a nickname. Even if the game world is very temporary, the feats one earns are saved or recorded for that particular nickname that becomes the overarching avatar in these contexts. To answer the complex question in a simple manner, in this dissertation, cultural capital refers to the avatar's or the account's combined knowledge, understanding and ability to navigate and function

within the game worlds and their immediate communities that operate at the inner shell dimension.

6.4 Symbolic capital, the most dependant one

Symbolic capital is a type of resource that is fully reliant on other types of capital, as it is the recognition of other capital. Furthermore, to gain symbolic capital, it is required to have more than the actor itself and other types of capital, meaning that other social actors and interactions with them are needed for symbolic capital to be accrued. In essence, cultural capital accrued from others is essential to recognize value or uniqueness, and passive, direct, or indirect social interaction is required to give the symbolic capital the value it has. For example, a cool sounding title might come from the main story of the game that all the players are rewarded with, making the title common, which makes the title somewhat less valuable because of its commonality.

Naturally, there are people who do not care whether something is commonly available or not, as if they like something in-game they will use it regardless of its social value for their own enjoyment. Then again, there might be rewards that are unamusing or sound unique that might actually require hundreds of hours of grinding or extremely good luck to achieve. In these cases, vanity items have two layers: their “coolness” factor and the actual effort required to get them. Various badges, titles, mounts, minions, gear pieces, and decorations and furnishing in player housing are all various ways to show off one’s accomplishments in games.

Collecting rare items or going for a 100% completion are ultimate goals for some players, which requires consistent commitment as some tasks will take months or even years to achieve. This level of dedication is often more for the players’ cultural capital resource pool rather than being done for symbolic capital accumulation. For many, the idea that they have collected all the pets or cards in a game is motivation enough, while the recognition that comes with it is often secondary. Rewards for achieving something extremely long-winded are unique and recognizable. For example, in FFXIV, once a player has all the Triple Triad (a minigame from FFVIII by Square, 1999) cards that were released before the current expansion (Endwalker, which was released in late 2022), they are awarded with a mount that has the shape of a Triple Triad card. That mount in itself is a symbolic proof of one’s dedication to amass all the cards, find the time and dedication to learn the minigame, and to keep tackling various types of content until they have everything. Similar types of long-time achievements can be seen in other MMORPGs, for example in World of Warcraft (Blizzard Entertainment, 2004) there is one to collect one thousand unique pets, and their sources vary from open world areas and instanced dungeons, to doing daily tasks for months in order to unlock pets for purchase.

When it comes to symbolic capital that is based more in social capital, it is more about one's status in any given social network. For example, the people running various Discord servers are very recognized in the game. Organizing and offering the chance for people to partake in various types of niche content does not necessarily tell anything about the player themselves, their avatar, or their skills or knowledge of the game, but more that their name is often seen around specific areas in the game and is enough to give them recognizability, and thus symbolic capital. On a smaller scale, being a visible person presenting a clan or guild is often a source for symbolic capital, as one's social status within the group is held in higher regard.

For example, being a raid leader or officer in a competing guild gives those players more symbolic capital than being on a trial in an unknown guild. The presence of these guilds in various ways is needed for the guild itself to gain social and symbolic status, with the individual players sharing it based on their status within them. In some ways, these recognized players or their characters can be seen as online celebrities. Their actions are followed and often seen through streaming, videos or other content they make, and whenever they are online or streaming their location, random players want to be in same liminal space so that they are seen or even noticed by these celebrities. Whether or not avatars behave in the same way around game celebrities as their real-world counterparts do is not within the scope of this study, but is something worthwhile to focus on in the future.

To support this discussion, Article I, reported that symbolic capital is steered and affected by the players' motivations to socialize through bonding social capital, with additional foci on achieving and advancing their avatars and gameplay. This is further supported by the finding that the longer the player keeps playing the game, the more symbolic capital they will accumulate as they are exposed to more and more challenges with an increasing number of chances and opportunities for social interactions to happen over time. Additionally, Article II stated that symbolic capital is further produced by the entity's forum activity and how much they play the game on average per week. However, a player's age or gender did not affect the symbolic capital in that study.

All of these findings suggest that building up symbolic capital up until the point where it starts to become "visible" enough takes a considerable amount of time – as in that the players responding to the surveys felt that they are being recognized in their social circles in some way. Naturally, there are certain issues of validity when it comes to a self-select survey methodology where participants perceive the questionnaire items differently from each other, give different value to various words, and maybe even want to answer in a way that they think is good for the makers of the questionnaire, not to mention giving certain joke answers for the sake of it.

This means that there is a possibility that the answers regarding symbolic capital are somewhat skewed, as what individuals perceive as “recognition” can be different, as are the social circles (guild, raid group, PvP group, friends, and family groups) which they deem as important to be seen as “recognized”. However, this notion does not change the fact that symbolic capital in MMORPGs is reliant on other types of capital, and furthermore, social interactions are required for symbolic capital to be collected.

Article IV focused on forum discussions to investigate how symbolic capital might be present in that medium. The study compares symbolic and gaming capital to each other, and will be further discussed in the next chapter. Symbolic capital (as it has been defined and utilized in other studies) was present in the forum discussions through the user’s gender, in-game rank, or their account age through various unverified claims. While it is often the case (and somewhat expected) that users and players do not lie about themselves when interacting with others in social spaces, there might be cases where the user has given false information about themselves or their feats in order to gain a certain degree of acceptance and authority.

Utilizing arguments like “as a platinum player” or “as someone who has played this since open beta” are thrown into the messages as a way of articulating one’s knowledge of the game in some way. The actual claims and the message of their posts does not change, regardless of whether these kinds of claims are present. Rather, it is an attempt to sound more convincing or approachable by making the reader to feel convinced of the poster’s knowledge. These can be seen as attempts to utilize symbolic capital that is known to have a certain value within the gaming communities (age, gender, rank, account age, etc.), without the other users of the forums really giving any recognition before-hand. So, users utilizing these claims are going by the symbolic value they already possess, or have possessed, in order to gain more recognition or advance their social status within the community in some way.

Ultimately, symbolic capital in video games is not unequivocal because it relies on other types of capital, and more so on other entities. Additionally, time plays its role in determining the value of symbolic capital. Other types of capital see their value going up and down over time (especially social and economic capital) based on the actions of the entities, while cultural capital can move either way when it is applied to different mediums or games, or if the games change significantly enough to nullify already learnt information. But symbolic capital often steadily increases as long as the player keeps amassing new things in a game and is social within their social networks.

However, some parts of the symbolic capital are reduced in their relevance and value when games receive new content, such as expansions, or the ranked season changes to a new one. These additions do not nullify the symbolic capital, but they

are not as relevant or sought after because they are no longer achievable, or they are not “trendy” anymore. Games will often change through various patches, be it balancing or the launch of a new expansion, forcing players to re-learn things and making feats gained with outdated knowledge less important. These feats can still tell something about the player, such as their dedication or the skill level they have been at, but those are put to the test from time to time. As games move onwards from their launch, so do players have to keep on improving themselves to enjoy the games to the fullest, and to amass the symbolic capital that comes with it.

6.5 Gaming capital, the reliant one

Unlike the other types of capital, gaming capital is more difficult to define within the game worlds themselves. Gaming capital refers both to the experience of the individual and the wider cultural and economic system surrounding video games (Consalvo, 2007; Mäyrä 2008). From this definition and looking at how gaming capital has been studied previously, it is possible to infer that gaming capital is mostly in effect outside the action of gaming itself, even if the gaming capital is accumulated much like embodied cultural capital, for example through subjecting oneself to the environment where one has to and will learn the ropes of the community and game. When these experiences are taken outside the game’s immediate magic circle, or from the core to the outer shell, they turn into gaming capital through a social exchange with other individuals or communities. Closely similar to cultural capital, gaming capital is something that does not decrease in volume, but can fluctuate in value.

Article IV explores the formation of gaming capital through forum discussions through the lens of doxa and the embodiment of cultural capital. In the study, gaming capital functioned effectively as an over-arching concept within which the other types of capital were present. This meant that the social, cultural and symbolic capital that were present in the forum discussions were actually subcategories of gaming capital, rather than their own independent concepts with various dependencies on each other. To further demonstrate this, the cultural capital in the study referred to the knowledge of the game itself, and not to the game experience or skill that is utilized when talking to others outside the game’s effective contexts.

Similarly, the social capital gained and expended is limited to the scene of *Overwatch* (Blizzard Entertainment, 2016) with very little value or relevance outside of it, for example in face-to-face discussions with non-gamer co-workers during a lunch break. Talking about the game and its communities would rather be an act of accumulating gaming capital in these lunch talks, as there would be exchange or expression of knowledge, experience and to some degree skills. What the study postulates is that gaming capital is not just an extension to cultural capital, but rather

a synthesis of embodied cultural capital and social capital that in many ways overlaps with symbolic capital. Social capital and interactions are at the heart of knowledge, turning into more knowledge or a certain status within the social circles. The more into specifics discussions go (and regardless of the context they are happening in), the more dialectic they become as there is an important difference between describing which parts of the game-world some maps are located in, and asking for some tricks and tips for a certain hero to elevate one's gaming experience.

Complicating the manner one can accumulate and spend gaming capital, is the perception of one's arguments and messages in the eyes of others. Communities consist of individuals which means that some members of the communities will have opposite views on many subjects, even when it comes to something related to the game itself. Yet, they will be part of the larger community that effectively everyone who plays the game belongs to. Thus, to some the player's gender may matter more than to others, or some may bring up competitive rank as something that weighs more. None of these are 'wrong' ways to approach one's messages or discussions but depending on the nuances included in the messaging (the doxa), there might be misunderstandings between the users as they have different perspectives on what is conveyed.

Another layer to gaming capital is not just the differentiating line between game-specific contexts and gaming at large, but rather the hierarchy within the game's communities and systems. As outlined above, individual players tend to rank others based on their own ideals and subjective relevance, but when it comes more functional hierarchies, the subjectivity becomes less relevant. This means that developers, community managers, and other officially recognized users are from a hierarchical point of view of higher status than regular users, which is not surprising. However, very popular content creators (for example streamers and guide-makers) are often not officially "recognized" as having additional power over the community or the direction the game is going in future patches, apart from being able to provide feedback directly to the developers.

Influential individuals within any game's core are sometimes asked to partake in exclusive and limited Q&A sessions with the developers, as they have the most experience with the game. These individuals can be professional players earning their living through the esports scene, or YouTube content creators that upload various types of content for the masses. Therefore, the selected group of individuals will have a higher hierarchical status within the community and can hold great degree of influence on whether or not the game is worth spending money in, or whether to keep playing it. These examples of the in-community hierarchy that exists are based on one's recognition or expended capital to attain status. But most of the hierarchies that exist and are in effect at the core or inner shell dimensions cannot be considered

as gaming capital unless it is in some ways moved outside the immediate contexts of the game.

Gaming capital is not just a different take on symbolic capital. Symbolic capital is a resource gained from one's feats through social interactions, and not much else. Gaming capital is accrued mainly in similar ways, but additionally includes the game or gaming knowledge, experience and skill that the player is able to show off and exhibit to co-players, themselves and to others who are willing to listen or read about their journeys. Thus, gaming capital can be thought of not just as a different take on Bourdieu's (1986) cultural capital, but an ever-fluctuating synthesis of social and cultural capital that has certain overlaps with symbolic capital.

For example, those who were writing guides in the 1990's and 2000's are showing off their gaming capital by sharing tips, tricks, and important titbits for players to enjoy their gaming more. Accordingly, they might get symbolic capital as writers of good (or bad) guides when their names are recognized over the continued content creation. This does not change or challenge their gaming capital, but rather validates it. A similar thing can be said about any player in that they have all the types of capital in various amounts in their possession at any given time, and they themselves give them various emphasis based on their motivation and willingness to play the games. All in all, the types of capital that one has inside the game worlds are connected to gaming capital outside the worlds, and while gaming capital is connected to one's acts of gaming, it does not define the gaming itself.

6.6 Summary

In this chapter I have discussed in-depth through various examples how the types of capital are present in the articles based on their results, and the subsequently drawn implications from the analyses. I have given further insight into how the different types of capital function as resources within the game worlds and their related frameworks. As there is little research to reflect my findings on others' studies, the analysis and discussion conducted here are rather exploratory and based on my expertise on online multiplayer video games through both my education through game production, and also as an avid MMORPG player. I have been careful not to inject my subjectivity into the chapter, although this is a very fine line to draw. I have shown that the types of capital and resources have multiple layers when approached from various points of view, and that isolating them as such may not always be feasible as many of the directly or indirectly affecting variables or nuances are likely to be left out. This makes drawing any coherent and holistic conclusions difficult, even if they are backed up by the data and their analysis. However, I can summarize the main conclusions that have been drawn:

- 1) The types of capital have multiple layers to their accumulation and consumption.
- 2) The types of capital are, depending on the environment, connected to each other.
- 3) Symbolic and gaming capital are both dependant on the other types of capital, namely social capital to turn cultural or economic capital into symbolic or gaming capital.
- 4) Gaming capital is effective outside the game system's immediate ecosystem, while symbolic capital is more in effect within the game systems.
- 5) Studies that focus on inside the game worlds need to be of a higher quantity in the future.
- 6) Academia could do with more tools that can be widely used to study and explore gaming at large.
- 7) Studies of the usage of resources and the lives of avatars are needed to understand the lives of players and their avatars in the virtual worlds.

I will conclude this dissertation by summarizing my work, reflecting on my journey and research position, and the limitations of my research.

7 Conclusions

It is now just over five years since I started the process of writing this dissertation. At the start the process was a natural continuation of my master's thesis, to explore the inside of the game worlds through the lens of types of capital functioning as a resource type. I quickly realized that there were scarcely any studies that utilized different types of capital as a tool or quantified studies in the field of video game studies, apart from social capital. Furthermore, the existing studies tended to focus solely on the perspective of inside the game worlds, and more-so on the lives of the avatars inhabiting these worlds. The purpose of my research was to increase the number and quality of both lines of study, and to see if it would be feasible to complete the dissertation process on that premise. It also became apparent that there are no strictly defined processes on how to conduct video game related research, because many studies have leant on methodologies and approaches from other fields of science.

I have been a gamer since I was four years old, and not once has my passion towards them wavered. Once I played my first MMORPG (RuneScape by Jagex, 2001) I was hooked on them, and have now played MMORPGs for over twenty years, which gives me a unique level of insight into what is happening inside them. However, by relying on subjective expertise alone, the research itself would be flawed. In this regard, the questionnaire items I had to develop based on my experiences as a gamer, while cross-referencing them to Bourdieu's definitions of types of capital, are somewhat flawed. Namely, they might be teetering too much into subjectivity, or lack a truly objective perspective that could make the questionnaire unsuitable for wide-spread usage, even after running validating factor analyses.

Through the analysis of the questionnaire data (Article I and Article II), it became apparent that there is no single or clear-cut way of playing MMORPGs. It has always been "default knowledge" of course, but having the data show the wide range of players focusing on different things based on their initial motivations or certain demographic attributes was humbling. This further fuelled my intention to finish this dissertation, and contribute quality research to the academy and public, so that the

field of video game studies could become more interested in what happens inside the game worlds.

I have shown through my research that saying that someone ‘plays MMORPGs’ is just as vaguely descriptive of a person who is said to ‘do sports’. The players, consumers or hobbyists, or whatever one wants to call the living inhabitants of the online virtual worlds, are often collectively just called “gamers”. This is yet another very nuanced term that is used in academia, and in communities and between friends alike. What being a “gamer” denotes to oneself might be completely different to others, even if they are interested in playing games of the same genre, or even the same game. Their characters might never meet, and they might have wildly different approaches to any given game, but they are still, from a faraway perspective referred to as “gamers”.

Add to this definition all the other ways of gaming or playing, together with the wide variety of platforms, genres, motivations and aspirations to play games, and it is once again not a very telling piece of terminology to be used without adding certain context to it. However, it is unclear whether there is a better term that might be used, or even should be used. I do not know of one, and I do not currently think so. But using “gamer” as an umbrella term and seeing all of the players in the world as people that share similar traits is incorrect. Much like one could call themselves a gymnast; that alone does not tell anything about their level of gymnastic ability, their attitude or motivations towards it, or which type of gymnastic they focus on or excel at. As such, calling everyone a “gamer” is just as problematic, as is its blind criticism without adding some nuance as to why it is problematic and what more the usage of the terminology needs to have, in order to avoid misconceptions and focus on a proper connotation.

At the very start of this dissertation, I laid out two questions that this work seeks answers to. First is ‘What happens inside the game worlds themselves?’ and second is ‘Where can the line between the avatar and the players’ skills and resources be drawn?’ The answers to these questions are many and depend on the approach that is chosen. In some ways the answers are scattered throughout this dissertation, but it is warranted to answer them directly.

The answers to both questions are a mix of complexity and nuance. Thus, the answer, as per this dissertation’s contribution and approach to the phenomena lies in what the player wants to do inside the game world. There are so many ways for players to live through or as their avatar in the vast online multiplayer game worlds, that depending on the player, the answer would change drastically. Even looking at the players as one big mass, there are differentiating foci coming to the surface, where some focus on amassing money and currency, some want to focus on collecting every pet, mount, or title achievable, while some want to spend time with their family, and so on.

What complexifies this is the fact that there are overlaps between these foci, not to mention that based on the players' (and to some degree the avatar's) socio-economic and cultural situation, these foci for any individual can, and will, change over time. There are a handful of players that have managed to keep their playing style and social networks the same for many years. But what one does in any given gaming sessions can vary greatly, even if the usual or most common activity stays the same over longer periods of time (e.g., socializing, doing dungeons, or hunting for achievements).

The short answer to the second question is that strictly speaking, it depends on the approach and point of view. This dissertation's answer is that in many ways it is a fickle line at best. In many ways, the virtual world operates on its own rules and offers its inhabitants so many things to do that the player's own resources and skills are directly in control of the avatar's actions and affordances. For example, let's approach this from the perspective of cultural capital. The avatar or playable character 'knows' how to cast fireball, can teleport around the world, can scorch enemies, and so on, but the player can't. What the player does know, however, how to utilize the spells at their avatar's disposal in an effective manner, and in many cases in a way that the game does not outrightly tell the avatar or players about. In this example, the line between the player and the avatar is simultaneously clear and very nuanced in terms of what each can or cannot do. This answer is similarly multi-layered for other types of capital.

Socially it is the player that communicates with other players in their chosen real-life language in various channels, but canonically, characters can speak draconian, gnomish, orcish, and so on. The only exception is seen with economical capital, where one's skills to amass money in real life do not necessarily translate beyond the veil, and vice versa. From a purist point of view, there are ways to bring in money or value in any given multiplayer online game, but that is often by breaking rules, and there are so many hoops and loops to go through that it becomes unfeasible for the vast majority of the players and avatars.

I laid out four research aims for this dissertation, and have answered them by categorizing each article this work comprises to answer one or more of these aims. But it is still needed to conclude and give short answers to each of them. First research aim was "Avatarization – How does our culture and the virtualization of ourselves change us?" The answer (put very abruptly) is that we are moving more and more into digital and virtual interaction, and the functionalities of life are following close behind. For example, digital banks and e-citizenships are available for almost any regular human being. But we are in a twilight zone between understanding and learning what digitalization can do to us, and adapting to a digital and analogue approach to the world. Video games, especially MMORPGs, are offering an extremely nifty way for people to get used to the future's interface for

interaction, and using a mouse and keyboard and looking at a screen for multiple hours at a time. Furthermore, online multiplayer videogames are giving players almost unlimited ways to experience another life, be it growing the most effective berry farm, or being the biggest fashionista there is. Living through, and perhaps even as, one's avatar, is affecting us just as much as we control them. But often this change is slow and goes unnoticed by our own eyes.

The second research aim was “Holistic Understanding – How are the types of capital and the issue of dignity defined in the virtualized and digitalized communities?” This has been discussed at great length, but summarizing it depends on every game, and which communities a player belongs or has access to. Video game developers define and lay out the affordances, and players in turn go all in to abuse, exploit, utilize and benefit from these affordances for their own joy. As long as the video game has something to offer for a wide audience of players, the players will mostly be happy. Communities decide themselves which affordances and types of capital are worth pursuing, and which are given most value. So, even if a game does not make a distinction between a black and white unicorn mount as such, its acquisition method or some other attribute attached to the mounts are the defining factor on their value in relation to other mounts.

Third research aim was “Identity and Personality – How do avatars modify our identity, and how do we modify avatars?” While this dissertation does not go as deep into the topic of avatar and player interaction as the work of other researchers does (see e.g., Banks, 2017; Banks & Bowman, 2016; Banks et al., 2017), this question can be answered from a different point of view. Avatars modify our identity based on the resources we accumulate while online, and especially through various social interactions. Some find their true love, some find games as a way to spend time with their significant other, or just to get to know new people. All these things modify and more often than not alter our identity. Some find an awesome tight-knit community and get close friends, giving them the trust that online people are not so bad. But some have the exact opposite experience, where they think that they have found a new bunch of very close friends, only to be effectively betrayed by some drama, making them raise walls for their own protection to shield them and prevent such a thing happening again in the future. We are effectively avatars in many ways inside the game worlds, and some like to utilize that freedom to portray celebrity, create their pets or even their children in games, and experience the game through or as them. It is perhaps easier to depict where we modify avatars, and where avatars modify our identity, but that is more difficult to measure and explore through the resources themselves.

The fourth and final research aim was “Widening the Horizon – How can we expand the horizon of capital research so that it can reach almost everywhere in these virtualized realities, avatars included?” This dissertation and the studies included in

it are effectively just one example of this expansion. While the stimuli used in this dissertation are few, they are still excellent representations of their genre, and the approaches chosen for the articles and for this dissertation are chosen in a way that it is feasible to utilize these concepts in other game studies, be it single-player game community studies, exploring how players of other MMORPGs manage and accumulate their resources, or expanding the capital theories even further. These can be done with different approaches, methodologies, or combining with other fields of science to find new and exciting perspectives and interpretations of the residents of the online video game worlds.

In this dissertation I have offered an in-depth and comprehensive view of what the types of capital are, and how and when they are accumulated. While the game stimuli and studies sourced for Article III are global and without restrictions as such, there are still limitations to the research. Firstly, the research has been conducted in Finland and mostly by Finnish researchers. This alone sets certain limitations on the approaches to the research, as Finland is known to be full of gamers and there are numerous gaming companies relative to the size of the national population. I have been subjected to video games my whole life, and so more or less have my colleagues, co-authors and supervisors been subjected to them for most of their adulthood. Furthermore, there might be some underlying attitudes and policies that have mildly or indirectly affected how the research was conducted, and what approaches were deemed most feasible.

Secondly, the survey, the studies of Article III, and the forum discussions of Article IV were all in English, or the data gathered was in English. This effectively reduces the number of players and studies that this dissertation and the articles can reach. Every non-English speaking player and forum discussion has accordingly been left out of the study, which undoubtedly reduces the actual insight this dissertation can give. There are huge player-bases and markets around the world, including geographical areas that do not have English as the lingua franca (e.g., South America, East Asia, the Middle East, and India). Each of these areas also have major cultural differences from North America and Europe, not to mention the vast number of between-country and in-country cultural differences that exist. So, while many countries have English speaking people, they do not spend the majority of their time communicating in or accessing websites that are written in English. Thus, the generalizations made about the player bases in this dissertation can only speak about North American and European players, and their approach to gaming and how motivations affect their in-game resources.

Thirdly, it is important to mention the effect of the chosen approaches for the studies have had on the results. This includes the data collection methods, who possibly answered the survey, the timing of each study, and as well how other utilized approaches may have had their own effect in each article. Parts of my

research have focused on just some of the discussion regarding types of capital: Article I and Article II on resources and how they are affected, Article III on social capital in the academy at large, and Article IV on the presence of types of capital in forum discussions. Generally, the research is considered to be multidisciplinary as it has combined various theoretical frameworks with a completely different environment than they were created in and for. For example, Bourdieu's idea of types of capital and what they present within the class society of France has been boldly moved to cover, theoretically, the entire population of one MMORPG, where there are different hierarchies and definitely different types of classes (see the above limitations on the applicability of the study itself to other sociocultural areas).

Article IV used a concept of linguistic capital as a base for a unique categorization of the messages on the forums by their overall writing style. But whether this writing style way of studying the presence and the prevalence of types of capital is effective is extremely dependent on the language the forums are in, and which game (or part of gaming) the discussions revolve around. What makes the utilization of approaches and methodologies difficult is that games are developing at a much faster speed than the academy is used to, prompting researchers to catch on to the newest trend of games. Consequently, this might lead to situations where researchers are studying the newest hit phenomenon with tools that are not truly suitable for that environment, or they are heavily restricted to specifically focus on just one or two variables of it.

Finally, I return to the claim of this dissertation that the inside of the online game worlds is just as rich as the outside world. It has been made clear through numerous examples that these game worlds are indeed just as rich, and to many even richer, than the outside world. There are no factors to limit their approach, study or exploration from numerous points of view, or even to combine multiple schools of science for unique projects and future studies. But the obvious and biggest difference is that outside and game worlds are rich in their own ways. Some choose to portray themselves (or an ideal version of themselves) in these worlds, some like to keep a connection to their pets who have crossed the rainbow bridge as part of their everyday life, some create mock-ups of celebrities, and some like to create complete background stories and new characters with canonically appropriate names to embark upon the never-ending journey. Outside of the characters themselves, some are more social in one setting and a hermit in the other, and so on. So, like the characters and players themselves, academic studies and approaches into these virtual worlds are ultimately what the academics make them to be.

Types of capital are, of course, just one way of approaching the lives of avatars and players inside the game worlds, even from a resource perspective. Notably, there are many books written using an ethnography method (see Castronova, 2005; Taylor, 2006) that give their own insight into virtual lives. Most likely in the future, more

types of research models and approaches will be adjusted or ideally developed specifically to study games from the inside. What happens inside the game worlds is just as interesting (and to some perhaps even more interesting) than the studies approaching gaming from the outside, or that stay at the border between extra- and in-game actions. Thus, I feel that in many ways the research and the related work of this dissertation has taken only its first steps into the (largely) unknown in-game worlds.

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