Tampere University

Krista Kanerva

ON THE TOUR THROUGH CONTROL

In-game Guidance, Map and Navigation

Faculty of Information Technology and Communication Sciences
Master's Thesis
April 2023

ABSTRACT

Krista Kanerva: On the Tour Through Control: In-game Guidance, Map and Navigation
Master's Thesis
Tampere University
Master's Degree Programme in Game Studies
April 2023

This thesis partakes in the game studies' discussion about the experience of the in-game guidance, map, and navigation in *Control* (Remedy Entertainment, 2019) the video game. *Control* has been declared to have hard-to-read map and difficult game navigation has caused frustration and discussions online about the matter.

This is an autoethnographic case study with three streamed gameplay recordings analyzed on the side to support its findings. This research aims to investigate how *Control* does guide its players through the gameplay and what does enhance the player experience in this case. This study demonstrates that diminishing the role of the map in overall guidance, such as not having all the atomic affordances present in the cartography interface and emphasizing the role of diegetic organic navigation make *Control* perceived as hard to navigate game.

Keywords: in-game guidance; guidance; map; game design; cartography interface; organic navigation; navigation; diegetic, extradiegetic; collectible; video game; Control; player experience; tour

The originality of this thesis has been checked using the Turnitin OriginalityCheck service.

Preface

For Johannes, who endured me playing while he was working remotely from home.

Tampere, 26 April 2023

Krista Kanerva

Table of Contents

1 INTRODUCTION

Over the years that I have considered myself as a player, I have grown an interest towards the overall guidance in video games. How does the player navigate during the tour that the video games offer? I identify myself as a video game enthusiast, one who enjoys playing video games and the experience it provides along the process. There is however, one personal matter that made me motivated even more to study the topic of guidance in video games even further. I tend to lose my way while I try to find my way from place to another in the real life and oddly also in video games. How does my skill of navigation (or the lack of it) correlate with a game that has uncommon way to guide its players?

The case study in this thesis will focus on video game *Control* (Remedy Entertainment, 2019) and its way to guide players through the game. *Control* was chosen because of its way of guiding the player with in-game guidance rather than the nondiegetic guidance that is external to the game world. Aforementioned elements are diegetic, but some references and arguments will be made towards nondiegetic elements as well.

The game was released back in August 2019, and since its launch the game has evoked conversations about the in-game map and navigation being more difficult than anticipated. There has been conversations in *Reddit* (www.reddit.com) about *Control* as well (https://www.reddit.com/r/controlgame/). There are questions regarding the gameplay or the game itself or related content from video clips to screenshots. Within that community there were multiple discussions and acquisitions about the map and navigation, asking for help or an opinion or expressing an opinion about the topic.

There are conversations starting with titles such as: *Why this game is damned confusing to navigate?; Can we get please get a better map?; Just tried this game and its not bad, but the navigation is terrible. This game is literally the modern day water temple.* And *Advice on navigating through the map?* The common factor between these discussions behind the titles is the dissatisfaction and confusion about the game map and in-game navigation.

Video games guide the player by their game design: the graphics, cartography, camera, voice acting and audio for example have their own role to play in guiding the player through the narrative and the game world. All these different elements aim to complete

the gameplay, as it was designed to get across to the player. Especially contemporary video games do rely on the combination of these elements, as the technology allows (Green & Kapell, 2017: 5).

The curated experience (Crawford, Muriel & Conway, 2019) of a game is one excellent reason why guidance in games is a critical factor in experiencing an open-world game. Curated experience is a designed experience. According to Tekinbaş and Zimmerman the game designer aside from the technology, creates an experience (2004: 87). All players are their own individuals, and everyone experiences and plays their own way the game. Some players rely on the game to lead them onwards, some players give only a little attention towards the guidance the game offers and soldier on. Earlier mentioned elements, the graphics, camera, voice acting, narrative and audio play a major role in creating the atmosphere in the game, and as well in the guidance.

During the gameplay the player often relies on the guidance to proceed in the game. One might suggest that no player could complete the game without the guidance in the game. Even a seasoned player such as I cannot skip guidance unconsciously, it is more likely that the player follows the guidance unconsciously as one is familiar with the most common ways that in-game guidance offers in various games.

To begin with, *The Legend of Zelda* (Nintendo, 1986) is considered to be one of the first open-world video games (Hilliard, 2017). Its creator Shigeru Miyamoto had envisioned the player to feel the freedom of exploration and amazing encounters during discovery of new locations. The players could choose different routes in *The Legend of Zelda*, discover hidden locations and meet strange creatures on their journeys (Donovan, 2010: 162). The original two-dimensional game is pale compared to the latest addition of *The Legend Zelda* franchise, *The Breath of the Wild* (Nintendo, 2017), in which the player can conquer mountain tops and glide away with a paraglider to far away distances, and at same time notice the three-dimensional height difference offered with great graphics.

Maps have been an essential part of video games regardless of their forms of how they have been implemented on games (Horbiński & Zagata, 2022). Some video games such as Sid Meier's *Civilization* series (1991) use the map as the main element on the gameplay screen, others have a separate implemented cartography interface (*The Legend of Zelda: The Breath of the Wild)* or it is also possible have an object in the

game that is an interactive map as in *Valheim,* (Coffee Stain Publishing, 2021). These maps encourage the exploration inside the video games and make the spatial exploration an important element during the gameplay (Si et al., 2017).

Nowadays the player can have conversations with the characters, and interacting with them leads to having more information about an objective or the area. They can offer new information and maybe mention something that might not pop up in the game otherwise (see Figure 1).

Narrative is important in the sense that it gives out the frames, the story and reason why events occur in that order (Zeman, 2017). Inside the games, players are not only the audience of the story, but they also participate in it, can make changes, and even decide the endings of the story (O'Connor, 2020: 18) The guidance is linked to the narrative in temporal significance that certain events are interconnected to each other to link the story cohesively together.

Figure 1: Nonplayable Character (NPC) Emily Pope instructs the player (screenshots of the game [Remedy Entertainment, 2019] provided by the author).

If one has played a game or two, they might remember that the music in the background changed when entering an area with a boss battle, or an area where is a safe haven without enemies in sight. They might even remember the sound when an item was picked up. These game sounds signal to the player that something linked to that audio has happened or is beginning. The audio linked to the guidance is most likely diegetic, internal to the game world rather than extradiegetic, external to the game world (Skolnick, 2015).

There are times when the player starts to get frustrated at the game. For example, when the guidance in the game is not clear, the player can lose interest towards it (see Moore, 2011). A game cannot be too easy to play, but at the same time, the harder it is, the more challenging the playing experience is. The playing experience depends on the individual, and one game can be both frustrating and fun for the player. On the other hand, another player might experience just negative feelings about the same game.

Later in this thesis, there will be comparisons on different gameplays, one conducted for this research, and three others are picked out from streaming service *YouTube* where some players have recorded their gameplay. The methodology in this thesis is qualitative and the methods to gain more understanding of this phenomenon are autoethnography and netnography. Autoethnography is used on part of the gameplay recording data that I have played to analyse and self-reflect my choices about the game map, the in-game navigation and how I have reacted, or noticed the in-game guidance during navigating inside the *Control.* Netnography is a relevant tool in analysing the second part of the data which consists of three streamed gameplay recordings from other players. The focus will be on the same elements, the map, in-game navigation and in-game guidance. The map of the *Control* will be also proximately looked at with the theory of atomic affordances in video game cartography (Toups et al., 2019) to grasp what could be done with a fully capable video game map.

With these two methods and the interdisciplinary literature this thesis will answer to the research question and figure out the reason behind frustration for *Control*: What effect does the in-game guidance (including the map) provide in *Control*, and by extension in other contemporary video games, in comparison with free exploration?

The structure of the thesis will introduce earlier research relevant about this topic in the following chapter of literature review. The second part handles the methodology and the

gameplay data concerning the thesis. The following third chapter covers the analysis of *Control*'s maps and the gameplays divided in two parts. Following these chapters last in the thesis is the discussion and the conclusion, and in these two chapters the steps that needed to be taken are discussed next in the in-game guidance and navigation aspect, go over the limitations and issues that rose while analysing the data and examine in more detail the key findings from the analysis.

2 LITERATURE OVERVIEW

This chapter will cover the literature that is relevant to this thesis. The Literature overview will go through maps in general, video game maps and the implementation of them, spatial practice by De Certeau (1984) and how video game cartography interfaces fit into that way of thinking, in-game guidance by design and environmental storytelling.

2.1. History of maps

Some early historical maps were carved into stone, which have survived until this day. One of the oldest known engraved maps is called the Bedolina map (ca. 2000-1500 BCE) and has been found in northern Italy. It portrays an inhabited side and has been analyzed to possess markings from different stages in time. Markings vary from simple lines and points to animal and human figures (Thrower, 2008). In medieval times when cartography was not the visual description as we know it, people used to use written itineraries to describe their journeys, they logged how much time it took them by foot or on horseback, urban surveys, and such documentation (Tally, 2014: 16; Lammes, 2009: 209).

Later analogue maps were originally drawn on paper or on parchment to visualize a state or a site for example. The art of drawing maps in medieval times was mostly taken by religious institutes and their inhabitants. Around those times, maps were drawn by the observations made by explorers who discovered and travelled those areas. These maps could contain information about mythical places such as El Dorado or Noah's Ark. The information gained from the explorers could not be verified easily, that was all the information they had and could get without sending another explorer to set sails across the sea (Smart, 2005: 13-14). Therefore, historical maps were an interpretation of the world with the current time-sensitive knowledge. Nowadays we know that El Dorado or Noah's Ark do not exist as real-life locations.

Around the medieval times there were also the *mappae mundi*, which means specifically the medieval European maps. These maps were not meant to be navigational charts, but rather to describe different principles, to be schematic. One of the main principles to be present in that era was religion, Christianity, and in the center was to highlight with great illustrations sacred locations such as Jerusalem on the world map or a church in a city.

Some of the former maps had Jerusalem as their center (Carlton, 2015: 160: Baumgärtner, 2022: 189).

In the following period of the Renaissance and after printing had been invented, maps were not anymore so-called luxury, that only the wealthy and royals could afford. Printing made the availability and the number rise drastically (Thrower, 2008: 59), and for example in 16th century Italy there were shops dedicated to printed maps aimed for the common customers. These maps started to be more versatile about what they represented and how they represented it.

The analogue maps are ‘frozen’ in their time when they were created compared to contemporary digital maps such as Google Maps (Baumgärtner, 2022: 3), which includes the ability to analyze the shortest route from point A to B for their user. Older maps were read as they had a textual nature originally, and their reader had to determine their best route by themselves (Tally: 16, 2014). Hence even the way of how we describe the method of utilizing the map has changed since the pre-digital era. There are some arguments for and against either format. Analogue maps can offer an overview due to their larger representation of a certain area. Digital maps are found for example in mobile devices and thus can overlook carefully smaller areas around the chosen point (Pauschert, Riplinger, Tiede & Coors, 2011: 205).

Current maps are treated as objective, ideologically constructed, and fixed from a certain point of view (Lammes, 2009). They are socially produced and representations of space (Lefevbre, 1991). De Certeau (1984) addresses cartography and spatial progress in his article about spatial practices. Likewise, they can be understood as spatial stories. Those are executing one’s struggle to possess, traverse, and access spaces. The spatial stories do not rely on narrative logic, are more loosely structured, and depend more on the discovery of the fascinating world (Jenkins, 2010). Even though De Certeau’s theory of spatial stories are pre-digital era, it is still relevant, applicable on digital game maps, as Lammes and Jenkins both demonstrate.

2.2. Video games and maps

Skolnick instructs in his book to ”show, don’t tell” (2015). Rather than having a long dialogue to deliver the narrative, the author encourages to show it by visual storytelling.

The audience would probably catch on about the narrative with audiovisual storytelling incorporated to the gameplay as well as the game having a prologue filled with written text. As visual storytelling mediums, video games can use diverse tools to convey the story to the player. From this viewpoint, this research will focus on analysing *Control* by its level and map design in the game.

Chadzynska and Gotlib (2015) explain in their article the connection between maps and video games and go over various video game genres and their utilisation of maps. Modern video games are rather complex by their visual design as the technology allows and maps are brought into help the player navigate the game. Game maps can be implemented in a game on the Head-Up Display (HUD) to be seen while playing or the player needs to open a separate interface to see it. There are combinations of both, the game view is a simple level map, and on the game menu a greater world map of the game. The level map, which Lammes (2009) and Horbiński & Zagata (2022) call a mini-map, and the mini-maps create another layer to the game, as there is more than one map to observe. It might contain more information about nearby objects by the player and the in-game world map has the possibility of touring – exploring the space.

In video games, the player is the explorer of the space there (Lammes, 2009). One controls their discovery of the game world, engaging in playful spatial practice through which stories are being developed (Jenkins, 2010). The idea of exploration and discovery of new lands are nostalgic and based on more western ideology (See Bonner, 2018). A classic example of this genre of exploration of new lands is *Red Dead Redemption* (Rockstar Games, 2010), in which the adventure and action are set in the American frontier at the start of the 20th century. Vast wilderness and unruliness attract the player and the discovery of unknown lands.

While discussing *Red Dead Redemption*, one has to think about the eurocentric values and their influence on this discourse of exploration and discovery of ‘wild lands’. Lionizing the pioneers who roamed the ‘untamed lands’ and giving no attention to the indigenous people who lived there before those who travelled across the sea to claim the soil for their regents (Bonner 2018).

This kind of discourse of discovering new environments is present as well in *Horizon Zero Dawn* (Guerrilla Games, 2017) and *Legend of Zelda: Breath of the Wild.* Although these two have more fantasy elements in their storylines, their narratives are strongly connected to the discovery of the game world and the adventures within.

2.2.1. Spatial practices and video game maps

As mentioned earlier, De Certeau's theory of spatial practices (1984: 171) is still relevant in the era of digital maps. De Certeau defines spatial progress as a performative act, and it can be in games understood such as that the player becomes the 'story-maker' as they travel freely through the map, in this case, as De Certeau puts it, being the player of the space. Being the player in the space means the skill to see it from above from a bird's-eye view, looking down like a god. Having an ability to separate oneself from the surrounding space can be associated within this context as opening a game map which stops the game and gives time to the player to look at the game world's map. This function separates the player from the ongoing game, gives the player the power to 'rise above' and break the immersion of the game world. Related to spatial progress is spatial exploration that includes in it mapping the environment, collecting items, and discovering locations, landmarks, and specific game objects (Si et al, 2017). This also is a performative act that aims to complete gameplay.

2.2.2. Space and place

A *place*, which De Certeau associates with 'order of any kind' in accordance with which elements are arranged in a liaison of coexistence. It in such a way rules out the chance of two things being in the same location. "The law of proper" (De Certeau, 1984: 172) creates and indicates stability and it specifies a designated location. A *place* is therefore the spontaneous composition of positions where everything is stable.

Maps as *place* are explained by that they are objective, 'scientific', abstract, and fixed (Lammes, 2009). Earlier in this text, there has been mentioned that maps are objective and 'scientific', as representing the common view of space in the contemporary world. Abstract as the game world map does not exist for the player before one goes on *tour* there, it is more abstract to grasp rather than the game world itself. *Place* is fixed – unmoving on maps. Understanding the *place* in the game is an important factor, as it plays a role and defines the game to a certain degree, the player needs to acquire spatial

knowledge and memorize it to comprehend the game world better. These efforts signify the cartography in video games (Horbiński & Zagata, 2022).

De Certeau and Lammes link the s*pace* to a tour (De Certeau, 1984: 187; Lammes, 2009). According to Merriam-Webster Dictionary tour is: "a journey for business, pleasure or education often involving a series of stops and ending at the starting point." Tour is personal, a subjective journey, where things faced are concrete and the movement is dynamic. Touring is an action that links with the player exploring the game world, its different places and creates a spatial narrative for oneself of what kind of a tour one makes through the game. In the context of my research – every tour is different even though one would follow the guidance of other players or walkthroughs. Simply put, every player's own experience of the spatial story is unique.

The player is involved in mapping the game by touring the *space* in the game. The space is born when moving objects or objectives cross their paths and might interact with each other. The space can be an event which happens when an action is executed or interacted with. It changes by chosen actions and time spent with it. Contrary to a *place*, *space* is not stable and unequivocal. A player creates their own story by their choices of movement in the game and becomes a writer, cartographer in some sense (Tally, 2014, De Certeau, 1984). The progression in the game is at the same time going along the narrative of the game and spatially progressing the space in the game. Therefore, this study argues that narrative progress and spatial progress, which includes game mechanics, in the game both are decisive factors for the player's gameplay.

De Certeau applies the mobility of the individual to the *space* and stability of proper positions to the *place*. But at the same time, *space* is a *practiced place*. This means that the player in the game changes the *place* to *space* by moving or interacting with it. When analysing video game maps – world and level map, both maps apply to *space* and *place*. De Certeau as well (1984: 119) links the *space* to maps, as a study of how citizens introduce their apartments, and only the minority presents their apartments by an explanation of how they look: "The girls' room is next to the kitchen". The majority of that study participants explained the apartments by touring: "You turn right and come to the living room."

When a player character enters a location and interacts with it, the *place* becomes a *space*, the location where the player is at develops into a *practiced place*. An action with the *place* is required to be able to turn it into one. For example, the player will enter a room that from the map looks just an empty room, but inside there is a character or an object that will change the narrative if the player chooses to interact with it.

When analysing the distinctions of *space* and connecting it to the game world and level map, the reason why this research identifies them together is the nature of the *space*. The game world map is something that is in the game and the player might be able to access it immediately. In some games, the world map is not fully visible at the start of the game, and the player needs to *tour* the *place* before the map is visible. For example, in *Legend of Zelda: Breath of the Wild*, the player needs to climb specific towers and update their tablet-like device to see the new area map of the game world. *Horizon Zero Dawn* has the same idea, a player needs to climb on top of a mechanical dinosaur-like creature and reprogram the creature to be able to see more of the game map.

In both games climbing up high and looking around the game world is one of the main mechanisms to get a glimpse of the surrounding area. The game world from this perspective is objective, but at the same time it can be subjective. The view in the game is the same that all players see if they climb up on the same specific high spot and yet they view it from their own perspective, creating and seeing subjective spaces..

2.3. Game cartography interfaces

A common usage is that maps are used to figure out the path from A to B, but digital game maps can offer more in the sense of how we would utilise them more in the navigation and mark in the progress of the game. Analogue paper maps can have annotations, and the affordances of contemporary everyday digital maps are the same. Game maps do offer the same information as to their real-life equivalents, but they can offer much more in the sense of what is in the game (Horbiński & Zagata, 2022). There might be hidden locations, locked doors, treasures, and such in accordance with the game's nature. Preceding digital games relied on the player themselves making notes on paper as the technology has its limits as their maps were read-only. Today, as the technology has advanced greatly, games can now have maps as separate interfaces from

the game itself, and those can be modified, and have markings on them made by the player. (Toups et al., 2019).

Older digital games could not have this kind of player design possibilities in their map and their read-only maps might have had only a dot to represent the player's location in the game map, no other clues if even that. Nowadays games can even offer ready-made paths to their tracked location to help the player's navigation. Therefore, the question of the in-game navigation made too easy for contemporary players pops up.

Toups et al. (2019) introduce six atomic affordances; they indicate the interface components that players can manipulate while interacting with the game map. These affordances are the designer's choice of how a player can interact with the map and promote what in the article is called high-level play activities. Even though the present-day video game maps are more competent than ever before, it is as well a designer's choice to limit the information through the medium of game cartography interface and try to push the player to do their observations.

Those affordances are:

1. Symbol support
2. Waypoint support
3. Drawing support
4. Text support
5. Alignment assistance
6. Map construction

The game that is in the spotlight in the article by Toups et al. is here already mentioned *Legend of Zelda: Breath of the Wild*. For example, in there it is possible to mark a location on the map which will then show as a colorful beacon in the game world as well to guide the player to the location. The player can as well mark in the map found resource spawning points to return to them later or add spotted enemy locations with different symbols (symbol support). These kinds of markings will not show up in the game world but will show in the mini-map implemented on the same screen as the game world. The

mini-map represents the read-only map which the player has easy access to and can read while playing.

Toups et al. (2019) gives examples of what the six atomic affordances could include in them. The waypoint support indicates the ability to point the way towards a marked goal or even draw a route on the map that the player can follow to the specific location. Drawing support can mark the map by player's markings, such as routes from A to B or circling a specific area where is game-wise important resources. Along with symbol and drawing support, text support can be added to clarify points on the map by for example writing down what is marked down. Present-day games do offer compass points as well and therefore the game maps can be aligned to them to help player navigation, this is the alignment assistance affordance. Map construction is the tool where the player does not have the full map of the game world in the beginning but can construct more of it by for example climbing to the tower and uploading his tablet-like slate (*Legend of Zelda: Breath of the Wild).*

2.4. In-game guidance by design

Sometimes in the game itself there are hints of how to proceed to a location. On a wall there might be a signpost (figure 2) or sort which indicates an upcoming location or an event, this visual storytelling is in-game guidance made by the game design to guide the players forward on the intended path along the narrative (Kristjan, 2019: 89). If the signpost says lobby and points to the right from the player, it is in-game guidance and game design's way of showing the way without pinpointing the location of the lobby on the game map interface. On the other hand, this kind of in-game guidance hint can as well indicate the upcoming struggle of a boss fight or a horde of enemies. This kind of guidance is called in this context organic navigation, which is easily visible – diegetic to the player. Another kind of organic navigation is heard, exploring by sound is as well a common medium used in in-game guidance in contemporary games. Listening to the sound is interacting with it, player listens to the sounds either semantically, causally or in a reduced fashion. For example in *Control* the elevator makes itself known by a classical sound effect *ding* at the start of the game, when the player needs it to advance to another sector.

With the elevator, the player needs to listen to it semantically – interpret what does that sound mean, that the elevator has arrived at the floor close-by. Causally listening the player can hear a sound that represents the elevator ahead in proximity. If the player would listen to the sound in a reduced fashion – not paying close attention towards it, she would hear a single bell-like sound that would not reappear. The player gathers information from the audio and interprets the surrounding game world through that (Collins, 2013).

Figure 2: Signpost pointing towards the location ahead.

Organic navigation can include collectable items as well. The collectable items can either help with the gameplay by being a loot (the term is game slang and it means a collectable item or a mod inside the game) that have attributes associated with some function in the game (Schell, 2019: 174; Moore, 2011: 169). Such attributes could be for example a character enhancing mod or a resource that can be exchanged for beneficial functions inside the game. A collectable could be as well an immersion providing element such as quest item or information holder that tells the player more about the game world or the narrative, most of the collectable objects' functions are positive in the regards of gameplay (See Moore, 2011).

In this context the analysed game includes both of loot and immersion providing item categories, and partly the in-game guidance is embedded to these collectibles. Finding these collectibles aid the player with their gameplay and provide more immersion – by deepening the understanding of the surrounding game world.

Organic navigation guidance is linked to the orientation of the player in the game. The more disoriented the player is in the game, the more frustrated one might become at the game and might not want to continue playing. Players are different though, not all might

notice the in-game hints and need the map to navigate. *Control* is this kind of game that relies on the in-game guidance and players' own ability (see Boot, Kramer, Simons, Fabiani & Gratton 2008; Murias, Kwok, Castillejo, Liu & Iaria 2016) to navigate and pay attention to the game's environment instead of having a waypoint support or drawing support to aid them.

The players' own ability to navigate implies in this context *invisible navigation*. In contrast to the earlier mentioned visible organic navigation, this type of navigation relies a great deal on the instinctive and spontaneous navigation skill of the player. It is external to the game world, extradiegetic. In this kind of a situation for example an enemy boss descends to the area with an elevator, and to proceed in the game player needs to access the elevator after defeating the boss. Invisible navigation, the skill to navigate themselves in a video game is arguably a skill of a more experienced player (Ventura, Shute, Wright & Zhao, 2013).

In the context of this research, the collectable items in the game were categorized under the in-game guidance group as the collectibles provide guidance and narrative in *Control.* These will be called in this thesis collectibles. They offer more information about the game world and sometimes players need to rely on their invisible navigation skills to be able to locate these collectibles, as they might not be easily reachable or can be hidden and not be in plain sight.

2.4.1. Environmental storytelling

Designing the environment to tell the story is a way to avoid long cutscenes in between the gameplay or a long dialogue (or a monologue if there is a narrator). That as well encourages players to look around for clues to fill the gaps or just get the narrative by studying the environment. This method undertakes the environment itself to convey the story across (Suckling and Walton, 2012). Environmental storytelling has existed long before video games in cinema and traditional theaters, therefore this way of transferring the story to the audience is nothing new. Although some games do offer a chance to interact with the environment, that makes them more unique. In traditional theaters one cannot just walk into a scene and fiddle with a prop, and in cinema one cannot even touch the environment in the background (Skolnick, 2015: 196).

Utilizing the environment is a great way of not giving it all away from the beginning and players can guess or have a hunch about what happens next. The earlier example of an incoming boss battle can be suggested for instance by fancy double doors from which the player has to enter to face the enemy or follow the path the enemy arrived from to proceed in the game. *Planting* inklings of the story to the player keeps them on their toes about what will happen next or what will be crucial to the story later. Overusing this method is not advisable either, as the player might get tired of looking for the clues to advance in the game all the time. And thus, a little bit of dialogue and cutscenes will not bother with the experience.

2.5. Summarising the literature overview

Maps have come a long journey from being only in written form itineraries and describing the journey to a visual form that could be compared to a form of art. Contemporary maps now can be interacted with, they can hold more information inside them and fit to a mobile device in the user's pocket. Video game maps have evolved as well along the way when the technology has advanced to aid the player in navigating through the game.

The player can act as the constructor of the map and tours the game's journey through the map, as the map is incomplete in the start of the game, but later in the game she can pinpoint exact locations of the collectibles in the game with the help of the map and its affordances.

The video games do not only rely on the map for navigation. They have designed inside them in-game guidance that is present all the time in the game during the gameplay to guide the player by either giving subtle hints or clear signs of what is to come ahead of them. This can happen through visible or audible in-game guidance or more hidden, for example collectibles and NPC that converse indirectly. The literature overview ends with these words and is followed by the method chapter next.

3 METHOD

3.1. Research approach

This chapter will address the chosen methodology and methods for this thesis. The methodology in this thesis is qualitative by nature, and it allows one to take a deeper dive in the subject at hand. Considering the fact that this thesis takes a part in the game studies' conversation of game design, it is qualitative because it takes a look into player experience in the researched game from different viewpoints of a player and then a researcher. The methods which is used in this thesis is autoethnography and netnography.

As this thesis is about *Control*, one game only, it is a case study. Simons (2009) profoundly scrutinizes the term.

> Case study is an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution programme or system in a 'real life' context (p.21).

3.2. Research methods

The research methods used in this thesis are qualitative by the reason of it focusing on the player experiences, trying to understand more about their navigational choices in *Control* and the in-game maps. To be able to research the subject at hand, the in-game navigational choices made by players and maps in *Control,* the most optimal route was the autoethnographic and netnographic research methods, to gain an insight into the player experience and correlate it with my own reflections regarding the game.

3.2.1. Autoethnography

Autoethnographic method can be seen as more subjective than objective research method, when taking a closer look. Under scrutiny, it gives the researcher more freedom in the way of observing and gathering the data, it has no formal structure of how to conduct the research and that methodological openness is a decisive factor for those who picked this method (Anderson & Glass-Coffin 2021: 64). It offers proximity, and by closeness the method offers an epistemological stage of departure and return. Taking the autoethnographic method as my standing point. Hence, I identify and consider myself as a player, an insider of this culture who has experience and understanding towards this

subject. I was interested in *Control* as a player, who enjoys these types of single-player campaigns with adventure and puzzles. However, on the other hand there is the conflict between fun and research. For this reason, as I was playing the game, I was constantly reminded about my research goals by talking to myself, therefore I would not be entirely immersed into the game world and play it for fun.

The method of autoethnography creates a bridge from the outside of the researched culture to the center of the issue, aiding both, the insiders, and the strangers to have more competence with the subject at hand. Research done with autoethnography seeks to understand and explain the culture by *participating* and *observing* the culture from within (Ellis et al., 2011). That is done with the help of objective field notes incorporated with personal reflection about the topic (Adams et al., 2021, p. 25). In this thesis, the autoethnographic method is used to critically analyse, to do a self-reflection of the gameplay recording and of my notes during that time. In the recording, aside from my gameplay as the data, the commentary of it plays an important role as well.

The difficult part with this method is about analysing my own actions, and more than once I found myself criticizing my choices within the gameplay while I was going through my recordings and notes. Why did I choose to turn right, or why I did not pick up that item on my left side. Being critical, doing self-reflection is the key action with this method, but sometimes I felt ashamed of my own gameplay. The difficulty of separating the researcher-self from the person was a challenging task, and to stop criticizing and start analysing without focusing on the irrelevant factors. When being disoriented in Control and not knowing how to advance made me dismayed at the game and myself, it reminded me of the topic in this thesis and why I wanted to research about it in the first place. These parts are equally important as those moments when I felt accomplished when solving puzzles and finding my way to proceed in the game. Both the negative and the positive feelings are important, and can not be ignored in this research, especially as the autoethnographic method critically analyses the past actions by doing the self-reflection after the active data gathering period.

3.2.2. Netnography

The second method carrying out this thesis is netnography. The method is related to ethnography in such a way that it is participant observation and participation into the

researched matter. *Net*-part refers to the online nature of the method, netnography research focus is on online mediums and their contents. Netnography has the dimension of immersion into a culture, the same as ethnography (Kozinets & Gambetti, 2021) – and in this context autoethnography has. This thesis will have recorded gameplays found on *YouTube* as part of its data and thus netnography is an appropriate method to take a closer look at the data as well. These recorded gameplays are called categorically Let's Play videos (see Shoda, 2022). In them, the streamers share their thoughts during the gameplay and spectators of the videos can comment on them and interact with the streamer through the streaming platform.

As a participant of the gaming culture myself, I am a part of the frequent audience of the Let's Play video genre, and I participate to the conversations around them. However, in this case, when I already had conducted the autoethnographic part of the research first before delving into the netnography, I was merely spectator of these videos, participating into the conversations was kept minimal as I focused on the recorded gameplay. This kind of a minimal participation approach is criticized by other netnographers who regard the participation into the researched issue to be one of key factors (Costello et al, 2017).

Researcher immersion (Kozinets & Gambetti, 2021: 7) occurs in both methods which take a closer look at the data. The two qualitative methods require the researcher to explore in more detail the data in question in order to fully investigate the phenomenon in question.

4 DATA

The plot and game mechanics of *Control* will be addressed shortly in this chapter, and after that the introduction the gathered data in a detailed manner in two parts – first my gameplay and then other's gameplay data. To conclude this chapter I will address the ethical and technological considerations that need to be taken into account in this thesis.

4.1. Remedy's *Control*

Remedy's *Control* was a game that I was familiar with, but had not had a chance to play since its release back in 2019. The element of surprise, and *the first time experience* playing the game were the key elements choosing this game. Previously I have stated that I consider myself as a player, and an insider of game culture, not a stranger but an insider. If I had chosen a game that I had previously played, there might not have been a fresh mind, ready to research a game that was also known to be difficult to navigate according to the online forum posts. If a game was chosen that I had played in the past, the experience could have been different, as I would have been aware of the narrative through the game, which would have made me conscious of my own gameplay choices in the sense of that my choices would have been predictable to me rather than a natural reaction to the game.

Before delving into the analysis a short summary on the storyline. The playable main character Jesse Faden is looking for her younger brother Dylan in *The Oldest House*, a multidimensional environment and headquarters of the *Federal Bureau of Control* (FBC). She arrives at the FBC and finds it and its staff in the moment of turmoil and in a full lockdown. With the aid of an otherworldly being *Polaris* she fights against the invading hostile called the *Hiss* to gain control of the labyrinthine-like *The Oldest House* while trying to locate Dylan, who had been taken away. To gain control and to learn about the secrets of the *FBC*, the player must lift the lockdown to access and explore the different sectors whilst fighting off the *Hiss.*

During the journey through *The Oldest House*, the player can find a diverse set of abilities which strengthens Jesse to be able to battle against the *Hiss.* These abilities include for example Melee, Telekinesis and Levitate that are included in the main narrative. Other abilities can be found through collectibles or certain locations. These are upgradeable and

the player can choose which ability to power up more than the other. The intriguing fact is that the player can choose the abilities to focus on and thus different players are most likely to have different playthroughs since the attention and preferences towards a distinct set of abilities.

4.2. Autoethnography

In total I spent 13 hours and 51 minutes playing *Control*. I have played six missions from the main narrative and some side missions, but I have not completed the entire game. As the purpose of this research was to study the map and guidance, not the narrative. The completion of the whole game was not needed by the nature of the required data. It was not the main objective and by playing six main missions in the game it was observed that sufficient amount of data was collected to analyze it to have a profound understanding of the issue of navigation and the maps in the game. The sufficient amount of the data was predicted beforehand, but it came more clear during the gameplay. Furthermore, a reasonable amount of data would make it more realistic to compare my own gameplay to that of streamers, as is conducted in this thesis. I took notes of everything related to in-game navigation from the beginning and when it started to cease, repeat itself and nothing new was acquired, the data collection was stopped. This is a practice referred to as theoretical saturation (Glaser & Strauss, 2017: 61; Auerbach & Silverstein, 2003).

My gameplay data gathered for my thesis has been collected in two parts, the first part was gathered during my gameplay and it consists of written notes and voiced commentary which was recorded during the gameplay during 24.1.–7.3.2022. The gameplay and the recordings were done with a Playstation 5 console and a headset equipped with a microphone. The built-in recording option in Playstation can capture from 15 seconds upto one hour of gameplay (playstation.com). The gathering of the data, playing the game while commenting on my own gameplay simultaneously, was done by taking advantage of the console's own built-in recording option and the one hour limit. Most of the recordings are that length, but few of them are shorter because there were interruptions which made me stop playing on those times. There was only the set target of completing six main missions in *Control* as the maximum amount of data, or until reaching theoretical saturation. No other target was set for the amount of data that was being collected.

The second part of my gameplay data consists of notes made in an earlier stage in dissection of the data in mind. I watched and wrote notes about my own gameplay recording, my choices while navigating through the game – the turns left and right and my own commentary about my decisions throughout the recording. This autoethnographic method of researching my own actions inside the investigated game and the matter in question helps me to gain deeper understanding about the researched issue.

4.3. Netnography

The other part of data consists of YouTube streamers' gameplay of *Control* from the first sector, the so-called first level, and other specific moments in the gameplay recordings of the first 6 missions, in parallel with recordings, such as a certain boss fight or a moment perceived to be crucial in the sense of in-game navigation and guidance.

Control's gameplay data gathered for this research is from four different players, one is my own gameplay, three others are from *YouTube*. The reason why this became the designated streaming platform was the focus being on the gameplay and on its commentary, rather than the social interaction around the gameplay. Other streaming platforms, such as *Twitch,* can display the viewer chat and the player focused camera. These two aforementioned features are not relevant to my research, but the streamer-focused camera can be seen on the *YouTube* recordings.

While choosing from diverse and many gameplays provided by a platform, the criteria for choosing a gameplay to be analyzed was kept simple: three different gameplays provided by different individual players, who represent varied groups and were commenting on their own gameplay. The reason why my own gameplay is as well being analysed along those three others is that *Control* was unknown to me because I have never played it before. To play a game completely strange to me and compare it with others' gameplays were key points when choosing the game for my thesis. The common factor between these four recorded gameplays is the fact that arguably all of them are from experienced players, who have previous gaming experience from diverse platforms. A second common factor is that *Control* is an unfamiliar game that none have played before, therefore the element of novelty is present in all of the gameplay recordings. The reason for the first-time experience of *Control* being crucial is the functions of the map and the

guidance being a new experience, rather than already went through, to get genuine and original reactions of the elements from the players.

Three other gameplays from *YouTube* were chosen by random based on these categories: popularity, gender diversity, and language diversity. And thus, TetraNinja, Gab Smolders and Hall of Ameces were picked out from the many possible streamers. TetraNinja has almost two million subscribers, Gab Smolders is a woman player and Hall of Ameces is a Finnish speaker. The streamed gameplays are treated as publicly available data, as they are freely accessible on YouTube with the search words *Control* and *gameplay*.

The logic for why three diverse players were chosen to be analysed lies in the fact the data is then more versatile and imitates more the real life equivalent rather than just having data which is similar and does not vary to any direction. And for the languages, English and Finnish, that were picked out, the reason is that I understand these two fluently without external help.

The times during which the gameplay recordings were uploaded on *YouTube* varies as well. TetraNinja has it uploaded right after the release of *Control*, 25.8.2019. Hall of Ameces has the recording dated on 28.1.2020 and Gab Smolders uploaded on 3.9.2020. My data gathering of the gameplay recording was from 24.1.2022. The difference in time in when the game was played does affect the data in terms of which version of the game was played, as *Control* has gone through patches to fix issues and bugs in the game, but the difference between the platforms and versions are not that significant to not be able to compare these gameplay recordings with each other. I will analyse this issue more in detail in the upcoming chapter, as it impacted data analysis in some instances.

The data sets by the streamers were analyzed by watching through their Let's Play videos about *Control* and taking notes about their choices in navigation, map usage and their overall comments regarding the guidance and the map. I also took down how many document collectibles they had found during their gameplay.

All the recorded gameplays have a voiced commentary, and those are an important element to this research, the commentary might open more their thoughts about the game beyond just the gameplay. The topic of this thesis is about in-game guidance and in-game

navigation – the voiced-out commentary tells out the players' thoughts about the research subject and more. The individual is the cartographer of their tour or in other words the player is the one who makes the decisions in their gameplay journey.

5 ETHICAL CONSIDERATIONS

There are ethical matters involved when using *YouTube* as the data source (Legewie & Nassauer, 2018; Salganik, 2018). The streamers have not consented to be part of this research, but I treat the videos in Youtube as publicly available data. Even though the videos are publicly available to everyone with certain search words, the videos are still made by individuals who have made the choice to upload their content to the platform to be viewed by others. By mentioning this, the gameplay analysis in this thesis does not criticize their playing. The social context of these videos used as my data is a streamed gameplay for their followers and their consent of being seen playing *Control* and showing the game at the same time. For this reason I do not see an ethical conflict affecting my research, but being aware of such conflict is understood while making this thesis.

There are five issues using online videos as the data according to Legewie & Nassauer. First issue that they mention is about informed consent, that usually the informants are aware and have given their consent about being in a research, have their right to know about the research and decline their participation if they feel that they do not want to be part of it. The second issue is about unique opportunities, what if the data will bring potential benefits which will outweigh the concerns with the first issue, the results are beneficial but the fear of dissent will make the researcher hesitant to go forward with the research. Third is about privacy, and this is the ethical quagmire this thesis is tackling. The privacy issue concerns the identification of the individuals and their right to privacy. Legewie and Nassauer do mention that therefore the video is available online, the people in the video have consented to it to be public. Fourth tackles the issue about assessing the online platform, and since Youtube is a public video platform and not a closed or restricted access as for example certain websites' groups that require being accepted by moderators before having the access. Fifth issue that Legewie and Nassauer introduce is about the video being public or private. By watching the video one can figure out the nature of it. One can deduct the type by seeing the 'physical space' and social context of the video. Is it made for the greater public and done in a public space that everyone can access and is it about an event or a subject, whose purpose is public or private. This one as well applies to my data.

6 ANALYSIS

In this chapter the study will delve into the data and analyse the findings. In the process of analysis, firstly there will be an analysis of the maps present in the game. The second part is about the recorded gameplay and the third will cover the findings from other streamed gameplays. For the last part in the analysis chapter, there will be a comparison made between these two sets of data to analyse the overall impression of the in-game guidance and navigation in the case of *Control*. The main focus of the analysis will be on the recorded gameplay, as the research has been done with a critical self-reflection autoethnographic method in mind and the other parts of the analysis are here to support the overall analysis.

As mentioned in the previous chapter, I have the data divided into two different parts; my own gameplay recording, and gameplay recordings made by others. My own gameplay recording data has been divided in two parts as well. The recording itself and the handwritten notes made about the recording. Before analysing the gameplays, the most similar element in all gameplays will be addressed– the maps in *Control*.

6.1. Map of *The Oldest House* – the three affordances

The map interface in *Control* is not omniscient, an all-knowing entity that holds and gives all the available information. It is rather merely a tool of navigation, a tool to help comprehend the strange building, *The Oldest House*, where the game takes place in. On the other hand it is a helpful tool that shows the player where the next objective is located and shows the way. The map is an extradiegetic element in the game, it is accessed by the player on the User Interface (UI) in its entirety. On each floor of the *Sectors* in *The Oldest House* there is a level map that can be seen by the player character, but not accessed.

In the introduction of this thesis, it was mentioned that *Control* has evoked conversations online about it having a hard-to-read map and being difficult to navigate. After playing the game, my own observations and experience supports this – more will be discussed about this later in the discussion chapter. The atomic affordances by Toups et al. (2019) that were introduced earlier in this text in the literature overview do not exist fully in the case of *Control*. The atomic affordances are the elements that enhance the game's cartography interface. The only affordances that are present in the game are the waypoint

support, map construction and very minimally the symbol support. The game does not have a mini-map on its Head Up Display (HUD), so that the player would see their map location at all times during their gameplay, the player has to open the map each time separately.

In the case of *Control*, there is only one map for each sector-level regardless of the height differences and multiple floors located in a sector like a blueprint of a building. The height difference can be seen from the map by the lightness of the color gray in the earlier version of the game or turquoise in the later version of the game. In the older version of the map, the main color is grey, and the tones are more on the monochromic hue of black and white (see figure 3 below). The lighter the color is, the higher a location is than the average level. Conversely, the darker color indicates a lower floor level at the sector map. If the sector is not fully explored by the player and does not have access to those areas yet are colored over with black and have "*???*" on them. The areas that are turquoise but have question marks instead of area names can be accessed but have not been entered yet. The red arrow represents the location of the player on the map, and the yellow diamond indicates the location of the current mission (see following figure 3). The map interface is also a transparent layer on top of the later version of the game, therefore that the player can see herself and play at the same time while reading the map. The game does not pause itself either with the map interface.

Figure 3: Map of the Maintenance Sector, not fully explored.

Other symbols on the map, the opposite facing triangles represent elevators, and the gray diamonds represent *control points* or more commonly known as checkpoints at which the player can fast travel between, level up and respawn (emerge after death).

The minimal amount of information on the map can confuse players, such as the streamers and me, who are used to having more information and the ability to modify the map as well. The map is read-only which can be accessed by pressing a designated button. From the map interface the player can see her own location, and the direction that Jesse is facing from the red arrow, the location of the mission in general, as it could be anywhere in the dedicated space.

When the player explores the game world, she is involved in the map building in the game world and in this context, the sectors of *The Oldest House*. Map construction is one of the atomic affordances that Toups et al. mention in their article and one of the three that is used in the game. This affordance is a widely used method in contemporary video games when encouraging the player to explore and discover the game world. Game narrative might lead the order of exploration of new available areas in the context of the story, but the navigation through the game world is left to the player that has to find her way forward to proceed in the game. This creates the individual spatial narration of the story for the player, that *Control* supports by giving the bigger frames with the narrative. For example, different players might explore the game world in a such order that varies so that each gameplay differs from others by the order of discovered rooms, found collectibles and side missions situated in those areas.

On the game maps symbols are used to indicate certain distinguishable functions located in those locations. These symbols assist the player with navigating for example towards mission objectives or to a checkpoint to save her progression in the game. The second atomic affordance present in the game, the symbol support is minimal compared to other video games that were released during the past decade. For example, in other video games collectibles would also show on the map among other symbols or the player has the ability to mark them down herself. *Control* does not have such a function on the map interface. This makes the in-game navigation more player-oriented and -dependent in such a way

that challenges the player to observe more around her surroundings in the game world if there is a desire to gather collectibles.

The third atomic affordance present in *Control'*s map is the alignment assistance. This can be seen from the red arrow representing the player on the map in figure 3, the arrow points towards the location in which the playable character is facing. This assists at orienteering when reading the map, the pointing red arrow helps the player to situate her location from the map to the game world and vice versa.

The three atomic affordances, waypoint, drawing and text support that are absent from *Control* make the game unlike the other recently released bigger scale video games. Other video games might have several or all the six atomic affordances in their map interface to support the in-game navigation for their players.

6.2. My gameplay recording

As outlined earlier in the methods section I applied an autoethnographic approach in reviewing *Control*. Not only I recorded the gameplay, I also took notes in a diary and as well screenshots. After my gameplay was complete, I went through this material and took notes again about the autoethnographic experience and self-reflection, gathering collectibles, backtracking and reaction towards environmental storytelling. These findings are gathered under the titles of Reflections on the autoethnographic experience, The search for collectibles, Environmental storytelling and navigation, and Battling enemies are examined in the coming sections.

6.2.1. Reflections on the autoethnographic experience

Experiencing something new is a feeling that is present when starting to play a new game, and what I felt was no exception to that rule. The excitement to jump into an unknown narrative and play through it has always been something that I enjoy. The immersion of the game world starts right from the beginning, after I press to start a new game. During the first moments I remembered to speak out loud for the recording to make notes and at the same time I was reminding myself about the objective of playing *Control*, it was for research, not just for fun. This choice that I made about researching something that I enjoy doing in my freetime felt conflicting – am I allowed to enjoy and have fun at the same

time as I was doing my research? Do the feelings hinder the thesis topic and make me lose my focus? The answer is yes for both questions.

From time to time, playing through the game made me feel emotions from joy to frustration, from accomplishing objectives and finding my way to dismay and failure when being lost with no solution in sight. For this reason, it was necessary to have the gameplay recording analysed for the second time, and not limit the research only for the duration of the gameplay and extend the analysing and the data to notes about the gameplay recording. To analyse the gameplay recording in retrospect was the solution for me to separate the researcher-self from the player-self, and because of that the analysis was more effortless in a sense of self-criticism and self-reflection. Even though there were moments when I felt irritation towards my choices during the time of self-reflection as well.

6.2.2. The search for collectibles

Looking back on my journey through *Control* the need for checking every corner for possible collectibles comes through occasionally. If I categorize myself as a player, I would put myself into a careful and thorough class. The game has placed collectibles and side quests throughout the game in various places and some in very hard to find locations. In the game, the collectables and objects that can be interacted with are marked with a white dot on them, making them easier to notice.

Figure 4: A Horseshoe that the player can interact with.

In a very early stage of my gameplay recording notes, I had written down that I tend to check even every toilet for the possible collectibles present. But later in the diary is a mention that I did not care to look for the collectibles any longer, just focused on advancing in the game. There are three types of collectibles: character and weapon enhancing mods, resources, and narrative supporting document collectibles. It is not necessary to pick up every single one of them, but they do enhance the gaming experience by leveling up the character and providing more pieces about the narrative for immersion in the game world. Some of the documents that provide more about the narrative are more on the comical side such as the *Dinner Reservation* or *Shifted Bathroom Complaint*, and some such as *Parautility* provide more information about the playable character's weapons and gained abilities. The documents connect the dots that are separated and help the player to comprehend more of the given information.

It might not be relevant for the narrative to learn about the moving bathrooms or about the swan-like pedal boat that made people on board fly off from it, but they are there to be found. On the contrary, health boosts and mods that provide more ammunition have more relevance in regards to advancing in the game. Arguably, the latter can be more important to some than the former, but for me as a player I did enjoy reading the documents that provided more information about the game world. Sometimes while playing a collectible could be found to tell about an ability that the player could obtain and the curiosity was awakened to gain the mentioned ability.

Regarding the in-game navigation and the guidance, the document collectibles are not the main element to search for, as it is not necessary in the completion of the game. As mentioned earlier, part of the collectibles do provide more for the narrative and therefore the story will feel more immersive when you learn more about Dylan's past and what did happen prior to Jesse's arrival at the *Federal Bureau of Control* from the collectibles. In some cases, the document collectibles would hint and give out information about some side mission or a collectible ahead. This can become interesting to players, including myself, and affect their navigation patterns in game.

A body in figure 5 is seen in the middle of the screen which was just thrown out of the *Pneumatics* and knocked unconscious when the player started to move across the corridor. This short moment is an example of environmental storytelling, something that

is happening or has happened in the surrounding environment that necessarily does not need the player interaction, just entering the corridor is enough to turn it to a *practiced place* (See Lammes, 2009; De Certeau, 1984). An event did happen when the player entered the *space* and now the corridor is not just a corridor any longer and needs an investigation. The step to take next was clear, the game wanted me to investigate what is in the *Pneumatics*, because of the person thrown out of there, conversely, I did not enter the indicated space right away but decided to backtrack momentarily to verify once more that I had not missed a collectible, which de facto I had.

Figure 5: Player just entered a corridor and sees a body thrown out of *Pneumatics*.

When I did backtracking, it was because of feeling uncertain or looking for confirmation that I did not miss anything before advancing further in the game. Backtracking is an action in which a player can move back to an earlier position in the playing process (Dawar et al., 2006: 174). Sometimes I did backtrack just for the reason of not wanting to proceed in the game in spite of advancing in the narrative being the next step. This issue of not wanting to advance in the game and its narrative had usually to do with the fact that the next step to take was clear and that moment there was a chance to backtrack game-wise. The other occasions when I did backtracking was because I was lost, and I needed to get a better understanding of my location. Unfortunately this happened quite often.

6.2.3. Environmental storytelling and navigation

Video games are technological products and therefore sometimes they might have some issues that will hinder the gameplay. Unexpected problems – commonly known as bugs can happen either with software or hardware and in this case the bothersome bug that obstructed my gameplay was an issue most-likely with software. This problem that occurred to me was rather minor that did not hinder my gameplay to great extent rather momentarily. This bug was a jolt, in the sense of its nature of being relatively unexpected. On the other hand the focus of this research being the maps of *Control*, the bugging map during the data gathering was an intriguing addition to the entirety of the data.

The bug that bothered my playing experience was an issue with the map interface. On some occasions the map would show itself on the screen incomplete in a sense of missing elements (see figure 6). The background of the map is a dark see-through interface on top of the gameplay screen, and there should be the layout of *Control*'s map. On the interface are the names of the locations, symbols and the black colored area (more detailed analysis of the map and its elements will be in the following analysis chapter), but it is evident that something crucial is missing when looking at the figure 6 and comparing it to figure 2.

Figure 6: The map interface is showing incomplete because of an unknown unexpected issue.

The map in the figure 6 above is clearly missing the obvious visual part of it. There are the textual elements in their respective places among the symbols, but it is lacking for example the rooms, corridors, and stairs to aid with navigation. These moments when the map was bugging disrupted the gaming experience by breaking the immersion of the game world, and more importantly confounded my navigation through the game by the reason of incapability of using the map when it was required.

On the few occasions that I felt disoriented or uncertain of what to do next, I did backtracking as mentioned above in the hope of remembering my next move or I opened the game map to locate my next objective. Moments when the map bug happened, the map was not fully visible. This made me confused and attempted to navigate with the environmental storytelling – with the signs that were placed here and there in the game world. When being ruled out of using the map because of a bug, I was exclusively limited to using only environmental storytelling as my navigational tool in *Control*. First time it happened during the early stage of gameplay in the *Maintenance Sector*, the second area in the game. On the other hand this incident made me focus on the other means of the navigation available in the game. The organic navigation provided by the game design – the visual signs that point the direction (see figure 7) and the auditory hints of elevator's *ding*, or the janitor's singing demonstrate their benefit when the player does not depend heavily only on the map while navigating through the game. Especially when the map is malfunctioning. The map was quite intricate to read as well, as it displayed many floors at the same time within the sector rather than separating the floors to be individual interfaces, which would simplify the map and ease the comprehension regarding the issue.

There are occasions when the player sees a door with blood on it in front of them and might guess what lies ahead. Some not so observant players might enter the area behind the door and face the encounter without precautions. Games can communicate with small hints or clear indications with graphics or audio. Sometimes these hints are essential to the guidance in the game and other times they are there to deliver the atmosphere and narrative to the player.

The camera angles and focuses are as well a way for the guidance to introduce new things in the game. For example, when a camera focuses on a certain item or an area in detail and then expands the camera angle to cover more the surroundings or the other way

around, it is clear the item or the area in focus is the objective. Also the audio, being either nondiegetic or diegetic to the game world delivers the atmosphere of the moment or gives guidance regarding the situation at hand.

During one of the many battles in the Maintenance Sector, the enemy's mini boss descends down with the elevator to the site of the battle, the elevator shaft glows red light during the descent. The color is used in this game for the enemy, named *Hiss*, in general: it indicates a hostile area in the game, and enemies are colored red. The arrival of a powerful enemy is displayed by the color in the elevator shaft, and this diegetic, organic sign of the in-game guidance is not emphasized rather implied on the scene. The indirect guidance's purpose is as well to function as a sign to progression. The player can advance in the game by taking the elevator up, the same way that the mini boss arrived.

Arguably, when playing I thought that following the hint of the guidance by the thinking process of the enemy's descended pathway must be a way forward because there was no other way to proceed than backtracking my own steps.

Figure 7: Color red indicates an upcoming enemy infested area that needs to be cleansed to proceed.

6.2.4. Going against the enemies

During my gameplay, I noticed one significant key trait about my own gameplay. If I can, I will withhold encountering a difficult battle as long as I can, backtrack my own steps until I feel I can take on the upcoming battle or as long as I find something else to do in the game. One could even ask why I choose a game that clearly has some thriller elements,

when I am so easily scared. And my answer to such a question is a simple one: I did not know what kind of game *Control* was before starting to play the game. I am a coward, to put it plainly. Taking the enemies head-on was not part of my strategy and I prepared myself mentally every time I knew there would be an encounter. Even though I felt scared, I was also excited about the atmosphere and enjoyed it if it didn't make me scared.

Now that my cowardice is out in the open, a good example of this in my gameplay is me commenting: "*The Hiss started to sound louder… Me no likey.*" This occurs right before entering a room with a boss battle for the first time in the game. The environmental storytelling is clearly telling that trouble lies ahead with diegetic in-game guidance, the headphones are filled with the enemy's hissing voice and visual signals on screen (see upcoming figure 8). Before entering the double doors I do an overall search of the nearby area to check if I would have missed out on any collectibles before entering the next area to confront the enemy, and at the same time mentally prepare myself for the upcoming battle.

Figure 8: The environmental storytelling provides the narrative by visuality.

6.3. Analysis others

In this section the analysis will focus on the other gameplays made by the streamers: *TetraNinja, GAB Smolders* and *Hall of Ameces.* The three gameplays will be analyzed together from these points: collectibles, in-game guidance and navigation and maps. They will be discussed in the mentioned order as well. Earlier in the data chapter when introducing the others' gameplay data, one of the criteria was to be an experienced player. This is an important point considering the in-game guidance. Experience in video games matters in a way of noticing the in-game guidance, reading the map, navigating and searching for collectibles, especially in the context of analysis of comparative elements.

6.3.1. Collectibles

Earlier in the analysis of my own gameplay recording the collectibles were presented. This section will discuss the collectibles from the streamers' videos. As mentioned earlier in the other section that also discusses collectibles, it is not necessary to pick up every single collectible for the sake of the gameplay, except for completion of a couple side missions. On the other hand, the two other categories of collectibles, mods that enhance the character and weapons and the resources that enable the player to buy these mods do help the character to level up and gain more abilities. These are crucial when advancing in the game. The game might turn out to be too difficult without leveling up the character during the game.

The collectable mods that enhance the player and the carried firearm *Service Weapon* are easy to understand by the streamers as these kinds of enhancing mods are a universal concept in games. They gather quickly that the mods and resources are both located in boxes throughout the *FBC.* Arguably, this can be interpreted so that players regard these kinds of collectibles as more important, as they know the worth and value of mods. Hall of Ameces commented right after starting the game: "*Onks tääl-täällä loottii?*" (Transl. *Is there some loot here?)*. On the other hand, resources that were also stored in the same-looking boxes as mods were strange at first to the players as the use of the resources would be revealed later in the gameplay.

When the streamers encountered document collectibles their reactions towards them varied. Gab Smolders read the documents she found out loud, same as Hall of Ameces in the beginning of his video, but soon stopped reading them out loud or even reading them altogether. TetraNinja has not read these since the beginning. This is an interesting fact in the sense of immersion. The proximate effect of such behaviour of not reading through these documents did affect the gameplay by making the player confused of what is going on and why. The act of beelining through the game is not recommended game-wise because occasionally the documents contained more information about faced obstacles and objectives and by reading them the player would not get stalled by their own ignorance.

6.3.2. In-game guidance and navigation

During their gameplay, players pay attention to the guidance that the game provides to advance in the game. The three streamers were no exception to this, and their intake of information varied individually. The information that *Control* gives out in the form of in-game guidance does not differ, however the observation of the given input depends on the individual and consequently the comprehension of it as well. When selecting the streamers among all of the possible ones, diversity was a key element. That criteria came through not only by who they are, but also with their playing style. That is a positive nod towards the research to gather a diverse data set from the same game and the same level.

For example at the early outset of the game, the streamers do notice the in-game guidance from different perspectives. TetraNinja and Gab Smolders investigate a door that is marked with UI, a white dot, indicating that it could be interacted with. Hall of Ameces notices a signpost with director's office written on it and comments: "*Mennäänpäs Director's Officeen*." (transl. *Let's go to the Director's Office*.) Moving towards the route he set for himself, he comes across the same door as the other two streamers and also interacts with it. The door does not open for now.

Control operates mainly with diegetic organic navigation, using the signposts (Figure 2) in the game world to act as the guides. Along with the signposts in the first sector of the game, auditory signals, such as the elevator's *ding*, enemy's hissing and janitor's signing can be taken into account. This audiovisual communication used as the guidance tool requires observation during playing. Above Hall of Ameces noticing the signpost is an accurate example of noticing the organic navigation and head towards the pointed direction.

A new mission objective pops up with audible gun shot in the proximity of an unexplored room, and user UI text tells the new objective: *Investigate the noise in the Director's Office*. All streamers note the sound of a gunshot, Gab Smolders and Hall of Ameces both focus to perceive new information for a brief moment, but TetraNinja recites the new mission objective and comments the new turn of events: *"That's number one thing you don't do in a horror game. Don't investigate the noise."* This kind of a reaction is created by having experience of a similar situation. None of the streamers head immediately

inside the space to investigate, but decide to circle around, backtrack momentarily before entering the Director's Office.

The color red is the enemy's distinctive attribute which makes it easily distinguishable from the surrounding (see earlier figure 8) the color theme of the *FBC*. When the streamers encountered the Hiss for the first time, they stopped for a second before continuing with their actions. For a brief moment they evaluated the situation before them and presumably braced themselves for the upcoming encounter.

As mentioned above, *Control* is a game that operates on the area of player-dependent navigation by using the audiovisual communication as the main tool in in-game guidance and the map as the supporting tool. This creates a challenge to the players to be more observant of their environment in the game world rather than relying primarily on the map. Taking the shortest route at a fast pace is not always the answer even for advancing in the game, even though one would trust their own abilities and experience in gaming. Sometimes the hint of how to proceed was right next to the player and she would just have to read the instructions on the sign board to understand how to move forward.

Hall of Ameces for example got lost while trying to find his way forward a couple of times, and reminded himself to look around more. To make his point of being disoriented, the streamer's gameplay recording is speeded up with fast paced music in the background to emphasize the point of being lost.

6.3.3. Map(s)

In the context of navigation it infers that the movements they make are also different and do not follow the same scheme throughout the game. One might be more observant about the surrounding environment than others, and another might prefer to use the map as their primary tool of navigation.

For example, Gab Smolders orienteers herself with the map and the environmental storytelling. The transparent map interface enables playing at the same time as reading the map and therefore the streamer uses it to her advantage to pinpoint her next objective in comparison of her location, and to understand where to go next and while playing she follows the signposts. The earlier released version of the game had gray color encircling

the map and utilising the chance of seeing both at the same time is not as potent as in the later version (see upcoming figures 9 and 10). Both TetraNinja and Hall of Ameces played the early version. They did not use the transparent map interface as systemically as Gab Smolders did.

On occasion Hall of Ameces tried to navigate mainly using the map but ran into a solid wall. The route he tried to take was not accessible yet, it would open after he completed the mission he was trying to find his way to. He commented after he made his way back to the Director's Office that he knew that there was a route right there where he tried earlier, but it was not open yet.

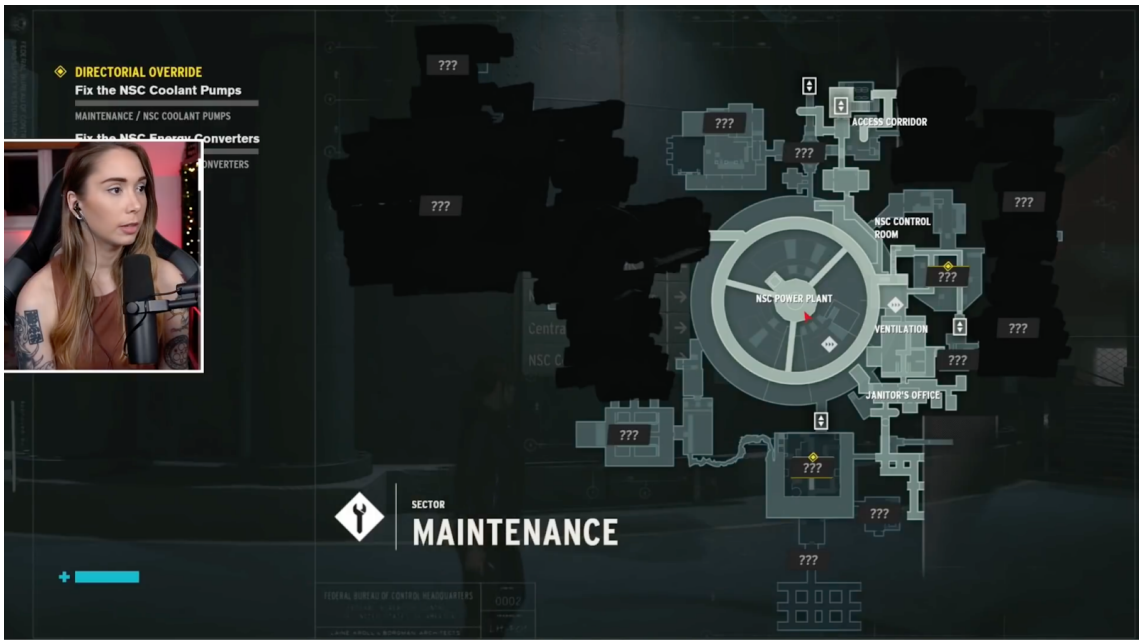

Figure 9: The game itself is visible under the map interface (Gab Smolders, 2020)

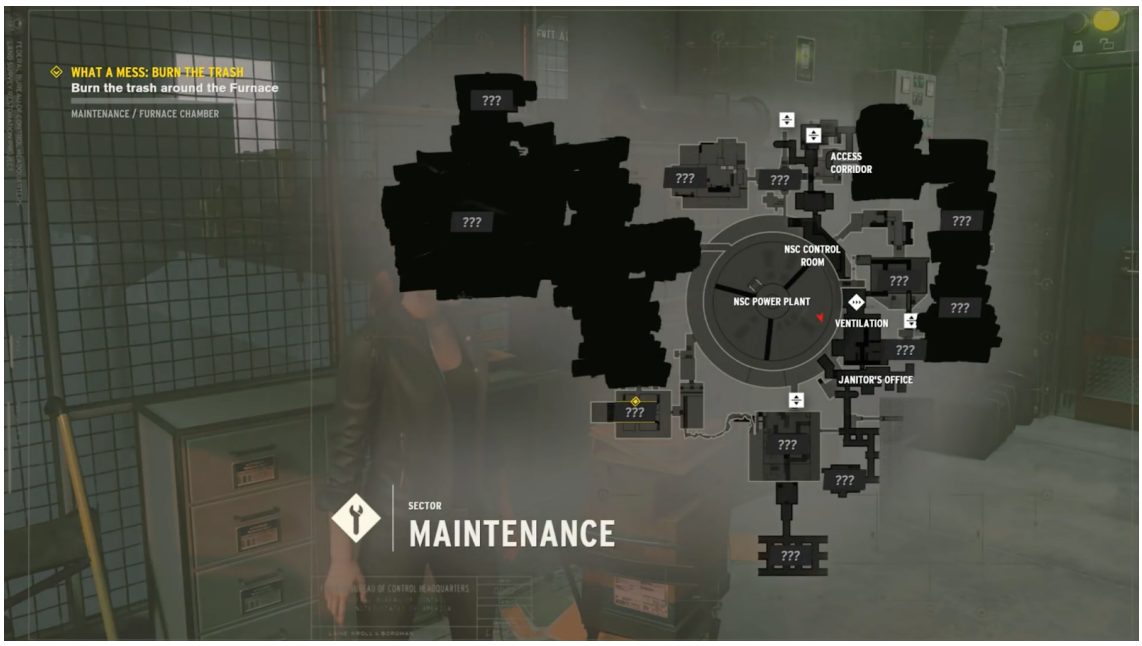

Figure 10: The older version of the map interface (TetraNinja, 2019)

Both of them are blueprint-like maps that cover one sector with multiple levels simultaneously. The issue lies in the readability. When the map covers more than one level, it is more complex to grasp fully. Also, when comparing these two maps besides the color difference, the later map version is more zoomed in than the earlier one. When looking more closely, certain areas in the maps seem to be on different height levels as well according to the colors. This is rather intriguing, as the layout in the game itself is no different on either of these versions.

6.4. Overall collectibles, in-game guidance, navigation, and maps

With this section the chapter will conclude the analysis chapter by analysing together the findings from my own and streamers' gameplay. The section will go through the similarities and the differences between the gameplays. First section will cover the collectibles, the second is about in-game guidance and navigation and the third topic will discuss the maps.

6.4.1. Collectibles

The reason why to focus on the document collectibles to be compared lies in their layout throughout the game. I have opened many toilet stalls in bathrooms while trying to find collectibles almost in a neurotic manner, as the collectibles would lie behind a door or a

fence that needed to be jumped over. *The Oldest House* and *FBC* have many hidden secrets that were either in plain sight but out-of-reach or deeply hidden. They were only accessible by a very thorough style of investigating every corner of the room or later in the gameplay hence the player needs to backtrack to get their hands on every collectible.

Gathering all the new information, I read the documents diligently to learn about the *FBC* and *The Oldest House*, I let the immersion surround me. So did Gab Smolders and Hall of Ameces. Tetraninja did not read the documents, just collected them and moved on.

The document collectibles are related to the in-game guidance in the way of how they provide more immersion about the game world and can contain in-game guidance – information about the game world, in the written, auditory or with audiovisual form. They also are linked to the navigation in this context by their order of being obtained.

When comparing the amount of document collectibles in the first sector of *Control*, together, all four players gathered 39 different ones (see the Appendix: attachment 1). Gab Smolders found 28, I found 25, TetraNinja 23 and Hall of Ameces 21 from the total sum. The order of the collectibles in the list is fixed by the order of me finding the 25, and streamers' collectibles are numbered accordingly in the order of discoveries on the list next to mine. The chart does not include all of the documents that can be found in the executive sector, only those that were found by me and streamers.

The amount of the collectibles is there to indicate the exploration of the Executive sector, as the collectibles are scattered all around the level to be found by the players. It is an excellent way to demonstrate their movements on the level and to indicate the exploration done by them. By this reasoning, Gab Smolders is the player who explored most of the Executive sector because she found most of the collectibles in total from the group. The collectibles chart also gives the chance to compare their findings with mine. One compelling finding on the chart is that already the second found collectible is different by two in four gameplays. By then players have already started to differ in the order of found documents a little. The major change happened at the ninth document called *Executive Meeting Minutes* that is only found by me. In the chart there are eight out of 39 that are found by only one of the players. The following and analysis concluding section will discuss the overall in-game and navigation.

6.4.2. In-game guidance, navigation, and maps

Certain occurrences are the same for all of the players, as they belong to the main narrative, such as the body being thrown out of *Pneumatics* and hit on the head or seeing the sinister red atmosphere in front of them when encountering the enemy for the first time. All of the players saw those incidents unfolding before themselves when entering a new space. The latter incident for example alarmed everyone because the environmental storytelling changed drastically from an empty corridor to an enemy encounter after the interaction in the Director's Office.

I was the only frequent bathroom visitor, but for instance I missed one room, the Communications Department upstairs in the Executive Sector. I found the room later in the gameplay when I returned to the first sector. However the three streamers discovered the room during their first exploration of the Executive Sector. All of the players did seem surprised when they discovered it and commented with a surprised tone.

TetraNinja: *"Wow, what is this place?"*

Gab Smolders*: "No, I have not been here before."*

And Hall of Ameces: "*Taas mä oon jossain paikassa missä en oo ollut. Onko tämä oikeesti vapaasti etenevä peli? Saaks täällä edetä niin kuin parhaakseen näkee?"* (Transl. *Again I'm somewhere where I haven't been before. Is this really a game that can be advanced freely? Can you proceed here as you see fit to go?)*

Based on these comments, the Communications Department was a surprising discovery that they did not purposely stumble upon. Hall of Ameces comes to a deduction that the game allows free movement within its narrative. The player can freely move inside the sectors, except beyond locked doors or blocked areas that need more progression in the gameplay to be accessed.

In the Maintenance Sector there is a side quest that was activated by just moving across the adjacent corridor. Jesse asks out loud: *"What's down that way?"* The players reacted to the activation of the side quest by stopping and looking forward in the direction of the side quest. This side quest example demonstrates that players will react to in-game

guidance to investigate and locate the mentioned event. And even if one would not react to, notice that audible in-game guidance or not have it in the first place, nondiegetic UI-text on the upper left corner of the screen notifies about new possible missions. I had to play this spot twice because the first time was cut short because of an immersion-breaking real-life phone call. The recording was cut short because of it and that specific recording was forgotten. On the second time playing the same spot I did not hear Jesse's voiced-out question, but the side mission activated on the UI.

First I had thought that there must be a difference between the versions of what I have played versus the streamers', but it turned out to be that I have already passed that corridor once before, and the voice-guidance did not activate for the second time, only the UI activated to remind me of the side mission that I had a side mission awaiting me.

All players had to rely on the map to figure out our whereabouts and the location of the next mission. Me and Gab Smolders used the updated map's transparency to be able to navigate ourselves in the game world while reading the map at the same time. TetraNinja and Hall of Ameces did not use the older map interface in such a manner, but read the map actively to figure out their next movements or to regain the idea of their location while being lost. Taking out the map might sometimes bring reassurance to the situation, to gather the information where the player is located exactly in comparison to the mission objective. *Control'*s map takes an effort to read and it did confuse me and the streamers from time to time while trying to find a correct path forward.

This concludes the analysis chapter, and it is followed by the discussion. In the following chapter in this thesis, I will review the issues and themes that were brought forward in the analysis chapter and expand the conversation regarding them.

7 DISCUSSION

This chapter will go through the key findings of the thesis. First, it will undergo through the findings of the research reflecting on the autoethnographic and netnographic methods. The second section will talk about my and streamers' navigation through the gameplays with the help of theory of designing playfields by Moore (2011). Thirdly, the consideration will be made on how the missing three atomic affordances would complete the map interface and the in-game navigation for the player in this context. Before concluding the discussion, the thoughts of De Certeau will be revisited, and the chapter ends with the limitations of this research and possible future research for other game studies scholars.

7.1. Key findings

As players experienced the game, the nature of the in-game guidance in *Control* is reduced in the sense of navigation and cartography. This aspect makes the game more unique amidst contemporary bigger-scale video games that can guide their player with the help of UI. *Control* does guide the player, but in a limited manner and uses other means to guide them. The in-game guidance is carried out by organic navigation that includes environmental storytelling in the forms of visual and auditory elements. This form of in-game guidance is player-dependent and requires an attentive style of playing because there is no aid from the UI. With this kind of game design, the players that are experienced (Boot, Kramer, Simons, Fabiani & Gratton 2008; Murias, Kwok, Castillejo, Liu & Iaria 2016; Ventura, Shute, Wright & Zhao, 2013) in the field of gaming are in more advantageous position in regards of finding all the collectibles present in the game and navigating through the game without excessive difficulty.

Moreover, *Control* can be rather challenging to navigate through but at the same time the game allows players move freely inside its areas which the streamers figured out while discovering new area during their gameplay. The game does limit the movement only by the skills and abilities that the player has not yet acquired throughout their progress in the gameplay.

The autoethnographic method can be weary for the researcher because of self-reflection and being the informant for her research. I was researching something that I enjoy doing

in my free time, so I had to remember the thesis all the time while I was playing. Now when reflecting on the whole process, the awareness of research made me distracted from playing from time to time and therefore it affected my playing style. It can be that I am not so thorough in my search for collectibles when I am playing in my free time, and I do not feel the pressure of the research on me while I play just for my own enjoyment. The research play is more thorough style of playing, especially when the player knows the action is being studied.

Netnography was chosen to accompany autoethnography by their similar ways of online participant observation, on that ground that more data was needed about the analyzed issue to support the findings of the thesis, so that the results would not be too subjective, only by the perspective of the researcher, but more extensive look on the available data. The freely available abundant data on a streaming service is a researcher's gold mine but not without its flaws that were discussed earlier in the chapter.

To answer my research question regarding the effect of the in-game guidance (including the map) on comparison with free exploration. The interdisciplinary literature and the methods used in this thesis along with the data came to an outcome to answer the players' frustration for *Control*.

Being a recently published game *Control* differs from the group by its choices in the game design that make it more difficult to players to navigate inside the game and therefore frustrate them, it was for example seen on the streamers' gameplays when they relied on the map, but the route was not accessible to them yet. The nature of the offered in-game guidance and map is diminished to bring more responsibility and dependency on the player herself regarding the navigation inside the game. *Control* allows free movement, different routes, and backtracking inside its narrative boundaries to counterbalance the reduced in-game guidance that could be provided by the cartography interface, UI and HUD. The upside is that this enables the players' skills and experience to be tested on about finding their way through the game without excessive help by the game design and learn through the process.

7.2. Theoretical contributions

Moore's (2011: 293) theory of designing playfields is about maps and levels, but at the same time the theory is about telling a story. Players can choose their own paths through their gameplays in *Control*. They still begin from the same starting point and have same narrative checkpoints along the progress and the same destination in the end of the game. If the game was designed to be linear in the nature the paths of the players would not differ, but *Control'*s game design has branched nature which means that there are multiple ways to advance in the game. These branched paths could overlap, continue as one big branch, or divide itself again to multiple different ones that just met at one point.

When comparing the gameplays side by side they are noticeably different in the sense of navigating ourselves from the beginning of the game, but at the same time, they were similar. I searched every corner of the place and did backtracking to ensure I did not miss a thing before advancing in the game and I took time to read a document collectible when I found it. The same kind of behaviour was present with Gab Smolders and Hall of Ameces in the Executive Sector. TetraNinja differed from the group by not reading the collectibles, but still collected them. Not reading the document collectibles made the streamer's progress in the game come to a halt at a certain point in the game. To proceed in the gameplay the players needed to know how surpass an obstacle and that information was available by reading through the gathered document collectibles.

Moore also mentions about how placement of objects "can also act like trail of breadcrumbs (2011: 302)". Collectibles are placed so that they attract the player along both the desired and designed paths in the game. They could be any of the three different categories present in the game, a resource, mod, or document collectible. In *Control* collectibles were placed at a starting point of a mission, along the way to encourage on continuing or as a reward in the end of one.

Overall, the study found out that the collectibles in the game provide guidance and immersion in the game. Furthermore, they encourage exploration inside the sectors by being located in locations that are hard to reach or unattainable until further advancement in the narrative. Some collectibles contain helpful information regarding the game and therefore are worthwhile to collect. The collectibles are one of the many ways for game

developers to guide players. The information in them or just a hunch of a possible collectible ahead did evoke my curiosity as much as seeing the unexplored map for the first time.

After proceeding in the gameplay to the later stages, I mentioned in my written notes that I did not care to look for collectibles any longer. This is an interesting development from me in the beginning who tried not to miss out on anything. The search for collectibles gets harder the more the player advances in the game, and even more of the areas are open to the player in the earlier *Sectors* as the gained abilities make the player able to reach places that were unreachable earlier in the gameplay. This encourages backtracking to inspect any bypassed opportunities. *Control* did not become easier even though I had more abilities for Jesse in my arsenal. The map did not give out any clear hints about where I have yet been and sometimes discovering new areas needed imagination and inventiveness. But what made me lose interest in the search even though I had more skills to explore the area? Had I had enough of the "breadcrumbs" already by then and I was looking towards the end of the game. When the game has an open world to explore and without any landmarks where the player could determine their position in the game and the narrative, it can feel frustrating according to Moore's theory of designing playfields. I could also have been overwhelmed by the excessive available selection of side missions and wanted to focus on the main narrative to complete the game. I had my belly full of the game by that point and wanted to finish the game just for the sake of finishing the game.

7.3. The Atomic affordances make the map a powerful tool

Half of the atomic affordances by Toups et al. are not present in *Control*. What if Control had all the atomic affordances available in its cartography UI instead? How would they change the in-game guidance, the navigation and the map within the game? If the player had the missing atomic affordances included in their navigational toolkit as well, perhaps the in-game guidance would not play such a great role in the *Control* and the players would be able to navigate through the game by only using the atomic affordances in the cartography interface. Enriching the abilities of the map would emphasize the importance of the map as the main navigational tool. Players would not have to look around for signposts and other hints by organic navigation, but rather follow the guidance of the

affordances without investigating the surrounding game world. The map would become a more powerful tool and its purpose would change from just reading it to using it if all atomic affordances were available in the player's toolkit.

Those that were present were map construction, symbol support and alignment assistance, and symbol support in the game but in a very suppressed manner. The three missing atomic affordances are waypoint, drawing and text support. The symbol support is very limited in the map of *Control*. There are only a few objects on the map marked down by symbols to aid navigation. The player can not add any symbols on the map herself either. Waypoint support aids the player to find the current objective by guiding it through either visible clues on the HUD on top of the game or the map. Drawing support would, for example, allow the player to make her own markings on the map interface to mark objectives and collectibles and the text support would for example allow marking information down by writing on the map interface. The atomic affordances are very pressed down or do not exist in the game in its possible entirety.

In the case of all of the means being used in the cartography interface, navigating through *Control* would not be so player-dependent as it has been designed. The player does not have to rely on exploration to discover the collectibles. In that case, collectibles would turn into collectables, something that the player is able to collect instead of being objects that are worthy of being collected. This issue of not using all the atomic affordances available brings out the discussion of the tension between free exploration in an open world and being guided and having a curated experience in games. To my knowledge and experience of this game, this was the way it was meant to be; the in-game navigation and guidance were more leaning on the game design and the environmental storytelling than on the atomic affordances. Leaving the act of navigation to the player gives one more responsibility in the case of exploration and confidence in the ability to do so. The freedom to navigate inside the game on their own terms without the help of the UI. This could be inconvenient for some players that are accustomed to benefiting from the UI's guidance, but on the other hand, others will find such a feature a fresh angle on present-day video games that are capable to guide the player to the smallest detail. Leaving the independent exploration to a minimum unless the player decides to do so and ignore the possible guidance. However, some parts of the game could be missed by the player without any guidance from the environmental storytelling or the UI, for example, the one

side mission that I passed by twice and kept ignoring unless the UI activated and informed me about it on the HUD.

7.4. The space becomes a practiced place

A moment before in the gameplay, the room with the side mission was just an unknown and unexplored space, but together the environmental storytelling and the in-game guidance transformed the space into a practised place with an action that linked the room more closely to the narrative. The game design encourages the player to step into the introduced place by planting inklings, a document collectible telling about a runaway merry-go-round horse, flashing red lights, UI signals about a new mission and commentary by Jesse: "*What's down that way?*" Through this actions, the corridor and the room at the end of it became related to the narrative and the gameplay. Now on the map, the player can see a yellow diamond showing a location of a new side mission and feels a need for exploration rising regarding it.

The map now has a new story to tell and along with the other game design elements, remind the player of new unexplored space. Touring it is the only way to link the new place to the spatial narrative of *Control*'s playthrough, and it needs the player to be cartographer of the new path.

The tour through *The Oldest House* serves both as the main narrative of the game and as a spatial practice (De Certeau, 1984: 171). The player becomes the story maker or teller, or both while traversing freely along the corridors of *FBC*, and each playthrough – story is unique by cause of the steps that can be taken to any direction in the game.

7.5. Limitations and future research

The issue that affects the conducted research of this thesis is the different versions of the game and therefore its maps. Even though it is the same *Control*, that all the players played the most obvious difference in two out of four gameplay recordings was the maps. The earlier version of the map was black and grey with colored markings and the updated version was turquoise with colored markings. Also, the updated later map was more zoomed in. In retrospect, the comparison of the gameplays when the map, the main tool

of navigation is different, can raise doubts. On the other hand, They are similar enough to have research done about them. The changes appear to be cosmetic and do not significantly affect the gameplay.

Another limitation regarding this research is having the streamers' gameplay as the research data. Streamers play for an audience and therefore it affects their gameplay to a certain degree. They might focus on the gameplay rather than the collectibles to showcase the game and to appease their audience, or by limiting to a playing style that they are more known for. This issue was noted when analyzing the streamers' gameplay videos; what would be their style of playing if they were not playing for their subscribers on YouTube? What would be their playing style as a player individual without an audience? This question in the context of gameplay analysis applies to me as well. I recorded my own playing for this research, and I was aware of it being analysed, particularly by my future researcher-self. This dilemma was brought by choosing autoethnography as my main research method.

This research brought attention to several future research directions on the subject. *Control* as a contemporary bigger-scale game is an exception in the case of the in-game guidance and map when compared to other games. Expanding the knowledge about the effects of the in-game guidance and the map for the players in other game titles would be beneficial in the field of game studies. For future research, examination such as interviews of the informant group could be also beneficial, as there were limitations with the self-reflecting autoethnographic method and netnographic study of streamers. The issue with the autoethnographic and limited use of netnographic methods rule out for example the chance of interviewing the informants about their observations. Further and closer examination of the atomic affordances in the cartography interfaces in different games could be a topic of future research as the subject is complex enough to be studied separately to be able to understand how they impact in-game navigation.

8 CONCLUSION

The thesis was set on researching the in-game guidance and map(s) of *Control* because it had revoked discussions online about it being hard to navigate and having a hard-to-read map, and for the chance to experience and study it myself. What made the game be so and why was it perceived in such a manner? The research question was set according to this: what effect does the in-game guidance (including the map) provide in *Control*, and by extension in other contemporary video games, in comparison with free exploration? With the help of the autoethnographic and netnographic methods and the interdisciplinary literature to figure out the reason behind the frustration for *Control.*

This thesis participates in the discussion of game design, particularly in the in-game guidance and navigation from the perspective of players. The player perspective, especially through the lenses of autoethnography combines the research and playing in an unique manner that contributes more information to the field of game studies about player experience. It brings more insights about using the autoethnography as a research method, and arguably would encourage others to try to implement it more on to the topics within the game studies field.

In the case of *Control*, the game's cartography interface – the map is reduced but at the same time it is more complex in its nature. Without all the atomic affordances the map was at a read-only potential and this aspect might have made the map harder to understand and thus the game more difficult to play. The effect of a such a map can be that the players adapt to a different style of playing than they are used to and pay more attention in the game world, rather than just act of playing the game. The navigation limit to the player's own abilities to read the map and pay attention to her surroundings can attract certain types of players that enjoy free exploration rather than the type that focus solely on the gameplay and prefer the aid of the UI in navigation. This aspect can be the reason why *Control* was perceived as a difficult game, because it had a different style of navigation than its peers on the field. The game almost requires players to learn a new skill of navigation or strengthen the already existing one to be able to enjoy the labyrinthine *Control*.

Players are different and so are their gameplay tours through the game, how they gather collectibles and perceive their surroundings when they move forward. The paths can differ already from the beginning of the game on separate routes within the given narrative frames. Navigating through Control was a complex task of being aware of the surrounding game world while fighting off enemies and solving puzzles that occasionally needed backtracking along the way in the game.

9 REFERENCES

Anderson, L. & Glass-Coffin B. (2013). I learn by Going, Autoethnographic Modes of Inquiry. In Adams, T. E., Jones, S. H., & Ellis, C. (Eds.) *Handbook of Autoethnography* (pp. 57-83).

Auerbach, C., & Silverstein, L. B. (2003). Qualitative data: An introduction to coding and analysis. New York University Press.

Baumgärtner, I. (2022). *Mapping narrations - narrating maps : Concepts of the world in the middle ages and the early modern period*. Medieval Institute Publications.

Bonner, M. (2021). On Striated Wilderness and Prospect Pacing: Rural Open World Games as Liminal Spaces of the Man-Nature Dichotomy. Retrieved 8 December 2021, from http://www.digra.org/digital-library/publications/on-striated-wilderness-and-prospect-pacing-rural-open-world-games-as-liminal-spaces-of-the-man-nature-dichotomy/

Boot, W., Kramer, A., Simons, D., Fabiani, M. & Gratton G. (2008). The effects of video game playing on attention, memory, and executive control. *Acta Psychologica*, *129*(3), 387-398. https://doi.org/b38mnb

Carlton, G. (2015). *Worldly Consumers: The Demand for Maps in Renaissance Italy* (pp. 159-162). University of Chicago Press.

Certeau, M. (1984). *The practice of everyday life* (pp. 91-131). University of California Press.

Chądzyńska, D., & Gotlib, D. (2015). Maps in video games – range of applications. Polish Cartographical Review, 47(3), 137-145. https://doi.org/jz7n

Collins, K. (2013). *Playing with sound : A theory of interacting with sound and music in video games*. MIT Press. https://doi.org/j5xt

Costello, L., McDermott, M.-L., & Wallace, R. (2017). Netnography: Range of Practices, Misperceptions, and Missed Opportunities. International Journal of Qualitative Methods, 16(1). https://doi-org.libproxy.tuni.fi/10.1177/1609406917700647

Crawford, G., Muriel, D., & Conway, S. (2019). A feel for the game: Exploring gaming 'experience' through the case of sports-themed video games. *Convergence: The International Journal of Research into New Media Technologies*, 25(5–6), 937–952. https://doi-org.libproxy.tuni.fi/10.1177/1354856518772027

Dawar, A., Grädel, E., & Kreutzer, S. (2006, February 7). Backtracking games and inflationary fixed points. Theoretical Computer Science, 350(2-3), 174-187. https://doi.org/dnzsnh

Dillon, R. *The Golden Age of Video Games: The Birth of a Multi-Billion Dollar Industry*. (1st edition pp. 8-13). Abingdon: CRC Press [Imprint], 2017. Print. Retrieved from https://web-p-ebscohost-com.libproxy.tuni.fi/ehost/detail?sid=7ba91f5a-e0e3-4ed2-b8d6-e71bf1e1a191@redis&vid=0&format=EB&rid=1#AN=376309&db=nlebk

Donovan, T. (2010) *Replay: The History of Video Games* (pp. 153-165). Yellow Ant.

Dowling, D. (2020). *The Gamification of Digital Journalism: Innovation in Journalistic Storytelling.* Routledge. https://doi-org.libproxy.tuni.fi/10.4324/9780429021701

Ellis, C., Adams, T. E., & Bochner, A. P. (2011). Autoethnography: An Overview. *Forum: Qualitative Social Research, 12*(1). https://libproxy.tuni.fi/login?url=https://www.proquest.com/scholarly-journals/autoethnography-overview/docview/870465772/se-2

EyeGod. (2020, April 28). *Why is this game so damned confusing to navigate?*. [Online forum post]. Reddit. https://www.reddit.com/r/controlgame/comments/g9uwtr/why_is_this_game_so_damned_confusing_to_navigate/

Gab Smolders. (2020, September 3). *We have gain Control* [1] [Video]. YouTube. https://www.youtube.com/watch?v=YIfgJMYURBA&list=PLGxV8JnoT5QiWPdzj27AlxM893ZS7Zy4a

Glaser, B. G., & Strauss, A. L. (2017*). Discovery of Grounded Theory : Strategies for Qualitative Research* (First edition.). Taylor and Francis Group (pp. 61-62).

Green, A. M. & Kapell, M. W. (2017). *Storytelling in Video Games: The Art of the Digital Narrative*. McFarland & Company.

Guerrilla Games. (2017). *Horizon Zero Dawn.* [Playstation 4, Windows]. Sony Interactive Entertainment.

Hall of Ameces. (2020, January 21). *AHTI ON ÄIJÄ. Control & Läpipeluu Osa 1.* [Video]. YouTube. *https://www.youtube.com/watch?v=M6X70uR8_DQ*

Hilliard, K., 2017. *Big book of Zelda: The Unofficial Guide to Breath of the Wild and The Legend of Zelda*. (1st ed.) Triumph Books. Google Scholar

Iron Gate Studio. (2021). *Valheim.* [Windows, Linux, Xbox One, Xbox Series X/S]. Coffee Stain Publishing.

Jenkins, H. (2010). *Computer games and narrative*. London: Routledge, Taylor & Francis Group. Retrieved from

https://libproxy.tuni.fi/login?url=https://www.proquest.com/encyclopedias-reference-works/computer-games-narrative/docview/2137954139/se-2?accountid=14242

Jenkins, H. (2004). Game design as narrative architecture. In N. Wardrip-Fruin & P. Harrigan, *First person: New media as story, performance, and game* (1st ed., pp. 118-130). Cambridge: MIT Press.

Kozinets, & Gambetti, R. (2021). *Netnography Unlimited: Understanding Technoculture Using Qualitative Social Media Research*. Taylor & Francis Group. (pp. 3-23).

Kristjan, J. (2019). *We Deserve Better Villains : A Video Game Design Survival Guide*. (89-112) CRC Press.

Krybabykirb. (2022, May 7). *Just tried this game and its not bad, but the navigation is terrible. This game is literally the modern day water temple*. [Online forum post]. Reddit. https://www.reddit.com/r/controlgame/comments/uk4429/just_tried_this_game_and_its_not_bad_but_the/

Lammes. (2009). Terra incognita: Computer games, cartography and spatial stories. In *Digital Material* (p. 223–235). Amsterdam University Press.

Lefebvre, H. (1991). The Production of Space. In J.J. Gieseking, W. Mangold, C. Katz, S. Low & S. Saegert (Eds.). *The People, Place and Space Reader*. (pp. 289-297) Google Scholar

Legewie, N., & Nassauer, A. (2018). YouTube, Google, Facebook: 21st Century Online Video Research and Research Ethics. *Forum : Qualitative Social Research, 19*(3). https://doi.org/ghs5v6

Meier, S. (1991). *Civilization*. [Windows]. MicroProse.

Moore, M. (2011). *Basics of Game Design*. CRC Press.

Murias, K., Kwok, K., Castillejo, A. G., Liu, I. & Iaria G. (2016). The Effects of video game use on performance in a virtual navigation task. *Computers in Human Behavior. Volume 58.* 398-406. https://doi.org/j6bs

Nintendo R&D4. (1986). *The Legend of Zelda*. [Family Computer Disk System, Nintendo Entertainment System, Game Boy Advance, GameCube]. Nintendo.

Nintendo EPD. (2017). *The Legend of Zelda: Breath of the Wild.* [Nintendo Switch, Wii U]. Nintendo.

O'Connor, P. (2020). *The Craft and Science of Game Design: A Video Game Designer's Manual.* CRC Press. https://doi-org.libproxy.tuni.fi/10.1201/9781003097006

Pauschert, C., Riplinger, E., Tiede, C., & Coors, V. (2011). Benefits through Linking of analogue and digital Maps. In *Advances in Cartography and GIScience*. Volume 1 (pp. 205–217). Springer Berlin Heidelberg. https://doi.org/dfjs2r

Remedy Entertainment. (2019). *Control.* [Playstation 4, Windows, Xbox One, Nintendo Switch, Playstation 5, Xbox Series X/S, Stadia] 505 Games.

RHENOSHRIC. (2019, September 10). *Can we please get a better map.* [Online forum post]. Reddit. https://www.reddit.com/r/controlgame/comments/d2boo8/can_we_please_get_a_better_map/

Rockstar San Diego. (2010). *Red Dead Redemption.* [Playstation 3, Xbox 360]. Rockstar Games.

Salganik, M. J. (2018). *Bit by bit: social research in the digital age*. Princeton University Press. (pp. 288-298).

Tekinbaş, K. S., & Zimmerman, E. (2004). *Rules of play : game design fundamentals*. MIT Press.

Shoda, V. P. (2022). Let's play videos in literacy practice: From let's play to let's learn. *E-Learning and Digital Media*, *19*(5), 515–536. https://doi.org/j7fq

Si, C., Pisan, Y., Tan, C. T., & Shen, S. (2017). An initial understanding of how game users explore virtual environments. *Entertainment Computing*, 19, 13–27. https://doi.org/10.1016/j.entcom.2016.11.003

Sikes, P. (2021). Doing Autoethnography. In Adams, T. E., Jones, S. H., & Ellis, C. (Eds.) *Handbook of Autoethnography* (2nd ed. pp.23-27). New York: Routledge. https://doi.org/jz7p

Simons, H. (2009). *Case Study Research in Practice*. London: Sage Publications.

Skolnick, E. (2015). *Video game storytelling* (2nd ed. pp. 75, 196-199). New York: Watson-Guptill.

Smart, L. (2005). *Maps That Made History: The Influential, the Eccentric and the Sublime* (pp.13-14). Dundurn Press.

Suckling, M., & Walton, M. (2012). *Video Game Writing: From Macro to Micro* (2nd ed., pp. 138-154). Boston: Mercury Learning & Information.

Tally, J. R. T. (Ed.). (2014). *Literary cartographies: Spatiality, representation, and narrative*. Palgrave Macmillan US.

TetraNinja. (2019, August 25). *CONTROL WALKTHROUGH part 1 – FIRST 2 HOURS!! (Let's Play Commentary).* [Video]. YouTube. https://www.youtube.com/watch?v=tcp38Is378o&t=58s

Thrower, N. (2008). *Maps & civilization* (3rd ed.) Chicago: University of Chicago Press.

Toups, Z., Lalone, N., Alharthi, S., Sharma, H., & Webb, A. (2019). *Making Maps Available for Play*. ACM Transactions On Computer-Human Interaction, 26(5), 1-43. https://doi.org/jz7q

Vacilando. (2022, January 12). *Advice on navigating through the map?*. [Online forum post]. Reddit. https://www.reddit.com/r/controlgame/comments/s2802k/advice_on_navigating_through_the_map/

Ventura, M., Shute, V., Wright, T. & Zhao, W. (2013). An investigation of the validity of the virtual spatial navigation assessment. *Frontiers in Psychology, 4.* *https://doi.org/gbfp2j*

Zeman, N. B. (2017). *Storytelling for Interactive Digital Media and Video Games.* CRC Press, Taylor & Francis Group.

APPENDIX 1.

The list of gathered document collectibles in the Executive sector, highlighted numbers are found by only one player.

COLLECTIBLE	Kanerva	Hall of Ameces	Gab Smolders	TetraNinja
Prohibited Items Reminder	1	1	1	1
Security Order	2	2	3	3
R4 Reports Reminder	3	3	4	4
Trench: Do not Disturb	4	4	5	6
Marshall: AWE Investigations	5	6	7	7
Dinner Reservation	6	5	6	
Visitor Evaluations	7	8	9	8
Urban Legends	8	9	8	9
Executive Meeting Minutes	9			
FBC Reminder: Building Shifts	10	7		
Travel Costs	11	19	10	11
Machine God	12	14		14
Dead Letter Approval	13		11	
Dead Presidents	14	15	13	
Book Club: Penny	15	16		
Threshold Kids	16	17		
Book Club: Samson	17	20	14	15
Tommasi: Willow AWE Outcome	18			16
Butte Summary	19	22		20
Tommasi's ID	20		16	21
Hotline Security Log	21	24	17	22
America Overnight ep 359	22	25		17
Trench: Bureau Funding	23	28		
Agent Death Notification	24			
Parautility	25			
Shifted bathroom complaint		10		
Technological Restrictions		11		
Control Points		12		10
Unstable Area Notice		13		12

Singing Fish		18	12	
Tee Time		21	15	
Butte Supplement		23	18	23
Marshall: Lockdown Distinctions		26	20	18
Data Breach:		27	19	19
Bureau Expenditures			2	2
Initial Impressions			21	
Approved Terminology Reminder				5
Havana Summary				13
TOTAL SUM OF COLLECTIBLES:	25	28	21	23