Valiant hearts representing

The Great War

History simulation, re-enactment, and game design practices in video game

Ubisoft Montpellier. 2014.

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Tiivistelmä: Tutkielmani käsittelee Montpellier peliyhtiön 2014 valmistaman Valiant Hearts: The Great War -pelin historiaa ja pelintekijöiden pelisuunnittelun päätöksentekoa historian ja pelitutkimuksen keinoin. Asemoin tutkimuksessa Valiant Hearts -pelin aikansa kontekstiin ja tutkin 2000-luvulla peliteollisuudessa tapahtuneita muutoksia, jotka mahdollistivat pelin valmistamisen. Tämän lisäksi syvennyn pelintekijöiden ratkaisuihin hyödyntää historiallisia lähteitä ja analysoin, miten ensimmäisestä maailmansodasta tehty historian tutkimus ja yhteistyö historioitsijoiden kanssa on vaikuttanut pelin kehitykseen. Valiant Hearts julkaistiin ensimmäisen maailmansodan juhlavuotena 2014. Ajoituksen yhtenä tavoitteena oli levittää tietoisuutta ensimmäisestä maailmansodasta nuoremmille sukupolville helpommin lähestyttävämmällä tavalla.

Tutkimukseni koostuu kahdesta päälinjasta. Ensimmäinen päälinja keskittyy 2000-luvun alusta 2014 vuoden peliteollisuuden historiaan, minkä kautta tutkin Montpellier peliyhtiön päätöstä ryhtyä valmistamaan peliä ensimmäisen maailmansodan teemoista. Montpellier otti haasteeksi esittää ensimmäinen maailmansota uudella ja lähestyttävämmällä tavalla, samalla mukaillen historiallisia lähteitä ja aikansa tavoitteita luoda tietoa ensimmäisen maailmansodan vaikutuksista ja sodan kokeneiden yksilöiden elämästä. Tutkimuksessani argumentoin, että pelintekijöiden teknillisiin päätöksiin on selvästi vaikuttanut vuonna 2009 järjestetty International Society for First World War Studies (ISFWWS) -konferenssi. Tutkimukseni toinen päälinja koostuu Valiant Hearts -pelin tarkastelusta kolmen pelihistorioitsijan luoman menetelmän avulla. Tämä on mahdollistanut sekä pelin tarkemman tutkimisen**,** että miten pelintekijöiden peliteknilliset ratkaisut välittävät tietoa menneisyydestä. Kyseiset kolme menetelmää ovat mahdollistaneet kattavan lähestymistavan tutkia ja arvioida Valiant Hearts -peliä historian simulaationa, elävöityksenä ja ongelmatilanteiden luojana. Tämän avulla olen tutkielmassani syventynyt pelintekijöiden tavoitteiden analysoimiseen ja niiden vaikutukseen pelaajalle. Lisäksi näitä kolmea menetelmää hyödyntämällä olen osoittanut miten pelintekijöiden ratkaisut ovat välittyneet pelaajalle ja miten ne luovat menneisyyden esitystä juuri tässä kyseisessä pelissä.

Olen tutkimuksessani avannut niitä tapoja, joilla Valiant Hearts esittää historiaa ja erityisesti mitkä eri pelitekniset ratkaisut vaikuttivat tuon menneisyyden esittämiseen. Tämän lisäksi tutkielmani osoittaa peliteollisuudella olleen vahvan vaikutuksen Valiant Hearts-pelin kehitykseen ja taiteellisiin lopputuloksiin, jotka kumpusivat sekä Montpellier peliyhtiön työntekijöiden omista mielenkiinnoista, että historiallisista referensseistä. Tutkimukseni osoittaa, että Valiant Hearts -pelintekijöiden tavoitteista löytyi huomattavia yhtenäisyyksiä 2010-luvun ensimmäisen maailmansodan tutkimusnäkökulmiin ja lähestymistapoihin. Näillä on pyritty korostamaan sekä pelin opettavaista puolta, että 100-vuotisjuhlan tavoitteita välittää sodan vaikutuksia ja sen herättämiä tunteita.

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1 INTRODUCTION

1.1 Aims and research questions

To my dearest friends

Through the evil noise of artillery, tanks and planes, I remember our adventures, your friendship, and your pain. My closest friend Emile, in your twilight years, you came to fight, not for glory but to mend your daughter's tears. Lucky Freddie, you were always fearless and with intent. I hope you have found peace with your letters that were never sent. Anna, my bravest of warriors across the Western Front, saving the mountain of wounded without firing a shot. And Karl, if only I could light your way home through the fields of war, through treacherous nights to be with your family once more. Although I cannot write these words and the time has come to part, your stories will always remain – as will your valiant hearts. Your Friend, Walt.[1]

This example of a letter is fiction and presented in the video game "Valiant Hearts: The Great War" (2014) (from here onwards: "Valiant Hearts"). It forms an understanding of an era where people: soldiers and civilians, went through a dark time that left its mark to a whole generation of people. The Letter represents certain images, experiences and characteristics that players can take and form their own understanding of the time Valiant Hearts represents. Although this citation is fiction and has its clichés, it provides certain player experiences which can be emotions, opinions and images to the player who can then form a connection between the real situation and a story, in this case World War One and Valiant Hearts.

Video games are a well-known and established part of our modern-day popular culture. They provide activities and adventures that shape our knowledge and imagination. One could argue that gaming culture and the video game industry have changed people's everyday life. Most of the reasons are because game developers and gaming industry have had an influential position in societies across the world from the 1980's and it increased massively in the beginning of the

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[1] Ubisoft. 2014.

2000's.[2] Games are claimed to be reflections of ourselves, and this claim gives us an opportunity to study our understanding of the subjects these games are dealing with.[3]

In my opinion, games as history are one of the most interesting postmodern subjects that divide and inspire modern-day researchers in many fields of study, and especially in history. Game studies have become an increasingly common part of the postmodernism[4] where the focus is to create new ways to observe the past. Although video games are a part of today's popular culture and their purpose is heavily focused on serving as entertainment and making profit to their investors, video games are taking increasingly more responsibility to pass on information about history. Some of these games are labelled historical game[5] which allows historians to study these games by applying different methods used in their own field. In this case, Valiant Hearts is a game that has a reputation of being a good example of historical game. The term historical game is defined as either a way that represents the past, addresses a discussion of the past, or provides different practices related to history.[6]

The aim of my thesis is to study how game developers and historians working with Valiant Hearts create understanding of the past for the players. By doing this I was able to create an understanding of how game developers can form counterfactual history and by using certain frameworks and methods I can concentrate on how the past is presented and passed on (mediated) to the players. My main focus is the year 2014 when Valiant Hearts was published. Moreover, it was the memorial year to commemorate the beginning of World War One which in turn inspired the game developers to present these topics. Additionally, I studied Valiant Hearts on a broader scope linking its development to the more general development of the gaming industry and the specific circumstances relating to the designing and development of the game. By studying these themes, it was possible for me to form a coherent picture of the whole process of developing Valiant Hearts and the reasons behind the creative choices made along the way.

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[2] Egenfieldt-Nielsen. 2013. 18.
[3] Rosenstone. 1995. 49.
[4] Movement that developed in the mid- to late 20th century across different fields.
[5] Games which have historical layout.
[6] Chapman. 2017.

My aim was to study specifically how Valiant Hearts was made by focusing on the game developers and their aims which help us to form an understanding what the developers wanted to tell about World War One by using their game as a medium to the players and the reasons behind their intentions. I have analyzed the history of the gaming industry which guides us to grasp the moment in which Valiant Hearts was made and the reasons what led to the creation of Valiant Hearts. These underlays the state of the gaming market and the rapid change of game development. My methodological aim is to study Valiant Hearts from the approaches of historical scholarship and game studies through literature review. This helps us to understand how the game manages to do historing[7].

As such, this study is guided by the following research questions:

1. What is the position of Valiant Hearts in the evolution of gaming industry?
2. What were the aims and practices of game creators in Valiant Hearts?
3. How Valiant Hearts represents history and what kind of historical impact can Valiant Hearts give through gameplay?

Given the topic of my thesis is dealing with historical analysis and video games, at first, I am devoted creating understanding on the bigger picture of the game industry and in which circumstances the game where made and what affected the game designer's decision to create a game which deals with a topic of World War One. My second chapter is based on this idea and deals with the first question: "What is the standing of Valiant Hearts in the evolution of gaming industry?" and explains the background of the industrial point of view by creating an understanding how in general development of games changed between the end of 1990 to 2010's. This helps to picture the problematic stage in game development history which explains how Valiant Hearts has certain features and design decisions. I also explain the problems that the designers faced by taking on a historical topic and what problems game designers have faced by presenting the past.

After examining the historical background of the Valiant Hearts, I will address my second question: "What were the aims and practices of game creators in Valiant Hearts?". By

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[7] Historing refers to an approach where people are believed to perform communication with the past, in other words "doing history".

examining this I can form an understanding how game designers formed historical understanding and what historical sources guided the narrative of Valiant Hearts. By doing this I can form a solid ground which explains the possibilities to use Valiant Hearts as a product of historing, which brings us to my last question: "How Valiant Hearts represents history and what kind of historical impact can Valiant Hearts give through gameplay?" This will be covered in my last chapter which completes the study on what kind of impact has Valiant Hearts had on players and how the game is argued to represent the past? After this it is possible to argue that Valiant Hearts has affected its audience by presenting public history and created an impact to the players which shapes the understanding of the past.

1.2 Source materials and theoretical point of interest

My main source is the video game: *Valiant Hearts*, which I regarded as historical source and product of *historing*. In addition to Valiant Hearts, I have also the documented series: *Game developer diaries[8],* in which the game creators explain their approaches and views on development decisions and the process of creating a game based on historical sources. My secondary sources mainly consist of articles that examine games as a historical source which help me to cover how Valiant Hearts represents history and what we can use it for. In this case what Valiant Hearts can reveal about historical understanding in its time in 2014. In addition to this I am close reading the Valiant Hearts game and emphasizing on how game developers narrated the image of war. I also have articles and books with interviews with the makers of Valiant Hearts which helps me to outline the purpose of the game and how they used history to create the World War One game. My sources that cover the history of games from 1990's to 2010's and the development of *Ubisoft Montpellier* – gaming studio that created Valiant Hearts – consist of public game history which explains the basic development of game design and company management. More specifically the information on game company *Ubisoft Montpellier* is based on the information given by company's CEO Yves Guillemot and other articles and interviews which explain how the company came to be and how their flagship game was made.

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[8] Playstation. a-c2014.

These articles and the creators' interviews provide me with enough information that allowed me to thoroughly cover Valiant Hearts purpose and game design. Although the interviews and developer diaries are purposely made to serve as an advertisement for the game, it helps to dive in more deeply behind the scenes in which the game was made and what was used as inspiration to create a game that was heavily influenced by history. On a critical point of view, these developer diaries and interviews can be problematic when examining the game developers as developer historians because they form only polished one-sided explanations for the design purposes. This means, the *developer diaries* are mainly scripted interviews serving one purpose, which was to increase the interest of a much wider audience. Because of this I have conducted further research with three methods in the last section that provide me the needed tools to consider Valiant Hearts as historical representation. With this I have formed another side of the explanation which stands from the players point of view and at the same time argue how it affects the players' experience.

The game that I have chosen to observe, and present is Valiant Hearts: The Great War, published in 24.6.2014. It is a puzzle adventure game developed by a French game studio *Ubisoft Montpellier*. During its release, the game gained a lot of popularity and success for its original story and theme. It also received attention for its game design and the creator's decision to tackle World War One, which is regarded one of the hardest subjects to represent in video games.[9] I am going to examine this game by closely reading *walkthrough videos[10]* which allows me to pinpoint the parts of the game that represent the past and the atmosphere in which the past is mediated to the player. I also have articles and books that discuss the questions of historical accuracy of the game which guides me through what historical facts the game developers have used. Although, the accuracy of the game narrative is important, my focus is on why certain sources were used and what were the reasons behind choosing specific historical sources. This brings me to the main reason I have chosen to use this game is not because of its popularity, but the way the game makes it possible to work on the historing and allows me to engage with the past.[11] It is essential to point this out, especially since not all games can provide historical analysis. I will explain in more detail in chapter 2.

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[9] Kempshall. a2015. 2.
[10] Walkthrough videos are videos which focus on the players way to play the game from beginning to end.
[11] Playstation. c2014.

When considering the gameplay, Valiant Hearts is a straightforward story game and doesn't give much freedom to its player. Therefore, I am going to concentrate more on examining the narrative that makes the game worth playing. I am going to study this by using three methods that allow me to examine the narrative more closely and allow me to view the game as a medium of information.

One of these methods was created by Jerome De Groot whose other works are also in great use in my thesis. De Groot introduces an idea where the games are referred to as historical re-enactment. By this argument, it is possible to regard games as the providers of historical experience and create *the ludic historiographic possibilities*. By that De Groot means a fictional set of rules and stories alter the player to be focused on the narrative, provide immersion and interaction with the manifestation of history that the game and game designers have provided.[12] By using De Groot's method to consider game as re-enactment of history, we can consider the game representing history.

Second method was created by Eric Chapman who sees games as historical research tools, and simulators. By using Chapman's method, it was possible for me to examine in more detail the parts of the game that managed to create the tools and design that provide representation of history. This is done by ludonarratives, narrative which emerges through gameplay, and framing narratives, the controlling elements of games rules and boundaries that restrict players universal freedom. This allows player to experimental different situations in the game world. According to Chapman this leads to experiencing *lexia,* which is an element that is combined to be a narrative of a certain event and story.[13]

The third method in my thesis is created by Jeremiah McCall and is called the historical Problem Space Framework. By this method McCall has created the concept of player agency, which in turn helps us to examine the ways the game creates knowledge and learning to the player. In other words, we can perform counterfactual entities where the player can test and find different information. Agency gives us the possibility to gather the knowledge concerning the soldier

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[12] De Groot. 2009. 133.
[13] Chapman. a2016. 119.

and his experiences according to how it is presented in Valiant Hearts. McCall presents this in his article, "The Historical Problem Space Framework: Games as a Historical Medium".[14] That provided me with the right tools to approach my primary source. This framework helps me to observe how players and game designers have reconstructed and understood the past.

In addition to McCall's method, Adam Chapman introduces many ways to use different game genres in his book "Digital games as history" introduces many ways to use different game genres. This book provides more distinctive approach and explanation between micro- and macrohistory than Jeremiah McCall. The approach that I am interested in is microhistory as it sheds more light on the images and experiences that largely determine how history is depicted by the game designers. Chapman talks about narrative as the one of the most important factors in games that create the simulation of historical time.[15] This approach acts as the base of my study.

1.3   Uses of history in Valiant Hearts and methodological approach

In this section I will cover the basic methodological purposes and the current state of historical research of the video games which will serve as platform to my thesis. I will end my introduction by explaining why games that represents World War One in their gameplay are facing problems and why World War One is underrepresented in historical games.

Games have been part of the discussion in historical game studies from the beginning of the 21st century and the impact of the games has been recognized among historians as powerful tools to shape knowledge of the past. Games are considered part of fiction which, according to Gerome de Groot and other scholars, shape the understanding and pass on the knowledge of the past.[16] Currently the game studies are increasingly getting more acknowledgement and the versatility of the games has been noted. Games are considered as useful tools for studying history rather than only seeing them as way to represent the past.[17] As stated before my thesis

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[14] McCall. 2020.
[15] Chapman. a2016. 191.
[16] Grufstedt. 2020. 49.
[17] Hartman, etc. 2021.

is aimed to be part of the current trend to discover different ways to approach games as historical research. This brings me to mention my approaches to study Valiant Hearts.

My approach to studying Valiant Hearts consists of qualitative research methods that match the purpose of my thesis. Covering the gameplay through historical game studying methods allow me to consider Valiant Hearts from different perspectives and reveal specific design choices that game creators have decided to use and how they affect the player experience.

In her doctoral thesis, Ylva Grufstedt introduces her own approach to study video games, providing a clear ideological background considering the current state of the historical studies of video games. In my opinion, Grufstedt introduces a way to study video games more profoundly, which also serves as an example of what the current idea behind studying video games is: "I do not seek to assign normative labels to historical content or counterfactual in game design... I choose a conceptual focus on counterfactual history rather than, for example, historical fiction or alternative history to emphasize the role of historical reference and verisimilitude in design practices and gameplay".[18] Grufstedts idea of how she studies games fits in my opinion of the current direction where the historical game studies are headed. Not only do games create knowledge of the past but focus on how it was created to perform the task as a medium between knowledge and the past. This has increasingly been the momentarily keen focus of the late studies and can be seen in another scholarly research. For example, Adam Chapman emphasizes the importance of historians to start studying the form of how the content has been created, not only the content itself.[19] Although, this is also emphasized by other scholars, Grufstedt manages to introduce the main idea more explicitly which has been the base I have built my own arguments on. I will conclude my first chapter by examining the problem with video games and World War One themes. By doing this I will emphasize my methodological reasons to choose ludological[20] abroach.

Not only in video games, but also among historians World War One divides opinions on how it started, about who the "evil ones" were and who the "good ones" were in the war. There is

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[18] Grufstedt. 2020. 29.

[19] Chapman. a2016. 18.

[20] Concentrating on studying games and the game narrative.

no right or wrong answer to these questions, and the notion of who really won the war or whether there were any winners is still a topic of debate.[21]

Considering games and the reality that games are created to entertain their audience, game developers of the Valiant Hearts struggled with the fact that The Great War was remembered as a "bad" war. Historian Chris Kempshall describes the World War One in his book *The First World War in Video Games (2014)* as an example of "bad war" which even has its own sacred status in western societies, meaning that no one really felt victorious after so many generations were killed during the war. The creators of Valiant Hearts could not clearly state that the enemy side should be pictured as the culprit of the war, like for example it is easy to picture the Nazi Germany to be the cause of World War Two. The solution was found to create the game drawing inspiration from an anti-war point of view. Moreover, the image of war is completely different in the case of World War One, which was mainly slaughter of men that desperately tried to cross no man's land.[22] This created a problem for the game developers, where they could not depict the Great War as they originally would have wanted. I have taken this into account when analyzing Valiant Hearts. To circumvent this problem, the designers of Valiant Hearts decided not to make the gameplay concentrate on the fighting. In fact, the players barely lift their rifles in the game. I have taken note that the game designers needed to create a purpose for the story of the game and create an enemy that in reality might not have existed during the war. The war itself was presented in many parts of the game as the ultimate enemy and mostly the whole point was to survival in the challenging situations. This execution has been praised among the gamers. Creating a game which doesn't take part in the political perspective was not only unheard of, but also, making a point on how games can discuss and use historical sources in neutral manner to represent the past for a new generation in completely different way.[23]

My next chapter will examine my research questions 1 and 2 more deeply. I will be focusing on examining the development of the game industry and discuss how in turn this affected the creation of Valiant Hearts. I have decided to cover the background of the gaming industry which is essential when considering how the game was made. This will bring forth the elements affecting the possibilities and the way to introduce World War One in mainstream video games.

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[21] Kempshall. a2015. 18.
[22] Kempshall. a2015. 18.
[23] Kempshall. a2015. 99.

After revealing the background of the Valiant Hearts and the gaming company *Ubisoft Montpellier*, I will be focusing on the game creators of the game and the historians behind the historical sources. I will examine how they managed to create a game that allows us to form a peephole to the past and how it portrays a certain image of the Great War. This will lead us to my final chapter in which I will compare my findings and present my conclusions that will answer my last research question and thus explain how Valiant Hearts represents history and what kind of historical impact can Valiant Hearts give through gameplay?

2. UBISOFT MONTPELLIER AND VALIANT HEARTS

2.1 Navigating through the game industry

Regarding the gaming market in 2014 and comparing it to the situation in the beginning of the 2000 century we can find significant differences in game production. Most important difference concerning Valiant Hearts and my thesis, the opportunity to experiment with new ideas wasn't possible to publish earlier, because there were fewer producers. It involved more risks to lose rather than to win. Furthermore, game developers were mostly organized to reduce the risks and were heavily depended on publishers.[24] Considering my subject, it is vital to study how Valiant Hearts was made and how Valiant Hearts became a well-known game in 2014? Moreover, it is important to closely analyze the state of the gaming industry and how did it affect the making of Valiant Hearts? With these question in mind, I was able to unravel the position where Valiant Hearts – with experimental ideas – was made. What was the starting point of a gaming company *Montpellier* to make a game about World War One?

The World War One subject was under-represented in the gaming world before 2010 because of its sensitive status and complex nature.[25] This is addressed more in detail at the end of this chapter. But first, I will consider different developments in the gaming industry and how they have affected the nature of games tackling the subject of World War One? This enabled me to thoroughly cover the nature of Valiant Hearts and the gaming company *Montpellier*, how the historing was made possible and what affected the ways it is shown. And why Valiant Hearts represents World War One like it does.

Comprehending the change in the gaming industry, we can understand how game creation and production have changed and how these made it possible to create Valiant Hearts. The background of game industry's history highlighted the wider context that assisted me to form a deeper understanding of *historical games.* In my opinion this perspective is essential to address especially since it's something not usually discussed in historical game studies. To my

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[24] Egenfeldt-Nielsen. 2013. 96.
[25] Chapman. b2016.

knowledge, one of the reasons for this is that gaming companies tend to be more secretive towards their history and design details. But in my case, I have chosen specifically a gaming company *Ubisoft* that has provided enough information about their decision making thus securing enough information. Although most of the gaming companies have not published their processes in detail, but to my knowledge there has been an increase in data through interviews and journals. According to Ylva Grufstedt, one of the obstacles in historical game studies is the lack of information about game creators' decision making. In many cases this leads to guessing and hypothesizing the reasoning behind the design.[26] The final conclusion emphasizes this more when I consider the future studies and critics towards my thesis, briefly, to surpass this problem I chose three specific methods providing different ways to analyze games and how they represent the past and explain the possible decisions behind design without the need for designer's log.

The creators of Valiant Hearts *Ubisoft Montpellier* gaming company was founded in 1994 as a graphics studio that at the beginning was producing technical and design support for bigger products. *Montpellier* was merged with another gaming studio *Tiwak*[27] which at the time was a standard process to increase productivity.[28] *Montpelliers* first debut came almost ten years after the critically acclaimed game: "*Beyond Good and Evil*" in 2003. After the year 2011 *Montpellier* created a new game that in comparison with *Beyond Good and Evil* was lauded with positive reviews, "*Rayman: Origins*". It won the Best Original Property in 2015's BAFTA Game Awards[29].[30] Perceiving the evolution of *Montpellier* it should be noted how their games followed certain trends in the game development. In my opinion these trends weren't in its time the most ambitious, but more of an experimental kind. This is explained more in detail after I have conducted the development of the gaming industry and explains the change in how game developers created these games and most importantly created new ambitious ideas for new games, like Valiant Hearts.

When considering the difference between the beginning of *Montpelliers* journey from the 1990s to the 21st century. We can see tremendous change in the possibilities for gaming companies,

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[26] Grufstedt. 2020. 58.

[27] *Tiwak was a French game developer studio.*

[28] Egenfeldt-Nielsen. 2013.

[29] Shortened from: "British Academy Games Awards". It is given each yer to honor: "outstanding creative achievement" in the video game industry. https://www.bafta.org/games.

[30] Ubisoft. 2022.

for example, in the open format design the game designers needed to follow the game platform providers. Since in the 1990s the only way to produce games was to co-work with the platforms[31] that used specific game engines. This was the only way to have a compatible game for consoles, where most of the market stood at the time. Resulting in the manufacturers' control of the gaming markets, and how games had to be produced and designed. This led to the notion that *individual gaming companies* (*Indie*) and experimental game designers didn't have opportunities to build games without consulting game platform providers. Affecting the change in the labour market where open jobs were strictly provided by big companies.[32] Not until innovations made it possible to distribute games online in 2003 by *Steam* and more advanced computers provided enough game engines for individuals. Smaller companies managed to change the game designing more within reach for everyone. This had impacted the gaming market by increasing games with different ideas and innovations.[33]

In the beginning of the 21st century, the variety of gaming platforms and new generation gaming consoles not only created new possibilities in the gaming industry, but different ways to express the narrative of the game. More improved graphics and more detailed games made it possible to create more complex and accurately engineered games without the workload the older games had in the 1990s.[34] At first the new gaming platforms made it even harder for individual gaming companies to create games in their own and mostly only bigger companies, for example *Ubisoft* managed to secure their position by developing for big game projects: *Tom Clancy's Ghost Recon Advanced Warfighter (2006), Rabbids Go Home (2009), Michael Jackson: The Experience (2010), The Adventures of Tintin: The Secret of the Unicorn (2011)*, as well as *From Dust (2011)*.[35]

2005 marked a new era in the gaming industry, the emergence of the online retail market started a new way to sell games and modify them. This was due to the development of computers and the software overtaking the ground in development, that manufacturers' components and game engines had defined. Computers created new fields for individuals to use their own creations to express their ideas and views in video games.[36] This in turn paved the way for smaller game

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[31] For example, Nindendo, Playstation and Xbox.
[32] Egenfeldt-Nielsen. 2013. 109.
[33] Egenfeldt-Nielsen. 2013. 111.
[34] Egenfeldt-Nielsen. 2013. 104-105.
[35] Ubisoft. 2022.
[36] Egenfeldt-Nielsen. 2013. 19.

companies to produce their own games by concentrating on their own game engines without requiring permission from the bigger manufacturers controlling the gaming consoles. Thus far the gaming market was mainly based on the retail market where gaming companies produced most of the income with hardcover games.[37] At first consumers didn't trust online retail, but the fast number of games shifting to the online stores and the internet becoming more and more common, created a more consumer friendly atmosphere where games didn't require physical copy of the games. As such *Montpellier* created their own game engine which is called: "*The UbiArt Framework game engine*" that managed to create games in-house, meaning *Montpelliere* wasn't depended upon other manufacturers and therefore they could concentrate to create their own games how they wanted with their own methods.[38]

The UbiArt Framework game engine was made to conduct new games which were two dimensional and "cartoonish". The game engine was set to produce two and a half dimensional games which means the movement was two dimensional, but the graphical experimental is closer to three dimensional. Two-dimensional experience had become an old trend in the 1990s when three dimensional games became the new standard at the end of the 1990's and the beginning of the 21st century.[39] It is worth noting that how two-dimensional games had a new return in the game industry and became more popular in the 2010s because of the possibilities that new game engines and open source managed to provide. It was more efficient way to create new games in a short time rather than trying to invest time and money to build three dimensional virtual worlds. *Montpellier* used this knowledge to dive into the experimental fields of the gaming industry and provided exceptional games with more relatable gameplay that didn't require the newest gaming platform, such as the newest gaming console or computer. In the end the lifespan of the *Ubiart framework* came to an end, because it was too demanding to use, and according to Ubisoft CEO Yves Guillemot it required a lot of time to be taught in-house. This led to the decommissioning of the game engine in 2019.[40]

Thus, *Montpelliers* experimental strategies can be explained by the way *Ubisoft* produces its games and also according to the ideas of *Ubisoft*s' CEO Yves Guillemot. Gaming companies have conducted a way to develop games from ideas which at first need to be evaluated to meet

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[37] Baker. 2018.
[38] Ubisoft. 2022.
[39] Palola. 2016.
[40] IGN. 2019. 44:10.

the standards of the game company and importantly the expected coverage and selling numbers it generates. This has been in practice from the beginning of the gaming industry, but as the game industry has grown from the beginning of the 21st century and the companies have gotten much bigger. It has led to certain market strategy in which they need to form a certain assurance that the game company manages to provide enough income to keep the business running.[41]

In the last decades, seen in the way *Ubisoft* was founded in 1986, has considered to be one of the most high-quality producers of video games. *Ubisoft* has managed keep the production of games with positive reception since the 1980s. *Ubisoft*'s CEO Yves Guillemot stated in IGN interview that *Ubisoft* has always tried to build games from the standpoint in which the game with good ideas needs time. Therefore, Guillemot tries to give the game designers as much time as they need to build high quality games.[42] Although the market for ultra-high detailed games is still the standard for *game of the year awards[43],* it is interesting to notice how the game industry has moved to a direction that allows more simpler and experimental ways to inspire players rather than different companies competing against each other who has a more detailed and graphically refined game. According to Valiant Hearts Community specialist Kevin Erwin, the idea for Valiant Hearts came from one of the team members of *Montpellier* the art director Paul Tumelaire who created experimental concept art of World War One and managed to draw the teams attention to start working on a game which tackles the concept of World War One from the perspective of an individual.[44] This way *Montpellier* allowed the team to create their own ideas for future projects, in this case Valiant Hearts which had opportunities to act as a memorial piece for the upcoming 100th memorial year of World War One and introducing underrepresented subjects.

Because of the gaming industry shifting itself to more open-source design, meaning gaming companies didn't require manufacturers permissions and detailed contracts to use gaming engines to create video games. In case of Valiant Hearts, it made possible to create new ways to introduce different themes and gameplay mechanics which in the case of historing and representing past, was much easier. Of Course, *Montpellier* -gaming studio as part of *Ubisoft*

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[41] Egenfeldt-Nielsen. 113-114.
[42] Sim. 2017.
[43] Game of the Year award (GotY) is an award given by various award events across the world in which games exceptional for that year are awarded.
[44] PlayStation. a2014. 0:13-0:50.

was at its time one of the biggest gaming companies and was ranked among the top 10 independent publishers in the world for the first time in 2002.[45] This is one of the reasons why *Ubisoft Montpellier* managed to provide more time for the development, because of the revenue received. In 2010 *Ubisoft* gained revenue approximately worth $1,231 Million US Dollars which have increased year by year.[46] One major factor in creating games which concentrate on stories and a certain historical time period is the company's objective and mandate to create games that provide unique experiments for the player.[47]

Thus far I have been concentrating on outlining the time and context where Valiant Hearts was created which consisted greatly on how the gaming industry was providing enough interest and platforms that in turn boosted the experimental designs and gave more freedom to create games that aren't bound to follow certain ways to present themes to be successful.[48] All in all, I have come to certain conclusions where I have examined how the Ubisoft *Montpellier* -gaming studio was created and what circumstances provided the starting points to create Valiant Hearts and a product to represent the past. Next, I shall focus more on the game designers who tackled the notion that World War One is a difficult subject to present in video games.[49] I will be focusing on what sources *Montpellier* used to form enough information about the past. Furthermore, I will be concentrating to examine the source criticism which helps us to understand what sources did the game designers use and what point of view formed their storytelling to their product of fiction? I will not be considering the legitimacy of these sources, on the contrary, I will use these to form the needed understanding that explains the starting point how Valiant Hearts represents the past.

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[45] fiskO. 2021.
[46] Macrotrends. 2022.
[47] IGN. 2019.
[48] Egenfeldt-Nielsen. 2013. 111.
[49] Kempshall. a2015. 2.

2.2 Historical sources in Valiant Hearts

Game creators were inspired by the idea of making a game about World War One. Earlier I mentioned that World War One as a difficult subject to present in video games. This is, as aforementioned, because of the nature of how people still picture the Great War as a "bad" war without a clear winners.[50] Game designers took a standpoint where they wanted to create a game which introduces World War One to the audience as realistically as they can, so that the people who are less aware of the events could be taught by playing by different characters who represent the war by individuals point of view and show a different image of the war what gamers and a wider audience have seen in the 21st century. Usually, different works of fiction and entertainment tend to create a set up for a narrative where stories need clear distinction between a hero and a villain.[51] With starting point such as this it is difficult to tackle the subject of World War One without making one of the parties feel accused. According to content and audio director of the Valiant Hearts Yoan Fanise the sources and historical research made them want to communicate their findings to the younger generation in a more accessible way.[52] By this Fanise meant that they wanted to create a game that draws the attention of the younger audience and creates more humane story about people and not creating conflict between nations. Of course, this calls forth research which helps to explain what were the sources used in Valiant Hearts and how did the game creators they conduct their source materials to replicate historical representation.

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[50] Kempshall. a2015. 18.
[51] Ballon. 2005. 53.
[52] PlayStation. c2014. 0:50-0:57 & 1:41-1:55.
[53] Ubisoft Montpellier. 2014.

The picture above shows an example how game creators used historical sources to have an effect to the design features – in this case a carrier pigeon – to resemble real life counterparts and pass on the knowledge of the past. As the picture above indicates it is easier to tell the story to the younger audience which replicates the humane aspect of the situation – in this case pigeon wearing a French military helmet and a letter case. It is important to point out how partly comical illustration has a real-life counterpart set next to it. To my opinion, this increments the reality of the events and adds convincing aspect towards the situations the game offers.

Among historical game studies, Valiant Hearts has been distinguished and criticized on behalf of how history is represented and how Valiant Hearts introduced World War One to the wider audience through fictional game experience. To cover how Valiant Hearts presents history and explain the creators use of historical sources, *Ubisoft's Developer diaries* of the Valiant Hearts explains in detail what sources the game designers used and why. This acts as one of the main sources to discuss about the use of historical courses. When making the game the main sources used in Valiant Hearts consisted of public history which was conducted by private research done by game designers. More detailed research was conducted by reading a collection of letters written in Western Front picturing the elements of life in the trenches. Furthermore, *Montpellier* reached to professional historians who provided historical information for the use of game development.[54] Because of the interesting standpoint and the use of historical sources Valiant Hearts has gained a lot of acknowledgements among historians. Valiant Hearts has also been an example of a game which has inspired gaming companies to use history as reference when creating stories.[55] I will cover this more deeply here on forth, because this allows me to explain the value of sources both in historical game studies and in my research to reveal its effect on storytelling.

There has been earlier research on Valiant Hearts by variety of scholars, and when talking about how Valiant Hearts uses historical sources, Abbie Hartman, Rowan Tulloch and Helen Young managed to introduce Valiant Hearts as a valuable tool for my thesis. Hartman, Tullock and Young address games to learn public history and they considered video games as a great tool to pass on knowledge. [56] This idea is presented in their article: "V*ideo Games as Public History:*

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[54] PlayStation. c2014. or PlayStation. a2014. 1:09-1:15.
[55] Hartman, etc. 2021.
[56] Hartman, etc. 2021.

Archives, Empathy and Affinity". The article's standpoint is in discussion on how games can produce knowledge of the past, but also on how games can use historical sources, which I will be focusing next. As I have mentioned earlier, I will emphasize that my focus isn't to critically evaluate the sources the game designers used, but only analyse their meaning to the creators since this forms a clear image and overall understanding of how the representation of the past has been constructed by the game developers of the Valiant Hearts.

We can consider asking ourselves: does it matter whether the game developers use knowledge of the past which is regarded to be the truth? Would it make any difference for the work of fiction? The reason why for different historical games and especially for Valiant Hearts this makes all the difference – to discuss and examine the sources – because game developers of Valiant Hearts have introduced to the player in different ways to historical sources during the gameplay and this is the driving force in the storytelling. In a form of picture and text, the game presents "*Historical facts*" that reveal information based on historical findings. These *Historical facts* tell the player about life in trenches and history behind different objects which in my opinion encourages the player to find more information during their exploration and gameplay. In other words, they serve as an achievement which rewards the player to seek out more information and regaining more experience.

These *historical facts* are based on several international archive repositories, for example, the Australian War Memorial, French Filmmuseum, Ministère de la Défence Belge and the US Library of Congress. Behind the help for *Montpellier* to gather and evaluate the different sources was *Mission Centenaire*, a French organization specifically tasked with developing and increasing public awareness of French World War One Centenary commemorations. In addition to the game's historical facts, player can examine different historical artefacts when stopping the game and returning to the title screen[57]. These artefacts offer the player different historical sources of the Great War, for example. pictures, information, letters, and diaries. It is also interesting design choice from the developers to clearly exhibit the sources of the artefacts next to the *historical facts*, which shows the players where the information is coming from and thus making the player more secure when encountering information.[58]

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[57] Main menu where the player can choose to start, continue game, and change options.
[58] Hartman, etc. 2021.

What made Valiant Hearts an interesting game wasn't just the sources used and the way World War One was represented, but in additional to this the fact that it was published proximately a week before the beginning of the centenary of World War One. In 2009 a conference was held by *International Society for First World War Studies (ISFWWS)* that according to the First World War historian Chris Kempshall "[…] focused on the desire to present the war as a problem to be solved and investigated rather than as a story or a narrative to be told was reiterated in different forms across the three days of the conference.".[59] By this *ISFWWS* openly discussed of the variety of ways to introduce World War One to the audience in three day conference called: "Other Combatants, Other Fronts".

"[…] the Society seeks emerging and innovative research on all aspects of the First World War. We would encourage applications from a variety of disciplines, including literature, art, archaeology, philosophy and music, as well as from historians."[60]

By this the ISFWWS managed to create more deeper examination towards the World War One rather than only tell how things were in history, but also focusing on the image of war. We cannot tell, if the conference had any effect on the decisions made by the game designers of Valiant Hearts, but it is worth mentioning that Valiant Hearts represents the World War One in away that fits with the 2009 ISFWWS's conference spectrum.

In this three-day conference, 28 papers were introduced and only couple of them concentrated on the western front. Other papers explored the war and the aftermath from the point of view of other nations and witnesses. This set up was highlighted in the finale day conclusion when the attendee discussed if the World War One was a global history and not just the history of Europe. The conference themes were presented accordingly: prisoners of war, legacy, artistic response, neutral countries, military aspects, experience, race, and behind the lines.[61] It is noteworthy how these themes are aligned with the storytelling of Valiant Hearts. Player is introduced to experiences of war, prisoners of war, the legacy what World War One had, neutral countries – in this case Belgium – race and behind the lines. Although Valiant Hearts concentrates on the western front, it brings multicultural aspect by introducing different nations

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[59] Kempshall. a2015. 2.
[60] ISFWWS.
[61] ISFWWS.

serving in the wester front. This brings up the aspect how the war was global and affected world even though the main battles were in Europe.

There is resemblance between the game and the conference that managed to outline the themes in which World War One has been studied. Concentrating more on the details and individuals and how did the war affect others and how did they view the war, brings us closer to the idea that the war itself serves as an enemy. We can see certain construct how Valiant Hearts carries the player to experience the World War One and how the war itself affected the world. The player is introduced to playable characters that introduces events and bigger pictures. Examining these layers, we can notice what the player is introduced to individuals and emotions and events and global connections. In a case of Valiant Hearts, the individuals show emotions like terror and care for others recreating the experiences how the war was seeing through eyes of civilians and soldiers. This was also the case in the conference where almost half of the papers addressed the experiences of war. One of the papers considered important question what seems to be closely examined during the designing of Valiant Hearts, whose memories are told and how they differ from other experiences? One of the reasons for making multiple characters was decided this question in mind.[62] Also, relevant to this question is the nationalistic ideas and does Valiant Hearts present nationalistic ideas towards certain country. Confronting these ideas what was one of the main topics of the conference have common point of views and purposes. How to create historical presentation which serves as an investigation and not only a story or narrative. In the case of Valiant Hearts, it is not only a narrative driven story, but an adventure what introduces problematic situations and an investigation to reveal how the war affected the world.[63]

It is also worth mentioning that when game designers are using consultation from historians and experts of different crafts, it might not have clear impact on the decision making how to use the sources and how does it impact the narrative of the game.[64] This is because in the end the game is formed how the game developers wanted it to be made. In this regard, designers of Valiant Hearts wanted to represent the Great War in totally new way and introduce the player to see the historical time in completely out of the ordinary. Meaning the creators didn't want it

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[62] PlayStation. b2014.
[63] ISFWWS.
[64] Kempshall. 2019. 234.

to be only a war game focusing on fighting. It concentrates on creating counterfactual entities by allowing player to test different memorial re-enactments, by reading about the artefacts, or moving across the frontlines with different characters and their backstories. By doing this, Valiant Hearts introduces a new way to tell a story about "the horrors of war […] emotions of war […] how different cultures, different countries where all affected the war in different ways.".[65]

When considering the sources used in Valiant Hearts, we can understand what impact the game designers had when designing the game. As a work of entertainment Valiant Hearts was built from a standpoint where creators used history as a base to thrive from there with the story. We can notice how these sources created enough material to introduce and represent the past for the players and, create away to pass on the knowledge which is still a theme of debate. My focus was to form an understanding from the time when the Valiant Hearts was made and from the history of the game studio which managed to make the game possible. This created deeper knowledge how historical game was made and bring us forward in the discussion on how the game represents the past. My focus in the next chapter is to dive into the Valiant Hearts narrative and discuss using three different methods to study what can work of fiction tell from the way which it represents the past.

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[65] Ubisoft. a2014.

3. DISCOVERING THE PAST THROUGH PROBLEM SPACE, SIMULATION & RE-ENACTMENT

3.1 Presenting the past with mediums of fiction

In this chapter I am examining how game designers of Valiant Hearts have created a historical understanding of the past and how Valiant Hearts represents it. One of my arguments is that Valiant Hearts is a good example of a game which produces an experience of history. Of equal importance, I will cover this by examining how the creators of Valiant Hearts have pictured and designed the game. In addition to this, I am going to examine the game and its way of representing the past by using three different methods which allows me to study Valiant Hearts in a way that reveals the means in which the game designers have created the tenders of the yore. By doing this I can answer one of my research questions: How Valiant Hearts represents history and what kind of historical impact can Valiant Hearts give through gameplay? As a result, I will be concluding my thesis by considering what kind of reputation Valiant Hearts created and what were the reviews?

Valiant Hearts presents a particular type of visualized historical experience, which enables the player to imagine something becoming a reality. Although Valiant Hearts is a simple-looking cartoonish game it has a multilayered equivocal narrative which can provide ideas and conceptions of the past. Valiant Heart has a strong narrative drive in its gameplay which means the player is constantly bound to follow the objectives of the game, in other words, the player has little interaction for how the game continues its storyline. The creators of Valiant Hearts made a documented series which is called *Valiant Hearts Developer Diary*[66]. In this series the game developers explain how the game was made and what were the purposes behind the design of the game. This gives me valuable information of the purposes behind the design and narrative which helps me to outline the aims and results of players' experience.

The purpose of the game is simple but has a relatively unique way to present it. According to the creators of Valiant Hearts their purpose was to emphasize the emotional and educational

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[66] Playstation. 2014.

impact of World War One.[67] As such, the game design and predefined story in Valiant Hearts has a strong historical narrative which focuses more on the individuals and emotional impact.[68] To my observation this increases the effectiveness of the story and experience which creates historical re-enactment and catches the player deeper into the historical experience. Because of the linear gameplay and a simple-looking cartoonish design, the creators have managed to capture the eye of the player to a certain message that the game clearly tells: War creates only suffering and victims.[69]

> "To tackle the war from the inside out, through characters who've been unwillingly thrown into the war."[70]

The previous quotation from the developers summarizes the basic idea behind the pacifist story in which the negative perspective is strongly presented and continuously present during the gameplay. The story begins with creating contrast between peace and total war, from the outbreak of the war and war declaration of the nations in 1914. From the beginning of the game, the player is introduced to a peaceful landscape in France and a happy family which soon faces the consequences of war. This family plays a key role in the story and Karl, the father of this family, and one of the protagonists, is forced to leave France because of his origins which are in Germany.[71] The separation of Karl and his family is a part of the general mobilization act[72] which took place in France and Germany 1st of August 1914 and this acts as the problematic turn which gets the whole story going. The general mobilization act urged the citizens of these nations to return to their homeland and men were obliged to join the ranks of the military.[73]

The player is introduced from the beginning of the game to historical facts which appear on the screen like in a documented film. These facts outline the global history where the events of the game take place. In this way the player is introduced to the historical timeline which helps to create the illusion of historical experience.[74] To my observation the game emphasizes the elite and the nationalists who took the nations into the war. Individuals, just like Karl, didn't have

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[67] Playstation. a2014.
[68] Playstation. a2014.
[69] Kempshall. 2015. 34-35.
[70] Playstation. a2014.
[71] Ubisoft Montpellier. 2014.
[72] Trachtenberg. 1990. 121.
[73] Becker. 2014. 40.
[74] De Groot. 2016. 13.

the possibility to object, which raises questions of the necessity of the war and pity towards the family which is forced to fight on opposing sides.[75]

Negativity towards the war itself increases towards the end and this is presented through Five different playable characters. The main character is Emile who is a French farmer forced to leave his family and farm to fight the war on the Western Front. Freddie is a strong, enigmatic all-action soldier, who is an American volunteer fighting in the lines of the French army. Anna is a Belgian student and a nurse who joined the war in the hope of discovering what happened to her father under the occupation of Belgium. Karl, a son-in-law of Emile, struggles in the Western Front fighting without purpose and is wishing for the war to end. And lastly, there is a dog named Walt who has an important part in gameplay to get past the objectives and represents the innocent victims of the war. All of these characters have separate stories and reasons to fight, but the fact that they are not fighting because of their national responsibilities, rather than for the sake of their families and friends, forms a stronger hate towards the situation the characters are facing and also creates certain fear in the players: how these characters are going to survive?[76]

Valiant Hearts introduces the First World War in a way the player is introduced in simulation which tries to educate players through emotions and events. This forces the player to dive into the events of the game which represents the Great War how the game designers wanted them to see it. I have chosen three different methods[77] which helps me to go deeper and examine these elements which outlines how Valiant Hearts introduces history through gameplay and simulates the experience of the past. By using Jeremiah McCall's method: *historical problem space framework* (HPS) we can analyze Valiant Hearts and how the game developers have been doing history or "historing"[78] for this game. In other words, we focus on the "developer-historians[79]" and answer the question: why does this particular gamic history represent the past the way it does?[80]

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[75] Ubisoft Montpellier. 2014.
[76] Chris. Kempshall. 2015. s. 36.
[77] First method by Jeremiah McCall, second method by Adam Chapman and third method Jerome de Groot.
[78] Chapman. a2016. 173.
[79] Game developers take the role of history teacher.
[80] McCall. 2020. Read: 17.2.2021. 12.32.

3.2 Historical problem space Framework

Considering Valiant Hearts as a subject of McCall's HPS. First, we need to study how the player agent performs in the game and what the objectives are that keep the gameplay going. The player only needs to side scroll to the right of the screen which reveals more landscape and puzzles which the player needs to solve to advance in the game. In some parts, the player agent needs to use coordination and timing, whether it is to avoid artillery fire which can be seen as an intensifying black spot on the ground or passing on a dynamite by throwing it to a friendly non-playable character[81] (NPC) who sets a timebomb under the enemy location. These simple tasks are far from the tactical requirements which soldiers perform in the frontline, and as MacCall comes to a conclusion, Valiant Hearts as a part of the side-scroller, puzzle solving genre, is imposed upon World War One, meaning that to some extent Valiant Hearts lowers World War One into a puzzle game which can degrade the impact of the historical experience.[82] We can consider MacCalls conclusion on Valiant Hearts as a great way to dive in why game designers have designed this to be? According to Valiant Hearts *developer diaries* the artwork was created by an art director Paul Tumelaire who was inspired by historical photos of the time, The "comic book" style was inspirational for the whole game designer team and after consideration they decided to present World War One in a way which should be easier to connect with.[83]

I disagree with McCall, because when considering simple aspects of side-scroller game, which has strong narrative impact to the player, this should increase the effect of emotions and the terrors of war because the game lowers the aspects of war to a simple performance and experience, what leads the player to concentrate more on the surroundings and the narrative. In my opinion, this is the way Valiant Hearts creates historical education in more relatable way and forms feelings of immersion. This can be emphasized in the case where the player cannot return fire and is forced to experience the war as a weak self-defenseless player and takes the place as a victim of war.[84] This hopeless position increases the pity towards the playable characters and in some cases towards the NPCs which presents the same hopeless position. This

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[81] Non-playable characters. Players can interact with them but cannot move or control them.
[82] McCall. 2020. Read: 02.04.2021.
[83] Playstation. a2014. 0:30-0:45.
[84] Kempshall. a2015. 73-74.

observation serves the game developers' purpose to represent the terrors and emotions of the war.[85]

As McCall points out, many of the elements which Valiant Hearts presents (such as machine guns, artillery fire, cutting barbed wire during the charge) have real-world counterparts for World War One, but they all take the appearance of either puzzles or tests of dexterity.[86] This can lead to a problem when considering Valiant Hearts as a historical educational tool because this can lead in situations where the player overlooks the game and misses the valuable parts of the represented histories. But also on the contrary the simple gameplay may lead to valuable observations from the player agent which can find new information of specific situations and how World War One is pictured.[87] My observation is based on Chris Kempshalls' ideas. Kempshall talks about how the image of soldiers is presented in different ways in Valiant Hearts and how the simplicity can create understanding on how the soldier experiences the war.[88] HPS forms a basic knowledge of how a game treats the concept of its subject and in which form it represents it.

McCall's *historical problem space framework* makes it possible to frame the basics of Valiant Heart and allows us to understand the potential behind the gameplay which allows us to concentrate more on the holistic way to examine games and not just texts.[89] Also McCall provides a way to question the meanings behind the game designers' purposes. By doing this we can form a deeper understanding towards the design purposes. Like McCall, Adam Chapman discusses games as history widely, but becomes more precise when talking about the images and narratives presented in video games. Chapman allows us to get deeper into the story and how its historical simulation provides knowledge and formative experiences of the past.[90] Chapman talks about ludonarratives and framing narratives when distinguishing how history is presented in gameplay.[91] It appears in fixed format (framing narratives) or in ludonarratives, the narrative emerges when the gameplay moves forward.[92]

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[85] Playstation. c2014.
[86] McCall. 2020.
[87] Chapman. a2016. 41.
[88] Kempshall. b2015. 667-668.
[89] Mccall. 2020.
[90] Chapman. b2016.
[91] Chapman. a2016. 121-122.
[92] Chapman. a2016. 119.

3.3 Adam Chapman and historical simulation

In Valiant Hearts the presentation of the story mainly focuses on the film-like approach, and according to Chapman, this allows the game to deal in ambiguity. Chapman means by this that the film-like parts of the game introduce elements of drama, the presenting of which history can struggle with, introducing social life between the characters and creating a meaningful purpose to keep fighting on for the individuals, like brotherhood between the soldiers.[93] Considering Valiant Hearts and how the framing narratives work they mostly focus on the relationship between Emile and his family. Constant care for his loved ones is shown by letters written by Emile, explaining the situation in the front and to enquire after his daughter and grandson. Also, the longing for home and waiting for the war to end is an important part, but in addition to this the player is reminded of the national duty towards their country.[94]

In Valiant Hearts the framing narrative parts also explains how the world and history changes during the game's time period. Historical facts are explained on how the Western Front turned to be more like a stationary trench warfare and how the war itself took a completely different turn in weapon systems, like with gas warfare and use of tanks and artillery.[95] Framing narratives mainly explain in Valiant Hearts in which context the scene takes place for the player. In my opinion, it introduces the goal for the player, which is to survive from the war and in the end return to the life from which the characters left to fight the war. It also can be seen as a reminder to the player why things happen in the game in a certain way and what is the fundamental reasoning for the tasks which creates purpose for the gameplay and at the same time introduces historical events which makes the player dive deeper into the story, in other words creates an immersion. This confirms the idea behind game developers and how they wanted to create a character who clearly are soldiers by name, and part of the mass in that sense, but in reality, just normal people with their individual lives.[96]

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[93] Chapman. a2016. 147.
[94] Ubisoft Montpellier. 2014.
[95] Prior. 2014. 204-233.
[96] PlayStation. a2014. or Kempshal. 2015. 667.

In addition, Valiant Hearts recreates moments in which the player is exhibited to see different situations. In the picture above the player can experience how trench hospitals operated and even come across prisoners of war sharing portions with each other although the war is waged between their nations. While the trenches indicate war and death, Valiant Hearts manages to show that the trenches were also their temporal home and place where they spend their free time between fighting and battles. The emotional experience is created by moments like this when the player is forced to watch and at the same time take a break from the gameplay. This brings the individualism and overall picture closer to the player which serves as a reward.

Compared to ludonarrative, Chapman introduces framing narratives that are restricting and don't give the player agent the possibility to influence the story or give the possibility for alternative imagining or narratives.[98] Such as the picture above, ludonarratives make it possible to examine the way how soldiers' experience is depicted and how the war itself is described in Valiant Hearts, by concentrating on the players' performance and reactions which the gameplay evokes. Chapman uses this to focus on the story which emerges during the gameplay.[99] In Valiant Hearts the narratives which are revealed after the players actions are mostly focusing on the dramatic effects, which encourages the player to form their own opinions. Because in Valiant Hearts the story is strongly fixed and every move the player makes is coordinated

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[97] Ubisoft Montpellier. 2014.
[98] Chapman. a2016. 148.
[99] Chapman. a2016. 123-124.

according to the game designers' will, we will focus on the effects that the moments of ludonarratives create and how the history is designed to be told.

Ludonarratives in Valiant Hearts are strongly related to objects, social structures, architectures, processes, actions and concepts.[100] These shape the player's understanding of the environment and what the characters and NPC's are going through in the "historical simulator". For example, the gameplay involves optional goals which mainly are reading the characters' notes and thoughts of the situation and what the scene is getting through. Also, the game involves artefacts which the player can gather. These objectives tell a meaning behind the artefact the player founded, but also if the player misses these artefacts which can be tricky to find leads to lack of historical information which could explain more deeply the reasons for certain actions which the game designers created. For instance, in the middle of one gas attack on the ground the player can find a face mask made of a towel soaked in urine, which in fact was the first means to counter the gas. In this way the gas would dissolve when being in contact with water or other liquid.[101] In addition to this if the player manages to miss the artefact which explains this to the player, the player is left to wonder, if at all, the reasons for the characters wearing some fabric on their faces. In some cases, like in the example, players are in situations in which the game designers have created so the player can understand the dangers and what needs to be done to avoid failing the level. This relation between player and the game creates the relationship in which the game passes on knowledge even though the player doesn't always know it.[102]

Ludonarratives which concentrate more on the social structures and concepts tend to focus more in Valiant Heart on depicting how NPC characters move and live during the gameplay. Some are interacting with the player agent and creating more awareness of the situation, but mostly the soldiers are described as much stronger and less emotional than the playable characters, because of their distant relation during gameplay. With the exception of Freddie who storms the enemy lines with fists only, which creates a certain contrast in how the war is dealt with among different soldiers. Chris Kempshall points out how the game creates a certain image out of Emile, who is pictured as loyal and serves his country as best as he (player) can and wants to do his duty, without complaining, but is all the time hoping the war would end soon and the

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[100] Chapman. a2016. 123.
[101] Canadian War Museum. 2015.
[102] Chapman. a2015. 68.

player is constantly feeling of fear, which is culminated towards the end.[103] Still this creates certain suspicion towards the motives why the character joined the war and if it was something considered self-evident during World War One. This leads us to an observation how the narrative is contradictory with the gameplay, in other words it creates ludonarrative dissonance.[104] This can be seen in how the war is depicted as the enemy and not so much the opposing side in the Western front. For example, the narrative focuses more on survival and not defeating the enemy or managing to occupy the enemy lines, which could be seen as one major goal of the soldiers from a strategic perspective. Even the other soldiers depicted by the game indicate a certain will to survive and avoid being killed pointlessly, like the game pointed out during *the baptism of fire*, the first attack of the game, which pointed out how hard the infantry charges were. Despite their perilousness, the infantry charges, consisting of many thousands of soldiers, were common and the main tactic during World War One to fight the battles.[105] In Valiant Hearts infantry attacks are one of the main events to reenact the soldiers' experiences in the Western Front. Time before and during the attack the player agent moves inside the trenches and can confront many different branches of the armed forces.[106] These moments expand the knowledge of the player and explain different aspects of war and soldiers' purpose in the field of battle.

3.4 Re-enactment

Valiant Hearts include historically accurate details, like battlefields, events and equipment which have been recreated in cooperation with the creators of A*pocalypse document series*[107]. This means game designers of the Valiant Hearts have designed the story and game environment according to historical references the experience. This leads to an argument in which the player consumes historical experience through re-enactment which is both academic and fictional, at least according to Jerome De Groot who engages this subject by investigating in games how players experience history in different ways, for example ontologically,

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[103] Kempshall. a2015. 108-109.
[104] Hocking. 2007.
[105] Martel. 2014. 312–313.
[106] Ubisoft Montpellier. 2014.
[107] Apocalypse: World War I (in French: Apocalypse, la Première Guerre mondiale) is a French documentary series of World War One. Created by Isabelle Clarke and Daniel Costelle and narrated by Mathieu Kassovitz.

particularized and fragmented.[108] De Groot talks about how games can be comparable to re-enactment and how the players can be engaged in historical simulation.[109] This can be applied in Valiant Hearts and if we allow ourselves to think about how Valiant Hearts creates re-enactment, we can focus more on the specific details of the gameplay – and not only what the player does, but also what happens in the surroundings. Afterwards we can reflect on what decisions by game designers have created representation of the past.

After many massive charges attempts to conquer enemy lines the image of war in the western front took a turn in 1915 and 1916 to be more of a war of attrition.[110] In a sense of re-enactment, Valiant Hearts manages to create an understanding of how soldiers in the Western Front confronted transformation from plain fields to the harsh environment of stationary and trench warfare. Also, the feeling of boredom and need for spare equipment can be understood through the game. In World War One this created logistical problems and soldiers in the front tried to compensate for this by finding different ways to overcome the boredom and suffering of war.[111] In Valiant Hearts, game designers created specific missions in which the player needs to walk across the trenches and fulfill missions for the NPC's, more specifically, your fellow soldiers. They might give you a mission to find spare socks for them, which you can then exchange for ink, so you can write a letter to your character's family in the frozen trenches, or you meet soldiers who need a specific tool to reinforce the trenches.[112]

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[108] De Groot. 2009. 133.
[109] De Groot. 2009. 134.
[110] Martel. 2014. 313-314.
[111] Robin Prior. 2014. 207.
[112] Ubisoft Montpellier. 2014.

In this picture above the player is confronted with the black and white images of the trench system where soldiers spend their time doing their everyday chores. Mainly waiting and standing on guard is shown in the pictures and Valiant Hearts recreates the atmosphere in stereotypical wet muddy trench systems. Although the atmosphere is moreover peaceful and doesn't show instant treat to the player the pictures of no mans land is always in sight reminding the player where and what waits over the top. Game designers' decision to place historical pictures from the real situations gives more realistic imagery and narrows down the re-enactment for the players.

Game designers focus on Valiant Hearts was closely to create their own vision from the real sources like pictures that acted as reference and inspiration. Valiant Hearts was supposedly picture experiences in World War One comprehensively. In addition to this, when considering the gameplay, missions, and atmosphere the game was designed not to re-use situations and same areas which creates ongoing experience for the player. When we consider battle re-enactment in Valiant Hearts, the game designers have focused to picture the charges many-sided. Every infantry charge is a little different. In some cases, there might be gas which the charging party is up against, or a barb wire which the player needs to cut down so the attacking party can advance. Interestingly enough, Valiant Hearts even creates moments when under a heavy fire or artillery strike, the advancing party might retreat and stop the advance. As a part

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[113] Ubisoft Montpellier. 2014.

of re-enactment, it is understood that these battles don't end up into a heroic victory and it is noteworthy how Valiant Hearts can be understood as re-enactment in which the player experiences have surprising effect that creates understanding that not all battles end up heroically. In these scenes the player is constantly part of a historical linearity and landscape, which builds a sense of excitement and historical simulation.[114] De Groot gives an example of a different game, Medal of Honor[115], but in my opinion this real-life event can be translated even better in Valiant Hearts.

The strong impact of the game is based on how the experience is transferred through emotions to the player. According to the developers their main focus was to create a game which pictures the horrors of war, emotions of war and how different cultures and countries were affected by the war.[116] The way the game presents these are strongly focusing on the visual effects of the game, music, graphic design and narrative. Also, the game relies heavily on perpetuation of certain historical features of the Great War which are the trenches, gas attacks, artillery bombardments, machine guns and also the myriad of bodies lying on the battlefield.[117] Although the game is constantly focusing on the five different characters, the NPC's have their own part in presenting how soldiers might have felt during the war, and the presence of the various NPCs creates an atmosphere in which the stories of the soldiers are told. Playable characters are acting as an intermediary of life in the trenches and simulate how soldiers lived and faced everyday life. This also applies to the enemies whose experiences hardly differ from that of the opposing side. According to *Developer diaries*, game designers of *Montpellier* have managed to provide unforgettable experiences, moments in which knowledge of history has increased according to game reviews and the game experience.[118]

Representing the past in Valiant Hearts are closely in touch with the scenes which are based on historical events. During the gameplay where the player experiences the baptism of fire and is committing a charge towards the enemy forces, the player is facing constant loud sounds of guns and artillery fire and shouting voices of French troops. This scene is based on the real historical event, the fourth phase of the Battle of the Frontiers where the French army attacked

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[114] De Groot. 2009. 134.
[115] Medal of Honor is a first-person shooter game series. Published by Electronic Arts 1999-.
[116] PlayStation. a2014.
[117] McCall. 2020. Read: 3.4.2021.
[118] Metacritic. 2022.

the German forces on August 21st in 1914.[119] This scene acts as a re-enactment of the battle and at the same time presents the bitter reality of war, despite the heroic charge of the French troops the reality hits hard when no one survives the attack. The presentation and shown emotions and reactions can give the player a certain understanding and image of how the war and battle was fought in the early stages of World War One. No trenches were seen, and the environment had a colorful view not like the usual dirty and muddy image of war, which acts as the classical image of World War One.[120] The emotional impact of this scene is in the effects and bombardment which the player needs to avoid at the same time as your allies are shot down during the advance. The scene ends when the main character Emile is shot down by the German infantry fire and the game rewinds the image of dead French soldiers and wounded Emile who is taken as a prisoner of war.[121] The game doesn't create a successful feeling like many other games where the player is rewarded after managing to survive the stage or scene. The reason to advance in the game isn't because of the game mechanics, but to figure out what happens to the characters of the game and at the same time to the history of World War One.

When designing Valiant Hearts the game designers wanted to use historical reference to create a realistic game based on facts and represented them as accurately as possible.[122] Montpellier Game development team worked with two history associations: *The First World War Centenary Mission* whose purpose was to transmit memory of World War One to all. [123] And earlier mentioned *Apocalypse: World War One* documented series which was created by Isabelle Clarke and Daniel Costellew to pass on unpublished material of World War One and focusing on the bigger picture of the events and experience of individuals. This also motivated them to create certain events which focused on specific times and events which passed the knowledge of the war.[124]

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[119] Prior. 2014. 204.
[120] Todman. 2005. 1.
[121] Ubisoft. 2014.
[122] PlayStation. c2014. 00:40-01:00.
[123] Musée de l'Armée Invalides. 2022.
[124] PlayStation. c2014.

CONCLUSION

In this thesis I have conducted my research on how the video game Valiant Hearts was created and the ways it represents the past. I have analysed how Valiant Heart and its thematic relate to its times histography and goals to present World War One. This being said I have employed three methods – Adam Chapmans simulation, De Groot's re-enactment, and Jeremiah McCall's problem space framework – that facilitate the game designer's outcome in a way that explains the *historing* behind Valiant Hearts. My study has been focusing to underlay how Valiant Hearts was created and what affected the way to represent history and decision making to use historical sources as a tool. Furthermore, how Valiant Hearts supplements the gameplay experience and also serve as a way to learn about history. My thesis has also served as an experiment on how to do historical research on video games which has guided the foundations of my text. Next, I shall once more state my research questions and answer them on the basis of my discussion.

1. *What is the standing of Valiant Hearts in the evolution of gaming industry?*

2. *What were the aims and practices of game creators in Valiant Hearts?*

3. *How Valiant Hearts represents history and what kind of historical impact can Valiant Hearts give through gameplay?*

To answer these questions, I have conferred with previous research and analyzed research material that have helped me to form enough information on game creators' decision making. the Interviews have been either in the form of documented series or written interviews which has been made specifically to outline reasons behind different design features. Research material has been done a great deal on this subject which served also useful as away to learn and support my point of view. Most of the research material and earlier studies which I have used, have conducted their results on Valiant Hearts and this left me in the position to dive more deeply into the designer's point of view and examine Valiant Hearts by using prepared methods. By using three different methods to dismantle the game mechanics and gameplay, it made it possible to create more deeper understanding of the game development and decision making behind the narrative. This led me to conduct my research on Valiant Hearts by close reading the gameplay and shape my conclusions how Valiant Hearts represented the past.

1. What is the standing of Valiant Hearts in the evolution of gaming industry?

Game industry has a long history in our modern society. It has been part of wider audiences' everyday life for over 40 years and in the beginning of the 21st century *Ubisoft Montpellier* managed to create their own games which in turn provided enough success to develop completely new way to produce video games. Because of the advantages of broader game markets and development in gaming industry, corporations and small businesses managed to produce more freely games that were inspired more experimental way to approach narrative. New details and in-house produced game engines, like *Ubiart framework game engine* in *Ubisoft Montpellier*, gave the two and a half dimensional tools to create Valiant Hearts. The mainstream of game industry hasn't been keen to produce World War One games. This led to an opportunity for *Ubisoft Montpellier* to tackle the theme in a narrative thriven game. One of the reasons why many of the historical game study scholars refer to Valiant Hearts is because Valiant Hearts managed to break the concept to use war theme in different way. In this case, the player acts more subjective and as a bystander rather than acting on their own in a sandbox to simulate how war was fought. My research suggests that the game creators where obliged to design a game that not only presented how the war was fought, but also established more deeper understanding on the ways it effected the world and our modern society. This was done by operating with historians and engaging with historical sources what helped to create different design features for the game.

2. What were the aims and practices of game creators in Valiant Hearts?

Valiant Hearts as a game was in its time unexpected and revised the knowledge that designers can tackle the World War One subject in many ways. Because of the subject Valiant Hearts presented, it gained attention and sparked an inspiration from players and designers alike. Especially games with story driven gameplay tend to avoid World War One for various reasons. Memory and presentation of World War One had shaped the images as a strategic war, not a hero story, but a catastrophic failure that people remember as "a bad war" which had an impact for the way how to present the narrative in Valiant Hearts. My research has revealed that the focus of the game creators was to present World War One in away that the newer generation could learn about the war in more approachable way. This is one of the reasons why game

creators decided to use historical sources and help from different professional history associations and scholars which provided facts to form a basis for fictional story about the World War One.

One of my main argument's states that the designers of Valiant Hearts have conducted careful preparation on how World War One was studied in the eve of the centenary of World War One. This way the designers formed their vision on how the story supposed to tackle the subject of World War One. Valiant Hearts serves as an educational experience and simultaneously a bridge way to reconstruct the image of war which concentrates on the similar aims as *International Society for First World War Studies (ISFWWS)* -conference. These aims were to represent experiences of war, how the war effected the World and the consequences of war.

The game creators aim was to produce a game representing emotions of war, horrors of war and life in the trenches through variety of characters. These characters acted as mediums to subjective experience, generating immersion between the narrative and the player. Interacting in the game world to form moments of simulation and re-enactment. The narrative was created to catch an interest of a wider consumer audience serving at the same time as a passageway to dive into the different timeline by a completely new medium in the eve of First World War centenary.

3. *How Valiant Hearts represents history and what kind of historical impact can Valiant Hearts give through gameplay?*

By playing Valiant Hearts, the player is introduced to a timeline that through the narrative and concept forms certain understanding from the past. The impact of knowledge is hidden in the tasks the player needs to perform in order to gain access to move forward in the story. The gameplay serves two purposes, not only as entertainment, but also, as way to introduce players to historical knowledge. In my thesis I conducted this by using Adam Chapmans, Jerome de Groot's, and Jeremiah McCall's methods to get behind the ideas of Valiant Hearst's representation of history.

By studying Valiant Hearts *lexia* in the context of Chapman's historical simulation, I managed to form an understanding how Valiant Hearts represents simulation of situations where human

behavior and social bond between characters were formed. In this way player is introduced to the simulation of history that forms immersive experiences and manages to shackle the player into the events of Valiant Hearts. Simulating experience of soldiers and how different events had consequences was the outcome when examining Valiant Hearts with Chapmans simulation. The framing narratives – the games boundaries and ruler – that restrict the player to perform certain elements and situations are set by the developers. In Valiant Hearts these boundaries are at the same time forcing the player to experience certain representation without the freedom of experiencing counter factuality, in other words, to try out different outcomes. These elements directed the player to form a certain counterfactual imagery, how people were soldiers only by name, but in the end civilians who fell into armed conflict. Ludonarratives, what the player can do in Valiant Hearts, on the other hand draw deeper focus on how different situations work and what information they provide. In this case the player is learning through gameplay because the design is built in a way that forces the player to find artefacts and perform different situations that have real-life counterpart. All in all, through simulation and experiencing *lexia*, player manages to dive in to experience well-thought-out situations which manages to question the reality and dive in the historical facts.

Jerome de Groot's idea to consider historical games as re-enactment formed a concept where Valiant Hearts manages to create events that have real-life equivalent. In this case Valiant Hearts acts as a documented series which manages to form concepts and explanatory towards why different situations might have happened. Although this all happens through only five characters Valiant Hearts manages to create unique way to represent battlefield re-enactment and life in the frontline, or as a prisoner of war. Valiant Hearts creates social experience what according to de Groot deepen the emotional impact towards the player that can form counterfactual images from the past. Throughout the game, player is needed to interact with other characters and NPC's which act as representation of feelings and emotions shown in the sources of World War One. One of the major connections shown in Valiant Hearts is to see the real-life event pictures next to the game material. This design feature performs as a connection between the gameplay and the past which is done by using historical sources that by representing it as a virtual world, gives the possibility for the player to forms a connection between the past. This might lead the player to experience immersion, and so, dive into the experience what Valiant Hearts gives.

As my final method to discover how Valiant Hearts represented the past and what kind of impact it gives to the player, McCall's Problem Space framework forms the most critical way to abroach Valiant Hearts. This is due to how Problem space observes how Valiant Hearts lowers the World War One into the boundaries of a game. Although, to my observation McCall denies Valiant Hearts potential to pass on the knowledge because the game is set to be two-dimensional side-scroller game. I have inspected Valiant Hearts in detail with Problem space framework which in my opinion manages to increase the historical representation because of the simpler presentation. When comparing this with the design decisions, the creators acknowledged how cartoonish design lowered the image of war. This was done due the game developers aim to focus on more acceptable way to present the past rather than forming ultra-realistic representation which would have moved the focus from passing the historical knowledge to the more traditional gameplay experience. Problem Space framework has shown how game design features can lead to certain impressions and channel players to learn from the events.

My study points out how Valiant Hearts manages to express the game creators aims and decisions. The game is product of its time, and it was affected by the way World War One was then observed and how war itself was thought to be the biggest enemy of our modern time. Valiant Hearts serves as an example of how games have evolved from era where game manufacturers controlled the game creation to more open minded and experimental moment where companies managed to create more narrative driven historical games. My thesis suggests that Valiant Hearts with its thematic representation was affected by historical research of its time which in turn shaped the presentation of the past to the new generations even in the realms of fictional storytelling of history.

SOURCES:

Primary sources:

Game:

- Ubisoft Montpellier. 2014. Valiant Hearts: The Great War. Microsoft Windows. Digital game directed by Yoan Fanise and Paul Tumelaire. Montpellier, France: Ubisoft.

- Ubisoft. 2014. "Valiant Hearts E3 Trailer [US]." YouTube video, 2:20, 10.6.2014. https://www.youtube.com/watch?v=MP8q5F6dFqQ&t=36s&ab_channel=Ubisoft

- Playstation. a2014. "Valiant Hearts | Developer Diary 1: Art & Emotion" YouTube video, 2:35. 23.5.2014. https://www.youtube.com/watch?v=A28PRELsBnA&t=18s&ab_channel=PlayStation

- Playstation. b2014. "Valiant Hearts Developer Diary 2: Gameplay" YouTube video, 5.6.2014. https://www.youtube.com/watch?v=4gxhn0YhBWE&t=13s&ab_channel=PlayStation

- Playstation. c2014. "Valiant Hearts | Developer Diary 3: History" YouTube video, 2:25. 19.6.2014. https://www.youtube.com/watch?v=qzj7FzrUtMA&ab_channel=PlayStation

- IGN. 2019. "Ubisoft CEO Yves Guillemot Discusses Company's Past, Present, & Next-Gen Future - IGN Unfiltered #41" YouTube video, 53:00. 9.4.2019. https://www.youtube.com/watch?v=a9ewXj4RO5A&ab_channel=IGN

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Secondary sources:

- Ballon, Rachel Friedman., and Rachel Friedman. Ballon. Blueprint for Screenwriting : a Complete Writer's Guide to Story Structure and Character Development. 2nd ed. Mahwah, N.J: Lawrence Erlbaum, 2005.

- Becker, J., & Krumeich, G. (2014). 1914: Outbreak. In J. Winter (Ed.), The Cambridge History of the First World War (The Cambridge History of the First World War, pp. 39-64). Cambridge: Cambridge University Press. doi:10.1017/CHO9780511675669.005

- Chapman, Adam. Digital Games as History : How Video Games Represent the Past and Offer Access to Historical Practice. New York, NY: Routledge, a2016.

- Chapman Adam. "It's Hard to Play in the Trenches: World War I, Collective Memory and Videogames" Game Studies. Volume 16, issue 2. December b2016. http://gamestudies.org/1602/articles/chapman

- Chapman Adam, Foka Anna & Westin Jonathan. 2017. Introduction: what is historical game studies?, Rethinking History, 21:3, 358-371, DOI: 10.1080/13642529.2016.1256638 https://www.tandfonline.com/doi/full/10.1080/13642529.2016.1256638

- De Groot, Jerome. Consuming History : Historians and Heritage in Contemporary Popular Culture. London: Routledge, 2009.

  Egenfeldt-Nielsen, Simon., Jonas Heide. Smith, and Susana Pajares. Tosca. Understanding Video Games : the Essential Introduction. 2nd ed. New York ;: Routledge, 2013.

- Hartman Abbie, Tulloch Rowan, Young Helen. 2021. "Video Games as Public History: Archives, Empathy and Affinity" Game Studies. Volume 21, issue 4. December 2021. http://gamestudies.org/2104/articles/hartman_tulloch_young

- Kempshall, Chris. The First World War in Computer Games. Houndmills, Basingstoke, Hampshire: Palgrave Macmillan Limited, 2015.

- Kempshall, Chris. "Pixel Lions - The Image of The Soldier in First World War Computer Games." Historical Journal of Film, Radio, And Television 35.4 (2015): 656–672. Web.
  https://www.tandfonline.com/doi/full/10.1080/01439685.2015.1096665?src=recsys

- Kempshall, Chris. (2019, April 9). War collaborators: documentary and historical sources in First World War computer games. First World War Studies, 10(2-3), 225-244. https://doi.org/10.1080/19475020.2020.1774914

- McCall Jeremiah. 2020. "The Historical Problem Space Framework: Games as a Historical Medium" Game Studies. Volume 20 issue 3. September 2020.
  http://gamestudies.org/2003/articles/mccall

- Martel, Gordon. Twentieth-Century War and Conflict: A Concise Encyclopedia. Hoboken: John Wiley & Sons, Incorporated, 2014. Print.

- Palola Taneli. 2016. History of Video Games: 3D Becomes the Standard (1994-1997) – Article 2016. 18.3.2016. https://www.vgchartz.com/article/263598/history-of-video-games-3d-becomes-the-standard-1994-1997/

- Prior, R. 2014. The Western Front. In J. Winter (Ed.), The Cambridge History of the First World War (The Cambridge History of the First World War, pp. 204-233). Cambridge: Cambridge University Press. doi:10.1017/CHO9780511675669.012

- Rosenstone, Robert A. 1995. Visions of the Past: The Challenge of Film to Our Idea of History. Cambridge: Harvard University Press.

- Todman, Daniel. The Great War: Myth and Memory. London : New York: Hambledon and London, 2005.

- Trachtenberg, Marc. "The Meaning of Mobilization in 1914." International Security, vol. 15, no. 3, 1990, pp. 120–150. JSTOR, www.jstor.org/stable/2538909. Accessed 3 Apr. 2021. (20:39)

Internet-pages:

- Anderton, Kevin. 2018. "The Impact Of Gaming: A Benefit To Society [Infographic]" Forbes. Published in web 25.6.2018. https://www.forbes.com/sites/kevinanderton/2018/06/25/the-impact-of-gaming-a-benefit-to-society-infographic/?sh=9ef7052269de

- Canadian War Museum. 2015. The Second Battle of Ypres and The First Chlorine Gas Attack. Released: April 9. https://www.warmuseum.ca/blog/the-second-battle-of-ypres-and-the-first-chlorine-gas-attack/ (Read: 09.04.2021).

- Baker Tabitha. 2018. The Complete History of Indie Games. 19.9.2018. https://www.indiegamewebsite.com/2018/10/19/the-complete-history-of-indie-games/

- fiskO. 2021. Ubisoft Entertainment (Blog). Last edited, 8.9.2021. https://www.giantbomb.com/ubisoft-entertainment/3010-82/

- Hocking, Clint. 2007. "Ludonarrative Dissonance in Bioshock". 07.10.2007. http://clicknothing.typepad.com/click_ nothing/2007/10/ludonarrative-d.html

- Macrotrends. 2022. UbiSoft Entertainment Revenue 2011-2022 | UBSFY. https://www.macrotrends.net/stocks/charts/UBSFY/ubisoft-entertainment/revenue

- Musée de l'Armée Invalides. 2022. Read 14.6.2022. musee-armee.fr/collections/dossier-special-centenaire-de-la-grande-guerre/le-musee-de-larmee-et-la-mission-centenaire-14-18.html

- Sim Ben. 2017. Should You Still Make That 2D Game? 23.3.2017.
  https://www.gamedeveloper.com/business/should-you-still-make-that-2d-game-

- Ubisoft. 2022. Locations Montpellier, France. Ubisoft Montpellier.
  https://www.ubisoft.com/en-us/company/careers/locations/montpellier

- ISFWWS International Society for First World War Studies. "London 2009

- Other Combatants, Others Fronts: Competing Histories of the First World War"
  https://www.firstworldwarstudies.org/conferences.php?s=london-2009

- Metacritic. 2022. "VALIANT HEARTS: THE GREAT WAR".
  https://www.metacritic.com/game/pc/valiant-hearts-the-great-war