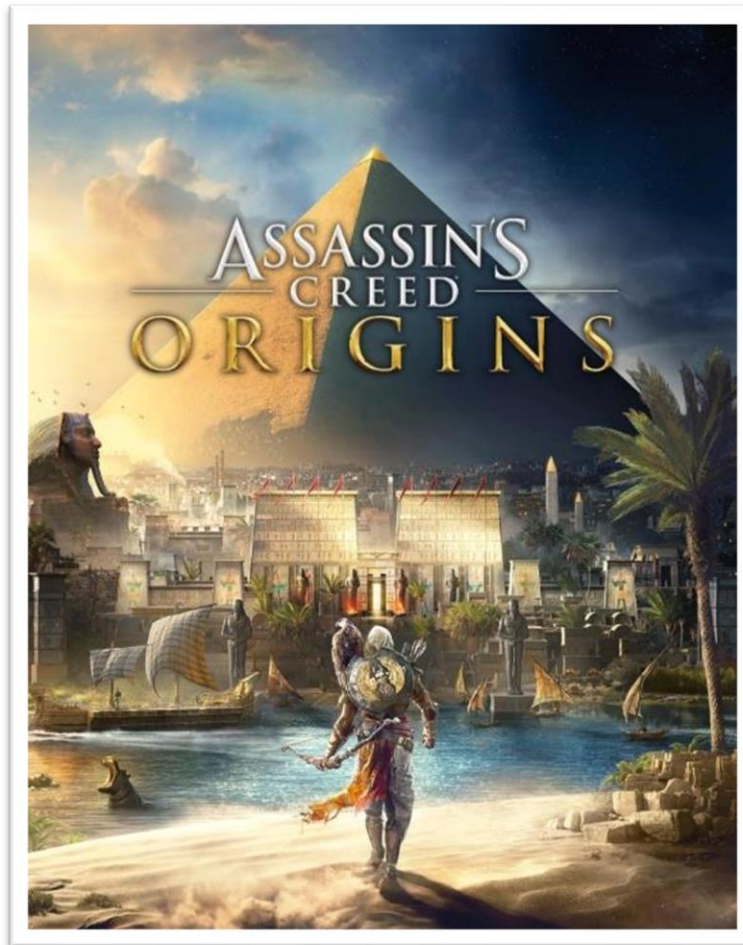




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# Representation of History in *Assassin's Creed*

Hassan Taher | IMSK01 | 02/08/2019

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Lunds Universitet, HT-18

Handledare: Mikael Askander

Examinator: Heidrun Führer

**Author:** Hassan Taher

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**Supervisor:** Mikael Askander

**Examiner:** Heidrun Führer

## Abstract

In this essay, I have analysed the video game franchise *Assassin's Creed* and looked at it from an intermedial standpoint, where I have also focused on the educational qualities *Assassin's Creed* can provide players. By applying Lars Elleström's theories of intermediality and multimodality I have explained different parts of what builds up certain video games and how they are different from other media.

My main purposes with this essay have been to observe how *Assassin's Creed* handles intermediality in various ways, ranging from discussions about remediation to intermedial references to discussing it as a multimedia franchise. I have also aimed to analyse how *Assassin's Creed Origins* uses its Ancient Egyptian setting to go beyond just entertainment, where the video game has become an educational tool for teachers and students in the studying of cultures, histories, and languages.

The results of my research show how *Assassin's Creed* have been able to fill a different purpose than other similar media products. It involves historical and cultural settings in highly intermedial ways by using the different modalities and the different categories of media (basic, qualified, technical). My research also showed how the educational advantages brought forward with such video games are being used by the public in education.

**Keywords:** *Assassin's Creed*, Remediation, Video Game Culture, Video Game Studies, Intermediality, Video Games, Media Technology

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# 1. Introduction

## 1.1 Background

What we today call video games, was 50-60 years ago a simple dot travelling between two dashes on a screen, what I am describing here is the simple, yet very famous video game of *Pong* (Kraus 77). The entertainment industry of video games today has grown to become two to three times larger in its revenue stream than the total annual box office (Batchelor 2018), the numbers can be put into perspective when one compares the revenue for the American video game industry alone (43.3B\$), compared to the global box office revenue(41.7B\$) (Shieber 2019; Tartaglione 2018). These numbers highlight how influential the industry has become, and why it needs to be researched further in academical institutions. Franchises of different genres sell in the millions, they are developed with significant big budgets, the sum of profits exceeds by far the initial investments.

One such franchise, which delves into this new opportunity of catering to players is *Assassin's Creed* (hereinafter shortened as *AC*), first published in 2007 by the French video game publisher and developer, Ubisoft Entertainment. The franchise has in 11 years since the first game was released taken players to various historical periods such as ancient Egypt, the Holy Land (Acre, Jerusalem, and Damascus during the third crusade), the French Revolution, the Renaissance period in Italy, Victorian England and many more examples. By 2016 the franchise had sold more than 100 million copies of the various games, and it continues to be just as popular, which makes it one of the most widely sold video game franchises in history (Makuch 2016). Since then the franchise has added: a movie, comic books, graphic novels, novels, short films, an upcoming manga tv-show, and board games (Assassin's Creed Wiki 2019). Meeting an interactive and digitally "presented" Leonardo Da Vinci, Cleopatra or Julio Caesar which players encounter and interact within the video games, can certainly be a very different way to experience these high profiles of history. The experience of *AC* games can be very different and influenced by your cultural background, and previous experience with video games. An Egyptian native, playing *Assassin's Creed Origins* (hereinafter shortened as *ACO*), might play and experience the digital game world differently than how a European westerner would play the same video game. Unlike the various

films and books which depict notable figures in world histories, these video games give the player a different level of experience. Players are often allowed to interact and work with or fight against these influential historical figures. This creates a different type of relation between the player, the narrative, and the virtual world, compared to the experience of reading a book or watching a motion picture.

There is no denying how big this franchise has gotten, the main centrepiece is still the video games, but *AC* has become a significant brand in the media industry, with its constant top sellers and different ways it's been expanding into different markets. Video games are then arguably the most engaging media that exist today, they cross the boundaries of different media, cultures, and age groups. People live-stream themselves for hours on YouTube and other streaming services when playing video games, thousands of people from all around the world can join streamers and watch them play. There is an abundance of discussion boards on the internet where fans interact with each other, talk about the games, and fans can even form online relationships with other fans. Video games can be fun and creative, whilst also teaching players about history in ancient Egypt (or any other historical period developers choose to venture into), the possibilities are quite endless and dependent on the creative minds of the developers and players of a video game. Playing is a core characteristic of a video game, without the action of "play" by a player the only thing shown would be a static virtual world waiting to be interacted with. The situation is not unlike how it has been for literature and motion pictures, but video games have taken this media-consumer relation a step further where it encourages the interaction with the media in more ways than just playing for fun. Video games are applications of entertainment, there is no doubt about this statement, but many argue that it can do much more than just entertain, it can help people in many other areas of interest. I hope that this thesis will give the reader a new understanding of video games and its different relations to consumers and media. How they are fun activities for anyone regardless of who they are and where they come from, how they help when learning about different times of history, cultures, and languages.

## 1.2 Disposition

Firstly, this thesis brings up a brief background about what I am going to discuss, for the reader to get a quick understanding of the field. I then describe what the purpose of this thesis is, where I

mention the main focal points and questions. The writing method is based on a case study approach as a means for me to be able to narrow down the research into my main topic area of *AC* and the way it handles different history, cultures, languages. Different limitations that I have put in the thesis, include my point of only researching *AC/ACO* for this study to be focused on a specific case rather than to be too broad where I can't make any claims. I am not aiming to discuss the video game narrative and how interesting it is, I am also not writing any review of *ACO* rather just using it as a case for my questions of how video games are using historical periods and what we can do with such video games.

My main intermedial theories in use are based on, firstly, Hans Lund's view of the three basic media of **Word, Picture, and Tone**, in which they overlap each other in different ways to create distinct medial works which use the basic media differently (Lund 2002). Secondly, I chose to use Lars Elleström's theory of intermediality in which he goes further in his research than Lund by developing a different approach to understanding intermediality. Elleström uses **four main modalities (sensorial, material, spatiotemporal, and the semiotic)** to explain different relations that occur not only with **basic media** but also media which he calls the **qualified and technical media**. He also lays the grounds for two terms under the umbrella term, **qualifying aspects of media (contextual and operational qualifying aspect)**, these aspects are to be complements to the modalities of Elleström's theory. (Elleström 2010). Further on, I have also chosen to use the theories formed by Jay David Bolter and Richard Grusin discussing **remediation** in their book *Remediation – Understanding New Media*. Bolter and Grusin's remediation theories are significant in a game franchise such as *AC* because of its rich amount of historical and cultural mediations. I aim to discuss their view on immediacy and hypermediacy, which revolves around the way media presents itself to the consuming party (Bolter and Grusin pp.22–62).

The next chapter of this thesis is going to discuss the different theories I am going to use. I describe specific terms from different scholars, these terms are also the ones I am going to use throughout this thesis. The chapter is split up into four different sections explaining intermediality where I explain and discuss intermedia theories from Lund and Elleström. I then discuss remediation based on the theories by Bolter and Grusin, where I also compare their theory to intermedial theorists. Next, I look at video games and their relation to intermediality, I look at

different ways intermedial techniques can be used, but also what relation video games have to its medial relative – motion pictures. Finally, I discuss the theories of play. What they encompass? What is said about the play? I am using Egenfeldt et al., as the main theorists for this section.

The third chapter discusses video games as a form of medium, here I give a brief look at the history of video games and how it has evolved and what it has meant. Further on, I will discuss and explain the different building blocks a video game always consists of. What are the purposes of these building blocks? How do they relate to intermedia, if at all? Finally, I also explain where video games are today as a medium, and as an industry which has become very significant in the entertainment business.

My analysis chapter will start with a brief introduction into the world of *AC* and the many different products the franchise has conceived, I am then going to digest further focal points which are laid down in my “purpose” section. I then analyse *AC* from an intermedial perspective, while looking at how histories are represented in *AC*. I then finish by going through different educational use-cases which video games can be used in, in the future.

In my final section, I write a summary of my findings in this thesis. I look at what can be studied further, and I explain what I have found out in my analysis. I also aim to answer my main questions, if video games can represent histories and cultures? Can these representations if done properly also be used in education?

### 1.3 Purpose

The purpose of this thesis is to shed light on the importance of video games in many different sectors, ranging from education to technological advancements allowing developers to create better video games. Because of the focus on different historical periods in *AC*, I will explore how these periods are represented in a medium like video games. The focus on history also means that I will look at ways in which video games can be used for educational purposes where it can be used for learning about cultures, history and languages. Video game companies try to cater to a



broad audience and there are several indications which signify the young adults<sup>1</sup> as the main audience. Such indications can be seen with the expansion of the franchise into young adult novels (Frank 2016), a 2016 film which has the certificate recommendation hovering around 12-15 years depending on the country (British Board of Film Classification 2017), but also from recent studies which ranks *AC* as one of the favourite games for women aged 18-34 years in the US (Entertainment Software Association 2019). With this in mind, I think it's important to observe how video games can provide another way of consuming different historical periods, such as ancient Egypt or the Renaissance, but it can also work as an added language tool where players can play complete games with hundreds of hours of playtime all while the video game is being played out in a different language than the player's native language. These are two very relevant subjects that cater to young adults, who also often are students themselves.

As a base for my thesis, I have singled out three main fields of interest that I will discuss further. I chose these fields because I think they are important when observing the approaches in which the video game industry has found new means of entertainment and beyond.

1. Firstly, video games in today's competitive entertainment industry, where it is building bridges between different media (media in this case being, video games, music, film, comic books etc.) and platforms (Video game consoles, TV, books etc.). *AC* as a franchise with its broad availability across different media and platforms will be the main case throughout this thesis. Intermediality is about different media converging and *Assassin's Creed* can show examples of this. On what type of media platforms can the franchise be found?
2. Secondly, I will discuss how historical time periods are used in video games and this will partially be fulfilled by playing various games in *AC* franchise, but more in particular by the 2017 instalment – *Assassin's Creed Origins* (*hereinafter* shortened as *ACO*) – where the game has been set in the last period of ancient Egypt, before the start of the first millennium. The game differs from the previous entries because it has a non-combat exploration mode, created not very different than a digital museum (I will describe this in

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<sup>1</sup> Young adult media are novels, video games, films, etc., which are made for an audience consisting of the age range between people being teenagers and people in their late twenties (Oxford English Dictionary Online 2019).

further detail later). Here the intermedial theories by Elleström and the remediation theory by Bolter and Grusin are important in analysing the depiction and representation of histories, cultures and languages. Questions which are asked and answered in this part of my analysis are how digitised types of museums are handled differently than real-life museums which require a person to visit the museum. How are the virtual tour guides of ancient Egypt built, and what do they provide? What experience and immersion do interfaces provide the players with?

3. Thirdly, I look at different ways in which video games are being used in different cases than just entertainment. I observe the use of video games as a pedagogical tool for educational purposes in teaching histories, cultures, and languages. My questions are if the usage of video games in this way can be advantageous for teachers and students in their learning/teaching process? Can students learn better by interacting with the medial aspects of a video game as part of the curriculum? Does the user interface in the Discovery Tour provide the players with enough incentive to keep exploring? Can teachers teach students in better ways with the help of video games?

Representing my points of discussion in this thesis in this way helps in building a clearer structure and clarification for the reader to reflect on in their own reading, but also to help me explore these points throughout this thesis.

## 1.4 Limitations and Method

To conduct this thesis, I have chosen to look at the whole brand of *AC*, but more specifically the *ACO* instalment which will be the game that has the Discovery Tour game mode in it. *AC*, as a brand, has fans throughout the world, so it's only fitting to use it when analysing the different kind of reach which video games can have today. *AC* has been released on various popular video game platforms the last 10 years, such as Playstation, Xbox, Nintendo and PC platforms (Ubisoft 2019). Coupled with the fact that they have developed games with different historical periods has meant that the franchise is catering to a bigger audience than if it were only based on one historical setting.

For my study, I have chosen to specifically analyse the Ancient Egypt instalment in the franchise – *ACO*. This is a historical period in world history that have shaped the world as we

know it and therefore, I see it fitting to discuss this setting further in my thesis. Another reason for choosing this game has been a question of representation of a period in history that has when it comes to video games otherwise been overshadowed and not used often.

This thesis will follow the case study method. The case study method works in the way that the researcher conducts research on a singular case rather than many to get more detailed and in-depth information from the singular case. This is in contrast to trying to conduct research on a much broader pool of cases where the research will have to be stretched out, and therefore also be the less detailed per case (Gomm pp.2–3). It allows the researcher to catch the very complex nature of a singular case by focusing all of the analysis on trying to extract all possible information from the case (David 2009). The purpose of the case study method is to be able to give an elaborate hint or generalisation over the corresponding field the analysis is brought upon. It gives indications of future endeavours and trends, while still illuminating important issues that are brought up in the purpose of the study (Labaree 2019).

Using a case study method allows me to narrow down my goal of analysing certain aspects of *AC* which I want to highlight further to have a coherent structure in my study (Flyvbjerg pp.219–221). I chose *ACO* as my case because I wanted to be able to study different parts of what this video game does differently. I also think the different theories I will describe in the second chapter will come to better use in a case study method. I intend to describe how *ACO* handles histories and cultures, I am not seeking to show how all video games do or do not handle these topics. Further on, this method allows me to collect an experience of *ACO*, which can be replicated easily by any reader of this thesis wishing to try out this video game themselves. Using a case study method will ultimately also allow me to analyse specific occurrences in *ACO*, such as the discovery mode and other key moments, rather than to study the whole video game.

Deciding to write this thesis as a case study will come with a set of advantages and disadvantages for my research ahead. Such advantages can be read about in Nicolaj Siggelkow's argument on how a case study usually provides the researcher with the ability to get closer to the case in order to present their argument more clearly for the readers (Siggelkow pp.22–23). To take this argument further, Bent Flyvbjerg argues that since the researcher is analysing the case themselves, they will often be able to apply the findings on a real-life scenario which can be

replicated easily. Playing *ACO* for several months in order to gather enough information to conduct a study on it, will give my analysis a different outcome than if I had written my case study based on observations made from watching someone else play it, or if I had read reviews and impressions about the video game on the internet (Flyvbjerg pp.222–224). Since the way *AC* games are made, experiences of playing can be subjective. This is not considering how different narratives and the prior knowledge of a certain historical period can influence how another player would interact with the said virtual game world.

The analysis and digestion of *ACO* which I mentioned before as an advantage, could also be a drawback of the case study method. Research can be more prone to contain more subjectivity than in other methods (Gomm pp.6–7). Flyvbjerg mentions this as one of the five different main critiques people raise against the topic of case studies as a reliable research method (Flyvbjerg 221). The argument being made by such criticism is that the researcher wants to confirm their already set bias towards the case, and therefore the case study would then be seen as less trustworthy because it might include a portion of subjective arguments by the researcher (Flyvbjerg pp.234–235; Moore pp.89–90). My aim with this thesis is not to confirm any bias I might have, rather I aim to be as truthful as possible of how my experience has been playing the video game. I will discuss what indications of video game intermediality I can see, and how historical and cultural depictions are presented in *ACO*. Another often brought up critique of case studies says the results only include a small number of cases and should, therefore, not be used to make any kind of broad claims in terms of generalisations on a certain topic. It should in such cases, merely be an indication of further research which can be conducted in the field, rather than to be proof of a particular claim (Gomm pp.5–6). This is a counterargument highly dependent on what the thesis writer is aiming for, in my case, I am partially trying to present how *ACO* can be used to assist in teachings of histories and cultures through its uses of historical periods. I am not aiming to argue for all video games doing this, nor do I automatically think all video games are good applications of histories solely based on their inclusion of historical periods.

The limitations I have put in place are that I am mainly focusing on the franchise, *AC* because I think the franchise uses different history in a broader way than what is done in other games. This is observed via the cultures and the history of the periods are depicted as more than just a backdrop,

but they are also part of the narrative and virtual world in all missions. Looking at this, I will also pick *ACO* and conduct a closer case study on this specific instalment, this will be done with added occasional examples from other games. What this provides me with is a clearer picture of my goal to explain how historical and cultural aspects are depicted in an *AC* game, but this limitation also works to show only one historical period rather than ten different ones. With my discussion about histories and cultures being portrayed, I am pointing at the way different periods such as the Renaissance, ancient Egypt, the French revolution, etc., can be used in a modern video game. Because of the ways they are portrayed, I also show how the developers can enrich players with basic – occasionally advanced – historical knowledge. Finally, I also exclude mobile games played on smartphones and tablets. The distinctions between video games and mobile games can be easily observed on several grounds including, the visual quality, the details, the controlling mechanisms, and various other contributing layers which change the fundamental ways of playing.

To gain experience with the games and to gather the information I need I decided to play more than half a dozen of the games in the franchise on the game console from Sony, PlayStation 4. I have specifically dedicated a big portion of my playtime on *ACO*, trying to find different scenes and parts of the video game that I can use for my analysis.

The video games of the franchise are widely available on several different platforms (PC, XBOX, Playstation, Nintendo), the experience tends to largely be the same on all these platforms – minus the minor affordances in graphical abilities depending on the platform. The games can be connected via internet to Ubisoft's online servers for the sole purpose of collecting statistics and information about what you do in the games, this function also provides the player with weekly challenges such as finding specific trinkets or figures. The games do not include any multiplayer mode where you interact with other players, therefore it is also only a single-player video game with one controlling player. The games can be played as mission-based games where players complete missions step-by-step, going from point A to B to defeat enemies, and help allies. They

can, however, also be played in the sense of a sandbox experience<sup>2</sup>, in which case the player can explore tombs, graves and pyramids, find ancient artefacts, admire the detailed landscape of ancient Egypt while horse-riding through the landscape.

*ACO* includes a “Discovery Tour” where the player is guided through different parts of the game world where the game goes through historical and cultural architectures, artefacts and happenings that occurred in ancient Egypt at this time. This touring mode is a separate mode in the game, it includes no combat moments, but rather gives the player the virtual freedom to explore Ancient Egypt uninterrupted. Overall, the core of the game, my playing experience, and my conclusions will be tainted by the narrative and the structures that come with it. As with most other video game studies, my analysis will also be limited by the fact that my playthrough of the game is based on my own experience in how I play games, the things I like to explore in-game worlds, and what I decide to explore in the games. My results of this analysis can therefore not be applied to everyone who will play these games, it’s certainly one way these games can be played, but it’s one out of countless of ways. Finally, I also need to point out, by conducting a case study on specific points in *AC/ACO* means my results are not going to be 100% applicable on all other video games, and certainly not the whole direction of the video game industry in general.

## 1.5 Previous Research

Previous research around video games is generally easily found on scholarly databases. In the study *Assassin’s Creed: A Multi-Cultural Read 2008* written by four professors and PhD students (two of middle-eastern descent and two of western descent) the first *AC* game<sup>3</sup> is analysed. The question asked in the study is if the setting of the first *AC* game will be perceived and experienced differently by people with different cultural backgrounds. Their study, further on, analyses both the presentation of architecture in the game, but also how cultural aspects are presented e.g. crowds

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<sup>2</sup> ‘Sandbox’ is a common way in the video game industry to distinguish between video games where the player has more freedom to play according to their playstyle, choosing to either do missions or to roam the virtual world. Such video games include *Minecraft* and *The Sims*. Compared to other games with more strict missions, where players have less freedom to roam around the virtual world. Common examples of this structure can be seen in many military action-shooter games such as *Call of Duty* (Techopedia.com 2019).

<sup>3</sup> The first *AC* game is based on the Third crusade and is played out in the Holy land located in the Levantine in the Middle East

that appear, what they say, what they wear, how they act and what they do (El-Nasr et al. pp.1–6). Reading their study, I think it is interesting to note the difference of experiences the four writers have with the game. All four of them seem to highlight different important aspects based on their own thoughts and experiences of the setting.

Focusing on video game theories, the research often involves different subjects on how video games, cultures and history can be combined. Books such as *Consuming history* written by Jerome De Groot (De Groot 2009) discuss the World-War based video games, how the setting is used in these video games, and how it is depicted in various such examples. The developers of these video games often use the historical setting mainly as a backdrop, without much effort in involving the setting into the narrative. It leads to the World-War setting feeling like an empty shell, where it only refers to the historical period by just having the video game be set in 1940s Europe. This in part gives me an advantage and opportunity to make my thesis argue for the usage of history in more ways than just as a backdrop. This can especially be seen in *AC* games, where the developers are trying to find a balance between fiction and history in video games.

Because of the intermedial usage and focus on education of histories and cultures, this thesis will be different than other video game research. My analysis around the Discovery Tour of *ACO* will, for instance, discuss how artefacts, paintings, hieroglyphs etc. can be consumed in a different media such as a video game in comparison to films and books.

Looking at other types of studies which don't look solely at the historical representation in video games instantly widens the amount of video games research I can use. Such an example of research can be read from Dutch historian Johan Huizinga's definition of play, in his book *Homo Ludens*. Huizinga's book was first published in 1938, a long time before the creation of the modern video games, nevertheless, video games are still a form of play and abides by most basic rules found in the analogue board games or sports. Huizinga discusses not only what play is on an individual basis and what it does to you as a person, but he also discusses the cultural impact which play can have on people (J. H. Huizinga pp.1–28).

Moving on to newer instances of research to the topic, scholars such as Simon Egenfeldt-Nielsen have both written and co-written several books on the topic of video games interaction

and influence. In my thesis, I have decided to look closer at the 2013 edition of his 2008 co-written book, *Understanding Video Games: The Essential Introduction 2<sup>nd</sup> Edition*. The authors go through different schools of thought when it comes to studying video games, they discuss how scholars from various fields of study have observed the medium of video games. They also discuss the history of video games as a medium (Egenfeldt-Nielsen et al. pp.1–13). Apart from considering how the games are perceived in society and how they have created their own “subculture” in entertainment (Egenfeldt-Nielsen et al. pp.157–61), the authors also discuss the position video games have in the field of learning and in being a “serious” medium not just made for entertainment purposes. The authors then decide to categorise these types of video games as “serious games” (Egenfeldt-Nielsen et al. pp.229–231). I will also discuss a study made by the University of Montreal professor Marc-André Éthier on how the ‘Discovery Tour’ in *ACO* could be used in an educational setting (Udemnouvelles 2018). I think this is a starting point to observe the different ways in which researchers can conduct research on how video games and technologies can be used as educational tools.

## 2. Theory

### 2.1 Intermediality

The study of intermediality which is going to be a fundamental theoretical framework for this whole thesis is a multidisciplinary research field. The study encompasses different intermedial theories which occur around consumers of different media. I will in this section discuss two prominent theories by Hans Lund and Lars Elleström. Their theories, while related to each other, differ from each other which I hope will be clear when I lay out their theories throughout this chapter.

As a basis for this thesis’ continued work, the term medium is a difficult term to explain in that the term can mean different things depending on the researched and the discussion at hand. Firstly, there is the traditional definition found in dictionaries where a medium is defined as the channel for mediation of different information and entertainment (Elleström 13). The term quickly expands further from this and ventures into a branch of definitions, some connected to media



studies, and some that are outside our relevant field, such as the spiritual medium or how the term can signify a size of clothing. Elleström brings up Marshall McLuhan and his expanded definition of saying that “different media are the ‘extension of man’” (Elleström 13), where many different things we do and have around us shall be classified as media, whether it is a typewriter, photograph, money or an axe. The medium then can be loosely defined as several different things depending on who is being asked, in the case of media studies it is the carrying organ for channelling information and entertainment to the receiver (Elleström pp.11–12). I am to explain how these two scholars observe medium, media, and intermediality to find out more about their different theories around media and intermediality.

### 2.1.1 Hans Lund and Intermediality

The first theory of intermediality that I am using has been laid forward by Hans Lund in his book *Intermedialitet – Ord, bild och ton i samspel (Intermediality – Word, picture and tone in interaction)*. Lund’s theory is based on the three basic media – word, picture and tone – and how they interact in different combinations. These three basic media are highlighted because they are always apparent in some form of existence in medial works. Without a picture there is no painting, without word there is no text, without tone there is no music, and without all three basic media working together there is no film or video game. Lund mentions several examples of how the study of different media categories have been existing in the Renaissance period and Ancient times. During the Renaissance, painting (picture) reached the same hierarchical art level as poetry (word), which was a big breakthrough for the painting community. I will in the next paragraph briefly go through Lund’s three main media categories which he brings up in his book, categories which occur between the basic media and how they are shown in different ways (Lund pp.9–22).

**1. Combined media** is the first category that Lund mentions, the category works in two different ways. Firstly, it can work by having one medium being added to another in different shapes, this way is called **coexisting combinations**. Lund mentions several examples where this can be found such as in the opera, modern-day video, or advertising pictures, all of which indicate of basic media being used on the same space available to the consumer. The second way is called **interference**. Examples of interference include picture books, emblem books, photojournalism, or the relation between the video game and its music. The interference aims

to point at the relation of isolated media being positioned on the same surface, such as the figures and their accompanying text fields in this document. (Lund pp.25–127).

2. **Integrated media** is the second category and it functions in the sense of having media work in symbiosis with each other, the media are dependent on each other because they are sharing the same space in the form of the same medial text. Because of the dependency on each other, the works of art that are included under the umbrella of integrated media falls apart if one medium is removed from the others. Hieroglyphs don't mean anything if they were written as numbers or letters, rather than being pictorial depictions. The scripture is based on the symbiosis between the pictorial and the pictorial depiction representing something, it becomes its own type of written language. The meaning of sound poetry doesn't just appear when someone listens to the verbal words, but rather the melody is also just as important as the words. It can either create the meaning out of the whole word or out of specific components like repeated syllables or vowels/consonants (Clüver pp.157–164). This is also why sound poetry doesn't function if the sound is removed. Other examples of these integrated media can be found in the shape of verbal signs in the art of painting, typographs, and other examples (Lund pp.131–179).
3. **Transformed media** is maybe the most apparent category in modern media, mostly because of the big economic advantages in creating franchises which encompass different media. Looking also historically, adapting a work of art of one medium into another has been done many times and could be a form of borrowing. This category involves the transformation of one medium into another, in other words, a rewritten work of art adapted to a different medium than the initial one. It can be found in examples such as musical ekphrasis, movies that are based on novels, or musicals which are based on a written text (Lund pp.183–241).

Looking at Hans Lund's theory it is clear to me that he explains a theory based on how different media can be perceived. Whether it is combined, integrated or transformed media, Lund theorises about the idea of how different examples of such media exist in different medial representations. On the other hand, what is not found in Lund's book is anything about modalities and their importance, Lund skips over this part in his theories and he barely, if at all, mentions multimodality in his theories, something which is the core of Lars Elleström's theories (Elleström pp.15–24). In

video games where a lot of the interactions involve any of the modalities such as for instance the sensorial modality, it would, therefore, be advantageous to have such aspects in place.

### 2.1.2 Lars Elleström and Intermediality

Contrary to Lund, Elleström broadens his intermedia theory and includes not only media and relations between them, but also modalities, namely it seems that he focuses on how techniques and modalities are used so that the consumer can experience different medial works. The theory is built upon several different levels which make up his whole theory.

Firstly, he lays down definitions for 4 main modalities which he names the **material, sensorial, spatiotemporal, and semiotic modalities**.

1. **Material modality** is viewed in the way of interfaces<sup>4</sup>, Elleström names three different types of interfaces we can encounter around us. A) The human bodies. B) Other objects of material. C) Other manifestations which occur to not have any tangible body such as sound waves and light. (Elleström 17).
2. **Sensorial modality** is then realising that any type of media needs to be interpreted by at least one of our five senses, namely: seeing, tasting, hearing, feeling, and smelling. Different sense-data are received by us and from this, our different senses stimulate a sensation in us. Examples can be seen in video games where the audio design is composed in such a fashion as to be as immersive as possible, the sound of the market sellers in the market square of ancient Alexandria selling carpets, trinkets and food, while the player traverses the market will create different sensations in the listener's mind (Elleström pp.17–19).
3. **Spatiotemporal modality** revolves around the dimensions: width, length, depth and most crucially, time. Going to an exhibition and glancing at paintings is different than going to a musical play or the opera. The painting will still be positioned on the wall throughout the exhibition, while if you close your eye during the play, you will be missing out on

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<sup>4</sup> Interfaces in Elleström's theory of material modalities are the material objects such as screens and paper books. The interfaces are used to present information for the observing audience. For an author to provide the reader with an experience, they need the flat surface they can write on, this flat surface being a page in a book is the interface that will be used when the reader is reading the book (Elleström pp.1, 17).

something that you can't come back to. This in part shows the different spatiotemporality which occurs between our different sorts of media (Elleström pp.18–21)

4. **Semiotic modality** is then the modality which makes objects and signs give meaning, the interpretations of different signs and thoughts are what makes everything around us become more than just an empty space. Video games have no point if there is no meaning created in our brains based on everything we do, see and experience in the video game. Meaning is either created in the way of interpreting symbolic signs (signs based out of conventions), something Elleström calls propositional representations, or it's created via indexical (signs that shows what is being represented) and iconic signs (physically resembling signs), which are called pictorial representations (Elleström pp.21–24).

Further on Elleström names two qualifying aspects of media, the **contextual** and the **operational qualifying aspects** (Elleström pp.24–27). **Contextual qualifying aspects** (Elleström pp.24–25) revolves around the social aspect, different modalities appear in different ways, but with the help of historical practices and conventions, we can set a foundation for the usage. The older medium of photographs is one such example, where photography appears as a new media when it is digital and available on the online digital portfolio. One could argue and say that the older medium of video games would be board games or games people play with their own bodies. The **operational qualifying aspects** (Elleström pp.25–26) is about the aesthetical and communicative qualities of media rather than the social and historical conventions that can be seen in the contextual qualifying aspect. Cinema didn't get conceived suddenly with its own set of characteristics, rather, it had to borrow those characteristics from older media. Doing so, the cinema acquired its own set of techniques. Video games have been borrowing a lot of characteristics from other media such as the narrative structure borrowed from literature, or the cutscene techniques being borrowed from motion pictures, or how different play styles in video games are possibly borrowed from board games. This has in return shaped the way video games are created, we see a higher amount of video games using narrative structures akin to those found in books, and we can also see the cinematic kind of video games gain more traction, with more bombastic game worlds resembling something like a Star Wars universe than what resembles Ping-pong.

Elleström's model is then built upon three categories which he names **basic media**, **qualified media** and **technical/physical media**. These different media are directly dependent on the modalities to be able to exist, Elleström mentions how a sculpture, as a technical medium, is directly dependent on its material modality. Without the material that a sculpture consists of, there would be no sculpture (Elleström 30). **Basic media (words, pictures, sounds)** are media that appear to be identified by their modalities, such examples include, but are not limited to, moving images, body performance and still images (Elleström pp.27–29). The basic media can be largely connected to Lund's theory of the basic media which was highlighted in the earlier section. Elleström however, highlights the different modalities of media, he discusses media as dependent on modalities, while Lund shies away from such a discussion and instead discusses the media relations between different media works. Therefore, their theories can be largely viewed as separate from each other and as such are studied separately. **Qualified media** are then used for different cultural media types /art forms that appear all around us, they can, for instance, be a theatre play, a pop song, and to a certain extent, a genre can also be viewed as part of the qualified media. Qualified media then also takes advantage of modalities, taking painting as an example, it would combine all four modalities in one multimodal medial work. (Elleström pp.27–32). The **technical media** then are the media that are needed to realise the different qualified and basic media. Without any technical media, we cannot make use of any of the qualified or basic media. Such examples are how a viewing device is needed to view a video game that is made out of different basic and qualified media, or in Elleström's example describing how the basic medium, written text, needs the technical medium of a paper (Elleström pp.28–31).

Elleström's theory of all four modalities can be very helpful in analysing video games. It's no secret that video games handle the temporality differently than what is known of in the motion pictures, in the Discovery Tour, players are digitally walking around a virtual ancient Egypt. They go through guided tours which show the players photographs collected by different museum collections. These photographs are juxtaposed with the digital world of *ACO* while at the same time showing added information on the screen in the form of the user interface. This creates a split in the temporality, on one hand, players are controlling a character living in ancient Egypt close to the millennia shift. On the other hand, players also go through historical guides, depicting different objects and cultural behaviours from 2000 years ago. These objects

and behaviours in the discovery tour appear to be depicting real-life in Ancient Egypt, this is in comparison to the fictional world of Ancient Egypt players play in when playing the main story of the video game. The usage of temporal and material modalities could be taken further, looking at how the game and the tours in the Discovery Tour are dependent on player input for them to progress. This is a type of interaction where the material input devices are needed. I think, therefore, Lars Elleström's theory is one that could be developed further to look at these new possibilities which are appearing in new media products, such as the Discovery Tour in *ACO*. Overall it seems that neither of these theories from Elleström and Lund fully encompass everything on the mediality of a video game. I think the way to move forward in the field, would be to take advantage of these theories and build upon them and to conduct studies on video games. In doing so, one would update the theories of intermediality to directly discuss video games as another medium alongside media such as literature or cinema.

## 2.2 Remediation

When analysing different media today, there is a lot of explicit and implicit borrowing occurring between different works of art. This technique appears in intermedial theories in the form of how new media often takes from previous media to create new experiences. Such examples can be seen in how video games adopted techniques from cinema. This way of taking in techniques from other media also occurs between medial works, different hieroglyphical scriptures in *ACO* are intermedial self-references<sup>5</sup> to another type of media text, namely of the surface the hieroglyphs have been drawn on. I won't make any assumptions about what classifies as inspiration and what is borrowing because I think this is outside my scope for this thesis. Rather I will use the theory of remediation, described in the book *Remediation* by Jay David Bolter and Richard Grusin, in explaining such terms and how remediation connects to my analysis.

Defining what remediation is, requires the understanding of its two strategies of thought: **Immediacy** and **Hypermediacy**. These two strategies are opposite ways of remediation occurring, they have had a long history of usage dating as far back as the Renaissance period and as such they

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<sup>5</sup> Christina Ljungberg classifies the intermedial self-reference as the reference of a medium in another medium. Such examples of self-references can be found in various media texts such as paintings being referenced either verbally or visually in another medium (Ljungberg pp.88–89).

have been used for a long time (Bolter and Grusin 21). Immediacy is a way of representing media in such a way to immerse the viewer into the media, the creation of these different medial works are made by trying to remove traces of any technical medium being in use. This would effectively immerse the viewers so much that they can't detect if it is fiction or real life. Hypermediacy is the opposite in that it is instead a way of representing the media in ways which makes it clear that a certain medium is being used. Below I will explain these two terms deeper and give examples of occurrences in which they can appear.

**Immediacy** leads to the medium disappearing from the view of the viewer, the viewer is supposed to consume the content of the medium directly without the sense of any type of conflicting interface being part of the equation. An example of such an occurrence can be seen in video games, where the user interface sometimes is designed in such a way that it appears to be as transparent as possible, for the immersion<sup>6</sup> – which in the case of video games is crucial in making engaging experiences for the player – to be heightened (Bolter and Grusin pp.23–24). The use of immediacy can also be found in the painting era of the Dutch golden age, painters such as Pieter Jansz Saendram (see figure.1) used the linear perspective to create a sense of illusion with the help of several techniques to create a realistic setting (Bolter and Grusin pp.11, 19–23). The paintings were so highly detailed and surreal which ultimately meant that the observers would feel as if they were immersed to such a high degree that it felt like they “embodied<sup>7</sup>” and became part of the painter's point of view in observing the view painted. To some extent video games can in some cases, depending on the video game, reach these levels of realism and embodiment akin to the Dutch golden age paintings.

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<sup>6</sup> Immersion can be defined as losing the sense of time whilst one is consuming a mediated work (video game, film, novel, etc.). Immersion in video games is perceived differently than in other media because of how players must experience and engage in scenes. Feedback given to the player from vibrations in the hand controller or how every button press leads to an action on-screen, means the experience is different than watching a movie from afar (Dovey and Kennedy 104–06, 146).

<sup>7</sup> Embodiment occurs when a human (the living part) merges together with a static object such as a painting or film. The process involves the person viewing to be invested in the object in order for them to embody what they are seeing (Oxford English Dictionary Online 2019).



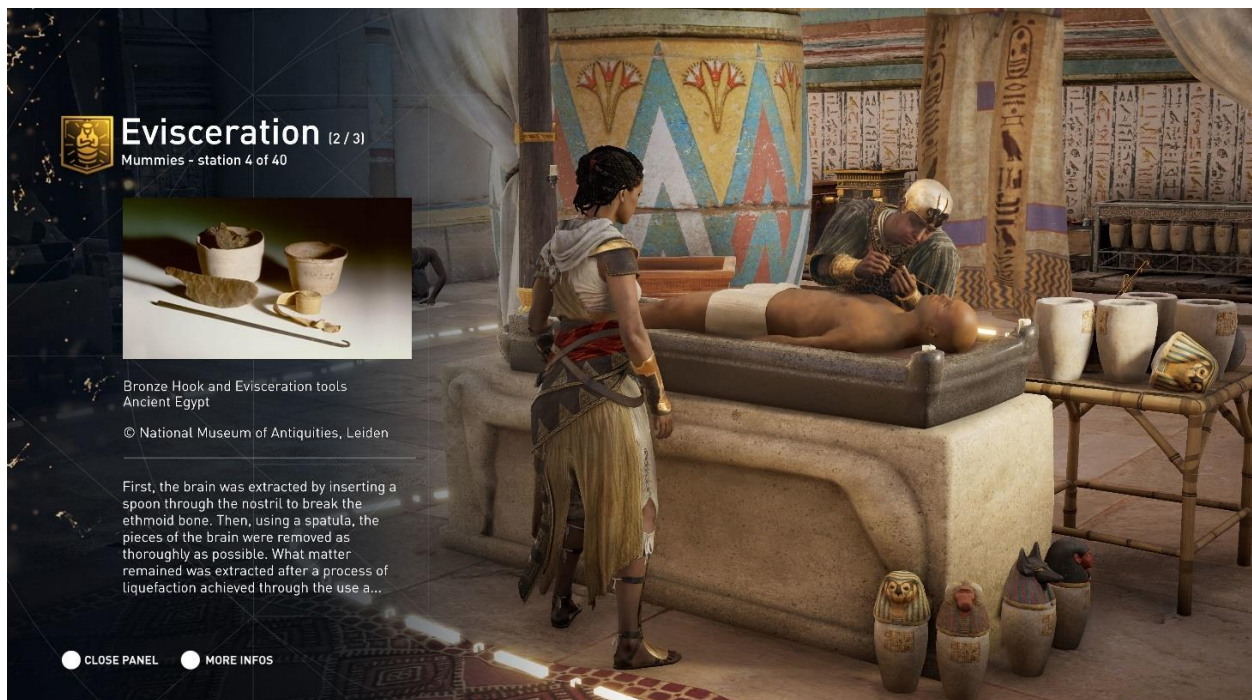
**Figure.1** Interior of the Sint-Odulphuskerk in Assendelft. Painted by Pieter Jansz in Saenredam, 1649, Rijksmuseum in Amsterdam, NL.

**Hypermediacy** makes the viewers aware of the medium being projected in order to make viewers long for the immediacy. In this way, viewers can easily observe that an interface/medium is being used. Viewers can feel immersed in the experience, but the usage of an interface/medium will always bring them back to reality. An example of where to find the occurrence of hypermediacy is the Discovery Mode in *ACO* which works as a digital museum revolving around Ancient Egyptian history (see figure.2). The setting is highly realistic, but it is also located behind a collection of different media and interfaces being used. Another similar example is seen in how museums such as the Rijksmuseum in Amsterdam, (The National Museum of the Netherlands) has made more than half a million of their art pieces free to admire in digital form on their platform, *Rijksstudio* (Rijksmuseum 2019).

Looking at both definitions for hypermediacy and immediacy, they fit into the foundations of what intermediality consists of. Bolter and Grusin discuss ekphrasis – one of the main forms of intermedia mentioned by Lund and Elleström – as one of the typical remediation examples, defined



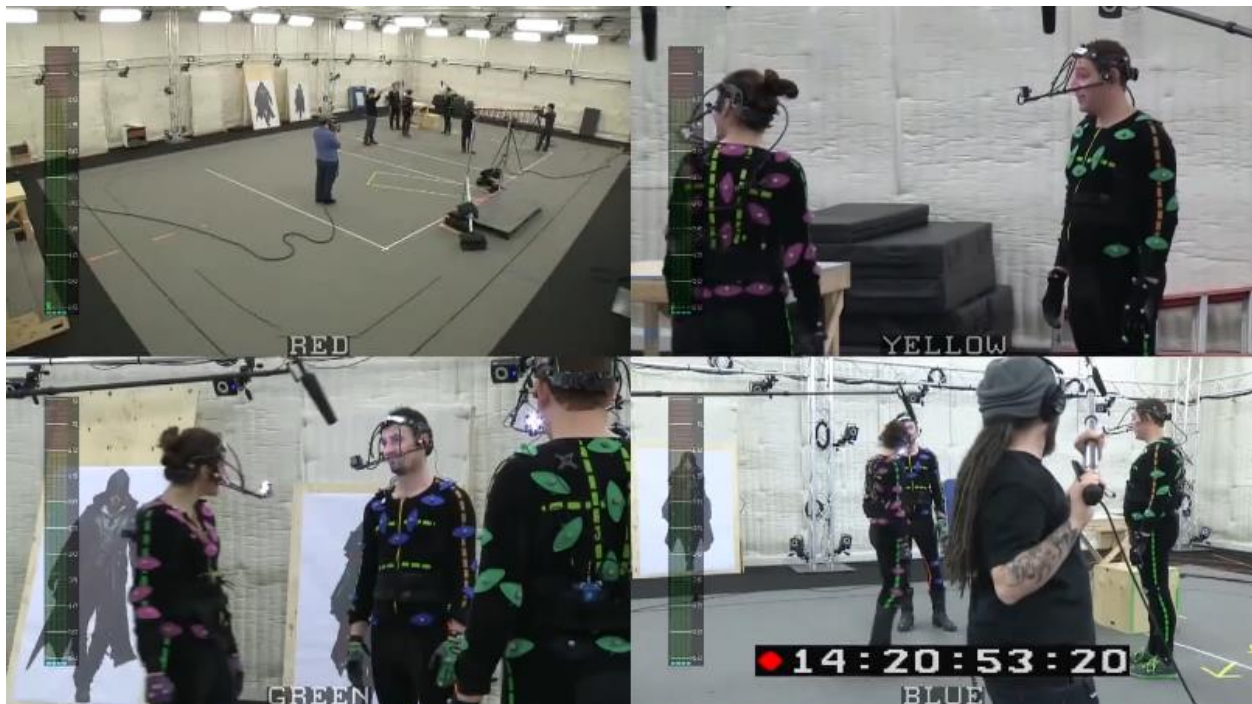
by W. J. T. Mitchell as “the verbal representation of visual representation” (Bolter and Grusin 45). Lars Elleström describes ekphrasis as the transformation of basic/qualified media into other basic/qualified media. This can be seen in paintings and how their physical space can transform into a virtual space for a poem. Examples can also be found in today’s modern era of broadcasting live sports events across the world on different platforms than what the original surface of the event would have been (Elleström 34). Bolter and Grusin also highlight how ‘older’ types of media are repurposed for use in newer media or vice versa (Bolter and Grusin pp.44–50). In the Discovery Tour of *ACO*, this appears on several levels, photographs from real-life museums are redistributed during the tours by using real photographs in the video game (as seen in the information to the left in figure.2). Also observed is how theatre plays can play out during the mode. Players also encounter large collections of ancient sculptures and hieroglyphic art which, further on, shows the type of “borrowing” which occurs between different old and new media.



**Figure.2** A guided tour in *ACO* where players are taught about how mummification was achieved during ancient Egyptian times.

## 2.3 Video Games and Intermediality

While scholars of video games studies don't often mention intermediality explicitly in their research on the subject, the fundamentals of different video game theories can appear unintentionally in the intermedial research. The discourse around motion pictures can be used when analysing video games, because of the close media relation between motion pictures and video game. They both use audio-visuality in similar ways, where different mise-en-scenes are borrowed interchangeably between the two. Narratives in video games and motion pictures are also often built with the same kind of narrative setup, but ultimately the narrative derives from older media such as literature, poetry and theatre. After all, the script of a video game/film is a written text with the sole purpose to be adapted into the video game or film rather than a theatrical script (Bordwell and Thompson pp.17–19, 33–34).



**Figure.3** Real-time motion capture performed by actors to be used as animations for characters in *AC Syndicate*

In *AC Syndicate*, for instance, the developers let actors act in a motion-capture room full of depth-capturing cameras (Paras 2015; Bordwell and Thompson pp.22–23). The actors had sensors placed all over their body, and a head-mounted camera positioned in front of their face to capture

every little facial move. Motion-capture is a technology used by animation professionals, where real-time full-body tracking is filmed on the actors to capture their movements in a digitised form. With the movements of the actors being captured, the developers can then animate a digital character to look as life-like as possible with the help of the animations they filmed in the capturing room (see figure.3). What this technology enables developers to do, is to delve deeper into the ways in which video games can look more immersive. By immersive I mean the act of creating a video game where the setting is created to be believable, having modern cars in ancient Egypt would break the immersion, while a horse or donkey would be more suitable and therefore add to the immersion of a more accurate depiction of ancient Egypt. The same thing would happen if movements of human characters were robotic rather than natural movements which are achieved with the help of motion capture (Madigan 2010).



**Figure.4** *Tomb Raider* (1996) compared with *Shadow of the Tomb Raider* (2018)

Based on my research around video games and their place in the field, two things have been clear to me: firstly, video games are gaining more interest in terms of research, more scholars see

this as an opportunity to make a mark in a relatively new field of humanities. Secondly, as much as the field has grown in recent years, there is still a lot that has yet to be explored, which is enough to say that people are finding out new things about the medium of video games every day. The current resources which are available for developers enable them to create much more vibrant and significant video games than before. *Tomb Raider* (see figure.4) which is a franchise of Adventure Games, has existed since the 1990s. It is one of the first cinematic video games with the focus being put on the narrative and adventure, but the quality of the visuals was subpar up until the early 2010s (Webb 2018). Thus, the argument could be made that these cinematically beautiful video games of today can spark a new interest for scholars to conduct research in the field of video games even more.

This is not to say video games need to be realistic to be intermedial or to make any kind of impression on a humanist. Video games come in all shapes and forms, some are set in highly realistic settings (*Shadow of the Tomb Raider*) while others tend to focus more on imagination (*Minecraft*), some go in-between and combine the imaginative with realistic (*Assassin's Creed*). To take an example, another game developed at the Ubisoft Montreal, *Child of Light*, comes up to mind as the complete opposite experience to film cinematics in video games. *Child of Light* instead



**Figure.5** Princess Aurora in *Child of Light* reading a scroll with rhyming text/poems on it

mixes rhyming poetry, an original fairy-tale adventure in a hand-crafted fictional world where you play as an Austrian princess named Aurora. I won't go too much into detail in this game because it is not the main subject of this study, I do need to point out that it incorporates different media much better than other video games do, and it does it while using an imaginative setting. There is rhyming poetry, enchanting adventurous music, a compelling narrative, and narrative storytelling akin to how a children's fairy-tale is told (see figure.5). In conclusion, then, video games don't have to look realistic graphically, but they must be compelling for someone to pick them up, especially if it's for research.

### 3. Video Games

For this thesis to be understandable, video games and their own industry needs to be addressed and defined. It is on this basis in which I will conduct the rest of my study. The reason for this section is not necessarily about drawing references to media or intermedia per se. Rather, the objective is to give the reader a better understanding of how a video game is built up by developers and what makes a video game run to such degree that a player sees it on-screen and can interact with it. I aim to answer questions of what video games consist of and how they are interacted with by players. What is the reason for having different types of interfaces existing together to ultimately form the medium of video games? What different media are used in creating intermedial experiences in video games? Where have video games historically been standing and where do they stand today in society?

#### 3.1 Video Games as a Media

What is commonly referred to as the birth of the modern video game industry today is when the game console<sup>8</sup> – Magnavox Odyssey – was released to the general public in 1972 (Kraus 77). This was the first commercially available video game machine for the public, and it went on to become a big success at the time. With time, several new iterations and versions of game consoles

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<sup>8</sup> A games console is an electronical device used for playing video games. Consoles are closely related to computer systems, but they are generally more locked down in terms of customization and functionalities provided to the user (Oxford English Dictionary Online 2019).

have been released to the public, with each generational step bringing new capabilities to the developers to create more comprehensive and technically advanced games. The major video game platforms today are the Sony PlayStation 4, Microsoft Xbox One and the Nintendo Switch, where all platforms mostly have the same collection of video games, but also a collection of exclusive video games specific to each platform. The platforms all have their own online communities, specifications, and capabilities (Kraus pp.76–81; Bolter and Grusin pp.89–90).

It should be noted that the use of the term video games historically includes all types of games played on any type of computer device. In this essay, however, I have decided to exclude the use of mobile games played on smartphones and tablets with mobile operating systems. The difference between modern video games and mobile games is, in my opinion, apparent and comes down to differences such as visual clarity, and limited availability of physical interfaces (controllers, mouse/keyboard). The limited availability of technological performance is what creates the biggest difference between mobile platforms and stationary platforms such as games consoles or computer. The material modality that Elleström mentions is found to be useful here, playing on a computer or on the TV with a dedicated controlling interface such as console controller or a mouse/keyboard, is an inherently different experience than playing on a touch screen where there is no tactile feedback for the player. The sensorial modality involving the act of hearing amongst others is severely altered by small phone speakers which change how the sounds are reproduced in comparison to TV or cinema speakers. Environments and the virtual in-game world are dependent on the technical medium being used, environments look less detailed on a phone compared to a game's console/computer. The list of differences between mobile gaming and stationary gaming is why I have made this distinction between the two. It would be unfair to compare mobile games to computer games and vice versa because of the significant differences between the two types of games.

Jon Dovey and Helen W. Kennedy discuss video games as being part of both the new movement of media studies called “New media studies”, but also the conventional “Media studies”. In order to discuss video games, Dovey and Kennedy opted to follow the methods on how cultural studies theorises around the topics of popular culture. As such their theory does not revolve around the technologies and the hardware per se, rather its more about what these

applications can provide the players via different types of media and experiences. New media studies are then also a reapplication of the traditional media studies; however, they are rather applied on digitally-based media instead of analogue ones. This means that some previous conventions must be altered or replaced in order to be useful when discussing digital media. The availability of using both types of media studies means that the research is also broader because it includes two schools of thought rather than only one. The different converging approaches between the two study fields can be seen in the figure below (see figure.6) (Dovey and Kennedy pp.1–4). What can be gathered here are the significances of active participation from the users of new media, users are to devote themselves to the media product in ways that weren't seen before. They experience, participate, and interact with the media product. Meanwhile, the 'old' media studies aim to see the user as the observing, interpreting, and consuming power. Video games might revolve around new media theories, but they certainly retain many of the characteristics one can find in old media studies. The playing of certain video games can certainly be considered as 'work' where players have to complete a certain mission, players also need to interpret different things in the video games, and most crucially in today's narrative video games, players need to watch (spectate) cutscenes<sup>9</sup> which could be compared to motion picture viewers. When it comes to new media studies and its characteristics, we can also see the usage of it in books and theatre plays, where viewers are to experience and immerse themselves in different medial works.

What is made clear then is that video games are complex media products. They include different ways to play, but also different devices one can play on. As such, experiences of playing differ depending on the material and technical media being in use.

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<sup>9</sup> Cutscenes are narrative videos in video games. They aim to fill in the blanks not given to the player by just playing. They can also act as a break from the constant interaction of the players (Oxford English Dictionary Online 2019).

<b>Media Studies</b>	<b>New Media Studies</b>
The effects of technology are socially determined	The nature of society is technologically determined
Active audiences	Interactive users
Interpretation	Experience
Spectatorship	Immersion
Representation	Simulation
Centralized media	Ubiquitous media
Consumer	Participant/co-creator
Work	Play

**Figure.6** Lists of different approaches included in (new) media studies (Dovey and Kennedy 3)

### 3.2 Building Blocks of Video Games

Video games are built by several defining blocks. In this section, I will define some of the important blocks which also help explain how video games work the way they do. These definitions are built upon the definitions given by Creeber and Martin in *Digital Cultures: Understanding New Media* (Creeber and Martin pp.81–83), I also gather further information from Dovey and Kennedy which will be referenced in the paragraphs. These building blocks aren't necessarily revolving around intermediality, rather the reason I include them here is that to be able to understand how video games are built, then one needs to understand what these building blocks mean for video games.

**Interface:** An interface is a form of information management board where information is being exchanged. The information can be exchanged physically between the player and a computer device such as controllers and keyboards. Exchange of information can also occur by visual means, in the form of something called a graphical user interface, in the graphical user interface the player will be seeing graphical icons and visual pointers which the player can interact with and in doing so cause exchange of information. The interface can thus be hardware or software-oriented, depending on the interface being used. Hardware-based interfaces for video games are also controlling devices such as keyboards, mice, joysticks, and controllers. While software-based interfaces are then the user interfaces seen in-game, these include various kinds of menus that you



encounter during your playtime and the heads-up display. The heads-up display usually contains your character's current health status, abilities, map of the game area, etc (see figure.7 above) (Kraus 82). Both types of interfaces are always, with few exceptions, present in video games (Dovey and Kennedy pp.106–107). The interfaces, from a video game technical standpoint, are important for my study because video games greatly benefit from user interfaces on several layers, inside the video game, during the cutscenes, in the main menu, and throughout the Discovery Tour. The term, interface, also shows the versatility the term has gotten: Elleström sees the interface as the material objects used to present information to the consuming part. Elleström would be able to describe the hardware-based interfaces such as controllers and tv-screens, but he also discusses how hard it is to distinguish between different manifestations of an interface (Elleström 17). I think when we look at digital interfaces, such as the ones appearing in video games or Augmented Reality applications, then we see a discussion where Elleström's theory needs to be developed further. Looking at figure.7, the graphical user interface in *ACO* involves several different types



**Figure.7** Yellow circles in this figure highlight the different information provided for the player. **Upper left corner** tells the player the objective. **Upper center** shows a compass with different icons signifying different points of interest. **Upper right corner** describes the current level of the character. **Centre left** shows the level of the enemies. **Centre right** shows where the player can find the next objective. **Lower centre** shows subtitles of what the character is saying. Figure captured from *ACO*.

of media and signs, it is based on the interpretations of these signs and media that the player can take their next step in the virtual world. The indexical sign of the enemy level being painted red and being a higher number than the player's level means the player is up against tough opponents. The figure also captures the subtitles of how the character has warned the players that it is too dangerous and further on suggests to the player that they should pass this place for now. Breaking down this scene in this way shows the relations connecting the symbolic and indexical signs with the subtitles, this all leads to the player having to decide what to do next in the game.

**Graphics:** The graphics are the visual elements a video game consists of; this is needed to let the player see the information in the form of different visual means. What these visual elements consist of can be seen in the figure above (see figure 7). In this figure the player must interact and understand a lot of visual elements, the virtual world is first drawn on the screen, game characters appear scattered all around the player. Vast detailed landscapes and architectures fill the virtual world with 'life', distinct colours and borders appear on all objects seen in the game, this is made this way in order to make a distinction between the user interface objects and the general gameplay objects inside the virtual world. Frames and windows with different types of information for the player to read and consider are placed all around the screen to give the player the information needed. All objects shown on-screen, ranging from the user interface (read definition below) to the characters traversing Ancient Egypt are drawn by the technological machine (video game console or PC) and the program. These are visual signs which are fundamental to create meaning for the player (Kraus 82).

**Player activity:** The interactions from a player are what makes the video game progress. Therefore, without the interactions from a player, the game will not progress, the player will, for instance, need a hardware-based interface which would control the game. To use the figure from above (see figure.7), the small directional diamond to the right is indicating that the next step in the player's mission is 83 meters away from where the character is standing. To progress in the mission, the player must traverse 83 meters to reach the marked directional diamond. Following the directional diamond would lead to certain player activity, and in doing so the player can progress through the mission currently being played (Dovey and Kennedy pp.111–113; Creeber and Martin 82). This type of activity can be compared to how a book doesn't start reading the next

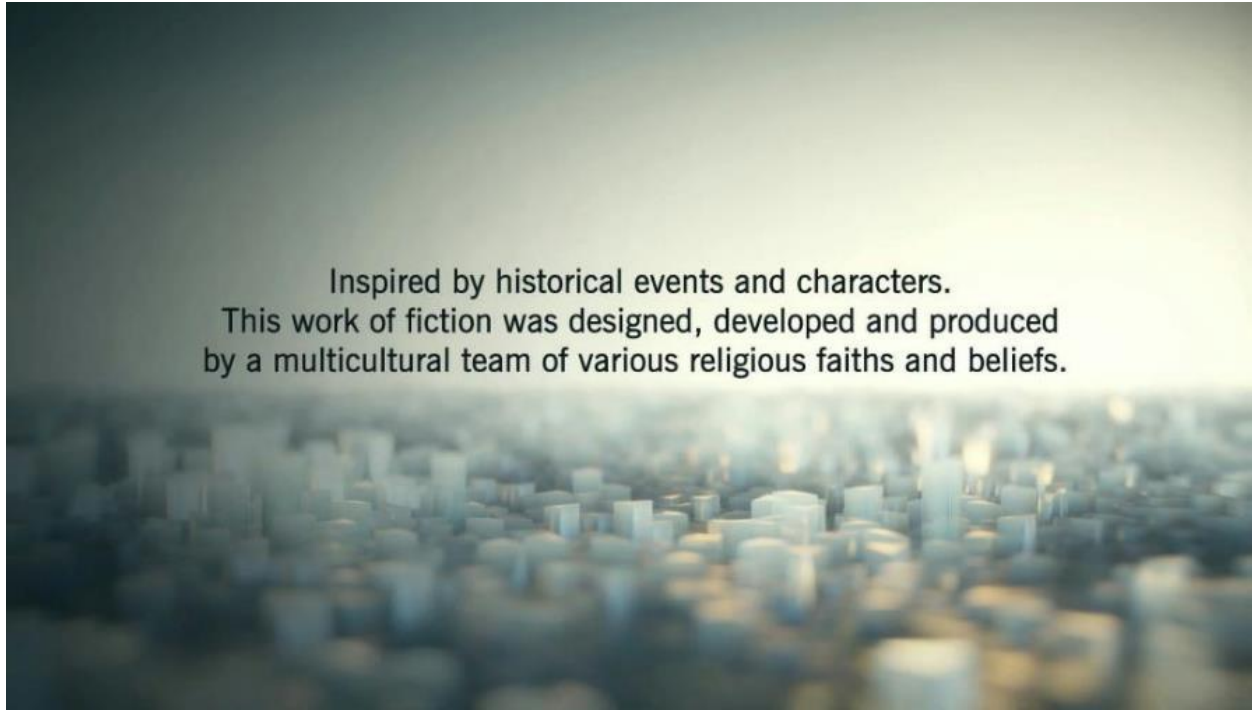
page by itself, it needs the interaction of the reader who will switch to the next page. A video game won't progress if the player does not control it, a mission won't progress if players don't follow the mission instructions. These media need the active participation of the reader/player to fulfil the task asked of them.

**Algorithms:** Algorithms are at the core of making video games what they are, Creeber and Martin call the algorithm the heart of the program that creates the video game, it makes up the various tasks (randomness, rules, responses, representation) of a video game to such an extent as to reach a point where the player can see the video game on screen. The algorithms control the way in which the player plays, hears, sees and view the game depending on what has been coded by the developers, one keypress on the controller shall lead to a certain response occurring. Traversing with your character to ancient Alexandria instead of ancient Memphis should lead to certain differences in the rules, a different kind of representation occurs, your enemies might become much stronger, and being in ancient Alexandria may also lead to the player encountering specific animals they hadn't encountered before. This is all dependent on the algorithms working correctly, the algorithms in part are the codes written by programmers working as an instruction list for the rest of the program to function. The algorithms aren't something that the customer will see, algorithms are rather elaborate mathematical and physical equations made to solve different operations which are part of the code that programmers write for a video game (Kraus 82).

These building blocks are then the fundamental cores of a video game. For the player to be able to play a video game the developers need to implement different algorithms, interfaces, and visual elements in order to give the player the ability to interact with the video game. The building blocks are in this case not necessarily intermedial in any sense (visual elements excluded), but they are needed for the developers to be able to create a video game experience which involves highly intermedial occurrences.

### 3.3 Video Games Today

Delving deeper into the franchise reveals that the first game (*Assassin's Creed*) was shown in 2006, live on stage during a trade event for the video game industry where the bigger publishers and developers unveil their games (Moss 2018; Haynes 2006). Video games often start with different publisher/developer logos appearing on screen and then the main menu appears, but in the case of *AC* games, the developers have always chosen to start the video game by telling the player that the video game they are about to play is inspired by historical events and characters (see figure.8). What's interesting is that the *AC* franchise has come down in video game history as the game franchise which dares to venture into rarely explored periods in history. As I have mentioned before, *ACO* includes a 'Discovery Tour', a game mode which has not been seen before in this way in late modern video games. The game mode works in the way of letting the player traverse through the landscape of Egypt to experience different "guided tours" revolving around specific parts of Egypt at that time. The experience is different than just travelling around in the video game, with the sole purpose of the players assassinating specific enemies. The discovery mode is instead built to explain every piece of architecture and historical object that players encounter in the mode. For instance, if the player is in Alexandria, they will be given the option to choose between a collection of different audio-narrated tour guides revolving around specific topics of the city. Such an example is the first tour guide in the game mode called "Alexandria: Planning of the City", which guides players through the design and layout of Alexandria. Because of the way the tours work and how they are formed in combining different ways of communication to the player such as text and audio narration, we could refer to them as digital guided tours in a digitised virtual museum. They serve a purpose which is more advanced than the 'conventional' digital museum platforms, such as the one found in the Rijksstudio. Instead of browsing a website with an album of digital photos and paintings, the Discovery Tour provides people with the ability to interact with the depicted architectures, objects, and cultures which players encounter. Players can pan around objects, they can explore every part of buildings by climbing up to wherever they choose to, they can zoom in on smaller objects and they can even take part in activities involving these guides. Such an example can be seen in the Alexandrian Library where the player can decide to sit their character down alongside the library scholars, players can then choose to start different activities connected to what the scholars did in the Alexandrian library.



**Figure.8** Initial startup screen for *Assassin's Creed* games telling players what to expect from this work of fiction

In the second edition of *Understanding Video Games: The Essential Introduction* released in 2013, the authors start the book by reminding the readers that since the release of the first edition in 2008, the industry has changed in scope. The introduction of mobile games such as the Finnish *Angry Birds* or the Swedish *Candy Crush* toppled the industry (Egenfeldt-Nielsen et al. pp.1–2). A newer set of video game consoles (introduced with the launch of the Xbox One and Playstation 4 in 2013) had just been released and Virtual Reality goggles had just started to make big chatter around the industry again. The Nintendo Switch, on the other hand, has combined the functionality of a portable console with a stationary console in one machine, giving the players the ability to either play on-the-go or on their TV as they see fit. One could think that this would form a new combined medium, but I think portable and stationary consoles primarily serve the same purpose of players being able to play their video games. During the time Simon Egenfeldt-Nielsen and his colleagues wrote their first edition of the book, the modern smartphones revolutionised the mobile market and started a mobile gaming movement which would later become the biggest threat to stationary consoles which aren't mobile. Since then, the internet, various interactive devices (new and old), and the consumers have started to blur the lines between virtual and real lives in a much more aggressive way. Game franchises – including *AC* – have created enormous social media

pages where fans from all over the globe come together for the love of playing specific video games. YouTube and Twitch.TV have become platforms where players can live-stream or upload their experiences of playing the game. In fact, the most subscribed YouTube creator right now (09 April 2019) is the Swedish video game streamer PewDiePie, with a subscriber count reaching above 92 million users. To put his subscriber count into perspective, the subscribers would amount for more people than the population of Germany. Other examples can be seen with the “gamification” of everyday life in the form of different applications which give users different types of incentives to “reward” the player on their progress at finishing a to-do list for instance. These examples show how an innovation or movement in the video game industry can influence the decisions taken by corporations, everything developers create have long-term interests tied to them. I think *AC* with its Discovery Tour, is one of such instances where developers are trying to bring new things to the table to see if they can move the video game industry forward into different markets and uses.

## 4. Analysis

### 4.1 Assassin’s Creed Explained

In the start of this thesis, I briefly went through the *Assassin’s Creed* franchise, a video game franchise that has been played out in various historical periods including the French and the American revolution, ancient Egypt, the Italian Renaissance and many more. These are all historical time periods often represented in media works such as films, books, theatre plays and more, but rarely are they at the centre of attention in video games. This is what makes *AC* an achievement in combining a serious explorative historical world, with a fully fleshed out playable and interactive narrative set in medieval/ancient cities. The experience is different from the modern couch experience of watching TV shows or the quiet of reading books.

While the *AC* video games are always played in factual historical time periods, there is an underlying common franchise narrative which connects all the games together. This narrative is built upon a fictional war between the Assassins and the Templars, these are two opposing forces in the game franchise which are loosely based on the real-life Muslim secret order of the assassins

from the 11<sup>th</sup> century and the templars from the 12<sup>th</sup> century. Throughout the game franchise, major figures such as Charles Lee from the American Revolution, the House of Borgia in Renaissance Italy, or Maximilien Robespierre during the French revolution are all part of this fictional Templar order. In each game, the players take on the roles of an assassin fighting for the people and against the tyrants which these templars are often depicted as. Contrary to film, tv or books where the characters are already directed by the writers, these video games allow the players to play as these characters and it also gives them the opportunity to form the characters based on what the players do. As shown here then, the franchise involves fiction and history in an interesting fusion, setting the player in the life of someone living during one of those periods in time, in an interactive video game.

In *ACO*, which is the video game I am analysing further, ancient Egypt during the last century, before the birth of Christ, is the main setting, it was released in 2017 and is the tenth main instalment of the *AC* series. The game puts the player in control of the main character Bayek. Bayek is trying to save the people of Ancient Egypt from the chaos that is caused by the last Pharaoh and his sister – Cleopatra – having a feud over who shall control Ancient Egypt. The main character, Bayek, is part of an ancient historical group of warriors/authorities – Medjays - which served the role of protecting the lands of the Pharaohs in ancient Egypt (The Oriental Institute). CBC Journalist Jonathan Ore wrote an article in which he delved deeper into the making of *ACO*, he explains how the developers had to find a balance between history and fiction (Ore 2017). The development team worked alongside a group of professors, Egyptologists, historians and archaeologists working together to find this balance. This group of academics and the game developers worked together to create an authentic ancient Egypt, which would be fun to play, but which also was compatible with the underlying *AC* fictional narrative, hence the usage of the term “inspired by historical events” (see figure.8). This focus on “authenticity” is only heightened in the aforementioned ‘Discovery Tour’, which aims to work as a digital museum and learning tool for educators. The mode is included in all *ACO* games but can also be bought as a standalone program for the PC platform, mainly to be used for educational purposes where it can be beneficial for educators in their teaching of history and cultures of ancient Egypt.

My analysis will seek to answer the purpose of this thesis. Firstly, to look at different intermedial characteristics which exist in the franchise, where specific instances of the video games, films, books etc. are all part of what makes the whole franchise intermedial. The usage of different media converging in one video game shows how far the intermediality in this franchise can be taken. Secondly, I explain and discuss how the future of digitised “museum” applications might look like with the help of the ‘Discovery Tour’, available in *ACO*. In doing so I also discuss how these new forms of “play” can be used for various advantages in different fields. Thirdly, I also investigate how these applications of history, languages, and cultures can be used in the teaching of specific periods or languages. What advantages can be had from these applications? What cautions do we need to consider when using these applications in educational entertainment?

## 4.2 Intermediality and Assassin’s Creed

As mentioned before, intermediality occurs in many places when it comes to video games, the flow of mediation and the different instances which need to occur before something can appear on screen are staggering when compared to any other media. Taking the example of the destroyed ancient Library of Alexandria depicted in *ACO*, it needs to be said, and Ubisoft addresses this in the ‘Discovery Tour’, that the depiction of the library is based on how other libraries and important buildings looked like during that time (see figure.9). In order to recreate this library, the process had to include the original look (in this case the developers had to study similar buildings from that time), the developers would also need a concept artist<sup>10</sup> to recreate the architecture. The concept art drawn by the artists would then have to be implemented into the game with the help of a technical artist<sup>11</sup>, the technical artist creates the object in-game, they give it the digital textures and they make it so that players can interact with it in the game world. What is seen then in this work process is the initial work of art (the initial historical architecture) being recreated into a conceptual art piece by the concept artist, which later is recreated in digital form in the game by a

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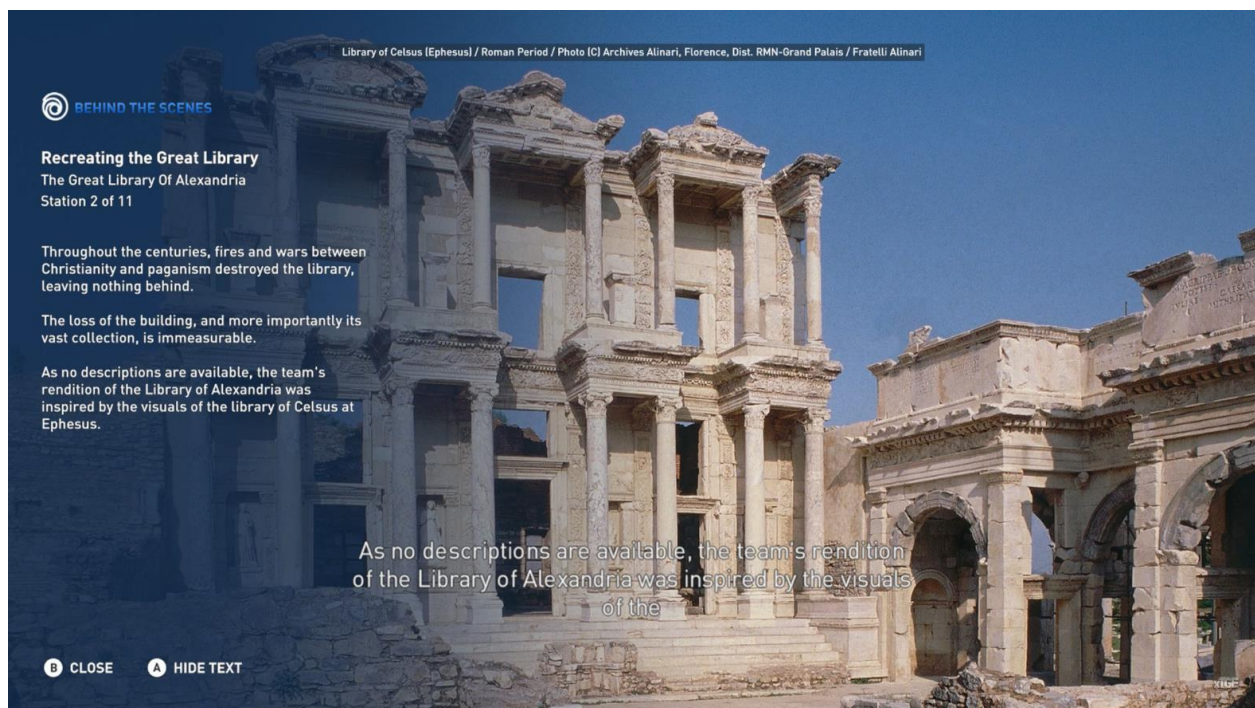
<sup>10</sup> A concept artist is someone who creates the first pieces of explanatory art for a work of fiction (video game, film, tv, comic book). The concept art aims to give an idea of the fictional work which is yet to have been made. Concept art is usually the first step in creation of fictional works such as video games (Sim 2019).

<sup>11</sup> A technical artist is someone who works as an artist, but is also the one who implements the different art assets into the video game world (The Game Assembly 2019).



technical artist. This could be referenced back to transformed types of media, in Elleström book *Media Borders, Multimodality and Intermediality*, Sigurd Kvaerndrup discusses how churches and other significant architectures were the significant media of that time. Buildings such as libraries, temples, and churches are often full of different works of art mediating information to the people on the floor (Kvaerndrup pp.99–105). It can also tie into the fact of what was explained in Elleström’s book about how McLuhan theorises that anything appears to be a medium in society. Considering that money, wheels, and axes can be different types of media, would mean that a building is a medium since it’s channelling the thoughts and ideas of the architect who designed the building. Where Elleström would take this theory further is in the need to also include different modalities and their importance in being able to discuss intermediality (Elleström 13–14).

Another instance of *ACO* and historical re-creations can be found in the final ending of the



**Figure.9** The ‘behind the scenes’ part of a guided tour of the Library of Alexandria in *ACO*

video game story, as the assassination of Julius Caesar unfolds in front of the player. A cutscene plays out, in which the viewer sees several roman senators stab Caesar uncontrollably until Brutus manages to approach Caesar. Caesar asks him, “You too, my child?”, clearly drawing an intermedial self-reference to the moment in William Shakespeare’s play which is based on the

disputed stories of what Brutus said to Caesar when he assassinated him (Mabillard 2006). Several medial references are occurring in this cutscene. The visual look of the game's assassination scene is akin to what is seen in the painting by Italian painter Vincenzo Camuccini, but also to how the assassination has been



**Figure.10** Brutus after having stabbed Caesar in *ACO*

described and depicted in various medial works. Brutus' clothes being blue with a purple hue (see figure.10), shows a clear use of colours signifying the connection between the video game adaptation and the painting. The uncontrollable stabbing by the senators occurring in a similarly gruesome way in both the painting and the video game is another such reference (see figure.11). The undeniable similarity between the quote said by Caesar in Shakespeare's drama, "Et tu, Brute?", and the quote the game chose to use. References of such a multifaceted moment in history makes for a collection of interesting medial interpretations to be had. Playwrights such as



**Figure.11** Painting by Vincenzo Camuccini painted in 1805 (left) and the assassination of Caesar in *ACO* (right)

Shakespeare imply that one thing happened, while on the other hand historians dispute his hypothesis. Therefore, I think this scene in the video game becomes a sort of remediation of this historical event. It is not made clear whether the scene is drawing inspiration from Shakespeare's play or other medial works, but the hints are there to be interpreted by the players. The developers

have taken this assassination story and adapted it to a medium which has rarely seen it been used before.

Considering this occurrence and other ones in *AC*, I would argue that studying video games in this fashion needs research that looks at video games broadly, where the research combines different intermedial theories. Intermedialists such as Hans Lund (Lund 2002), barely mention the human interaction and immersion within a medium such as video games. Media for Lund is very much a passive object, where the interaction with media seems to be limited to focus on the consumption and viewing, rather than the interactivity. Arguments of listening to music, or walking around a sculpture are leading to different senses and thought-processes being activated are of course not to be brushed away, but I argue that playing a video game where the player is the one steering the game forward creates a different dynamic between medium and human. In this way, the player is invested in the medium, because the medium is dependent on human interaction for it to continue. The video game narrative does not continue without the player choosing to start to play in the world. This is in contrast to Elleström's spatiotemporal modality, Elleström only points to a theatre play continuing to play, even when the audience is closing their eyes or blocking their hearing and as such the play is not dependent on the viewer to function (Elleström pp.18–20). Elleström's focus on sensorial modalities, but also the semiotic and spatial ones, are well suited for constantly changing media such as a video game (Elleström pp.15–24). I think using these modalities to explain how a video game is interpreted is a crucial step in further research. As I mentioned at the beginning of my thesis, video games depend on the player who is playing the video game at that moment. The experience will, therefore, also be influenced by the player's prior knowledge of video games, but also their cultural background.

Using the semiotic modalities and applying the theory on *ACO* with its Middle Eastern cultural depiction, means players of *ACO* in the western world might experience the video game differently than someone living in the Middle East. Much like the creator's background will influence them in the making of the video game, the same applies to the players which traverse the landscapes, interact with characters, visit ancient buildings etc. As read in the article (El-Nasr et al. pp.1–3) written by El-Nasr et al., a player's cultural background will evoke different experiences of the same video game when played by different people. The comments by one of the writers, Maha Al-

Saati, explain her experience of the first *AC I* as nostalgia when she walked through the streets of Jerusalem finding hints of her heritage being used in the video game. Meanwhile, for Simon Niedenthal who also co-wrote the article, *AC I* was an escape from the dark winter in Sweden, instead of travelling outside during the holidays he sat down and experienced the virtual sun in historic Middle-Eastern cities such as Jerusalem, Damascus and Acre. Comparing both comments shows how the contextual qualifying aspect of a certain medium can make the object appear differently to people. Al-Saati played to be reminded of her own heritage and as such looked for signs that could lead to her finding such occurrences, Niedenthal played to escape reality and to experience an exciting setting with not much regard to any cultural context in the virtual world. Therefore, it is only fitting to say that Ubisoft's creations are not exempt from this discussion of representation. *ACO*, for instance, was developed by Ubisoft Montreal, located in Montreal, Canada. What this meant for the development is that they had to do research on ancient Egypt, the language, the culture, the demographics, and politics. They had to gather information from different written media sources, and they also had to travel to modern-day Egypt in order to get a better understanding of the culture and people. (Nielsen 2017).

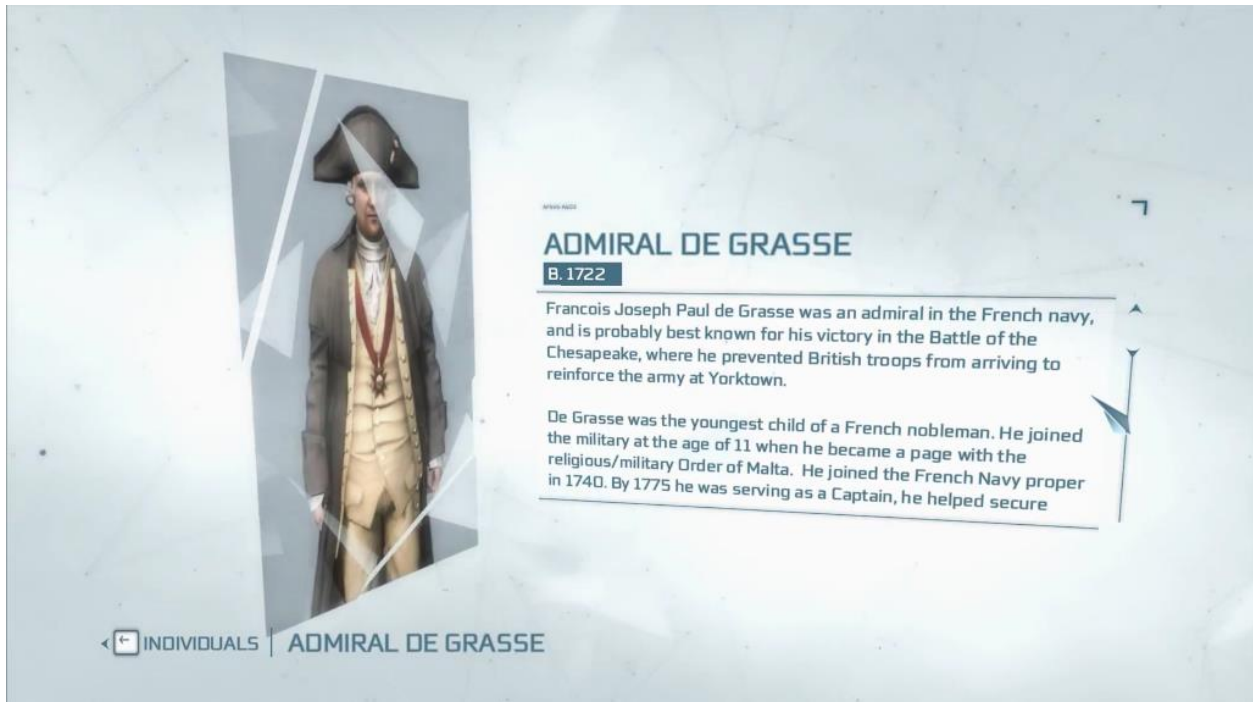
To go further, Youssef Maguid, an Egyptian writer on the official Ubisoft News site, wrote an article about the way in which he experienced the game from his viewpoint as an Egyptian native (Maguid 2018). Maguid points out that this was the first time he felt like his Egyptian heritage was respected more than what is usually portrayed in other media productions such as Hollywood films. Maguid delves into the ways the culture of the Egyptian people is represented and handled by the developers, these ways use sensorial modalities such as hearing and seeing, but also semiotic ones where a big collection of signs are used. The player is subjected to encounter ancient objects wherever they travel in the virtual world. Hieroglyphs written with an ancient language is scattered all around the virtual world and these hieroglyphs can sometimes play key roles in narrative structures of the video game. Players walking through one of the several markets in the game world, where different sorts of merchants sell their goods to the population is another example of how the audio-visuality is directed to the player in the video game. The video game, as a medium, in this case, is clearly then in need of the player's ability to use their senses, without the seeing, feeling, and hearing there is no fundamental understanding of the video game, there would not be anything for the player to take part in and to interact with (Elleström pp.17–19). To Maguid this is

what Egypt is all about, the normal life of Egyptians selling goods, taking care of their crops, kids playing all around. While this comes off as a generalisation, I think it can be a more relatable representation of Egypt, more so than the stereotypical American explorer in films, who decides to travel to Egypt to find hidden treasures or to excavate mummies. This is also why I think video games which adapt a specific culture will be interpreted differently depending on the person who is playing the game. One reason for this is because video games such as *ACO*, can take up to hundreds of hours to complete, games include more information than what is able to fit in a two-hour-long film. Similar comparisons can be made between TV-shows and films where the tv-show can be endless in comparison with the films. Going back to what Maguid discussed about representing a culture, this can also be confirmed in cases where western companies create a medial adaptation of eastern cultures or vice versa. The different experience of playing a video game will differ depending on who is telling the story. These differences don't have to only revolve around the western vs eastern world either. Instalments in the franchise such as *Assassin's Creed Unity*, which is based on the French Revolution, are going to be digested differently when played by a French person compared to it being played by a Swedish person. With all this in mind, the conceived media product will still be influenced by what the developers' background knowledge is on the topic. Who were the ones publishing the video games to the public? Where/how/to whom was the video games advertised? All these variables not only influence the perception of video games, but they also have an influence on who will be playing the games and how they will do it.

### 4.3 History Recreated in Video Games

*AC* has been made as an entertaining and serious way to experience historical periods. Throughout the franchise, there have been several ways in which the developers have used history and represented it in different forms. There are different ways to do it, the usual way in the franchise has been to have characters in-game be important people of history depending on the instalment's specific setting. These examples of including Cleopatra, Socrates, or Leonardo Da Vinci aim to provide players with both fiction and history in a stimulating combination. Another way has been to use historical cities and landscapes as key areas of the games, which means the characters will involve these cities and landscapes into their dialogue and storyline. Another method throughout the franchise has been to have a form of database in the menu, where you can find entries about

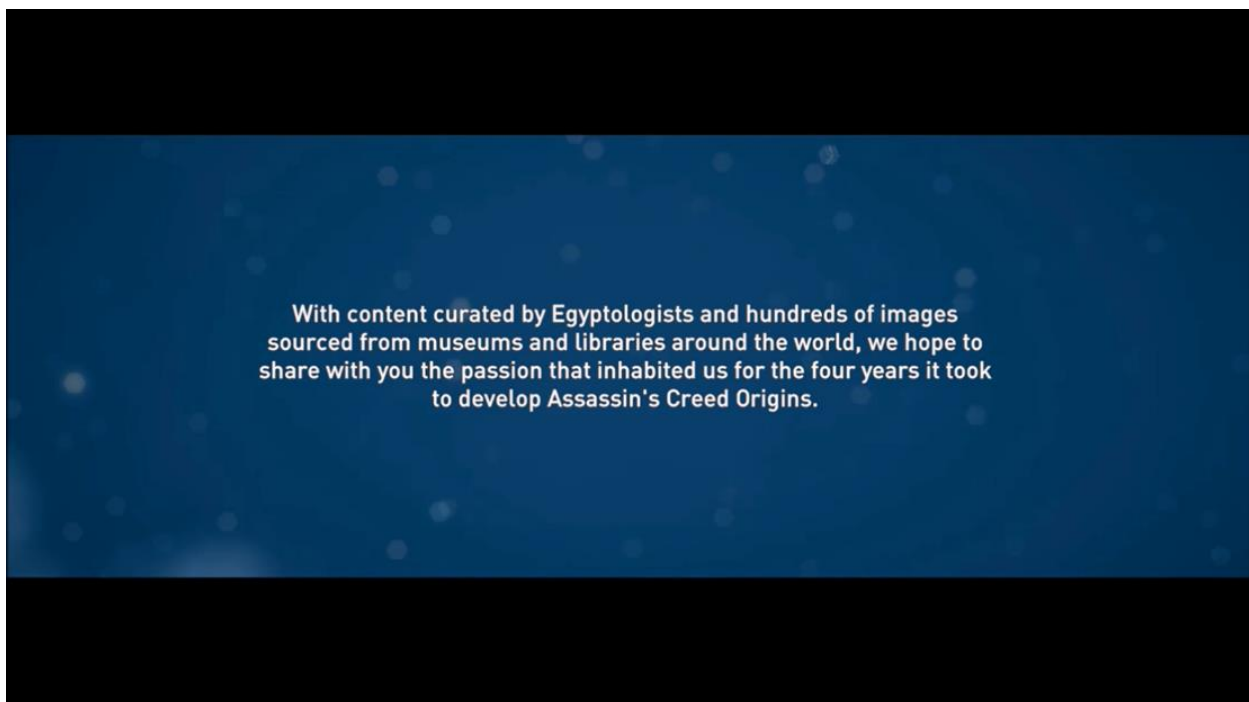
historical landmarks, cultural history, landscapes and key figures of that period (see figure.12). All these methods are known ways of developing a substantial narrative which exists in such video games. In the video games industry, these methods appear to be filling a need of expanding the lore and explaining things which sometimes might not fit into the main quest and storyline of the game.



**Figure.12** Database entry found in *Assassin's Creed III* describing who Admiral de Grasse

In the AC franchise and many other comparable mainstream video games released lately, not many have gone through with something like the 'Discovery tour'. This mode, as mentioned before, can be compared to the resemblance of how a digital museum could look like, where it can use the assets of *ACO's* game world in combination with museum photos to provide an accurate historical tour around Ancient Egypt. This is not only directed to players of the original video game, but also to people who are unfamiliar in how to play video games. The players go through digitally guided tours in the game world with an accompanying voiceover tour guide, the tours are split into different sections with every section having the voiceover speak about what the section is showing. The section's content includes references to where you can find the real item in a real-life museum, in most sections the photographs of the objects which are viewed on-screen are taken

from different Museum' online platforms such as the evisceration tools shown from The National Museum of Antiquities in Leiden (see figure.2, p.21). The game mode uses the graphical user interface in a simple manner where it doesn't involve elaborate button combinations. I think the developers took this decision in order to be as accessible as possible for different types of players. You walk around the virtual world with the joysticks on the controller, while pressing the buttons showing on-screen corresponding to the action you want to take. The differences are large in comparison to the main game where you must use all possible input methods (triggers, bumpers, joysticks and buttons) available on the controller in order to be as good as possible on the game. Contrary to the main game, all objects which are included in the 'Discovery Tour' were created to be genuine to the information which the museums and historians provided the developers with (see figure.13). Together with the historians and academics, the developers were able to create a video game mode that conforms to some of the core tenants of what a video game is, but at the same time try new things that go beyond just playing. 'Discovery Tour' is its own thing and while it is an entertaining experience, the focus should on how it has put this type of usage of the game worlds into use in a different field altogether.



**Figure.13** Introduction screen for the Discovery Tour mode found in *ACO*

## 4.4 Educational use

Educational video games are not part of a new genre of video games, **edutainment**, as the authors of *Understanding Video Games* reference the genre as (Egenfeldt-Nielsen et al. pp.230–235), derives from the category of “serious games”, games with the purpose of being entertaining, but also educational. An example of previous “edutainment” games would be Ancient Egypt based history edutainment game from the early 2000s, *Äventyrarna Fyran – Pyramidens Hemligheter* (ClueFinders 4th Grade Adventures: Puzzle of the Pyramid) (The Learning Company 2000) (see figure.14).

It’s no surprise then that the ‘Discovery Tour’ has been heavily welcomed by the educational community, one such example is a study by education professor Marc-André Éthier at the University of Montreal from 2018 (Udemnouvelles, 2018). The advantages of a digital learning tool such as the Discovery Tour were the highlight of Ethier’s investigations. His study was certainly limited because of the total number of test students (330 students), but nonetheless, it sheds some light upon what many have been seeking from



**Figure.14** Screenshot from *Äventyrarna Fyran – Pyramidens Hemligheter*

video games as a medium. Finding a simple and yet effective way in which these very detailed applications can be applied in educational purposes is something that everyone ranging from the developers, professors, and students can take advantage of. In his study, Éthier took around 40 students in several test schools in Montreal, Canada. Half of the students experienced a guided tour of the library of Alexandria in the Discovery Tour. The other half had a regular PowerPoint lecture about the library. The students then had to answer 15 questions about the library before going through either of the methods, on average these results showed that the students only had 22% of the questions correct. After the students had gone through the guided tour for 15 minutes or having had a PowerPoint lecture on the subject, the correct answers on the same type of

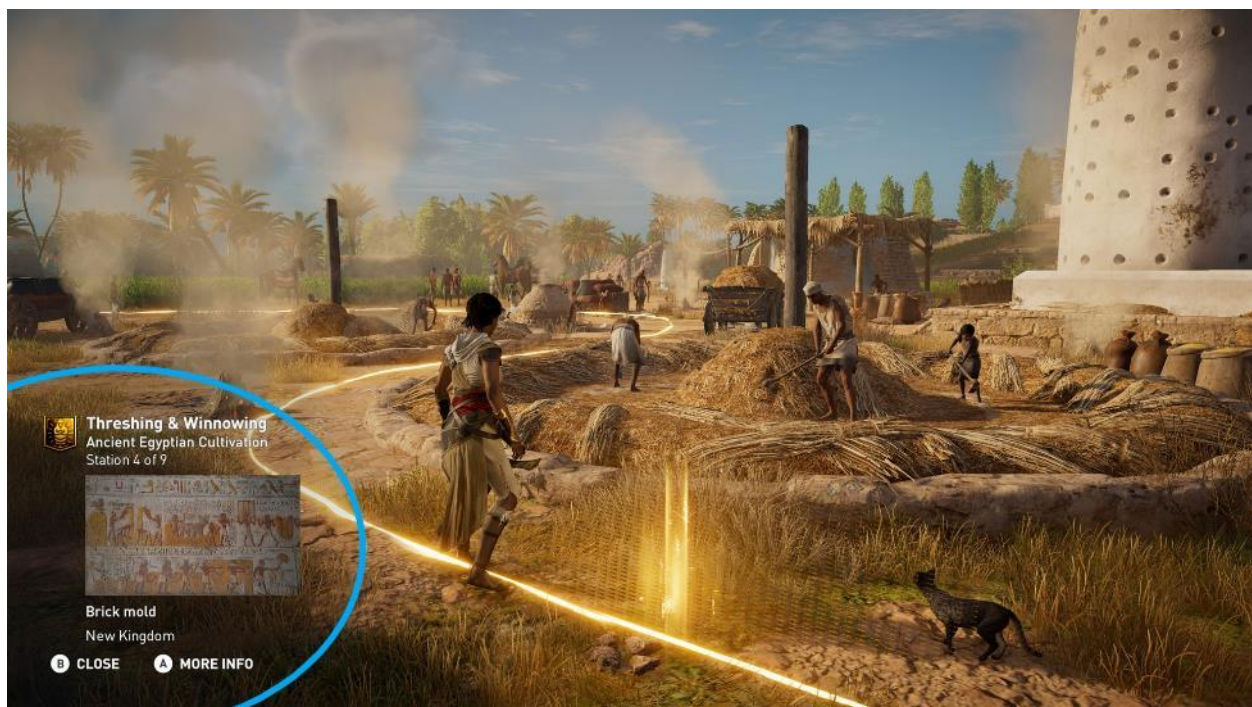


questions were now 41 per cent and 55 per cent respectively. While the results from the lecture method confirm the suspicion that teachers are still needed in a more digitalised world, it does point to the possibility that digital learning tools, such as the Discovery Tour, could accompany the traditional teaching methods of lectures in order to give pupils better methods of learning. I think this is a relevant occurrence surrounding video games, where the interaction and temporality of video games can activate different senses and therefore, also make these players remember certain things clearer because they have gotten to experience them. Being able to pick up an interface device such as a game controller in order to take command over the character placed in an ancient Egyptian environment, will undoubtedly create a different type of connection than what is gathered from a lecture by a teacher. The same three senses (seeing, hearing, feeling) might be used in both ways, but they are ultimately used differently depending on how the information was gathered by the students (Elleström pp.17–19). I would also have wanted to see what type of changes in the students' answers could have been seen if the tour had been longer than only 15 minutes.

In the official Modern Language Association publication *Profession* (Bregni 2018), PhD Simone Bregni, a teacher in Italian at Saint Louis University discusses how he was able to use the depiction of the Renaissance in Italy, presented in the second instalment of the franchise *AC 2*. Bregni used the re-created Italian game world, the actions were taken by the game characters, the cultural depiction, the speech, and the narrative to enhance the Italian studies course by letting the game be part of his course curriculum. Bregni also mentions that it's usually very challenging for students to learn how to use phrases with commands because of the "fake nature" that appears in trying to command your fellow classmate to do something in another language (in this case Italian). However, with a video game where all the characters can speak Italian, for a player to try and stay alive and to progress to the next part of the game, they would need to follow and give commands in Italian.

Another point that I think is important is the way in which the graphical user interface during the whole game and the Discovery Tour, is very well thought out in order to be as informative as possible. If the goal with this type of "museum mode" is to immerse the player into the vast world of Ancient Egyptian history, then the developers need to make sure that the interface doesn't

detract too much from the immersion of the game. It needs to be contextual and depend on what you are doing in the video game, where it can give the player only the information that is needed and not overcrowd the screen with information. I think the developers have positioned the user interface to be balanced enough for it to not intrude on the player too much, while still providing necessary information for the experience of the Discovery Tour. This information is provided either visually via text and visual signs, or verbally via the audio narrator, explaining every station's content in a certain tour guide (see figure.15 and figure.9). Doing it this way will allow the players to choose whether they want to listen to the narrator, or to just read the transcribed text. This would also mean that while the tours are made for different types of players, it would also be accessible to players who might be deaf or blind. Another importance here is the intermedial usage of narration happening in both text and audio, in a video game mode which ultimately is a representation of Ancient Egyptian culture as has been discovered by historians through the years.



**Figure.15** Graphical User Interface of the Discovery Tour, giving quick info and an option for more info

These use-cases are different ways of using video games for more than just entertainment, but to use them in the way of “serious games”<sup>12</sup>. Cases, where the vast game world can be used by academics in order to teach students, are typical use-cases where teachers of history and language would take advantage of these games. Bregni with his use of *AC 2* (Bregni 2018) and Éthier’s findings of using *ACO* in class (Udemnouvelles 2018), seems to show how the academics field can take advantage of this emerging usage of video games in ways that we haven’t seen before. Video games are thus made intermedial in their approach of providing educational information. The Discovery Tour shows how the usage of several different signs, interfaces, and media works together in providing players information in different ways than just reading a book or listening to a lecture in a classroom.

## 5. Summary

My purpose with this thesis has been to map out how the Ancient Egyptian periods have been re-created in a modern video game and to do so with an intermedial focus. I think it is important that we focus on how the different modalities mentioned by Elleström (see section 2.1.2) can relate to video games such as *ACO* and how they take advantage of these modalities. A lot of the objectives in recent research has been to highlight the new ways of playing games, whether it is mobile gaming, Virtual/Augmented Reality, or if it is the more “traditional” type of video games where you play with a mouse/keyboard or controller while watching the tv/computer screen. Such ways of playing video games involve our senses of seeing, hearing, and feeling – all parts of the sensorial modality classified by Elleström (Elleström pp.17–19) – in more extensive ways than what has been available before with previous capabilities of different devices. By using the sense of hearing, seeing, and feeling, developers can create virtual worlds which are not only enjoyable to play but which can also play on the feelings of players in the sense of making them more emotional towards

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<sup>12</sup> Serious games are games which aim to go beyond just the mindless entertainment which has for long been the objective of video games. Serious games instead include for instance cultural information, provide players with education on different school subjects, or it can provide players with historical information. Serious games are about going beyond just the mindless traversing and action in video games and instead it aims to provide players with something more substantial which doesn’t necessarily have to be entertainment (Egenfeldt-Nielsen et al. pp.229–231).

certain characters. Video games are becoming more interactive and immersive, and it is today more applicable to apply different intermedial theories – such as the various theories mentioned in this thesis – onto video games. Franchises such as *AC*, have started to cross not just different media borders, but also different fields in mixing entertainment and historical education. The launch of game modes such as the Discovery Tour marks a shift in how to create educational video games. The tour has been released also as a standalone program completely spun off the main video game, and it seems to have been accepted by the teaching community which shows the big potential of what these sorts of modules can provide. Ubisoft has also said that their new *AC* video game set in ancient Greece will also receive a Discovery Tour in the latter half of 2019 (Reparaz 2019).

As I have discussed then throughout this thesis, the developers of *ACO* have developed a game world full of historical artefacts, cultural icons, remediations of previous works, and a representation of a culture that existed more than 2000 years ago. This is a culture and historical landmark which has formed much of today's society. It is one thing to experience history in the form of motion pictures or literature, but it is different to be able to 'play' history with your own choices often playing a part in deciding what happens in the video game. Players are put in an ancient historical time period, a period far away from our current civilization, and they are then expected to interact with this game world as if it was their own world. They get to plunder and explore tombs and pyramids, and they explore how the people of ancient Egypt might have lived. Iconic historical figures are friends and foes, including significant figures such as Cleopatra and Julius Caesar. For some, the wonder of playing this video game will come down to wanting to traverse the vastly detailed Egyptian landscapes while listening to the accompanying music for the video game. For others, the enjoyment of *ACO* will be to experience the Discovery Tour and learn more about Ancient Egypt. What does a false door consist of? What do the different symbols, hieroglyphs, and scriptures represent? What kind of influence did the various architectures in Ancient Egypt represent? How was the daily life in Ancient Egypt and what did people do? These are questions partially or fully answered in the video game and its accompanying Discovery Tour.

Further on, I have explored how the knowledge of history and cultures can be taught using video games. How is history being adapted in video games? Which modalities and abilities of the medium are in use? The developers have found new ways to adapt historical periods into video

game narratives, they do so whilst also keeping their own fictional world, blending the fiction with facts in a carefully crafted combination. One way to fully embrace the non-fictional side of *ACO* has been to release the Discovery Tour where developers could put time into researching ancient history rather than writing a fictional narrative. Teachers of languages, cultural studies, and history can take advantage of these virtual worlds in their teaching, it is a tool which seems to help students in learning about these specific topics. Examples of remediations occurring in the franchise are also noticeable in how the video game acts as a digital museum, players have access to an immense number of historical artefacts, cultures, figures, architectures, Egyptian myths, etc. The different modalities such as the material and the sensorial ones are used in different ways, ranging from how the franchise can be played on a screen, or how it can be read in a novel, or seen at the cinema, these are all distinct ways of immersing oneself into the narrative of *AC*. The adaptations in the franchise don't only occur on the historical periods and figures, but it also occurs in the ecosystem of the franchise. The narrative has been adapted into several books, and because of this growth, the creators saw an opportunity to expand to other media such as films and tv-shows.

All this is available to players in an interactive presentation rich on details, created in such a fashion that it brings “edutainment” to a broader audience. With its historical re-creations of Ancient Egypt and its accompanying cultures, the game (*ACO*) has made it hard for consumers to distinguish between what is fictional and what is factual. I think there is more to be explored with “edutainment” and historically-based video games, and *AC* is a great example of how these video games might look as we enter a new era of modern video gaming.

## 6. Bibliography

Assassin's Creed Wiki. 'Games and Media'. *Assassin's Creed Wiki*, 19 Jan. 2019, [https://assassinscreed.fandom.com/wiki/Games\\_and\\_media](https://assassinscreed.fandom.com/wiki/Games_and_media).

Batchelor, James. 'GamesIndustry.Biz Presents... The Year In Numbers 2018'. *GamesIndustry.Biz*, 17 Dec. 2018, <https://www.gamesindustry.biz/articles/2018-12-17-gamesindustry-biz-presents-the-year-in-numbers-2018>. Accessed 11 June 2019.

Bolter, Jay David, and Richard Grusin. *Remediation: Understanding New Media*. 6. Nachdr, MIT Press, 2000.

Bordwell, David, and Kristin Thompson. *Film Art: An Introduction*. 10th ed., international ed, McGraw-Hill, 2013.

Bregni, Simone. *Assassin's Creed Taught Me Italian: Video Games and the Quest for Lifelong, Ubiquitous Learning – Profession*. 1 Mar. 2018, <https://profession.mla.org/assassins-creed-taught-me-italian-video-games-and-the-quest-for-lifelong-ubiquitous-learning/>. Accessed 5 February 2019.

British Board of Film Classification. 'ASSASSIN'S CREED'. *ASSASSIN'S CREED | British Board of Film Classification*, <https://bbfc.co.uk/releases/assassins-creed-filmtrailer>. Accessed 10 June 2019.

Clüver, Claus. 'Ljudpoesi'. *Intermedialitet: ord, bild och ton i samspel*, Studentlitteratur, 2002, pp. 157–64.

David, Matthew. *Case Study Research*. SAGE Publications Ltd, 2009. *DOI.org (Crossref)*, DOI:10.4135/9781446260968.

De Groot, Jerome. *Consuming history: Historians and Heritage in Contemporary Popular Culture*. Routledge, 2009.

Dovey, Jon, and Helen W. Kennedy. *Game Cultures: Computer Games as New Media*. Open University Press, 2006.

Egenfeldt-Nielsen, Simon, et al. *Understanding Video Games: The Essential Introduction*. 2nd ed, Routledge, 2013.

Elleström, Lars. 'The Modalities of Media: A Model for Understanding Intermedial Relations'. *Media Borders, Multimodality and Intermediality*, edited by Lars Elleström, 1. publ, Palgrave Macmillan, 2010, pp. 11–48.

El-Nasr, Magy Seif, et al. *Assassin's Creed: A Multi-Cultural Read*. Nov. 2008, pp. 1–32.

‘Embody | Imbody, v.’ *OED Online*, Oxford University Press. *Oxford English Dictionary*, <http://www.oed.com/view/Entry/60907>. Accessed 13 June 2019.

Entertainment Software Association. ‘ESA Essential Facts 2019’. *Entertainment Software Association*, 5 Feb. 2019. Accessed 10 June 2019.

Flyvbjerg, Bent. ‘Five Misunderstandings About Case-Study Research’. *Qualitative Inquiry*, vol. 12, no. 2, Apr. 2006, pp. 219–45. *DOI.org (Crossref)*, DOI:10.1177/1077800405284363.

Frank, Allegra. ‘Assassin’s Creed Is Heading to Bookstores with Young Adult Series’. *Polygon*, 18 Feb. 2016, <https://www.polygon.com/2016/2/18/11047246/assassins-creed-last-descendants-book-series>. Accessed 10 June 2019.

‘Game, n.’ *OED Online*, Oxford University Press. *Oxford English Dictionary*, <http://www.oed.com/view/Entry/76466#eid3437564>. Accessed 12 July 2019.

Gomm, Roger, editor. *Case Study Method: Key Issues, Key Texts*. Reprint, SAGE, 2002.

Haynes, Jeff. *E3 2006: Assassin’s Creed -- First Look - IGN*. 5 Oct. 2006, <https://www.ign.com/articles/2006/05/10/e3-2006-assassins-creed-first-look>. Accessed 8 March 2019.

Huizinga, Johan H. *Homo Ludens - A Study of the Play-Element in Culture*. 1st ed., Routledge, 1949.

Kraus, Gérard. ‘Video Games: Platforms, Programmes and Players’. *Digital Cultures: Understanding New Media*, edited by Glen Creeber and Royston Martin, Open Univ. Press, 2009.

Kvaerndrup, Sigurd. “‘Media’ Before ‘Media’ Were Invented: The Medieval Ballad and the Romanesque Church”. *Media Borders, Multimodality and Intermediality*, edited by Lars Elleström, 1. publ, Palgrave Macmillan, 2010, pp. 99–110.

Labaree, Robert V. *Research Guides: Organizing Your Social Sciences Research Paper: Writing a Case Study*. 4 May 2019, [//libguides.usc.edu/writingguide/casestudy](http://libguides.usc.edu/writingguide/casestudy). Accessed 8 April 2019.

Ljungberg, Christina. 'Media Borders of Qualified Media'. *Media Borders, Multimodality and Intermediality*, edited by Lars Elleström, 1. publ, Palgrave Macmillan, 2010, pp. 81–95.

Lund, Hans, editor. 'Integrerade Medier'. *Intermedialitet: ord, bild och ton i samspel*, Studentlitteratur, 2002, pp. 131–179.

Lund, Hans, editor. *Intermedialitet: Ord, bild och ton i samspel*. 1st ed., Studentlitteratur, 2002.

Lund, Hans, editor. 'Kombinerade Medier'. *Intermedialitet: ord, bild och ton i samspel*, Studentlitteratur, 2002, pp. 25–127.

Lund, Hans, editor. 'Medier i samspel'. *Intermedialitet: ord, bild och ton i samspel*, Studentlitteratur, 2002, pp. 9–22.

Lund, Hans, editor. 'Transformerade medier'. *Intermedialitet: ord, bild och ton i samspel*, Studentlitteratur, 2002, pp. 183–241.

Mabillard, Amanda. 'All About Shakespeare's "Et, Tu, Brute"'. *Shakespeare Online*, 20 June 2006, <http://www.shakespeare-online.com/ettubrute.html>. Accessed 9 April 2019.

Madigan, Jamie. *Analysis: The Psychology of Immersion in Video Games*. 10 Aug. 2010, [/view/news/120720/Analysis\\_The\\_Psychology\\_of\\_Immersion\\_in\\_Video\\_Games.php](/view/news/120720/Analysis_The_Psychology_of_Immersion_in_Video_Games.php). Accessed 11 April 2019.

Maguid, Youssef. 'Assassin's Creed Origins Made Me Feel Accepted As An Egyptian'. *Ubisoft News*, 23 Apr. 2018, <https://news.ubisoft.com/en-us/article/322316/assassins-creed-origins-made-me-feel-accepted-as-an-egyptian>. Accessed 22 March 2019.

Makuch, Eddie. *Assassin's Creed Franchise Reaches 100 Million Copies Sold*. 13 Sept. 2016, <https://www.gamespot.com/articles/assassins-creed-franchise-reaches-100-million-copi/1100-6443544/>. Accessed 10 January 2019.

Moore, Fiona. 'Case Study Research in Anthropology'. *Encyclopedia of Case Study Research*, SAGE Publications, Inc., 2010, pp. 87–93. *DOI.org (Crossref)*, DOI:10.4135/9781412957397.n33.



Moss, Richard. 'Assassin's Creed: An Oral history'. *Polygon*, 3 Oct. 2018, <https://www.polygon.com/features/2018/10/3/17924770/assassins-creed-an-oral-history-patrice-desilets>. Accessed 8 March 2019.

Nielsen, Holly. 'Assassin's Creed Origins: How Ubisoft Painstakingly Recreated Ancient Egypt'. *The Guardian*, 5 Oct. 2017. [www.theguardian.com](https://www.theguardian.com/technology/2017/oct/05/assassins-creed-origins-recreated-ancient-egypt-ubisoft), <https://www.theguardian.com/technology/2017/oct/05/assassins-creed-origins-recreated-ancient-egypt-ubisoft>. Accessed 5 February 2019.

Ore, Jonathan. 'How Historians Helped Recreate Ancient Egypt in Assassin's Creed: Origins | CBC News'. *CBC*, 1 Nov. 2017, <https://www.cbc.ca/news/entertainment/assassins-creed-origins-historian-1.4382255>. Accessed 22 February 2019.

Oxford Dictionaries. 'Cutscene'. *Oxford Dictionaries | English*, 2019, <https://en.oxforddictionaries.com/definition/cutscene>.

Paras, Archie. 'Meet the Actors That Bring Assassin's Creed Syndicate's Jacob & Evie Frye to Life'. *Wccftch*, 22 May 2015, <https://wccftch.com/ubisoft-introduces-actors-bring-twin-protagonists-assassins-creed-syndicate-life/>. Accessed 8 April 2019.

Reparaz, Mikael. *Assassin's Creed Odyssey Story Creator Mode Lets Players Design New Adventures; Discovery Tour Coming This Fall – E3 2019*. <https://news.ubisoft.com/en-us/article/351230/Assassins-Creed-Odyssey-Story-Creator-Mode-Lets-Players-Design-New-Adventures-Discovery-Tour-Coming-This-Fall-E3-2019>. Accessed 15 June 2019.

'Rijksstudio'. *Rijksmuseum*, <https://www.rijksmuseum.nl/en/rijksstudio>. Accessed 30 January 2019.

Shieber, Jonathan. 'Video Game Revenue Tops \$43 Billion in 2018, an 18% Jump from 2017'. *TechCrunch*, 22 Jan. 2019, <http://social.techcrunch.com/2019/01/22/video-game-revenue-tops-43-billion-in-2018-an-18-jump-from-2017/>. Accessed 11 June 2019

Siggelkow, Nicolaj. 'Persuasion with Case Studies'. *The Academy of Management Journal*, no. 1, 2007, p. 20.

Sim, Ben. *Concept Art and Video Game Development*. [https://www.gamasutra.com/blogs/BenSim/20170421/296531/Concept\\_Art\\_and\\_Video\\_Game\\_Development.php](https://www.gamasutra.com/blogs/BenSim/20170421/296531/Concept_Art_and_Video_Game_Development.php). Accessed 13 July 2019.

Tartaglione, Nancy. 'Worldwide Box Office Poised For Record \$41.7B In 2018: ComScore'. *Deadline*, 27 Dec. 2018, <https://deadline.com/2018/12/worldwide-box-office-record-2018-domestic-international-china-1202526458/>. Accessed 11 June 2019.

Techopedia.com. 'What Is a Sandbox (in Gaming)? - Definition from Techopedia'. *Techopedia.Com*, <https://www.techopedia.com/definition/3952/sandbox-gaming>. Accessed 10 June 2019.

The Game Assembly. 'Technical Artist'. *The Game Assembly*, <https://www.thegameassembly.com/programs/technical-artist/>. Accessed 14 June 2019.

The Learning Company. *Amazon.Com: ClueFinders 4th Grade Adventures: Puzzle of the Pyramid*. 9 Aug. 2000, <https://www.amazon.com/ClueFinders-4th-Grade-Adventures-Pyramid/dp/B00004UF32>. Accessed 3 April 2019.

The Oriental Institute. *Pan-Grave Culture: The Medjay | The Oriental Institute of the University of Chicago*. <https://oi.uchicago.edu/museum-exhibits/nubia/pan-grave-culture-medjay>. Accessed 11 February 2019.

Ubisoft. *Assassin's Creed Odyssey Available Now on PS4, Xbox One, PC | Ubisoft (US)*. <https://www.assassinscreed.ubisoft.com/game/en-us/home>. Accessed 10 June 2019.

Udemnouvelles. *Right on Target: Using Video Games to Enhance Learning*. 15 Feb. 2018, <https://nouvelles.umontreal.ca/en/article/2018/02/15/right-on-target-using-video-games-to-enhance-learning/>.

Webb, Kevin. *The New 'Tomb Raider' Game Is out Today — Check out How Far Its Star Lara Croft Has Come since She Debuted in 1996*. 9 Nov. 2018, <https://nordic.businessinsider.com/lara-croft-tomb-raider-history-screenshots-2018-9/>. Accessed 9 April 2019.

‘Young Adult, n. and Adj.’ *OED Online*, Oxford University Press. *Oxford English Dictionary*, <http://www.oed.com/view/Entry/379403>. Accessed 10 June 2019.

## 6.1 Study objects

*Assassin’s Creed*. Sony PlayStation 3 version, Ubisoft Montreal, Ubisoft Entertainment, 2007.

*Assassin’s Creed 2*. Sony PlayStation 3 version, Ubisoft Montreal, Ubisoft Entertainment, 2009.

*Assassin’s Creed III*. Sony PlayStation 3 version, Ubisoft Montreal, Ubisoft Entertainment, 2012.

*Assassin’s Creed Origins*. Sony PlayStation 4 version, Ubisoft Montreal, Ubisoft Entertainment, 2017.

*Assassin’s Creed Syndicate*. Sony PlayStation 4 version, Ubisoft Montreal, Ubisoft Entertainment, 2015.

*Assassin’s Creed Unity*. Sony PlayStation 4 version, Ubisoft Montreal, Ubisoft Entertainment, 2014.

*Child of Light*. Sony PlayStation 4 version, Ubisoft Montreal, Ubisoft Entertainment, 2014.

*Shadow of the Tomb Raider*. Sony PlayStation 4 Version, Crystal Dynamics and Eidos Montreal, Square Enix, 2018.

*Tomb Raider*. Microsoft Windows version, Core Design, Eidos Interactive, 1996.

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