

HISTORY IN THE AGE OF THE AVATAR:
RECONCILING VIDEO GAMES TO PROMOTE HISTORICAL LEARNING

By

Georgina C. Wagoner

July 2014

Submitted to the Graduate Faculty
in partial fulfillment of the requirements of the degree
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University of Southern Indiana

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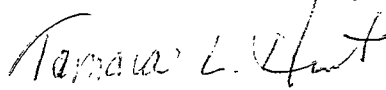
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ABSTRACT

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Video games are ready to advance beyond their recreational origins and make a worthwhile contribution to public discourse. The social sciences are the most appropriate field to lead the way for new genres of video game. A comprehensive “history video game” will require the combined efforts of social science professionals, game designers, and programmers. To this audience, I propose certain criteria to incorporate into game narrative and game design. These criteria fall within three categories that help to organize this thesis: goals of history, social studies themes, and civic dispositions. These criteria were adapted from among the 2010 National Curriculum Standards of Social Studies, Indiana Academic Standards in World History and Civilization, and in Geography and History of the World. Additionally, I use my experience of nine years of teaching social studies in an alternative high school to reflect on skills and knowledge that are relevant and useful to developing an understanding of the world and a perspective on time.

For a rationale of video games as worthwhile discourse, I compare and contrast theories of book history with video game structure in general and predict the relatedness of the new genre of a “history video game.” This reveals the distinction between the goals of literary works and historical works. It highlights the issues of transforming game design from its traditional narrative structure to a structure serving the interests of the history discipline. Further, I evaluate how the criteria of social studies themes apply

to the four most popular examples of video game series that were designed with a historical premise: *Sid Meier's Civilization*, *Total War*, *Assassin's Creed*, and *The Sims Medieval*. Finally, I examine mechanics of game play that promote cognitive development that directly relates to civic dispositions.

The act of learning history is a reflective and growing process that is well-suited to the structure of game mechanics if game design is adapted to the needs of historical learning. Creating and using avatars forces respect for multiple perspectives. The ability to replay scenes and examine “what if” scenarios dissociates history from the dogmatic view that history is destiny.

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Many thanks are due to my inspiration for this topic, my own students, for challenging me to create new learning opportunities in the classroom, and in this case, beyond. It is a privilege to learn with them.

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INTRODUCTION

HISTORY ONLINE – A FICTITIOUS EXAMPLE

Imagine that you are able to recreate yourself, choosing when and where you were born. Bounded by what is available in that time and place, you could choose to replicate yourself as closely as you are or build a new body, personality, intelligence, and skill sets. You will then walk amid scenes that are familiar from photographs in history books, but are three-dimensional and interactive. Other re-created people cooperate and compete with you in this world. You are in a digital facsimile of an historical era, playing a massive multiplayer role-playing game, but one that has been realistically programmed using historical datasets. Like any person, your new identity, an avatar, has goals to fulfill, but here you will reenact scenarios only possible from the past. These may be minor tasks, such as simply a need to get the day's groceries or learn a new skill at work. You may have an important mission to develop battle plans or guide a caravan to the next city. You are bound by a social code of honor (and game mechanics) to adhere to the period.

The above video game is a fictitious example of what game design and game programming offers to the field of history, but has yet to be developed. There are hundreds of massive multiplayer roleplaying games (MMORPG) online, usually designed as fantasy worlds. *World of Warcraft* and *Lord of the Rings Online* are popular examples of MMORPGs. No current video game fulfills the promise of a comprehensive historical experience, despite the prevalence of history-themed video games appearing on Top 20 bestseller lists for the last five years (Entertainment Software Association 2013). Whether these games fulfill a demand for history or simply offer the most popular type of

gameplay, history-themed games deliver a perception of history that is outside of typical channels in education, such as schools, universities, museums, or historic sites. It is not transparent whether or not the game designers have academic credentials or other experience that usually guides curriculum in established settings. The games are often shallow, offering a narrow perspective on an event. They may focus on one element of a historical event, such as a battle, or not focus at all on a particular event or era and allow anachronisms to distort a player's historical perspective. It is unfortunate if this fulfills the general public's need for history in a trivial manner, and we seek no other deeper, reflective connections to our past. As a new model in public history, video games that use historical premises beg for analysis and prescriptive academic advice. Since the technology and the public interest exist, a new genre of "history video game" could be created to incorporate essential goals, themes, and dispositions of historical learning.

BARRIERS TO CREATION OF A HISTORY VIDEO GAME

Video games are one of many contemporary forms of communication in a long evolution of presentation of information. From cave paintings to hieroglyphics and the alphabet to the printing press, there were critics at many steps in the development of communication. Even Plato warned about the written word in *The Republic*. Complaints against video games can be divided into two categories: issues that are mitigated incrementally and those that are multi-layered by ethical and emotional considerations. These are barriers to legitimizing video games as a mature medium. Concerns about the amount of time spent on electronic devices and the possible effects of novel technology on our health are valid, but can be remedied. Issues such as violence in video games or

concerns about the replacement of teachers with online learning require more advanced solutions, because these reach deeper into social and cultural beliefs.

Human biology does not evolve as quickly as today's technology. It is possible that something about the technology will be found harmful. Neither the devices nor the amount of time spent on them is "natural." In some cases, concerns about older media, were unfounded, such as sitting close to the television. In other cases, solutions were found for problems caused by the technology. Before books were mass-produced, there were no reading disorders. Reading glasses, such as bifocals, were invented so that biology could catch up to technology. In a more modern example, the liquid crystal display (LCD) emits more vibrant colors, especially blues, which suppress melatonin release at bedtime, interfering with sleep (Czeisler 2013). Game designers might purposely use colors or set timers to alter color schemes. In each case, rather than discarding the technology, incremental changes solve the problem.

Another incremental fix is to increase public awareness of the need to set time limits on media use by young people. The amount of time that young people spend using media has increased by about 1 hour and 20 minutes since 1999 to a total of seven hours and 38 minutes per day, but multitasking boosts total exposure to ten hours, 45 minutes (Rideout, Foehr and Roberts 2010). Using an electronic device to do homework, write, research, or generate creative projects has a higher merit than social media or watching video, but these are still included in aggregate data. When more worthwhile activities become available, then the technology and its issues fall within acceptable risk. Activities that encourage personal growth and feelings of well-being might then begin to

crowd out passive or repetitive use of media. The issue of “wasting time” fades with every new task of self-actualization.

Some types of barriers present solutions, while others are multi-layered issues with both ethical and emotional considerations. Two of the biggest barriers are the substitution of online learning for a teacher and ongoing worries over the effects of violence in games. Neither of these has easy or incremental solutions, and requires deeper analysis.

First, historically themed video games are only being effectively used in classrooms today because a teacher is available as a guide and mentor. A dozen studies involving the computer game, Sid Meier’s *Civilization 3*, all report the need for critical interaction between the teacher and students. Good teachers not only anticipate the questions of students, but they design experiences where questions arise. That is the challenge in game design, too. A teacher would be an appropriate model to build the artificial intelligence of the history video game. However, the reality of the teacher-student relationship is that it does not last long enough. Secondary teachers spend approximately 90 hours with students in a full year course. College professors average even less “face time.” *Civilization* can be played without repetition many times longer than a full year class. Ideally, a history video game could stand alone without a teacher, but would inspire players to study history in more depth. The largest university in Indiana reports that there is a “steady decline in undergraduate enrollment in history courses at IU” (Guardino 2013-2014, 1). Engaging students in history is key at a time when national trends limit exposure to the humanities.

A history video game would not be designed to take the place of a teacher, but to be available as a learning tool outside traditional settings. This may be perceived as a challenge, or even possibly a threat, to professionals, whether a person identifies as post-secondary or K-12. Public History, history education found outside secondary or university classrooms, is usually found at museums, historic sites, or community events, such as reenactments. For these organizations, partnerships with schools or universities have been rare and often even criticized (Townsend 2013). The history video game would occupy a position in society as a new source for Public History, but one that should attempt to forge partnerships across professional lines in ways that have been discouraged in the past.

Just as a new source of history education cuts deep across our social and cultural beliefs, so does the concern over whether violence is rising. The dilemma is that an historical event would not be representative if the event's violence were cleansed from its retelling. Neither would a history video game be complete without, at appropriate times, its violence. Movies, television shows, and video games have ratings systems to restrict public access or to assist parents in restricting usage by children. There is nothing comparable to a ratings system in history textbooks. We assume that the classroom milieu will properly evaluate and reflect on the cause and effect of violence and possibly delve into prevention or reduction in future similar events.

The history of research into violence in games really begins with concern over realism within the game, *Mortal Kombat*, published in 1992 (Robinson 2012). The narrative of the game is simple: two avatars kickboxing in an arena. The perspective is a two-dimensional side-shot. This means the game player sees the avatars from head to

foot from the sides of their bodies. The visual appearances of the avatars were drawn (that is, computer rendered) as realistically as was possible at the time. Through certain motions on a joystick, a type of hand-held control, the game player had more control over motion of his avatar's hand, arm, leg, and foot than ever before. The purpose of play was blood and injury. The goal was to knock your opponent to the ground until he could not get up again. Since the subject matter and goal of the game just concerned fighting, clearly we have to question its role in "game" or "play," particularly as a "toy" for a young audience. Although the subject matter and the goal of a history video game is a broader historical experience than *Mortal Kombat*, it may still be criticized in connection with research about violence in games and antisocial behavior. In other words, "guilt by association" will color the reputation of a history video game even before it is developed.

Mortal Kombat prompted governmental inquiries in both the U.S. and the U. K. In 1993, the Entertainment Software Rating Board (ESRB) was created in the U.S to implement a game ratings system. Violence in games tends to have an immediate physiological effect, but no long-term physical or social effects. It is "almost impossible to disaggregate the game from the socio-cultural characteristics of the player" (Robinson 2012, 417). A history video game, depending on its subject, may have both violent and realistic scenes – and add the dimension of true actual events. This suggests a new line of inquiry for research on the effects of violence in games. A designer for a history video game should include reflection and critical thinking as part of its gameplay. The game rating system is a market consideration that will affect how history video games are designed.

The ratings system has six categories that range from “Early Childhood” to “Adult Only,” progressing from the simplest of preschool topics up to graphic sexual and/or violent content. In 2012, The Entertainment Software Association (ESA) reports that of the total games published, only 9% were games rated “Mature” (for those ages 17 and over). More games rated “Everyone” were published, comprising the most populated category at 42% (Entertainment Software Association 2013). It is clear however that the “Mature” and “Teen” titles sell more copies per title. According to the ESRB ratings for games that appear on the ESA bestseller lists, “Mature” and “Teen” games sell at a much higher rate than the previous statistic implies. On the 2012 bestseller list for video games played on consoles, seven out of twenty are rated “Everyone;” eight are rated “Mature.” For computer games in 2012, no games rated “Everyone” appear in the top 20. “Teen” games dominated at 12 out of 20. The fractions of published game titles do not match percentage of sales of games. Although parents are present for the purchase of video games and monitor the content of games (Entertainment Software Association 2013), they are disregarding the ratings system (Robinson 2012). According to the ESRB, the description of “Everyone” includes games in which “Content is generally suitable for all ages. May contain minimal cartoon, fantasy or mild violence and/or infrequent use of mild language” (Entertainment Software Rating Board 2014). The ratings reflect a tolerance for violence at all age levels.

The company that produces a history video game will have to balance economic needs with fulfilling the criteria of this genre. The market for “Mature” games is clearly greater than that of games for “Everyone.” The game designers for a history video game must be as reflective as a good teacher and not be tempted to develop gameplay that

includes gratuitous violence. In a classroom, when a sensitive subject is discussed, a good teacher allows debriefing time for students. Just the same, a company that intends to produce a history video game should be wary of exploitative violence.

This is the main point of developing a strict set of criteria for the history video game to adhere. With these design guidelines, video games would be able to incorporate a much richer historical experience for the public. The team that is designing the history video game needs to add history professionals.

LIMITATIONS OF A HISTORY VIDEO GAME

No matter how many barriers we are able to overcome to produce the history video game, it will still have limitations on what it is able to do. Playing a history video game is not the same as “doing” history, interpreting and discovering new historical evidence. First of all, a history video game is always going to be secondary source material. Even if the game incorporates text from historical sources, it is remediated from its original source. However, this is not unusual. The context of reading a primary source document is always separate from the era in which it was written. When students read Plato in English Literature as seniors in high school, it is only an excerpt from a canon. When students read Plato in Philosophy 101, it is detached from historical context, translated from the Greek. A history video game might be able to come closer to surrounding a student with Ancient Greece than either example. The practice of designing the history video game needs to be as reflective as that of a teacher designing a lesson.

When reading text, the reader must supply the visualization. Like a theatrical play or a film, a video game has its *mise-en-scene*, its physical representation of setting,

its sounds, and placement of characters. Some of the work of the imagination is already provided. In fact, since the avatar of today's video game can turn all the way around in a 360° perspective and interact with objects and other characters, a new term beyond *mise-en-scene* needs to be coined. A video game also has nondiegetic elements, items that are external to, but are required to operate the game (Galloway 2006). For example, the handheld game controller is a nondiegetic element. The game never references that device; it would pull the player from the context of the game experience. Another nondiegetic element is the "Menu" button or other controls that often appear to the side of the video screen or are activated by pressing certain keys on the keyboard or the game controller. These are built in limitations that reduce the feeling of historical accuracy within a game. However, within the last few years, some diegetic control mechanisms have replaced the input functions of the controller. For example, cameras have become input devices, tracking human motion and gestures and accepting these as commands. In December 2013, the game *Ryse: Son of Rome* allowed players, while engaged in hand-to-hand combat using a handheld game controller, to also simply speak voice commands to order troops into battle. Eventually, all anachronistic control devices might be replaced.

Anachronism in general is another limitation to video games that historical works avoid. An anachronism that is simply a mistake on the part of a writer or designer should truly be avoided in any work. Most historical works will not use anachronism even to make a point. Video games, like science fiction, will often insert an anachronism as a compelling game mechanism in a very functional manner. The issue is whether the anachronism is offered in a reflective way that clearly identifies the mechanism as false to the time period. For example, a time machine does not belong to any historical era, yet

it becomes a convenient way to place the reader or player into another time period. From Jules Verne to H.G. Wells, the time machine has been used to juxtapose contemporary life with that of the past. More recently, Stephenie Meyer, a popular writer of teen fiction, used the device of immortal vampire to compare changing sexual morality from the Victorian age to the present. A reader is asked to suspend disbelief in a narrative for a work of fiction. For a work of history, the student is asked to understand the past. To do that, he must scrutinize the lens through which he views his world, and understand how it affects his ability to apply meaning to historical knowledge. The student is an anachronism. Whether it is arrogant or ignorant to believe we can truly understand the past through our own perspective of the present, we are compelled to continue trying. It may be difficult for professional historians to take a history video game seriously that uses an anachronistic gimmick as a game mechanism, but it may be an effective learning tool.

The nature of history and the ways in which it is conveyed to the public is a long and ongoing debate. In 1961, Edward Hallett Carr delivered a series of lectures at the University of Cambridge entitled, *What is History?* He was concerned about the trend to view history as a discipline of science. He cautioned that history was not about finding an objective truth, but understanding that facts are not pure. Facts are selected and organized to create an “imaginative understanding” of the time (E. H. Carr 1961, 27). Carr said that historians infused their own present into the history they wrote and found purpose and meaning relevant to that present. The history video game is then a re-enactment of the history as viewed by the game designers. Although that may sound as if perhaps Carr might have approved of the history video game, he favored broad sweeping

narratives, which are not necessarily easy to replicate in an interactive video game. In 1967, G. R. Elton published *The Practice of History*, part of which criticized Carr's assertions. Elton argued, "the study of history is concerned with a subject matter more objective and more independent than that of the natural sciences" (Elton 2002, 47).

Despite the fact that history is not a verifiable event as compared to a scientific experiment, this makes it that much more independent of the historian for Elton. Elton's book proposed that research ethics should result in high quality objectivity.

In the future, historians will use different tools to retrieve today's digitized information, but for now, the "history video game" as a genre of game would be limited to the understanding of history. The "doing" of history – whether you lean toward the views of Carr or Elton – by using a video game is beyond the reach of current technology and the state of information access. The future historian begins as a history student, one who should begin to understand the informational design and programming inherent in contemporary communication, including video games.

FIFTEEN CRITERIA TO USE IN EVALUATION

Since the debate on academic standards will likely continue on the national and state levels, finding the right set of criteria for the history video game will also be an ongoing issue. As any personal choice might be, the criteria I chose to evaluate the worthiness of a history video game are somewhat arbitrary. As a starting point for discussion, these fifteen criteria are divided into three categories that suggested an overall organization to this thesis: goals of history, social studies themes, and civic dispositions. These criteria are a modified hybrid of National Curriculum Standards of Social Studies, Indiana Academic Standards in World History and Civilization and Geography and

History of the World. I also use my experience of nine years of teaching social studies in an alternative high school to reflect on skills and knowledge that are relevant and useful to developing an understanding of the world and a perspective on time.

The fifteen criteria are like a scorecard for the history video game. (See Appendix 1: Scorecard) In addition to game components for a good video game, the history video game addresses each of these criteria. The first category concerns the goals of history. It contains three criteria that are the most common outcomes of history as a discipline: to learn history, practice perspective, and to understand causation. The first goal is to learn history, to acquire a wide base of facts, dates, and events. Learning history is a broad statement that embodies dozens of academic standards throughout the United States. These standards identify specific topics, events, and eras of history that should be common knowledge.

The second criterion is an opportunity to practice perspective. It addresses both a temporal perspective, comparing the modern age with all former ages, but also comparing perspectives of different cultures, geographical regions, and social classes. Practicing perspective allows us to understand how democratic systems operate and why conflict is inherent. The third goal of history enables students to experiment with causation. In a classroom, this often means a debate or thought experiment. In a history video game, gameplay allows trial and error. The student understands how systems and processes function under different conditions. This is a lesson in how history is not destiny, that different variables have different outcomes. Anecdotal experience suggests to me that students who play role-playing games are better at problem-solving tasks assigned in the classroom. Research indicates that only the physical task practiced within the game

improves. For example, training one's eyes to track vertical peripheral movement does not increase the ability to track horizontal peripheral movement (Green 2013). However, developing visual spatial skills may be key to developing strategic abstract thinking. Memory appears to depend on the context of how the information is presented. "Visually presented information may be remembered in a visual form and verbally presented information may be remembered best in a verbal form" (Calvert 2005, 128). Since games are actions, they activate multiple memory modalities. Experimenting with strategy is to understand cause and effect. History textbooks and lectures are traditional verbal learning that does not address the multiple types of learners.

The design and presentation of video games in general have evolved from different disciplines of culture: book, film, and computer programming. Games deliver some of the same benefits that each of those forms do separately, and others specific to its hybridized nature. Unless games are specifically planned to meet the goals of history, it is unlikely that they will accidentally do so. Identifying shortcomings is a step towards remediation. This primary category of the three goals of history must be fulfilled in order for a game to rank as a "history video game."

The second category of criteria for a history video game concerns themes. Themes are the building blocks of history. Even in the classic argument of what is history between E.H. Carr and G.R. Elton, they do not deny that history curriculum is often built by layering on details of specific themes for a given topic. For example, to design a course on World War I, an instructor would consider social, political, and economic themes. Themes are a fairly uncontroversial part of history as a discipline. Exactly what details belong in those themes is another matter. Certain themes fit more

easily into a quantifiable computer algorithm, such as those that include numerical data: economics, geography, and biographical demographics. Video games also present the opportunity to manipulate physical objects, such as technology and material culture. This leaves the narrative or literary part of history, biology, chronology, and society and culture, to create the quests and missions of the history video game. To reiterate the themes most useful in building a history video game would be: biography, chronology, economics, geography, material culture, society and culture, and technology.

Certain themes have been excluded: politics, anthropology, and religion. As of yet, no video game with a historical setting has used any of those in an effective or sensitive manner. There is a genre of video games called “serious games” that do address these topics appropriately. These are often designed to persuade towards a particular point of view. Applying that type of agenda with the game design appears to thwart two of the goals of history discussed above, that of being able to practice perspective and experiment with causation. For example, *Imagination is the Only Escape*, a Holocaust game, was written by Luc Bernard in 2008 specifically to bring up discussion of what is offensive. Bernard argues that games like *Call of Duty* and *Modern Warfare* glorify the violence of the war and ignore the most salient issue of the war. But the game itself is a shock and not one that consumers would buy as entertainment. Another now-defunct serious game, *Fantasy Congress*, utilized a quantifiable mechanism to play politics. Players would pick actual representatives and senators for a fantasy team. The game designers created a point system by how effective a congressman was at getting laws passed or juicy committee assignments. Players would then follow bills through

Congress to see how their team was faring. This would not rank as a history video game, because it is not integrated into a comprehensive experience.

Politics, anthropology, and religion are less quantifiable and so are more difficult to design variable action or outcomes. There are aspects of religion and anthropology that might be depicted appropriately within a video game structure, such as matters that fit the themes of material culture and society and culture. Players might witness scenes, but interacting seems to invite critique of a culture or religion. These are all self-censoring caveats to the creation of the history video. The genre will have limitations.

The previous categories concerning the goals of history and the themes of history reflect current teaching modalities. Goals of history reflect how students will develop critical thinking skills. Themes of history reflect what students will know. The third category of criteria is about dispositions, how they feel and behave in society. Social studies skills are experiences in civics. Once this might have meant blind patriotism, but today, social studies dispositions lead us to greater self-actualization in a democratic society. Cognitive development research suggests that there are four dispositions that are cultivated by certain actions within video game design: affiliation, cooperation, engagement, and resilience.

There are numerous paths within a game to develop an alternative social identity and build affiliations. Especially when played online with other players, it is possible to meet and interact with people of diverse nationalities, religions, and ethnicities. Players often cooperate to complete missions or quests. Engagement is achieved by use of progressive feedback loops and intrinsic rewards systems that are structured by game design. Finally, video game strategy is often learned through repeated failure, saving and

resetting games. In other words, resilience is a crucial skill. Depending on its narrative or mission, the history video game may emphasize some criteria over others, but not ignore them completely.

EVIDENCE WITHIN CURRENT VIDEO GAMES

Many video games will be referred to in this thesis, but four are specifically highlighted as the most popular of all historical-themed games published within the last five years. These commercial and highly popular video games were chosen to provide extensive connections to the fifteen criteria. These game franchise series have all been in the top ten of games sold. This demonstrates that not only were the original games bought, but likely to have been completed, since the sequels also became best sellers. In addition, these games reflect 4 of the ratings categories: Everyone, Everyone 10+, Teen, and Mature. Common Sense media judges their historical content as adequate to excellent. The games are: *Sid Meier's Civilization*, *Total War*, *The Sims Medieval*, and *Assassin's Creed*.

CHAPTER 1 DEFINING THE HISTORY VIDEO GAME

The reputation of video games seems to suffer from early association with arcade games and repeated correlation to aggression. The content of the first games from the mid-1970s was fun, but trivial. There is no obvious learning, knowledge, or transferrable skills. The action is very simple, barely evolved from a physical mechanism, such as bowling or pinball. Two early arcade games, *Space Invaders* and *Asteroids*, transfer existing game structure to digital form by shooting at moving objects, with two buttons to move left or right and another button to shoot. This is very close to the two flippers of a pinball machine and the spring-loaded trigger to launch the ball. *Asteroids* adds a thrust button to move a ship through a two-dimensional space field. When video games advanced to the First-Person Shooter game, concern over lost time at the arcade turned into alarm over the effects of violence. *Duke Nukem* and *Wolfenstein 3D* are two popular examples from the 1990s. In essence, the player runs with a gun through enemy territory to save the world, fighting either killer robots or mutant zombie Nazis. It is hardly surprising that academic esteem for video gaming has been slow to develop.

However, as a multibillion-dollar industry, video gaming occupies a prominent space on the cultural spectrum of media. As technology improved, so did the narrative of video games. In this progression, video games borrowed mostly from the structure of literature and cinema as literary analysis of video games has shown. As their audience aged, games grew more sophisticated and began to borrow from historical settings. Although this narrative format may be very familiar to both game designers and consumers, the historian's craft differs from the art of the creative writer. As history, narrative, and game design converge into a video game, there is a conflict with the nature

of history and the definition of a game. A player must be able to affect the course and outcome of the game action, but the action of history is set. This thesis will attempt to analyze the needs of both history and gaming to prescribe a specialized genre of video games that advances the knowledge or skills of history. Video games are still a resource that is not understood or utilized well to promote history whether in the classroom or as an example of public history.

The aim of this chapter is to examine video games in a more sophisticated manner. This will reveal possible modifications of game components that could better fit the discipline of history and lead to the creation of a distinct genre, the history video game. First, I will define the video game under the guidelines of literary and bibliographic analysis, and then show how a better-built history video game will fit or require adjustments. There are many games that purport to be “historical,” but none that fit my proposed criteria as yet. The history video game would be different from a video game that simply contains a few components of history, such as historical figures or setting. A history video game should reflect historical practices and engage historical thinking. Specifically, history video games should diverge from fictional video games by accomplishing three goals. Players should 1) learn history; 2) practice cultural and historical perspective; and 3) experiment with causation. Restructuring our definition of video games will present better points of comparison for traditional learning, and help to resolve how video games may undermine or augment the learning of history.

The majority of the literature about video games is from the sciences, concerning pedagogical or cognitive development, and explains what effect games have on players in various situations. Video games are both cognitive and physical challenges. Criticisms

of a literary or aesthetic nature are less prevalent and most frequently draw from mass media or cultural studies. These studies explain what games are about rather than what effect they have on the physiology or psychology of the player. A game is about a place or setting and the actions a player can perform within it. Games require action and place, even if both of these are solely virtual. Action is the player's role. It produces effects that can be judged or measured by scientific research. Place is the setting of the game, the story or narrative. It is this component that is frequently described by literary or cinematic criticism.

What sets a video game apart from other media is that the outcome of the interaction between place and action is not decided by the designer, but by the player. Therein lies a dilemma for video games that claim to be "historical." Although an historical setting is a rich environment to derive place, the outcomes of historical events are already known. Either the challenge of the game is compromised because the outcome is predetermined or historical learning is undermined because the player comes to an outcome different from that of the original event. Thus, the history video game is paradoxical because of two main features: 1) games are non-traditional "texts" that are consumed in casual, social settings outside of traditional arenas, such as universities or museums; and 2) successful game design is built on puzzle-solving or narrative building. This game design is closest to simulations, which is a rare form of historical teaching.

Various arguments have been made for video games as descendants of ancient board games, Romantic literature, Hollywood movies, and historical reenactments (Allison 2010, Clayton (a) 2013, Juul 2005, Rejack 2007). Some of today's games, for example the *Total War* series, can be compared to military planning session of figures

such as Julius Caesar or Napoleon. The setting and narrative of many role-playing games comes from literary worlds of fantasy, such as J. R. R. Tolkien and the online game, *Lord of the Rings Online*. More represent historical periods or events, such as the medieval period in the *Assassin's Creed* series, *The Sims Medieval*, or *Majesty*, or the World Wars era in *Call of Duty*. Magazines for video game players routinely use the terminology of literary criticism to refer to games, perhaps expressing an interest in academic legitimization of the game design process. For example, the dilemma of the interactive outcome is not reserved solely for historical games, but is an issue that is debated by game design teams. *Assassin's Creed* has two settings in time, medieval and modern. It is a conscious decision among the design team to provide a resolution to the historical storyline, but not to the modern scenario in the tradition of a series cliffhanger (Wallace 2014). Video games are discussed as “text” among insiders in the tradition of bibliography and historiography.

The discipline of book history offers several paradigms that inform the field of video game study, because of its emphasis on understanding the nature of texts. First, D. F. McKenzie's “sociology of texts” can be applied to the video game as a genre of print and legitimizes its elevation to literary criticism. Next, Jerome McGann seems to anticipate the production of video games and the fan interaction with his “socialization of texts.” Pierre Bourdieu graphed the “field of cultural production” in such a way as to allow it to be applied to new media. Wolfgang Iser uncovered the “blanks” left by the author and filled in by the reader. In gaming, the blanks are of a very specialized nature dependent on the algorithm of the program. In addition to applying game design elements to these bibliographic structures, university professors more recently in the

fields of English, business, and linguistics have been examining games from the perspective of their own fields. These different paradigms will place this new media in an approachable context for scholars and game designers.

SOCIOLOGY OF TEXT

Video games are complex cognitive and visceral representations of problems, but they are also just the next example in the evolution of presentation. Oxford Professor of Bibliography and Textual Criticism, D. F. McKenzie (1931-1999) wrote that all forms of communication are “text” and were open to both physical and symbolic analysis. In a lecture in 1985, “The Book as an Expressive Form,” McKenzie specifically stated that text was “verbal, visual, oral, and numeric data in the form of maps, prints, and music, of archives of recorded sound, of films, videos, and any computer stored information” (McKenzie 2006, 37). At first glance, it seems he might include video games in his definition. But in 1985, “computer stored information” was DOS-based and looked considerably different than it does today. Tracing the bibliographic trail of digital text could require different technical skills than required for a manuscript. For example, a letter that is typed and saved into a computer does not leave the same kind of authorial trail that a handwritten manuscript or even a manual typewriter does. Depending on the software used, only the origin date, not revision date will be saved. It is possible to copy, paste, and save text to obscure the original author. Digitally stored information also degrades in a different manner than paper-based. Even if the digital trail could have been revealed, digital degrading can complicate recovery. In some cases the trail cannot be uncovered (Hedstrom 1997/1998). Analyzing video games in the future, we may find that the authorship of certain lines of code is irretrievable.

Video games present additional challenge in documentations. The action of a game, unlike that of a book or film, does not take place on a certain page or a set time, so citing examples from games is subjective to the control the player exerts on the action. At the time of McKenzie's lecture, most video games were being played at arcades. The Magnavox Odyssey, a home video game console, had been available for ten years and still offered *Pong*. This consisted of a black background with a white vertical line down the middle, separating the playing area of the two opponents. Each player would use a joystick to move a short, white vertical line up and down in a stationery vertical column to try to deflect a white dot back toward the other player. This resembled tennis and illustrates how far advanced video games have become in less than 30 years. Today, photorealistic virtual tennis matches, such as Grand Slam Tennis, can be played across the Internet with cameras tracking players' actual motions.)

Yet even as McKenzie delivered his lecture, the Japanese company Nintendo marketed the NES, a game console system for the home television, introducing two games starring Mario and Zelda on separate quests. Mario is a short cartoon figure of a stereotypical Italian workman in red bib overalls. The narrative is that Kong, a gorilla, has captured an equally stereotypical blue-eyed blonde princess. Mario must rescue her without being hit by barrels thrown by Kong in a predictable repeating pattern. The setting of the story is a building under construction. Game play proceeds along a specific path with the point of view "side-scrolling" either vertically or horizontally to allow the game universe to be larger than the television screen. More complex game action in the game of Zelda allowed the player for the first time to choose alternative routes to success. In this case, Zelda was another princess to be rescued by Link, an Elf-like hero. These

games are not static in the same sense as books or film whether stored as digital file, printed paper, or celluloid. Mario and Zelda operate as allowed by the software writer, but with action controlled by the “reader,” i.e. the player. The player as Mario could fail to learn the pattern of the barrels and repeatedly die. Only if he adhered to the meaning of the “text” would he succeed. The player as Link had more freedom to choose scenes, changing the sequence of events. A video game historian may not be able to examine the “text” in this situation without changing it. Playing the game involves changing it to just one of a potential infinite number of paths leading to a variety of outcomes.

If the video game is treated as “text,” then it presents challenges for the historian as compared to more traditional sources. Text in a book remains static. The words still follow each other in a linear fashion. It is up to the reader to follow or skip as he wishes. To quote from a book, the reader cites a page number. By comparison, Link or Mario may or may not save the girl, nor will the action follow a linear path in either case. The “text” of the game changes every time it is played. If the player wanted to cite a particular action in the game, there is no easy format to do so. Consider how one would cite video action in a bibliography. The video game itself could be cited along the same format as a video or other electronic media. A film or video could also cite the time as a marker for a certain action. However, action within a game may or may not take place along the same sequence in any given game play, so there is no page number or time to cite.

It is that interactivity which is problematic for the history video game. If the primary goal of a history video game is to provide an engaging new method of presentation to learn history, then the ability to change the outcome of the events is

counterproductive. A certain baseline must be followed within game play to preserve historical accuracy within the player's mind. Some military strategy games, such as the *Total War* series and *History's Greatest Battles* series, include representations of the actual battle. As a means of learning history, depending on the quality of the reenactment, these could be as useful as attending a live reenactment event. That is to say, results will be mixed. The baseline in a computer reenactment could be quantified however. Anything quantifiable can be translated into an algorithm. This enables the game to address another goal of the history video game, that of exploring systems, processes, and causation. The player could experiment with battle scenarios and then have the outcomes juxtaposed on a graph comparing to the true historical outcome. This is a very useful way of reaching an understanding of why history happened as it did.

Certain statements from McKenzie's lecture foretell the interactivity of the video game. For example, McKenzie points out how every reading of a text is unique, "readers inevitably make their own meaning" (McKenzie 2006, 40). However, words in a printed text follow a linear order in which they were printed. A scene in a movie or play is presented according to the sequencing of the director. In a game, it depends on the algorithm and whether the game has been designed with a variety of outcomes in mind. A game without alternative outcomes may not be a game (Juul 2005). Although the player is not the designer of the game world, he is an author, at least of the outcome of his own game. The reader/player operates some object or avatar within the games, sometimes a game piece (a vertical white line, a Queen on a chessboard) or a personality (Mario, Carl from *Grand Theft Auto*, or Gandhi from the *Civilization* series). This serves as the player's identity within the game.

This sense of identity can go beyond the game itself. This adds another layer to the interaction of the game and may outlast the game. The avatar is an active participant in the gaming world and sometimes beyond in an affiliated social forum. Players often create social media sites that exist independently of the game world and may even outlast the game's longevity. A similar counterpart might be found in a book club. Both of those societies would be active in influencing how the text is interpreted. The history video game would greatly benefit from a game-linked society, whether it was a MMORPG (massive multiplayer online role-play game), a discussion forum, or within a classroom.

McKenzie's concept of the "sociology of text," i.e. the text cannot be isolated from its environment is also a useful tool for examining video games. The "sociology of text" is, of course, especially relevant to works of history whether book, film, or game. It is an invaluable contribution to historical perspective, an examination of what the "text" meant in the context of the circumstances in which it was written, read, and produced. Video games focus on moment-by-moment action and leave little time for the reflection of historical perspective. It is one of the main flaws in current games using historical settings or events. One of the most popular series is *Call of Duty*, a first person shooter game usually set in World War II (two versions are post 9/11). The accuracy of the weaponry, clothing, and geography is nearly a virtual reenactment. Although there is certainly some value to creating the ambience of a historical setting, the opportunity for a deeper level of reflection is lost. The player does not analyze the cause of the war or even why a battle takes place at this location. Nor does he critique the battle strategy. In developing the genre of history video game, the "sociology of text" needs to be

considered. The text in this instance is not just that a battle occurred, but why it happened and the choices the authors have made to present it in this format.

This highlights another missing element to current games of historical nature, the ability to examine perspective. Avatars have typically been the “good guy,” but increasingly the ability to play as the “monster” appears in video games. The history video game should be reflective of deceptive dichotomies. Perspective is a core literacy skill taught using print, audio, video, and visual arts. Embedded in algorithmic language, the player never sees, perspective may take special consideration to discern. In standard curriculum, students are taught to read and write, but not to program. This part of the production process is invisible to the player and needs to be made more transparent in history video games.

SOCIALIZATION OF TEXT

Jerome McGann, an English professor at the University of Virginia, uses the term “socialization of text” to challenge the idea that any text truly emerges from a single voice, a lone author. His key point centers on the polyvocal nature of the production of text. To physically produce a book requires many processes between the initial idea and bound copy, between the writer and the reader. At any of the points in between, the nature of the book and its reception could be altered. Getting a work ready to publish is a socially negotiated process. This is also true of the majority of video games, especially those made for personal computer and consoles. Anytime a work is remediated into other forms, such different types of print, cinema, plays, book reviews, it undergoes the social process. This is just as true when an historical event is remediated into a game. Factors that affect the social process of the history video game include the reputation of the video

game industry, the socioeconomic and educational demographics of the design team, and the available technology. Producing a true history video game would require a commitment to the ideals of the criteria.

There are video games that are re-mediations of literature, such as *Around the World in 80 Days* by Jules Verne, Sir Arthur Conan Doyle's *Sherlock Holmes*, and J.R.R Tolkien's *Lord of the Rings* trilogy. All of these games are based on a narrative progression. In brief, the player must perform certain actions to progress to the next scene in the narrative. Scenes are sequential to each other even if the actions within them may be performed in any order. In literature, how and when an author chooses to present events is called entelechy. The story is different from the sequence of events. It develops as the author sees fit. In games, it is the player who sets entelechy, often with an imperfect understanding of the designed setting of the game. The player performs as an author progressing through the game. The literary works and their remediated companion games have a "story discourse" in common (Clayton (a) 2013). History video games do not share the same degree of freedom, so the literary design model that guides so many games is problematic. However, this provides evidence that McGann is correct that informational text is less polyvocal than literature. When outcomes are limited, so is voice.

McGann also makes a greater distinction between literary text and informational text than does McKenzie. He claims that literary works are more subject to this "socialization of text" than informational texts, even though "literary works always disseminate historical information" (McGann 2006). That is, properties of the physical book and its textual context provide clues for its historical setting. Literature is more

“polyvocal” than text that originates from factual materials. The nature of “fact” overrides or erases influence from the author or his circle. Fact is a filter for dissent, so it limits interpretation. A book about a specific historic event is less open to editorial creativity. The event carries its own reputation or reception. It exists independent of the book, regardless of how the book is written or produced. McGann uses the word “intentionality” to separate factual from fictional text. This returns us to the problem of the history video game as a separate genre of video game. The intention of a game is to entertain, engage, and challenge. The intention of history is to reveal. So, the combination of these two goals into a history video game is problematic. Game designers have a difficult task to reconcile the needs of game play with the goal of learning accurate history.

As primarily an entertainment media, video games are usually designed closer to the literary or creative end of the spectrum, even when the game attempts to be “historical” (Clayton (a) 2013, Juul 2005). So, according to McGann’s pattern, video games are also more polyvocal. Rarely has a single person produced a video game. At this time, there are too many technological skill sets needed to produce a game.

The social process of developing video games, just like that of books, is not limited to the designers. Just as books have readers who critique the work, video games require players to provide feedback from the actual reading or playing experience. Video games do differ from written texts, however. While an author might try to predict how a reader will interpret a work, game designers must know how actual human behavior will interact with the game to design the next sequence (Werbach 2012). This is very similar to having advance readers provide input into a novel. In the video game industry, this is

a standard procedure. The marketing of a video game is part of the social process as the game publisher pursues magazine reviews and “buzz” at trade conventions.

Over time, text takes on different interpretations as it passes from its era and on to others. It is ironic that historical perspective becomes so critical to McGann while at the same time he seems to be undervaluing the socialization of the historian in informational text. If we confront this problem in current game design, then we have made a great step toward recognizing a great inadequacy about current games of a historical nature. One of the goals of a history video game should be to practice perspective. The polyvocal nature of games does not end with the burning of the disc and packaging for delivery to the store. The players manipulate the meaning of the games by the addition of their particular identities as expressed by modified avatars. Game designers could derive ways for the player to view and choose how a historical event might be socialized within the plot of a game play. Characters could be required to analyze an event before moving on to the next chapter. By creating such mechanisms of game play, history within a game could be examined for both its sociology and its socialization.

CULTURAL PRODUCT

Among an array of possible influences, Pierre Bourdieu, French social philosopher (1930-2002), saw class and economic capital as the greatest pressure on any work of culture. The field of cultural production can be mapped as a broad plain that plots where types of cultural products will fall depending on the power of the producer. He plots the main types of cultural products of this time, poem, novel, and drama from left to right on the grid, suggesting a range from least to most profit motivated. Each of those types also has a top to bottom range depending on how accepted the work is to the

established producers or employers of producers of the generation. At the top are poems, novels, or drama with a high degree of “consecration,” in other words well known and accepted by high society. At the bottom are works that are not critically acclaimed, although they may be highly popular with the general public. For example, any one product might be acclaimed, but not sellable (not driven by profit-motive) or it might be panned but be a best seller. Any combination within those ranges is possible. Any new cultural form, which emerges from poem, novel, or drama, causes ripples across the field realigning the hierarchy of all other products. A large part of the struggle for dominance is the competition for legitimacy among three groups: within the circle of producers, the bourgeois taste, and the mass audience (Bourdieu 2006).

Placement within this model of cultural production of today’s media, especially video games, is subjective and open to argument. Video games would fall in the lower half of Bourdieu’s field, where the cultural product is not consecrated by the social or artistic elites, but has greater popularity among the masses. The form of media is both too new and too popular. This paradigm offers rich insight into how the stable cultural elite perceives video games and how the game industry perceives very diverse genres of video games. Casual games, such as Match 3 puzzles (*Candy Crush*) or ball shooters (*Zuma*), are quick to develop, popular, and low-priced. Very cheap casual games appeal to a mass audience. They are rarely mentioned in game industry magazines, but are included in the annual revenues reported by the Entertainment Software Association (Entertainment Software Association 2012).

Outside of the game industry, games are judged by what media they displace just as Bourdieu predicts. It is hard to read a book and play a video game at the same time,

however, it has become common to watch television and use a computer at the same time (Accenture 2013). Any new work “determines a displacement of the whole structure . . . it leads to all sorts of changes in the position takings of the occupants of the other positions” (Bourdieu 2006, 107). I would suggest that the research correlating violent or antisocial behavior with video game playing is part of the struggle to define appropriate entertainment media. When video games are reviewed in game magazines, a primary focus is technical game engine, design, and visual graphics. The placement of different game genres on the field of cultural production depends first on how the games are viewed within the industry. Some of the criteria include: the intended audience, planned marketing expense, and genre of game.

Once again, however, the history video game stands apart from both video games and text. To include video games as text in McKenzie’s model requires stretching the model to include algorithm. In McGann’s view, video games fit the model for polyvocal creative text, but the history video game belongs to informational text. On Bourdieu’s field, video games, depending on the genre, might be placed all over the field of cultural production, but rarely in the upper echelon of respectable, consecrated works. Video games, computers, and Internet all fit the bottom half of Bourdieu’s paradigm. However, a history video game could be reviewed using some of the same criteria as academic histories or historical literature and this would add legitimacy and degrees of consecration on the cultural field of production. It should be clear that the history video game is a special case among video games and among historical narrative. The gap that separates them becomes even wider when the difference in reader/player interaction among these works is examined.

FILLING IN THE BLANKS

Wolfgang Iser, German literary theorist (1926-2007), places the reader in the forefront of this discussion of text and understanding. Iser described how no text could ever be complete, that “blanks” would be left for the reader to fill in. The meaning of the text wavers between two poles, the artistic and the aesthetic poles. At the artistic pole, the writer would choose what detail had to be included to lead a reader toward his intended meaning; at the aesthetic pole, the reader creates his own meanings by filling in those blanks in a way that is based on the reader’s own experience, expectations, and knowledge. These blanks appear as the narrative changes perspectives among narrator, characters, plot, and fictitious reader (Iser 2006, 393). It is between these changes in point of view that reader ideation occurs. One distinction between written text and video games is significant. Although perspective switches in a video game, the focus is on action “What do I do?” rather than “What is happening?”

Early text-based computer games, such as *Zork*, required an exaggerated version of Iser’s ideation. The opening scene is famous in the gaming world and is included as part of the Library of Congress’s digital preservation of games project:

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You are in an open field west of a big white house with a
boarded front door.
There is a small mailbox here.
>
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(Lebling and Blank 1980)

The symbol “>” signifies a blank, meaning “your turn.” The text blatantly points to the reader and forces a perspective change. The reader must type in a command that the game algorithm was programmed to recognize, or else the writer does not allow the player/reader to continue with further interpretation. In other words, a text-based game,

despite literally leaving blanks, requires the reader/player to apply the intended meaning to unlock the next bit of text. In *Zork*, the intended meanings are a short list of exact commands, such as open mailbox, turn east, or walk to house. As with any text, the reader's idea of a big, white house can vary from the writer, but it is close enough to not interfere with the intended meaning.

This ">" also signifies the difference between traditional text and video game text. Iser wrote that "a text cannot adapt itself to each reader it comes into contact with" (Iser 2006, 392), but a video game is designed to adapt within limits of a given set of commands. The ability to input and create interaction imparts a feeling of control to the player that a reader does not have over text. This feeling of control is an illusion for two reasons. First, the set number of possible responses forces the player to interact in a prescribed manner to progress the game. For example, there are numerous games in which multiple choices can be made, but all of them are violent. In *Lord of the Rings Online*, the player must kill beasts of the forest to accumulate points, which will advance the avatar to higher levels and unlock quests. If the player wishes to play as a pacifist, no new quests will be available. If, in the dialogue of reading, the reader encounters a passage that does not make sense to his ongoing interpretation, he can ignore it or he can re-read the paragraph. In a game, the player's character may "die" or never advance. The player must interact closely enough to the defined parameters of the game to advance the game play. Second, programming differs from writing because it is limited in its capabilities. Language is an organic creation of society and culture, but programming language is a constructed subset of English and math functions from a specially educated group of people. Biases may appear simply because the mechanics of programming

language were not available to allow otherwise. A player who thinks critically must contend with both the writer's underlying assumptions and the capacity of the game engine to allow an avatar's action.

For the player/reader to understand video games that rely on text or dialogue to provide background or instruction, he has at least been instructed in reading strategies in the classroom. He knows definitions for setting, narrative, characters, and plot. For video games that are visually 360° immersive, a more interdisciplinary interpretative strategy is needed for the player to think critically. Clearly the goal of an immersive game is to eliminate as many blanks as possible. The latest technology of the PlayStation 4 is startlingly realistic, such as clusters of flowers bending aside as an avatar walks by. The engagement of a player differs significantly from the reader. In film studies, the term "*mise en scene*" refers to every element that affects interpretation: sound effects, lighting, camera angle, and more. The purpose is to fill in the blanks. Video games, like cinema, also eliminate blanks with the use of sound and visuals. In part, developing an interpretive critical thinking strategy will borrow from studies of mass media and cinema. There is precedent for this overlap between cinema and video games. The first *Medal of Honor* game was developed alongside the movie *Saving Private Ryan*. Scenes from the movie are re-created for the game and use the film's "desaturated colors, mournful music, and similar scenarios" (Allison 2010, 184).

For a history video game that is an effective means of teaching historical content or analytical skills, it is important to be mindful of Iser's blanks. First, the game must avoid leaving blanks that might be filled in inaccurately, but must allow blanks where interpretation is open to encourage critical thinking. The skill for either a book or game

of history would be to educate the reader/player about how the historian practices his craft with that blank, to understand what the parameters are to interpret history.

Although the current state of video games attempting to be historical do not follow three fundamental goals of history education, modifications could only serve to enhance the reputation of video games in general and could be accomplished without eliminating the fun or play of gaming. The four serious academic theorists, McKenzie, McGann, Bourdieu, and Iser, discussed in this chapter help to develop a more complicated view of video games as the latest entry in the succession of media. McKenzie's "sociology of text" is most useful in addressing two goals, to learn history and to practice perspective. If game designers are mindful of programming appropriate interactivity, they are acknowledging the sociology of text that leads them to use the past in game play. McGann's concept of "socialization of text" helps us to understand polyvocal nature of video game production. Bourdieu illuminates McKenzie and McGann by offering the overall picture of where video games might fit in the cultural field, but more importantly why they fit there. An examination of Iser, who provided the most ubiquitously understood explanation of how readers interact with text, in relation to historical text, reveals that blanks in history must be less creative and more purposeful. Together these theorists reiterate that history and social studies education are fundamentally different disciplines from literature and literary education. In order to learn history from a history video game, the genre must diverge from both literary and cinematic formulas as much as the discipline diverges from literature.

CHAPTER 2 DESIGNING THE HISTORY VIDEO GAME

Video games are the first media that truly requires physical action from its audience. Without that input, there is no game in play (Galloway 2006). This is a defining departure from the use of other media. Computer programming allows variation within the story of a video game that is not possible in text or film. A broad example is the process of providing differentiated feedback to the player's action. A player uses directional keys on a computer keyboard or console controller to move a character. Depending on these choices, the setting and problems of the game often change. Another example is in dialogue choice. Many games offer a variety of responses to a character within a game. A player's interaction *matters* to the next moment of game play. This has the potential to make history learning more engaging and to encourage players to spend more time engaged in the game than they would with text. However, it is also fraught with the peril of misrepresenting the basic facts of a given historical event. The ability to affect the outcome defines a video game, but the outcome is more than an interpretive difference or historical revisionism. Unless an outlet for critical reflection is embedded in the game, constructing such alternative history has no purpose in historical learning. Alternative history may still be interesting, but it is a genre of fiction rather than history.

A literary work that has been remediated into a film or video game can offer similar experiences or emotions without fidelity to the original text. Film often re-sequences events using flashbacks and compresses time by combining events. Video games that are based on a narrative structure offer segments of activities that may be played in any order within limits. Creativity is acceptable if the spirit of the work is upheld (Clayton (b) 2013). This is not true for a history video game. As discussed in

Chapter 1, literary terms and studies are not perfectly applicable to historical works or to video games, yet this is the tradition from which video games developed (Clayton (a) 2013, Juul 2005). When game design must cater to the actions of the player, then the details that the player interacts with must be carefully selected and organized within a structure to fit criteria of historical learning.

Like the lesson plans of a good teacher, game design requires sophisticated planning. Video game designers need support of tools and paradigms of the historian's craft. As Kurt Squire, Professor in Digital Media at the University of Wisconsin–Madison, states “there has been little academic study of how learning occurs through such programs or how conceptions of history or urban planning change as they are represented through digital media” (Squire 2006, 25). It is rare to find a review of a video game in an academic journal unless it was used in experiments of curriculum or cognitive development. However, the rhetoric of legitimization appears frequently in video game magazines and in the games themselves. The title sequence for *Assassin's Creed IV Black Flag* includes the statement, “Inspired by historical events and characters. This work of fiction was designed, developed, and produced by a multicultural team of various religious faiths and beliefs.” The designers of the game seem intent on being taken seriously, although their statement is likely true in most cases of cooperative effort in a diverse society no matter the product. Another example of striving toward the higher ideal is the Civlopedia included in the game of *Civilization*. It functions as a hyperlinked encyclopedia for all concepts included in the game. It contains accurate historical background information, although none of it may be relevant to the faux history developed in the game. The player uses this semi-diegetic, anachronistic game device to

become omniscient empire-builder. Its presence in the game poses the question of whether knowing history contributes to a civilization's success. Games are designed first to entertain, but at least for those games with a historical premise, some of them appear to be on the verge of attempting to meet the standards of social studies disciplines.

In the sense of using accepted practices to teach history and historical thinking skills, there is no true history video game yet. Game components that represent certain themes in social studies are common in "historicized" video games, that is those games with historical premises. There are seven themes in social studies that are remediated in current versions of historicized video games: biography, chronology, economics, geography, material culture, society and culture, and technology. Any of these presented as simple facts, such as in a quiz show, would not represent historical understanding. Selected and organized to address the three goals of history, these seven elements serve as a common ground between the world of game design and history. There are hundreds of examples of the use of these themes in each of the four historicized video games that earned the most revenue in the last three years: *Assassin's Creed*, *Civilization*, *Total War*, and *The Sims Medieval*. Each of these employs some historical components in exemplary instances. Each of these games hints at a promise of game design that fit a true history video game.

Appendix 1 is an example scorecard for judging the effectiveness of a video game as a medium of history. I have described just a few examples for each theme and then subjectively scored them according to the rubric. Appendix 2 contains full scores for each game. The scorecard could provide a reference for teachers wishing to use games in the classroom, helping to predict the supplemental material needed. A game designer

could also use the scorecard to create a true stand-alone history video game. The aim is to establish a baseline for a history video game using fifteen criteria: three goals of history, seven themes of social studies, four dispositions of civics education, and the use of anachronism. The themes were chosen from among those best demonstrated in historicized video games today and are presented in alphabetical order: biography, chronology, economics, geography, material culture, society and culture, and technology.

BIOGRAPHY

Two types of biographical information appear in video games. Both are useful in the practice of perspective, one of the goals of history. The first is the remediation of a known person's biography into a game format. When it is possible for the player to modify an actual historical person or his beliefs and values, it introduces inaccuracies that thwart the goals of history. Especially in the case where ample biographical information is available, it should not be necessary to concoct derivative situations if the intention is to remain close to what is known. Including a known person in a video game works well when using a witnessed event or quoted statement. The player's avatar becomes an "eyewitness" to a documented event. This satisfies both requirements – the player affects the outcome, but not the course of history. There are also more questionable instances in games that pose "What if" scenarios. Although this is fertile ground for critical thinking, the example games do not provide academic feedback. Without a social component, such as a classroom or a moderated online forum, the discourse may be trivial.

The second method of presenting biographical information in video games is to build composite biographies from demographic information. This creates archetypical characters that provide a range of actions, behaviors, and beliefs. These characters are

fictionalized representations that fall within parameters of what was possible. These are the characters within a game that are animated or interacted with by players. There should also be historically accurate, but marginalized characters. A history video game cannot reach back into the past and fix historical discrimination, however, it is irresponsible to produce games that allow players to “escape into a game world that validates their own sense of worth by making their characters physically and socially superior to others around them” (Nephew 2006, 130-1). This poses an ethical dilemma for appropriate and valuable discussion in civics education. Current historicized games lack space for this reflection.

The biographical presentation in the example games varies in quality. In each game, the player encounters representations of famous people and demographic types of history that are consistent with popular representation. *Civilization* offers both, but the other example games focus more on composite characters from demographic information with a few very notable exceptions, such as George Washington in *Assassin's Creed III* and famous generals in *Total War*. Except for *The Sims Medieval*, the games offer frequent use of biographical quotations correctly attributed and within context.

For known historical figures, *Civilization* offers both accurate reading material and inappropriate action and behavior. The information available in the Civlopedia, the onboard encyclopedia of game concepts, offers standard textbook accuracy, but the interaction with famous leaders shows little variation among them. For example, if a foreign warrior avatar repeatedly trespasses, the leaders respond with the same game dialogue. The purpose of the game positions the player as one of many great leaders to guide a civilization from 4000 B.C. to the current year, acquiring technology and

territory. It is a turn-based, strategy game classified as an empire-building simulation. The game interface is a world map that is gradually revealed as the player sends out little avatars to explore. The game may be won by military conquest, cultural hegemony, or technological progress. Leaders, such as Julius Caesar and Genghis Khan, are programmed to be more likely to be aggressive, while the reverse is true for leaders such as Gandhi. However, in dialogue, they respond with identical sentences to the same situations. In other words, it may take an extra turn or so to make Gandhi furious, but he will use nuclear weapons. If territory is threatened, the response escalates from verbal threats to a declaration of war. Referring to the scorecard in Appendix 2, biography in *Civilization* ranks as a 2 in a score of 0 to 4, because although the information is available, it is not a valid part of the game action.

CHRONOLOGY

Chronology is central to all three goals of history. Learning the order of past events is fundamental to learning history. Historical perspective is the sense of time over human processes. Chronology helps to demonstrate continuity and change in speed and duration over time. This goes beyond the cliché of learning “a bunch of dates.” Before cause and effect are determined, events must be in chronological order.

Generally, chronology is offered in the example games when it fits the action of the game, but does not expressly promote learning chronology. *The Sims Medieval* is set in a fantasy medieval world, so dates are irrelevant. The staging of battles in the *Total War* series requires a time-based approach to gameplay. The course of war is measured by battle successes. Before the battle can be fought in *Total War Rome: Alexander*, for example, a short lesson on military history outlines the stakes. These are short

chronologies of battle when compared to the 800-year scope of the *Assassin's Creed* series. *Civilization* avoids dates except as previously mentioned in the entries of the Civlopedia. Instead *Civilization* concentrates on the duration of processes or the steps of technological progress, which is one of the game's valuable contributions to learning history. For example, the ability to build the Pyramids is dependent on precursor knowledge and skills and the time it takes is relative to the resources available. The treatment of time in *Assassin's Creed* and *Civilization* is most instructive for the development of the history video game.

Assassin's Creed begins in the present day with the player animating Desmond, a descendent of a long line of Assassins pitted through time against the Templars. Each new episode of this series brings the player closer to the present time. The series begins in 1191 with Altair, the first assassin, continues to the Renaissance with Ezio, jumps to colonial America with Conner, and then to Revolution with Edward Kenway. The quest is to locate various lost mystical artifacts, which will save the world from impending catastrophe. Two gimmicks of *deus ex machina* allow him to access these ancestors' past memories. The first is the presence of dormant "genetic memory." It is described as an evolutionary advance of animal instinct found in humans. The second impossible gimmick is a device called the "Animus" which allows Desmond to access his genetic memory and vicariously experience his ancestor's lives. The player must adhere to the fictional history of his ancestor and achieve synchronicity or risk mental breakdown (and a low score). These devices allow the player to suspend disbelief and place himself into the past. Desmond is the anachronism thrown into a past he does not belong in, but for the purposes of the game mechanics it is acceptable.

It is unlikely that any player will be confused that these gimmicks are anything besides a convenience to the narrative. It is more worrisome when the anachronisms are less obvious and could be mistaken for accurate history. One of the barriers to designing a history video game is the use of such gimmicks that enable a storyline. These are common enough in the gaming world, but not acceptable in the historical discipline. Sometimes an anachronistic device is an invitation for reflection and comparison. This is a challenge to games that are sold in stores, complete within a box, rather than online games that have frequent updates. There is little opportunity to correct inaccurate information or to provide discourse among its players, although the same game in a MMORPG format could. Despite the obvious anachronism, there is very little historical content that must be engaged to play the game. The historical setting is tangential to the action. In Chronology, *Assassin's Creed* would score as a 1 or 2 on the scorecard in Appendix 2.

With the exception of the “Big Picture,” a timeline of knowledge and technology, *Civilization* is wholly out of sync with history. The player may choose to direct the English civilization but find his territory located in a tropical region with the right resources and means to build the Pyramids and Sun Tzu's Art of War. All regionally or culturally based advancements are up for grabs in the race to advance. The game progresses through four eras or ages, beginning in Ancient Times at 4000 B.C. with civilizations all over the world at the same level of development. Each has abandoned a nomadic, hunting and gathering lifestyle after learning irrigation, road building, and mining. Each also then confronts randomly generated geography and cultural neighbors, just not necessarily the same neighbors as in reality. The game continues to Medieval

Times, then Industrial Age, Modern Times, and can extend beyond the date of the current year into Future Era. The overall problem is to determine what is the best strategy to thrive under the given conditions and then to progress to the next era. There are innumerable minute decisions to be made for every city within the player's civilization.

Chronology is addressed through ordering of knowledge and skills. This is presented in the game as a technology tree. For example, to achieve the skills of construction, a civilization must first learn bronze and iron working, and masonry and mathematics. Twenty-one "technologies" such as these must be mastered to advance to the next Age. A player can plan a path of progression that bests meets the challenges his civilization faces from geography and neighbors. This is a history lesson in trends at least, but not the specifics. Each piece of knowledge opens doors to build new and more advanced units. Once all the knowledge of the Ancient Times is acquired, the civilization enters the next era, dominating all the other civilizations around. To experiment with these choices reveals the contingency of history. Referring again to the scorecard in Appendix 2, if the experimental mode in history video games is as acceptable as role-playing simulations in the classroom, then *Civilization* ranks very highly on chronology, especially since the anachronisms are too obvious to be mistaken for fact. Game play is dependent on understanding the path of development as depicted in the game.

Some of these anachronisms and cultural disconnects will be obvious to most players. In *Civilization*, the same leader represents a country from 4000 BC to beyond 2000 AD. The ability of one country to "steal" the build of another country's Great Wonder is more humorous than worrisome. Most of the Great Wonders are well known, so this inaccuracy simply becomes a contrast to what the player knows is true.

Sometimes that contrast is a vital learning experience. Anachronisms should not necessarily eliminate a game from being classed as a history video game, but these should be examined by their learning outcomes.

ECONOMICS

Economic topics in games are relatively easier to program than social processes or dialogues, because it is already quantifiable and matches the algorithmic language in which the game is written (Galloway 2006). Economists position their arguments in small abstract models; games are representations of simulated action. Finally, economics as described in a capitalistic, mixed economy is rife with drive to compete and progress. Competition is also a ubiquitous feature in games. All of the example games take advantage of these characteristics to make economics a rich experience within the games. This bodes well for history video games to be produced with historical databases.

Civilization does not offer biography or chronology as part of gameplay, but it excels at intertwining economic issues. In fact, while it fails to meet two of the three goals of a history video game (to learn history and to practice perspective), it excels at the third, experimenting with causation. The game action is defined by minor “what if” scenarios. Every decision, from where to place a city to how to negotiate a resource or go to war, activates steps along a progression. Each city belonging to a player’s civilization cooperates to build overall wealth, debt, and knowledge. Within each city, the residents cooperate to produce “shields.” Shields become the game’s way of teaching about gross domestic product. Instead of the GDP being measured in dollar amounts, it is measured in shields. The player spends different amounts of shields (rather than dollars) to produce additional units of warrior, weapon, worker, or public work. The Domestic

Advisor in *Civilization 3* tracks each neighborhood's production of food, wealth, or shields, and the city's overall corruption, commerce, and GDP. A player may experiment endlessly with thinking at the margin to tweak out increased production or food to affect growth of the city. Again, *Civilization* ranks highly on this theme on the scorecard in Appendix 2.

GEOGRAPHY

Academic standards in geography emphasize five themes: location, movement, place, region, and human interaction. Location simply defined is a set of coordinates, longitude and latitude. Movement is action across locations. Place refers to characteristics of a location. Region is similar to place, but larger and more likely to have an identity ascribed to it. The concept of human interaction describes how people both use and are shaped by their environment. Video games require action and place, so some designed space, often modeled from geography, is present in any game. Because the player's action determines the outcome of the game, video games have the potential to allow players to experiment with geographical conditions. This matches a goal of history to experiment with cause and effect, but it can contradict another goal, to learn history.

A game may accurately represent geographical terminology, but not portray it according to location. There are instances where indeterminate locations are justifiable in a history video game if the intent is to portray commonalities. For example, *The Sims Medieval* presents a composite of a medieval village. A model, whether in a textbook or a video game, can be instructive. The needs of the game narrative determine the degree of accuracy and authenticity of the mapping within the game. Based on the example games, there appears to be a dichotomy of the authentic and the experimental. Games

that are authentic have little margin for experiment while those that allow more creativity are often historically inaccurate. This does not imply that one is better by default, but rather that it matters how this is treated within the game. In social studies classes, teachers use simulations and models overtly to illustrate concepts. History video games should have the same allowance and be just as obvious in intent. The example games have mixed results in their attempts. *Total War* and *Assassin's Creed* lean toward accurate geography, while *Civilization* and *The Sims Medieval* are more experimental. The use of geography is less important to the game action in either *The Sims Medieval* composite village or in the specific historical locations of *Assassin's Creed*. The games proceed along the given narratives whether the geography is accurate. By contrast, the game action of *Total War* and *Civilization* depend on the player's increasing geographical skill.

Total War attempts to portray the geography and conditions of battles ranging from those of Alexander to Napoleon in nine different incarnations. The spirit of authenticity is present even when details may fail to satisfy academic rigor. *Total War* frequently juxtaposes traditional learning methods, such as lecture or animated maps, with an upcoming battle simulation. If the player could not change the course or outcome of the battle, there would be no game. The unique learning method inherent in gaming is the ability to run the counterfactual (Peterson, Miller and Fedorko 2013). This seems to be very consistent with the purpose of military history and the study of battle. *Total War* both shows the battle as well as game technology can manage and allows the player to manipulate variables of battle. For this reason, *Total War* would generally rank highly on the scorecard, although scores for each game incarnation would vary. Forums for

analyzing the depiction of battles in text or film already exist. Video games have yet to acquire consecrated forums outside of the game. They also rarely include the opportunity for discussion within the game. Despite this, many informal fan-created forums have appeared on game-sponsored websites and social forums. Each of the elements of simulation in *Total War* may be analyzed for accuracy just as text or film would be.

One premise of *Civilization* is that it follows the historical approach described by Jared Diamond in *Guns, Germs, and Steel*. In essence, geography is the dominant influence over a civilization. It predicts success. In order to win the game, the player has to at least subconsciously play by those rules. Another premise is the Civilization has an ecological approach that leads to active decision-making over available resources through time (Chapman 2013). In *Civilization*, location as a specific point does not exist unless through the modification editor, which players may use to construct maps or recreate known regions. However, *Civilization* does a very good job with place, as in space that is relative and conditional to other spaces around it, and with movement, such as the migration of citizens to other cities due to various push-pull factors. A few of these factors represented within a city of the game are: pollution, overcrowding, lack of food or clean water. Because *Civilization* focuses on the experimental, the player is usually able to react to these circumstances. This is a large component of game action, so *Civilization*, as an experimental simulation, would rank a 4 on the scorecard. Cities with “happier” citizens tend to be productive and obedient. The cultural influence, marked by a colored line around the spaces of the city, will grow. In a typical randomized start, if several civilizations are placed too close together, then none have room to expand and relieve a growing population. War over territory is much more likely. One drawback to

this approach, however, it that there is no mechanism to offer the player a chance to reflect on examples of this occurring in history, because it simply does not fit the narrative of the game.

MATERIAL CULTURE

Material culture is the collection of artifacts that are displayed in museums, historic sites, demonstrated at historical reenactments, or handed down from generation to generation within families. Typically they are the daily items that juxtapose the conditions of life today with those of yesterday. It is history's version of *mise en scene*. These artifacts build a more authentic setting. This is historical comparison that is very visceral and tangible. It allows a player to practice perspective by considering the physical differences between the present and the past. In a game, unlike a museum, the player is allowed to virtually pick up the object and examine it from all angles, possibly harming or consuming the item. The ability to change clothing styles from one period to the next allows for historical comparison. Virtual material culture allows players to interact with objects in ways impossible in real life. For example, in a game, especially one in which an instance of the game is saved as a file, the player could misuse an artifact, prompting a learning experience by failure.

None of our example games take advantage of this unique quality of video games; the highest score for any of the games would be limited to a 1 or 2. *Civilization* has no artifacts that can be examined closely. For example, a player can read about and see a static image of a long bow, but experimenting with how it works is not possible. A tiny longbowsman will draw the weapon, but this is only a hint of action. *Assassin's Creed* and *Total War* depict weapons, uniforms, and transportation, but, again, this is imagery,

not interactivity. It may be visually accurate, but is not manipulatable. In *Assassin's Creed Black Flag*, Connor learns the steps of sailing a ship, but the game mechanics limits this to mostly commands to the ship's crew, not physical actions of the player's avatar. *The Sims Medieval* allows more manipulation of artifacts, but this is usually limited to decorating the castle. However, one of the side quests involves animating a medieval doctor. This avatar acquires equipment and requires experimentation in treating patients, although some of the combinations resemble magical spells.

It is possible to collect, combine, and operate artifacts as I have described with current game design and mechanics. Massive multiplayer role-playing games, such as *World of Warcraft* and *Lord of the Rings Online*, offer live action trading within the game narrative to acquire and combine objects. The player has to choose what items are necessary for a given quest. This requires critical thinking of both quest and object. If this would be used in a history video game, then the game action would fulfill all three goals of history.

SOCIETY AND CULTURE

It is much more difficult to fairly depict society and culture in a video game. These are not items to view or data to quantify. Game designers need to be aware of their own biases just like any author of historical work. Some game producers demonstrate awareness. Recall the opening to *Assassin's Creed*: "Inspired by historical events and characters. This work of fiction was designed, developed, and produced by a multicultural team of various religious faiths and beliefs." Of course, the issue is not whether the game designers represent diversity, but whether they are qualified to represent the diversity of others. Job qualifications for game designers typically require a

Bachelor of Science degree and knowledge of certain programming languages. These are college-educated professionals, but this is not enough for a history video game. It may be structurally difficult to find personnel to fulfill the needs for additional education in social sciences. Game development may last years. Unless a historical consultant is a permanent position, scholars may not risk the loss of academic time working outside academia. This is one of the barriers to producing a history video game. It is difficult to determine the credentials of people working on a particular game. Much like the end credits of a film, game credits are not detailed. Until scholars are willing to place their names alongside a project, there is a continued lack of accountability. However, games are not a respected form of historical work, so few scholars would work on a game. It is a self-perpetuated cycle not easy to solve.

The elementary treatment of society and culture within the example games appears as evidence for a lack of social science expertise. *The Sims Medieval*, despite its setting in a hierarchal medieval village, does not utilize the terminology of the feudal system. *Total War: Rome* does allow the player the opportunity to negotiate within the political structure, but it is brief and limited in scope. The first installment in the *Assassin's Creed* series takes place in 1191, but disregards the social and cultural climate surrounding the Crusades. In fact, the game suggests an underlying secret cause. In the game the conflict is less cultural or religious, but rather takes place against security and established order as represented by the Knights Templar in favor of anarchic freedom as represented by the Assassin Brotherhood. The headquarters of the Assassins is in Masyaf, a city in Syria. This connects the Assassins of the game to a particular Shi'a Islamic faction around the time period of the first game. This is information not covered

in typical textbooks or introductory college courses, so it takes advantage of a lack of common knowledge about them. Descendants of the first assassin appear in subsequent iterations of the game series, but the family is now of European origin. Combined with its claim for multiculturalism and stunning realistic scenery and architecture, *Assassin's Creed* falls into the error of overwhelming the history. Because the player interacts with the scenes, there exists a stronger psychological connection that skews historical perception. One of the frequent errors of *Assassin's Creed* shows cathedrals as they appear today rather than at the level of architectural accomplishment of the time period for that episode (Dow 2013). Assassins within the game frequently accept side quests to aid the less powerful of society. This is an anachronism that is not obvious; therefore it does not serve as a perspective-enhancing juxtaposition. As part of a classroom discussion, this can be a very valuable tool to explore the craft of writing history. A history video game would include that opportunity within the game itself.

Civilization also presents problematic social and cultural information that might go unexamined by the average player. A civilization's success depends on a certain structure of social hierarchy that requires migrant workers and roving warriors. Although warriors might be garrisoned within a city and remain independent avatars, workers are never given citizenship and are operable only outside a city space. A worker can occupy a city space, but cannot perform any duties there. Workers perform hard or hazardous labor, such as road building, irrigation, mine construction, or pollution, but never advance in skills. Workers are also the only unit of the game that can be automated, in other words, turned over to the game AI (artificial intelligence) for direction. This does tend to be less efficient than direct player intervention. Although the cumulative production of

the workers contributes directly to the success of the civilization, the individual worker does not matter. There is a normative value implicitly expressed in placing workers without connection to a city. Only the citizens in city limits have conditions that need to be respected. Only citizens can revolt and halt production. Only they can contribute to the building of Great Wonders, or the storage of food, or territorial growth, or production of shields. These citizens can become unhappy and riot, halting production and even declaring allegiance to a neighboring city. This is important in economics and society. However, the worker units are a mass social class, which in translation to reality might be slaves or government-owned workers. The workers can also be randomly attacked and killed by hostiles that simply move into the same game space. The citizens within a city are automatically defended. *Civilization* is similar to an interactive chess game with a much larger variety of playing pieces. The workers are pawns, but more productive and less valuable when lost. Despite the ontological ramifications that a negative attitude will arise among players for the workers' occupations, it is unlikely that the average player would extend his interpretation of the worker beyond an in-game definition of a worker's function (D. Carr 2007). The themes of society and culture are most likely to be included in the narrative of the game rather than be a quantifiable part of the action. None of the example games intended to show a realistic portrayal of these themes.

TECHNOLOGY

Video games are full of representations of technology. Although they are often futuristic representations, technology in video games resides in territory native to itself. Game production has progressively improved step by step over the last 40 years. This affinity for incremental progress is reflected especially in *Civilization* and *Total War*.

Both of these games use a branched tree structure to outline the development of discoveries and inventions during the era represented in the game. As discussed above under the theme of geography, history video games might be either experimental or authentic modes. Geography is one such theme and technology is another. Either mode is programmed using a typical “if X, then Y” command. If condition X is met, then it will allow for Y to appear. In an experimental game like *Civilization*, discoveries or inventions unlock the next level of technology. In authentic games, like *Total War*, new technology arises according to chronology. *Total War: Shogun* has distinctive technology as compared to *Total War: Napoleon*. This is another case where a theme may address all three goal of history with the same action. Both games, when allowance is made for the mode of play they represent, rank highly on technology on the scorecard in Appendix 2. Much like the theme of material culture, technology in video games is presented as items to handle. Only the *Sims Medieval* allows the items to be explored, but this is already part of the game mechanics of the earlier versions of the *Sims*.

The branched technology tree of *Civilization* allows the player to take an omniscient view of future progress. The player directs his scientists to “research” knowledge along a path according to his goals for the game. Bronze working leads to iron working. Masonry inexplicably connects to mathematics, but all four knowledge bases combined unlock the skill of construction. Each of these is contingent on finding or trading for appropriate natural resources. On the Ancient Times screen in *Civilization III*, acquiring twenty technologies will advance civilization to the Middle Ages.

The knowledge trees in *Total War* are also progressive, but in an authentic rather than experimental way. In the game of *Civilization*, it is very likely for civilizations to

build great public works that they did not build in actuality. But *Total War: Rome II*, for example, has up to four branches of knowledge and skill: political, military, civil, and development, depending on what faction and game expansion is played. The intent appears to be to provide a deep view of the development at a particular slice of time in military history.

CONCLUSION

The example games discussed above are all best-selling franchises that capitalize on the rich territory that history offers. Despite the fact that none of these games purport to be history video games, there are shining examples within each of them that demonstrate how the technology and interest exists to produce a new genre of video games fitting the criteria of the history video game.

Civilization is one of the most cited and studied video games in pedagogical and cultural studies. Consequently, it approaches the ideal of a true history video game, but with some very important caveats. *Civilization* does an excellent job with one of the goals of history, that of experimenting with causation for the themes of economics, geography, and technology. It scores well in less than half of the suggested criteria for a true history video game. Its design structure has become part of standard curriculum for game designers, because of its open-ended opportunities to allow players to “make interesting choices” (Rollings and David 2004, 61). The *Total War* series is a finely focused view at military history. It addresses two of the three goals of history in this concentration: to learn history (albeit in counterfactual presentation) and to practice perspective. *Assassin’s Creed* is advertised as a piece of historical fiction. Although its

mise en scene renders a much more serious tone than *The Sims Medieval*, both games emphasize the element of play over theme and content.

Critique applied to text or film can be applied to the proposed genre of history video game despite the differences inherent in video games from those media. The same criteria to judge whether a historical text or film is sufficiently accurate should be applied with the same rigor to the history video game. History is often learned either through a narrative of the past or through a simulation. Video games have the potential to also present history through one of these modes. Games such as *Assassin's Creed* or *Total War* require the player to follow a narrative storyline with some variation possible. Unless a game is designed that requires the player to follow exactly in the footsteps of a historical figure (which does not meet the definition for a game), then video games have a fictionalized element. The outcome of the game has to be directed by the player's choice. A narrative could still be "true" to history if, like in the theme of biography discussed above, the avatar is a composite demographic type following a quest that is limited to the possibilities of the time period. It requires the player to accomplish tasks that closely follow the script of the game, which is fairly common in fantasy role-playing games. It can still be a challenge full of interesting choices, just historically accurate ones. *The Sims Medieval* does just this, except that the quests are not related to a historical context, but could occur in any era of time. In this case, it is the designers, however, who are constructing a historical narrative, not the players.

The technology of games also allows for history to be effectively taught through experimental modes, such as *Civilization* or *The Sims Medieval*. Players affect the outcome of these games, which may lead them astray from historical fact. However, as

seen in three of the example games, the use of obvious anachronistic gimmick acts as a pivotal juxtaposition of historical discourse. The players are able to participate in the authoring of the game. Choosing and presenting the information is analogous to historical craft. Although these games all contain elements of history, such as setting, famous people, and events, there is little opportunity to design game play and include details the player chooses. However, game design software may one day be just as common as other presentation software, like Microsoft Word or PowerPoint.

CHAPTER 3 ACHIEVING THROUGH THE HISTORY VIDEO GAME

History and gaming cross paths at four behaviors or dispositions that are virtues of Civics education – engagement, resilience, cooperation, and affiliation. This chapter will review studies that demonstrate how game design, in general, excels at these four dispositions. It will then rank the success of the four games in building these dispositions. In the past, civics was about instilling a common culture and patriotism within newly democratized and industrialized nations. Teaching the history of a shared past was a significant element in building a common national identity.

Each of the dispositions contributes toward successful personality traits, collectively called “protective factors” in adolescent psychology. Engagement is the discipline of maintaining focus and staying committed to a task. Resilience is an attitude of perseverance. Cooperation is a social skill or habit allowing for the coordination of action despite personal differences. Affiliation is a shared belief in the commonality of attributes. Civics or character education today is about self-actualization, developing traits that build protective factors toward a personal definition of success. These civic dispositions support and enhance each other, especially the pairings of affiliation and cooperation, and engagement and resilience. Dispositions, such as engagement and cooperation, have immediate, observable outcomes, while affiliation and resilience have long-term results. Reflecting on these dispositions, it seems that each of these behaviors have crossover characteristics. Where these dispositions overlap, equally compelling and successful traits emerge. As a conceptual tool for how these dispositions relate to each other, the Venn diagram in Appendix 3 suggests how these skills foster growth and develop the trait of character.

The video game supports the formation of habits by utilizing certain physical skills that the history book does not offer, such as hand-eye coordination or peripheral vision training (Anguera 2013). The physical repetition of game movements aids in creating the habits associated with the dispositions. Some game actions are simply more conducive to successfully fostering dispositions.

Developing the four dispositions are identity-building exercises for productive citizens. Many video games now include the ability to create an avatar. This is not just a metaphor for identity, but an act of self-creation. The opportunity to choose identity is central to both the gaming experience and an effective learning environment. An avatar that acts within the text is the most unique element that sets apart the game from all other forms of presentation. A reader will interpret a text from his own prior experience; a player's avatar creates meaning for himself and for other players in the moment. The player is safe to experiment, because it is the avatar that acts. An avatar is *and is not* as real as the person playing it. This has been called a "half-real" experience or a "double reality" (Juul 2005, Gee 2007). Playing as an avatar is an existential experience that makes "elements of the user's self present to themselves, tangible in ways that might not be possible in non-virtual space" (Waggoner 2009, 42). "Real" is used here to indicate the physical, outside, non-virtual experience. Through the avatar, the player experiences the game narrative and interactions. As the avatar performs actions that build affiliation, cooperation, engagement, and resilience, the player vicariously develops those dispositions. As the discussion of themes in the previous chapter showed they are not a comprehensive historical experience without each other, the dispositions of history are not fully severable from each other. The goals of history – learning history, practicing

perspective, and experimenting with causation – are advanced cognitive skills made easier to obtain when these four dispositions have been instilled within the student.

In the realm of video or online games, when a player experiments with a different identity and cultural grouping than he was born into, it does not have the consequences of real life. Games have a built-in “psychosocial moratorium,” as named by educational psychologist Eric Erickson. This is “a learning space in which the learner can take risks where real-world consequences are lowered” (Gee 2007, 59). In a classroom, there may be many social and other constraints on a student preventing him from learning. The moratorium could be either through the avatar or just simply because the game is not real life. In a game, the student has a new identity and a different set of skills. Practicing perspective is one of the three goals of history that a history video game could provide. Broadening one’s perspective on a virtual level helps to practice how to do it in real life.

ENGAGEMENT

Engagement is defined as the ability to commit to a task or topic for an extended period of time. Without the discipline that results from engagement, it is difficult to be productive. Although it may help to have a task that is highly interesting, the discipline to become and stay engaged is an acquired characteristic crucial to mastery over any subject. Engagement in video games is obvious, observable, and measurable.

Methodology of studying video game engagement includes empirical comparisons (recording both lengths of time spent gaming and time at game-related activities outside of game time, heart rates during game) and ethnographic studies (self-reported feelings of intensity, interviews chronicling the influence of a game on outside life, observations of behavior changes). This abundant research on engagement in video games results in a

wide range of outcomes from positive developmental growth to outright addiction. The reasons that games are engaging are more interesting and useful to the purpose of this thesis.

Underlying the narrative or purpose of any game, the actions of the player connect to form a progressive series of engagement loops of actions (Werbach 2012). A well-designed game increases the difficulty of the loops with each series, so that the player's skill improves on a schedule with the game action. In the classroom, this would be called scaffolding. It is very important that the skill level of the player is within range of the task. Many times a game will begin in a tutorial mode to guide the player through a series of easy loops to learn how to play the game. Skills improve after a sequence of action, feedback, and reinforcement. A simple example in the game of *Pong* is that the player hits the ball (action), the computer misses the ball (feedback), and the player scores a point (reinforcement). Because game design is built on psychological principles of feedback and reinforcement, players become determined to learn ever-increasingly difficult tasks.

The motivation to progress through those levels is engagement. Video games offer a variety of motivations and rewards, many of which are virtual, e.g. points or badges. In fact, many of the rewards of game play are intangible and intrinsic, tied to feelings of self or social worth. Over the time, game design has borrowed actions from older and popular games, so that certain actions have become standardized. Experienced players advance more quickly in new, similar games. The most engaging games are those with multiple progressive loops occurring simultaneously. There are numerous tasks to undertake at any given moment. The ending sequence of the game is typically

called a “Boss Fight.” It is the most difficult challenge requiring an accumulation of skills to overcome, delivering a sense of completion. In the *Assassin’s Creed* series, for example, the assassin has many minor fights leading up to the prime villain he is to assassinate. Along the way, the player acquires skills and knowledge to defeat this most formidable enemy.

Among the four game examples, the *Total War* series has sold fewer units than the others. Its learning curve also has the most initial hurdles to overcome. *Total War* most resembles a battle strategy scene from a classic war movie where figurines of soldiers and military equipment occupy space on a map-covered table. The tutorial for the third game in the series, *Total War: Rome*, takes several hours, so only players with experience in this type of game or prior knowledge of battle strategy are able to engage the content quickly. Game play is divided into campaigns making the game more manageable for the novice. Each campaign is a long feedback loop, however, compared to other games. There is little indication of whether the battle is going well until the campaign is over.

Assassin’s Creed also has a steep learning curve, due to a difference in the coordination of the game controller. There is a wider range of motions available as compared to other games, lending a unique feel to the acrobatics and fluidity of the assassin. The point of view of the avatar in *Assassin’s Creed* may move in 360° motions. The player is able to practice first as his modern descendent in a digital scene, a safe office-like lab, and then in a training arena as an apprentice. Both verbal and written instructions are provided on screen as needed to guide action. The player is rewarded aesthetically on an ongoing basis, simply by traveling through the world. The scenery of

Assassin's Creed is impressively natural and beautiful. In the first *Assassin's Creed*, Altair rides a horse through a mountain pass to a panoramic view of Damascus. In *Assassin's Creed Black Flag*, Edward Kenway, this era's assassin, commandeers a ship and sails through stunning realistic waters. These are intangible rewards that defy the stereotyped "gamer" motivation. Gameplay follows a narrative of achieving a greater good through several long missions and occasional short missions. Frequently, the assassin is discovered and is compelled to briefly fight to escape. These serve as short engagement loops that increase the skill level of the player.

The Sims Medieval, like its predecessors in the series, has many interlocking tasks that drive engagement. For example, an early quest is to find a lost child of the kingdom. In addition, the monarch must also eat, rest, write laws, confer with foreign and domestic advisors, and consult with village people on the progress of the search. There are five separate, but ongoing tasks for which the game will issue signals of progress or failure. The game awards praise, badges, and new quests for each accomplished task. The engagement loops are numerous, varied, and simultaneous. Each 24-hour cycle of time (in game time) serves as one progression loop. In the regular Sims games, there is no "Boss Fight," but in *The Sims Medieval*, there is a series of short quests to overcome. As the game progresses, the quests become harder, but it takes dozens of hours of real time before these could be classed as "Boss Fight."

Civilization is the grand master of engagement. It is a "turn-based" game, meaning that each of the player's "Units" performs an action before gameplay is passed to other players. A unit is a moving miniature avatar, such as a warrior or worker. This could be compared to chess if all the men of the one side moved once, and then the

opponent's men all moved once. When a game of *Civilization* begins, the player has only two units. As the game progresses, each city may produce more units. Each of the units may be sent on separate tasks with independent goals. Each unit is its own engagement loop positioned in a progressive series. After just a few turns, at least one success, and sometimes many, reward the player at each turn. For example, the city may successfully train an archer and then start work on a library. A warrior might overtake a barbarian village and acquire gold or knowledge.

Video games excel at building the disposition of engagement because they are designed to continually increase skill levels by reinforcing with rewards. It is a very complex form of behaviorism, because the reward structure of games is tangible and intangible, extrinsic and intrinsic, variable and contingent (Werbach 2012). In short, the rewards are designed on purpose to fulfill many different types of players' needs. Players measure success in ways that are not accessible to them in real life. Although scaffolding and positive behavior supports are common classroom tools, education is not designed to address the multiple levels for which games are designed (Gee 2007).

The fictitious *History Online* MORPG or another history video game could build engagement using a combination of the methods of the example games. There are many pedagogical studies on how to use historicized video games in the classroom, not because the games are flawlessly accurate, but because historical information is discovered while students are along the path of engagement loops. At the least, history is positioned in a fresh standpoint to traditional learning. The goal of both games and inquiry-based thinking is to solve a problem. A history video game could be designed to simulate inquiry-based thinking through progressive series of engagement loops. The disciplines

of social studies are a rich source of problems that could be transformed into quests.

Supporting the goal of experimenting with causation and the theme of biography, a quest might take the player to Leonardo da Vinci's studio to build an invention, negotiate with a client, and mix paint ingredients. History is full of stories of people who have achieved because of their commitment to their projects. A history video game could offer both their story and experience.

RESILIENCE

Resilience is a state of cumulative experiences that inspire continued perseverance. While engagement is a disposition practiced in the present and may be a short-term activity, resilience implies a longer period of development. Engagement boosts resilience. Players can be so engaged while playing that it does not occur to them to quit if they fail. Engagement encourages a player to try again after failing. Failure in a game has little consequence to a player's real life. In fact, failure is an expected game feature. No one is expected to achieve every level of a game without learning from one's mistakes. Game design has always included methods to overcome failure. Arcade games, such as *Pac Man*, offered three, sometimes five, "lives" and even more if the player achieved a certain score in points. In computer games, this became the ability to save a game or to reset the last action. The consequences of failure might be spending another quarter or spending the time to replay some action since the last save on the computer. There is an embedded belief system in games that failure can be overcome. This is far from the climate of high stakes testing in public schools today. To acquire the disposition of resilience in real life may require a change in a person's belief system. Video games can help to model this behavior.

If history presents any lessons, it is about how resilience is a desirable quality even when permanent failure results. The main lessons of history were once its inspiring stories. Civics education thrived on these stories. The ability to fail but continue is admired in historical figures. The ability to reset or save a game is not frivolous; rather it is the opportunity to overcome failure. Compared to the classroom, there are few occasions to correct one's work *in the crucial learning moment*. Resilience is a habit, however. Habits require experience and practice. Part of resilience is the willingness to acquire skills that might be used to solve unpredictable future problems. The lessons of history are not just task oriented but the development of emotional dispositions that help to confront the future. A common element in video games is the opportunity to learn a skill or pick up an object without knowing how this might be used later in the game. Students frequently ask why they need to know certain facts or skills, but it is much more difficult to know what to omit from curriculum given an unpredictable future. The willingness to acquire knowledge and skills even for an unknown future is part of building resilience.

In all the example games, an element of resilience can be found, but it is in the fighting games, *Assassin's Creed* and *Total War* that its incorporation into gameplay is the strongest. The everyday life depicted in the *Sims Medieval* and *Civilization* has less opportunity for individual resilience as depicted in *Assassin's Creed*, but these still have suggestions for the metaphor of resilience within a community that *Total War* demonstrates.

The Sims Medieval has the least connection to resilience within gameplay. The basic needs of the player's avatar are displayed as meters of rest, food, and

companionship. The algorithm is just a simple timed countdown. The player must periodically and routinely add to the totals or the avatar will refuse any commands unrelated to its basic needs. The purpose of the Sims avatars is average, daily life, so this programming is perfectly appropriate. No consequences are applied if the player fails to accomplish the daily mini-tasks. The avatar goes to bed and sleeps to awaken to a fresh set of mini-tasks. Failure is inconsequential for minor daily tasks. The quests in *The Sims Medieval* are only slightly more compelling. Even if a player fails or receives a low score on a quest, game play may continue to the next quest. Although resilience is not a game element, all of the Sims series include the ability to prepare for an unknown future by studying or practicing life skills, such as playing a sitar, charming one's subjects, or sparring with swords.

With strategy and patience, the player of *Civilization*, can learn to endure triumphs and pitfalls of the game. However, as the name implies, the purpose of *Civilization* is not the glory of the individual but the continued progress of the civilization. Resilience may be demonstrated as a long-term community attribute if conditions allow for success. When resilience is tied to group dynamics, then it coincides with the development of the skill of cooperation. *Civilization* portrays different stages of government from despotism to monarchy to democracy. An underlying mindset is that of John Locke's *Social Contract*. As a civilization adopts forms of government with more autonomy for its citizens, it becomes imperative to provide more benefits. Resilience is addressed as a theme of endurance of a civilization. This is one of the processes that *Civilization* models well, the goal of experimenting with causation. If a city descends to civil disorder, there are several mechanisms to pacify it. A city represents wealth,

resources, and territory. When a city experiences a riot, none of those resources are available. The production of the city is too valuable to lose, so there are consequences for not practicing resilience and working through every possible solution to the riot.

Total War requires the player to face the prospect of defeat with each battle plan. The purpose of each battle sequence is to determine how to continue. Resilience is not just a game strategy, but part of the narrative. *Total War: Shogun 2* incorporates quotations from Sun Tzu's *The Art of War*. Again, there is more an element of perseverance of the community than the individual, so resilience is indirect, less of a personal attribute. The player as battle strategist must plan for cooperation among troops.

The assassins of *Assassin's Creed* look like they have been through hell. Their clothes are battle-worn; bodies are scarred. Facial expressions are hardened. Resilience is a given within the narrative. The player joins the action already in progress. As in most fighting games, the ability to save a game and to reset the action is part of the game design. The mechanics of overcoming failure within the game are not trivial to learning the disposition of resilience. This is an extra dimension to an engagement loop. The sequence of success breaks; the player fails in an action. Saving or resetting allows the player to return in time to try again. The premise of *Assassin's Creed* is that a descendent of the assassin is witnessing the event through genetic memory. This anachronistic gimmick explains the narrative break of failure. If the assassin fails, the player's avatar regenerates back in the future to rest, debrief, and try again.

COOPERATION

Cooperation is frequently referred to as a 21st century skill in educational pedagogy (McCall 2011). It underlies teamwork, group work, and collaborations.

Cooperation is a skill requiring practice and instruction just like other skills. Educators are requested to offer more cooperative learning, but when the outcome is schoolwork rather than an authentic problem or engaging interest of the students, the result is often the work of the individual who cares more about the grade than the other group members.

Video games often incorporate cooperation intentionally as part of the game narrative by requiring avatars to cooperate or as part of the game mechanics by connecting players across a network. These are programmed diegetic actions that are seamlessly embedded as game action. Cooperation and engagement build on each other within game play and motivate the player. Numerous volumes provide evidence of beneficial cooperative play in video games (Gee 2007, Squire 2006). Cooperation also occurs in external, non-diegetic ways that empower a culture and society of gaming (Williams and Smith 2007). All of the example games have extensive online forums to which players contribute without tangible reward. Players even create and maintain these websites, as well as hint files and walk-throughs. It is a short step from cooperation to community. Forums for each of these games can be found on Reddit.com, where each community established its own rules of governance for behavior on the site.

This cooperation can arise by using history video games in the classroom. For several years, my world history students have competed to win the most culture points while playing *Civilization*. Even when on solitary missions, even in competition with each other, they will help each other by shouting out tips or explaining the effects of an action. This personal anecdote is just a hint at the extensive lengths that players will go.

The evolution of cooperative play in video games is still ongoing. Massive Multiplayer Role-Playing games (MMORPG) are one genre to incorporate cooperation in

a highly structured manner. Specifically, fantasy-oriented games, such as *Lord of the Rings Online* and *World of Warcraft*, offer missions that cannot be won by a single player. These are played on the personal computer through a proprietary game server. Players can be physically present in the same room on different laptops or players can be on separate continents and interact on screen together. Console games, such as those played on Xbox or PlayStation, also offer cooperative games, such as *Little Big Planet*, *Rayman*, and *Knack*. This is usually the action of two players in the same room using the same console and a single copy of a game, also known as a “couch co-op.” Just recently, game developers of all four game examples have planned expansion of cooperation within gameplay for future episodes.

In the past and current versions of the game examples, however, there are unfortunately few diegetic opportunities to practice cooperation. It is a great flaw in historicized games, especially in war games. It is only in top-selling war games, such as *Call of Duty* and *Battlefield*, that individuals on solitary missions win wars. The assassins of *Assassin's Creed*, despite being a member of an elite brotherhood, rarely interact with their brethren. The missions that are set in the past do not require other assassins. *Assassin's Creed: Black Flag* (published in December 2013) does offer a multiplayer mode, but neither the narrative or the game mechanics have the standard *modus operandi* of other online co-ops. These scenarios are outside the narrative, offered to satisfy market demand for cooperative play. In *Black Flag*, the action of cooperation among avatars is present. Kenway commandeers a ship and directs orders to his crew. In June 2014, Ubisoft, the publisher of *Assassin's Creed*, announced a new feature of cooperative play for up to four players in the next installment of the series, *Unity*. As the

official website states, “Victory won’t be easy; you and your lethal band must rely on communication, coordination, and diverse skills to accomplish your missions, then vanish into the shadows” (Ubisoft 2014). Video of gameplay indicates that players will have to strategize before game play to win these side missions.

In *The Sims Medieval*, the main avatar is the monarch of the small medieval kingdom. Game action depends on appropriate interactions with the non-playing characters (or NPCs, computer-generated characters guided by artificial intelligence). The monarch may choose to ignore his subjects’ requests or advice, but will not succeed (or score highly) in completing quests. In its original form, *The Sims* has been described as an “electronic dollhouse” (Consalvo 2007). However, these dolls are networked to react autonomously to other objects within the game interface as well as the *requests* of the player (Juul 2010). To successfully run the household, all the members of the house must work together to clean, prepare meals, and earn wages. In *The Sims Medieval*, the player activates a king or queen and there are servants for menial tasks. In quests, the monarch must seek out help from various underlings and village people. The NPCs will react poorly if the monarch chooses dictatorial commands or haughty language. Electronic Arts, the publisher of *The Sims*, attempted to run a MMORPG called *The Sims Online*. Its failure is instructive to a game designer of a history video game, especially a MMORPG. The major flaw was the lack of players and/or avatars with which to interact. For a game of cooperative play, there were too few people signed on (Consalvo 2007).

Civilization offers both levels of cooperation among avatars and among players. First, it requires its artificial intelligence citizens to work together. The player commands that cities produce units, or buildings, or Great Wonders. Among players, *Civilization*

can be played in multiplayer mode, replacing artificial intelligence civilizations with those of real people. In either level of cooperation, civilizations can work together to build roads to each other's cities, or establish trade and military alliances. The multiplayer player mode is less predictable.

Total War best promotes the spirit of cooperation of the game examples, even though interacting with real players is not part of gameplay. Battle strategy requires units to interact with each other cooperatively. Individual units may be given separate orders or multiple units representing different types of soldiers can be combined as a group and given the same order. The player may choose to separate his army, but the units must still be coordinated for overall game strategy. For example, it is possible to send the general and some troops off to address a regional threat while leaving other troops to garrison a city or lay siege. *Total War* also has artificial intelligence armies on the field. The narrating voice of the game urges the player to cooperate and assist the allied armies. Without coordination on the battlefield, the game is lost.

Like engagement, cooperation has a quick, observable outcome that may grow into a long-term, deeper trait. Just as engagement will augment resilience, cooperation aids in the development of affiliation within a group. Cooperation feeds the justification for affiliation. Shared experience will develop into a group identity. Affiliation aids cooperation by expanding the notions of who we are. It allows for people to accept dualities and multiple identities in other people. We are all members of multiple groups.

AFFILIATION

Affiliation is the feeling of connection and commonality with other people and groups. Affiliation is strongly tied to identity. It may begin with a sense of belonging,

but will develop into the shaping of one's identity to reinforce the association. Civics education once promoted the melting pot ideal; American students would learn a certain set of historical facts to create an American identity. Multicultural education has modified that to broaden what we consider to be American. Social studies methods have long included simulation as a way to create a closer personal connection. Even students who excel at traditional methods (reading, writing, and listening to lecture) may feel stronger ties of connection through a simulation, because it requires active participation (Barth 1990). As the avatar undergoes constant re-construction, it engages in a social discourse (Waggoner 2009). This discourse directs the player's feelings of affiliation.

Scholars from diverse backgrounds have proposed numerous framings to understand this creation of identity and affiliation within the game environment. James Paul Gee, professor of Literary Studies at Arizona State University, classifies three identity types found within game playing: real, virtual, and projective. The projective identity is the interaction between the real person and the virtual avatar and negotiates a balance between them. The values, beliefs, knowledge, and experiences of the real person and virtual avatar become diffused the longer the game play. For multiplayer games, these identities interact over a region of game play where they share tasks and create knowledge, a "semiotic domain." Affiliation results in an affinity group transcending ability and knowledge levels. The boundaries of the affinity group flex in response to both real and virtual identities (Gee 2007). This is pertinent behavior for a multiplayer history video game. Unlike a classroom environment where knowledge is dispensed in roughly grade level chunks, a history video game will gather people of different levels who will then contribute at individual abilities. Research indicates that

this is typical game behavior (Williams, Hendricks and Winkler 2006, Squire 2006).

Experienced players show a great deal of patience in assisting newcomers. An interest in a game is an entry into an affinity group. Experienced players are motivated to enlarge the size of their affinity group.

Another way to segregate identity and demonstrate how affiliation comes about is by acknowledging that the game player is often a separate, but real identity or role. Identity in this sense is a socially acknowledged role. For example, society might recognize my identity as a teacher as my primary role, but I have other “real” or non-virtual identities as a mother, wife, and student. In video games, the identities are: the “persona” or fantasy self, the “person” or outside self, and the “player” or person who has an expertise in the rules and mechanics of the game (Waskul 2006). The person has made a conscious choice to affiliate within the domain of players, but then also makes choices about affiliations within the game itself. There are two layers of building affiliation common to video games:

- Among “players” who associate beyond the game in discussion forums and social media to learn more about the game.
- Among “persona” who may form long-term guilds or short-term alliances for game quests.

Our four examples, *Civilization*, *Total War*, *The Sims Medieval*, and *Assassin’s Creed*, offer the opportunity to experience different identities and affiliations through a variety of game mechanisms or narratives. The intensity of affiliation varies with each game. This is instructive for game designers who choose to intentionally promote this disposition. *Civilization* begins when the player chooses a non-modifiable avatar that

represents a great leader of a particular culture/civilization. As previously discussed, it is less authentic to radically transform an actual historical person. Regardless of which version of the *Civilization* series is played, the avatar appears infrequently, usually among other culture's avatars in the role of chief of state. There is little game action that would develop affiliation with the main avatar, nor does the player's relationship to the avatar become personal. In fact, the main game mode is adversarial, not affinitive. One player's civilization is pitted against all others. Playing as an individual, all other civilizations are artificial intelligence, but *Civilization* can also be played across computers connected locally or across the Internet through game-based browsers, such as Steam. Forming alliances are possible, but the game mode is still primarily oppositional. Only a very loose connection to the cultural identity of the civilization is developed. The gameplay is not dependent on knowledge of the culture to be successful. For example, Russia may build the Great Wall instead of China. Game action can be exactly the same regardless of which civilization is chosen. When the Great Leader is negotiating with another leader, their interaction is dependent on the conditions of the game rather than their personalities. The affiliation with the culture comes at the very beginning when that civilization is chosen; in other words, the affiliation or interest exists prior to game play.

In *Civilization*, there are two more categories of avatar-like characters to be manipulated besides the great leader, Units and Citizens. The game is played from a "god" perspective. This means that the player indirectly affects the action of these travelers and citizens in an omniscient and omnipotent manner as allowable through the laws of physics within the game. In a "god game," the player directs many miniature avatars that do not acquire personality traits and rarely build skill levels. For example,

Citizens live within a city's boundaries. They merely appear as images and not as animations when viewing a close-up of the city. The player chooses production and tax levels, then the citizens will display emotions based on this treatment. The algorithm is opaque with a purpose. Part of the game challenge is to experiment with how to make the citizens happy. This addresses other components of a history video game, but does not develop a disposition of affiliation.

The other type of miniature avatars in *Civilization* is the Unit – usually workers, scouts, or warriors --and these are always mobile. Each city produces Units one at a time. Over time, cities have the option of producing higher warrior-class characters, from a loincloth-clad, club-carrying brute to a longbowsman to a musketeer and more. “Unique units” are available depending on the culture being played, such as the English Man ‘o War or the Japanese Samurai. Of the Units, only the warriors will acquire higher skill levels after field experience. Although a player directs the movement of the avatars and their functions (road-building or attacking), there is little investment in any one Unit. Cities produce Units as a “product” similar to building a library or a temple. When a Unit “dies” or is captured, it is merely inconvenient to have to make another one. Workers and warriors are disposable, not affiliates. Fans of *Civilization* participate in multiple avenues of affiliation outside the game as players, but within the game, this experience is limited.

In the series, *Total War*, affiliation is to a military unit. Military tradition promotes strong bonds and responsibilities inherent to affiliation. It would seem obvious that the game would use elements of the warrior code of the particular culture depicted to construct affiliation. However, there are nine games within the *Total War* series, so

results vary. Although the warrior code may be mentioned in game dialogue or in game instructions, the game play itself is not dependent on properly applying that code. There are no consequences for behaving dishonorably as defined by that culture.

The purpose of the *Total War* series is to conduct battles using the fighting techniques and troop tactics of the army depicted. The viewing perspective is that of a third person hovering over the battlefield. The player directs a military commander to order troops, which then move as a unified block. Again, the main avatar is not modifiable like *Civilization*'s great leader avatar, but it is present in nearly all aspects of game play. In *Total War: Rome*, the player and his army are referred to as "you," "your general," and "your troops." This builds the identity connection between player and avatars. If a player identifies with the avatar, there is a greater degree of empathy possible resulting in stronger bonds of affiliation with avatar (Mortensen 2007).

However, this interaction is marginal to the purpose of the game. Played individually, there is no opportunity for building a non-virtual affinity group within the game, but across an Internet platform, you can "battle your friends." Like *Civilization*, a large following of fans utilizes Internet forums to share game strategy and triumphs. Nine editions of *Total War* have been published since June 2000. It has a fan base of 25,624 "Warlords" as of June 19, 2014 on Reddit, a highly popular Internet forum. Although the "Redditors" use anonymous online names, many of them hint at or declare university affiliations as undergraduate and graduate students. The moderator has provided long reading lists of history textbooks and monographs to help fellow players succeed. They rationalize the game and applaud its accuracy.

The gameplay of *The Sims Medieval* begins by creating a main avatar, the monarch of a small medieval kingdom. This element of game design guarantees the player has a strong affinity for the main avatar before any action occurs. The player may choose a pre-built male or female monarch and begin the game right away or create a character through an appearance generator. If the player chooses to custom build an avatar, he is beginning a process that serves as an affinity building exercise that links the player to the avatar emotionally. The size of the avatar fills the display screen during this modification, but in the game the avatar shrinks, rendering moot the level of detail applied. This appearance generator mode is available for those players who have a strong desire for personal expression. This action serves no other purpose in the game.

Personal investment in the avatar is made through many design choices. The player “owns” this unique avatar (although not the copyright). The avatar has an overall impression based on skin color, age, weight, and muscle tone. Skin color comes in only ten preset values, but a sliding scale fine-tunes age, weight, and muscle tone. This avatar “speaks” independently of player in the peculiar Sims language (resembles emotional mumbling) in a choice of four voice tones. The player also may choose from a large number of preset values that render the shapes of the head, ears, eyes, nose, mouths, but may modify these at certain focus points using a sliding scale. For instance, the eye is available in twenty-four shapes and eight colors, but the player can minutely alter those values by sliding a knob back and forth against a linear scale to adjust the brow, eyelid, or shape. Just using preset values alone, there are almost 28 million unique female and 30 million male avatars possible.

To reiterate, none of these physical characteristics will quantitatively affect game action, but personalizing one's avatar affects the qualitative experience of the game. The player's affiliation to the avatar crosses boundaries that the player cannot in real life. The process of creating the avatar prepares the player to suspend disbelief and accept the game as an alternative reality. The player chooses to belong to this world. "The player identifies with the space of possibilities disclosed by the game. The field of possible action is reflectively applied to the self" (de Mul 2005, 260). *The Sims Medieval* is not available as a multiplayer experience, so the practice of affiliation is strictly with the main avatar and his or her subjects.

The action of *Assassin's Creed* is described as a "First Person Shooter" or FPS. It does not necessarily mean shooting a gun, but interacting with some type of weapon or other tool is a requirement. As a function within game design, this is usually the strongest of types of affinity-building devices. In the other three example games, the action is less direct, i.e. the player uses the mouse to select the avatar and move it via an available command. This is more like moving a chess piece or a Barbie doll to complete an action. An FPS game usually offers one of two perspectives – a first-person view, through the eyes of the avatar, or a third-person view, above and behind the avatar. So, instead of moving a chess piece by hand, the player is "inside" or "on the shoulder" of the avatar. The player and avatar have virtually merged. Their continued mutual existence is dependent on learning and training within the game environment. If a chess piece is captured, the game continues, but if the avatar in an FPS dies, the game is over (or restarted).

Game Studies scholars disagree or remain neutral as to which view is a more advanced tool of learning within the game environment. When the voice in text is written in first person, the character will not always be fully revealed by his own words, but the feeling of that character is immediate, close, and personal. A fuller comprehensive character study issues from a third person point of view. It shows how the main character behaves towards and is received by other characters. This view in video games is part of the “design grammar” that contributes to successful learning (Gee 2007, 30). The First-Person Shooter is both subject and object in the grammar of the game sentence. This may explain in part the popularity of *Assassin’s Creed*. *Assassin’s Creed* uses both forms of First-Person Shooter mode depending on the need for learning within the game. The design grammar of this game may be shifted from normal mode (third-person view) to an Eagle’s View (first-person view). The player has to decide how best to experience that game moment. The method of learning is dependent on the use of the game design. If the player were not intimately animating the avatar of *Assassin’s Creed*, the learning experience would not be contingent on the feelings of affinity with the avatar. “Perhaps gamers hope to come to know parts of their self [sic] better through the empathy they experience with their avatar” (Waggoner 2009, 42). The avatar listens and overhears clues in conversations. The avatar picks up and examines an artifact. Learning occurs through the avatar or -- at least simultaneously -- with the avatar. The player does not have prior knowledge to strategize. Immediately applying information to progress the game builds the player’s affiliation to the avatar. In comparison, the “God game” or simulation game will not intermingle the avatar and the player as intensely. In the “God games,” *Civilization* and *Total War*, learning within the game is more traditional—

reading, listening, witnessing, but it occurs on demand, as needed. *Civilization* requires reading the Civlopedia, an encyclopedia accessible within the game, and conversing with the Advisors, AI characters that suggest strategy. *Total War* players can view the historical battle or reenact battles repeatedly until trial and error yields a desired result. *The Sims Medieval* comes closer to providing strong affinity within a game because the social skills of the avatar are tested immediately. There is no manual for each subject with whom the monarch interacts. The First-Person Shooter design structure, despite an unfortunate and sometimes misleading name, is an excellent learning approach.

In all four game examples, learning is promoted through affiliations with the avatars in the game. Associating with other players occurs primarily outside the game on online forums. There is little opportunity to develop affiliations with real people within the games. Research into other video games and related gaming activities, such as live role-playing games (*Dungeons and Dragons*) and collectible strategy card games (*Magic the Gathering*) suggests that cultural and social diversity is not a barrier to affiliation within the gaming culture (Mortensen 2007, Williams, Hendricks and Winkler 2006, Gee 2007). Players tend to focus on game activities and discourage real lives from interrupting the game (Waskul 2006).

An ideal history video game would present multiple pathways to build the disposition of affiliation. Just as *Assassin's Creed* is able to utilize both forms of First Person Shooter, a history video game could offer the best methods of affiliation suitable to that moment in the game. For example, the best time to explore themes such as Material Culture or Technology is while the player is in the mode of the First Person Shooter/first person view. This allows for close scrutiny and manipulation of the object.

Biography and Society/Culture could be handled either in the FPS/third person view or in the semi-autonomous view of a Sims avatar. These views offer the possibility of greater discourse about those complex themes. Learning is the building of identity by comparing self to other through a practice of perspective and choosing affiliation.

FOUR DISPOSITIONS

The vicarious experience of playing a game has a lot in common with re-living history by reading it. For some of us, historical gaming is not necessary. We are already immersed in that vicarious dimension through reading or research, but for many others, gaming provides an active way to bridge the gap. The dynamics of gaming develop four dispositions. Games allow us to succeed in ways unavailable to us in daily life. They provide an avenue for self-actualization. The reader of text or the viewer of film can be passive, but the player of a video game is required to act. If the player does not act, then the game is not in use (Galloway 2006). The history video game designer needs to consciously include the type of actions within gameplay that promote engagement, resilience, cooperation, and affiliation. Great game play employs these actions, because they are useful, productive skills that people enjoy building. Gaming is personal and immediate, affecting students of more diverse learning styles. It is a safer environment, because the prospect of failure has no real-life consequences. Failure is an expectation of gaming. The resilience to move beyond it becomes a habit fostered by engagement. As the dispositions become habits, they become part of the student's identity.

The history video game would be experienced through a historical avatar, such as a demographic archetype of a given time and location. This is a critical difference with other forms of traditional historical learning. Simulation to provide an immersive

experience is a respected method in social studies. A history video game allows that experience to be transported out of the classroom. Designing history video games with the purpose of fostering these dispositions address the same goals that History as Civics education once promoted. The history video game can offer the inspiring stories of history in a modern modality.

CONCLUSION

With fewer college undergraduates enrolling in history courses and more time spent on high stakes testing in K-12, our formal exposure to the examination of the past is on the decline (Guardino 2013-2014, McCall 2011). At the same time, commercially produced video games with an historical theme occupy a large segment of popular culture entertainment. It is possible that video games built on historical premise are popular simply because they have exceptional stories with challenging quests. After all, the territory that the discipline of history runs through is fertile. It is raw material for epistemology, the source of cautionary tales, and the inspiration to endure or achieve. It is also possible that these video games are filling a void for people wanting to know more about the past. Either way, video games bear examination and prescription from history professionals.

The examination of new media, including video games, at the university level has been on the rise, but professors are often in the position of defending their involvement. Dr. Henry Lowood, Stanford University, spearheaded an effort to create a video game canon and preserve both games and their platforms. Until it was adopted by the Library of Congress, “he thought it was closer to professional oblivion than a bold new move into the future” (Chaplin 2007). Nicolas Trepanier, University of Mississippi, relates the very positive, academically rigorous experience of teaching a course on historical representations in video games, but begins the article acknowledging that the initial discussion feels “silly” and ends the article with the caveat that “some will be shocked by the idea of a course on video games in college, and for good reason” (Trepanier 2014). In *Gaming the Past: Using Video Games to Teach Secondary History*, Jeremiah McCall

devotes the entire first chapter to “making the case to administrators, parents, colleagues, and students” (McCall 2011). In the course of writing this thesis, I have questioned whether I should have addressed a more solemn issue. Many people have expressed to me that they thought my thesis was “fun.” This is an important topic because it addresses the future of how we think about the past. With all the barriers and limitations inherent to video games – too violent, too frivolous, too superfluous—the biggest obstacle to producing a history video game is the “alarmingly marginal place that historians take in discussions on the relationships between history and video games” (Trepanier 2014). My goal was to elevate video games by applying both academic and pedagogical language in the discussion in order to help bridge the gap between the reputation of video games and the academic profession.

SUMMARY

I have argued that the study of history and social studies has certain goals and themes and that creating a new video game genre, the history video game, can fulfill some of these. Chapter 1, “Defining the Video Game,” evaluates the video game as a form of text through the bifocal lens of book theory, which combines literary analysis with bibliographical study. Analyzing how video games developed places them within their historical context. An important conclusion for game designers is how the choices they make in representing history are part of a historiographical process. In video games, filling in Wolfgang Iser’s “blanks” go beyond supplying visuals or other context. These blanks allow the player of the game to initiate action, make choices, and experiment with solutions to challenges. The blanks are both necessary and treacherous. The history video game designers have a difficult task in constructing blanks that could only be filled

in with appropriate, accurate historical information. But this is where the player can practice the craft of history, making choices from among a realistic selection. Game industry professionals take themselves and their products as seriously as other professions, possibly more so due to the low position video games hold on Bourdieu's cultural field of production. The absence of expertise in history or social studies on game design teams should be a concern, not just to historians, but also to the game companies.

Chapter 2, "Designing the History Video Game," scrutinizes how certain themes are being used in current popular historicized video games, such as *Civilization* and *Assassin's Creed*. As the evidence of this chapter reveals, these themes are presented in a disconnected manner in commercial games. But then these video games were not purposely designed to incorporate all of the seven social studies themes. In many instances, using off-the-shelf videos in the classroom has become an important supplement to standard curriculum. In my classroom, I have had better success illustrating geographical and economics concepts using *Civilization* than using the provided textbook or its video library. Allowing students the freedom to experiment hands-on with the concepts is invaluable, but it can only work as a supplement to other classroom engagement. In short, even with a very good game, the students need the teacher to link how the themes interact with each other. However, the off-the-shelf video games provide an important example of what is currently possible. If the technology exists to effectively present each of the themes, then with deliberate intention, it is likely that game designers could develop a narrative to incorporate all seven. This is central to developing the new genre of the history video game. Quantifiable themes, such as economics, geography, and the demographic components of biography and

society/culture, are easier to program for experimental simulation type game action. But chronology, material culture, and technology can guide the narrative portion of the game.

Chapter 3, “Achieving Through the History Video Game,” takes a look at how the action of game design builds certain positive dispositions or virtues in the player. The four dispositions that are used most effectively in game design are engagement, resilience, cooperation, and affiliation. Habits are actions. So, for a player to develop habits of a successful person, he must practice them. Interactivity and problem solving characterize video games. They are often set in the narrative of a quest. This is the “situated meaning principle” where “the meanings of signs (words, actions, objects, artifacts, symbols, texts, etc.) are situated in embodied experience” (Gee 2007, 105). When a history video game involves a character that is different from that of the player – time period, gender, socioeconomic status, culture, etc. – then the player will practice a new forced perspective, explore biography, and build affiliation to that character. It is hard to design a classroom experience that could do the same. Other combinations of the fifteen criteria of a history video game also result in an “embodied experience.” Resilience is the most unique disposition that video games excel at teaching. This is directly connected to the psychosocial moratorium that allows for a better learning environment where risk is reduced.

AVATAR AS NEW IDENTITY

Another unique aspect to the video game is the player’s affiliation to an avatar. Affiliation is one disposition that deserves additional discussion. We have many groups in which we belong, some imposed and some chosen. Video games allow us to try on new personalities and explore our own identities through them. The avatar in a history

video game allows the player to experience the action in a dual perspective, that of his real self and that of the created persona within the game. The unfortunately named “First-Person Shooter” is the easiest of all the avatar types to manipulate as a historical character. When the player constructs its appearance, the avatar is an emotional investment in a virtual property.

In role-playing games, such as *Dungeons and Dragons*, the code of conduct expects players to react as their characters not as themselves (Waskul 2006). It takes time to perfect a role in that type of situation, but the cultures of video games and role-playing games are related and sometime include the same people. To shorten the time to perfect a character, the behavior of the video game avatar can be pre-programmed to interact with history as an authentic, period character. Scenarios could be structured so that avatars acting non-historically would not score as high or unlock content. For example, as the player gets accustomed to the advanced movement options in *Assassin's Creed*, the avatar assassin awkwardly lurches through town. The townspeople make snide comments and threaten to call the knights to arrest him. It is imperative to learn how to walk correctly through the digital scene, increasing compliance to certain game actions. An avatar could be used to propel the non-interested student into the middle of action.

ANACHRONISM AS A REFLECTIVE TOOL

Discussed periodically in this thesis, the anachronism is a special condition of historically themed video games. Game technology has just begun to eliminate the non-digenetic elements that distract the player from an immersive virtual historical experience. The gimmick of time travel or other such obviously incorrect device is

necessary to suspend the disbelief of the player. It is such an extreme case of “what if” that it is hard to accept in serious historical representation. This is a limitation to the genre and will likely be an ongoing criticism of it.

Unfortunately this might mean that we overlook the usefulness of the anachronism as a reflective tool. One of the first anachronisms that students in a classroom encounter is simply themselves. They have to take on a perspective wholly out of place with their present knowledge to acquire new historical information. The gimmick of any given game is a transition device. Players will more easily transcend this barrier to historical perspective with a device that is exterior to their identity. Younger students especially need this transition device, because their belief systems, conscience, and identity are still fragile and developing. Allowing for an anachronistic device is one way of constructing a psychosocial moratorium of safe learning.

CALL TO ACTION

As shown, the history video game has great potential for historical learning that is of yet unfulfilled. There exists a chasm between game designers and history professionals that will not be easy to bridge. Game designers are college-educated in a highly technical field that is not widely understood by outside occupations. And so are history professionals. The students and players are asking what is true about the games. Both occupations can take advantage of this is a marketable and teachable moment.

The National Council for the Social Studies issued a “Revised Code of Ethics for the Social Studies Profession” in 2003. One part warns against “the use of materials in ways that do not meet accepted standards of scholarship” and another part encourages the social studies professional to “engage in continued study of the changing world scene and

remain an active student of and a critical participant in society” (National Council for Social Studies 2003). In other words, it is important to require excellent materials used critically, but not to ignore trends. There are many pedagogical research studies that discuss using off-the-shelf commercial games in the classroom. All of them do so in a critical manner to supplement curriculum. But I would argue that there is an implied responsibility to the greater community to improve the video games themselves. For the most part, technology has developed a level of sophistication that it can create valid historical representations worthy of critical and reflective thinking. The social studies professionals foster civic efficacy in the classroom and beyond. This should also extend to video games, which are simply an unconsecrated product of Public History outside of traditional outlets.

Since writing the introduction, my mind has frequently drifted back to the fictitious example of *History Online MMORPG* used in the introduction. This is the game design most likely to be capable of achieving all the criteria suggested to create the history video game. The benefits of such a platform are countless. First, online games may be updated; computer games and console video games may only offer a patch file for glitches within the program, but MMORGs, such as *Lord of the Rings Online* and *World of Warcraft*, frequently issue new worlds and massive quests to their players for free. Not only could errors of authenticity be corrected, but also *History Online MMORPG* could be built slowly in stages, such as eras of time. It is a massive project, but similar ones enjoy success. Players may modify the avatars of other MMORPGs, but the avatars begin as members of guilds or races (dwarves, elves, for example). The players must adhere to a certain set of rules fitting this culture. Depending on one’s

affiliations, certain quests are available. I am imagining a digital map built from the Domesday Book commissioned by William the Conqueror, just as one example, with legions of players joining and interacting as characters within each village. This is one era with one region; there are countless more to envision.

APPENDIX 1: THE SCORECARD

TARGET	0	1	2	3	4	EXPLANATION
Learn History						Build a knowledge base
Practice Perspective						Experience change in perspective in time and space
Experiment with Causation						Understand systems and processes, cause and effect
Biography						Representative examples of human life, or leaders; VIPs
Chronology						Progression of events, trends
Economics						Resource management, Trade, Labor
Geography						Location, place, interaction, movement, region, climate
Material Culture						Items of daily use, clothing, utensils
Society/Culture						Social class, family, patterns, traditions, political systems, legal procedures
Technology						Science and innovations
Affiliation						Identity, semiotic domain, affinity grouping, personal connection
Cooperation						Working together in teams
Engagement						Feedback loop, drive, focus
Resilience						Failure, preparation, attitude
Anachronism						Juxtapositions, obviously out of sequence, gimmick that contrasts authenticity

Scoring Explanation

0	Theme is entirely missing or inaccurate
1	Theme is presented in trivial, superficial manner
2	Theme is available, but as a tangent, can be avoided
3	Theme is incorporated in game play
4	Theme is present in an embodied experience in game play

APPENDIX 2: GAME SCORES

ASSASSIN'S CREED: 33/60

TARGET	0	1	2	3	4	EXPLANATION
Learn History		X				Build a knowledge base
Practice Perspective				X		Experience change in perspective in time and space
Experiment with Causation			X			Understand systems and processes, cause and effect
Biography			X			Representative examples of human life, or leaders; VIPs
Chronology			X			Progression of events, trends
Economics			X			Resource management, Trade, Labor
Geography			X			Location, place, interaction, movement, region, climate
Material Culture			X			Items of daily use, clothing, utensils
Society/Culture		X				Social class, family, patterns, traditions, political systems, legal procedures
Technology		X				Science and innovations
Affiliation				X		Identity, semiotic domain, affinity grouping, personal connection
Cooperation			X			Working together in teams
Engagement				X		Feedback loop, drive, focus
Resilience					X	Failure, preparation, attitude
Anachronism				X		Juxtapositions, obviously out of sequence, gimmick that contrasts authenticity

Scoring Explanation

0	Theme is entirely missing or inaccurate
1	Theme is presented in trivial, superficial manner
2	Theme is available, but as a tangent, can be avoided
3	Theme is incorporated in game play
4	Theme is present in an embodied experience in game play

CIVILIZATION 45/60

TARGET	0	1	2	3	4	EXPLANATION
Learn History			X			Build a knowledge base
Practice Perspective			X			Experience change in perspective in time and space
Experiment with Causation					X	Understand systems and processes, cause and effect
Biography			X			Representative examples of human life, or leaders; VIPs
Chronology					X	Progression of events, trends
Economics					X	Resource management, Trade, Labor
Geography					X	Location, place, interaction, movement, region, climate
Material Culture			X			Items of daily use, clothing, utensils
Society/Culture			X			Social class, family, patterns, traditions, political systems, legal procedures
Technology					X	Science and innovations
Affiliation				X		Identity, semiotic domain, affinity grouping, personal connection
Cooperation			X			Working together in teams
Engagement					X	Feedback loop, drive, focus
Resilience				X		Failure, preparation, attitude
Anachronism				X		Juxtapositions, obviously out of sequence, gimmick that contrasts authenticity

Scoring Explanation

0	Theme is entirely missing or inaccurate
1	Theme is presented in trivial, superficial manner
2	Theme is available, but as a tangent, can be avoided
3	Theme is incorporated in game play
4	Theme is present in an embodied experience in game play

THE SIMS MEDIEVAL 30/60

TARGET	0	1	2	3	4	EXPLANATION
Learn History			X			Build a knowledge base
Practice Perspective				X		Experience change in perspective in time and space
Experiment with Causation			X			Understand systems and processes, cause and effect
Biography			X			Representative examples of human life, or leaders; VIPs
Chronology		X				Progression of events, trends
Economics			X			Resource management, Trade, Labor
Geography			X			Location, place, interaction, movement, region, climate
Material Culture			X			Items of daily use, clothing, utensils
Society/Culture		X				Social class, family, patterns, traditions, political systems, legal procedures
Technology			X			Science and innovations
Affiliation					X	Identity, semiotic domain, affinity grouping, personal connection
Cooperation		X				Working together in teams
Engagement					X	Feedback loop, drive, focus
Resilience			X			Failure, preparation, attitude
Anachronism	X					Juxtapositions, obviously out of sequence, gimmick that contrasts authenticity

Scoring Explanation

0	Theme is entirely missing or inaccurate
1	Theme is presented in trivial, superficial manner
2	Theme is available, but as a tangent, can be avoided
3	Theme is incorporated in game play
4	Theme is present in an embodied experience in game play

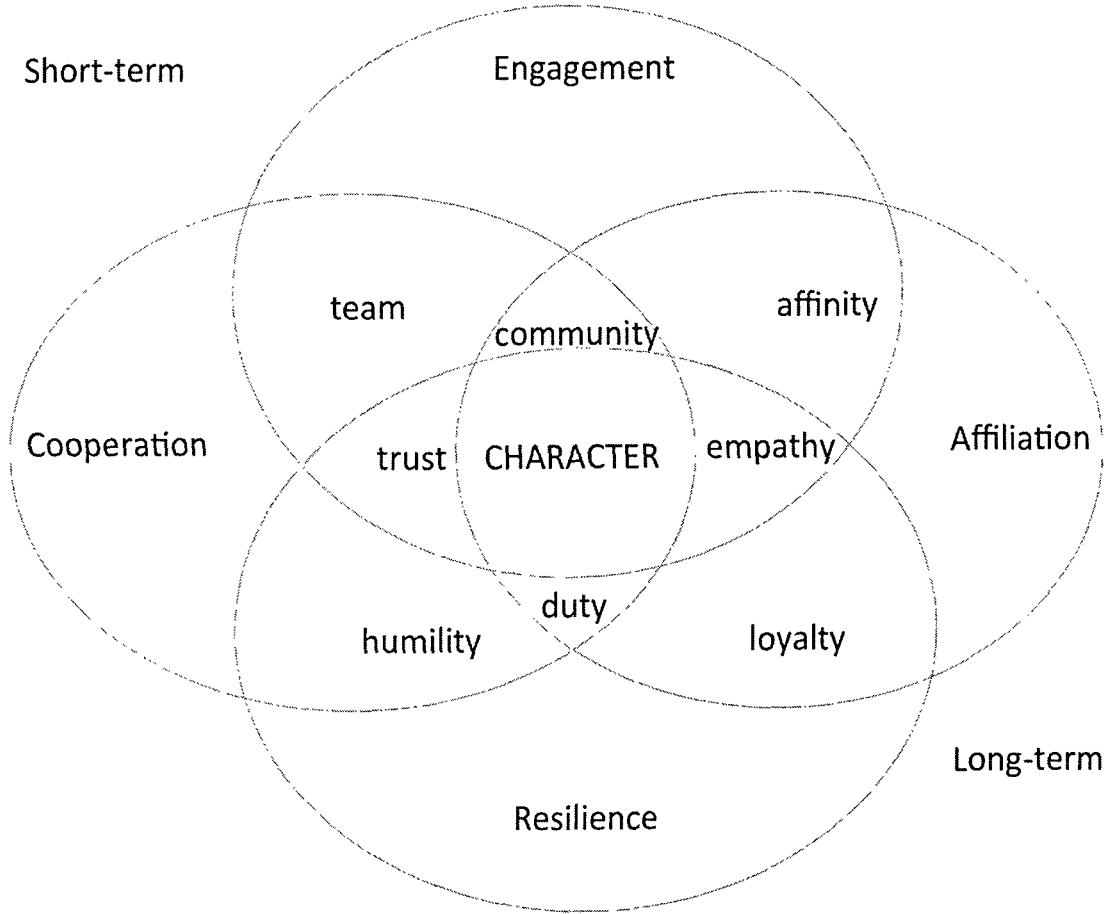
TOTAL WAR 40/60

TARGET	0	1	2	3	4	EXPLANATION
Learn History				X		Build a knowledge base
Practice Perspective			X			Experience change in perspective in time and space
Experiment with Causation					X	Understand systems and processes, cause and effect
Biography				X		Representative examples of human life, or leaders; VIPs
Chronology				X		Progression of events, trends
Economics				X		Resource management, Trade, Labor
Geography					X	Location, place, interaction, movement, region, climate
Material Culture			X			Items of daily use, clothing, utensils
Society/Culture			X			Social class, family, patterns, traditions, political systems, legal procedures
Technology				X		Science and innovations
Affiliation				X		Identity, semiotic domain, affinity grouping, personal connection
Cooperation				X		Working together in teams
Engagement			X			Feedback loop, drive, focus
Resilience				X		Failure, preparation, attitude
Anachronism	X					Juxtapositions, obviously out of sequence, gimmick that contrasts authenticity

Scoring Explanation

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2	Theme is available, but as a tangent, can be avoided
3	Theme is incorporated in game play
4	Theme is present in an embodied experience in game play

APPENDIX 3: CONCEPTUAL TOOL FOR CIVIC DISPOSITIONS



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