

Teaching History With Digital Historical Games: An Introduction to the Field and Best Practices

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Abstract

Background: Writing about the theory and best practices of using history-themed video games in the classroom stretches back at least to the 1980s. However, the literature on the subject is scattered, making it difficult for history educators considering the use of historical games.

Purpose: This article provides an introduction for history educators to the use of computer-based historical games in history education. In this article, I provide differing definitions for types of historical games and discuss the importance of such distinctions for the history educator. I provide the strengths and biases inherent in the medium of computer-based historical games.

Results: This article surveys best practices from the literature concerning the use of historical games in history class. The article concludes with a brief survey of potentially useful historical games.

Keywords

computer games, counterfactual history, digital games, games and learning, historical games, historical simulation games, historical simulations, history, history education, history games, history simulations, history teaching, video games

History-themed games and simulations have been employed in the classroom for more than 50 years (Chin, Dukes, & Gamson, 2009; Duke, 2000; Stasz, 1995) and the use of history-themed video games as tools in the classroom has developed more steadily over

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the past few decades (Corbeil, 2011). Such video games, though sharing many features with their pen-and-paper relatives, have some important distinctions. The processing power of the computer generally allows for more complicated representations of reality, and digital games enable effective solitaire play. In addition, many of the historical video games employed in history classes today—*CIVILIZATION* the best known among them—are designed for entertainment purposes rather than educational purposes, making their adoption in classrooms a bit trickier. It makes sense that a distinct and significant body of literature exists about the theory and best practices of using history-themed video games in the history classroom, stretching back at least to the 1980s. The literature on the subject, however, is scattered. Weaving together different strands on the use of digital historical games in history, this article provides an introduction to the field that may be useful for history educators. It serves not as an exhaustive list of scholarship related to historical games but rather an introduction to certain aspects:

- the medium of digital historical games, especially commercial games, and its portrayal of the past;
- how such games may be effectively employed in classes;
- current best practices for educators using digital historical games;
- the kinds of video games that exist and can be used in history classes.

In short, this article will guide educators considering integrating digital historical games in the history class.

What Is a Historical Game?

Considered broadly enough, most video game worlds, even fantasy ones, reference real-world history and mythology for enrichment (MacCallum-Stewart & Parsler, 2007). Even video games that more directly reference real-world history vary greatly in how they do so. These variations depend often upon the genre of the game, and game genres, in turn, are generally based on the mechanics of play. MacCallum-Stewart and Parsler (2007) suggested that setting, not mechanics, should determine whether a game can be termed historical. For them, a historical game simply “has to begin at a clear point in real-world history and that history has to have a manifest effect on the nature of the game experience” (p. 204).

However, this broad definition still leaves educators with very different types of games that draw from and connect to the past in very different ways. Some examples that illustrate this breadth and will be useful for further discussion include:

The ASSASSIN’S CREED series (2007-2015)
CALL OF DUTY: WORLD AT WAR (2008)
MISSION U.S. (2010-2015)
SID MEIER’S CIVILIZATION (1991-2014)
TOTAL WAR series (2000-2015)
War-games by John Tiller Software.

ASSASSIN'S CREED is a series of third person action/adventure games set in historical periods and environments ranging from Renaissance Rome and Colonial Boston, to Revolutionary Paris. The player takes the role of an assassin belonging to a secret order. She must navigate her character through the simulated environments and attempt to make her kills cleanly and without detection. The third-person perspective allows the player to see the character onscreen interacting—under player control—with the game world. The setting certainly has a *manifest effect* on the game experience as ASSASSIN'S CREED is often praised for its lavish use of authentic period architecture, clothing, and characters. The player travels by way of reconstructed streets and rooftops from historical cities and can even converse with certain historical figures. Indeed, the designers take pride in the inclusion of many accurate historical details in the game. However, the core role of the player is not fundamentally historical. That is, it does not refer to any real-world counterpart, a role documented by the available historical evidence.

CALL OF DUTY: WORLD AT WAR is a first-person shooter set in the Pacific Theater of the Second World War. The player initially takes the role of a U.S. soldier and must fight alongside other computer- or player-controlled U.S. soldiers against computer- or player-controlled opponents, in this case from the Imperial Japanese army. As in all first-person games, the player does not see his character onscreen but rather sees what his character sees. The historical setting refers to the real-world Pacific Theater, and the designers intend the weapons, clothing, *etc.* to be reasonable recreations of their historical counterparts (Lauritzen, 2008). Fantasy elements in the game range from the player's spontaneous regeneration of health, the map display with real time updates of the location of enemies, and the abundance of special weapons lying on the battlefield, all of which the player is competent to fire. The player, in a real sense, takes on the persona of a hero from an old war movie, almost single-handedly defeating dozens, if not hundreds, of enemies, a phenomenon observable in other first-person games set in World War 2 (Campbell, 2008). Still, the core player role, though in some ways fantastical, is essentially historical in a way that ASSASSIN'S CREED is not. Where the latter focuses play on an unhistorical agent, a secret assassin, CALL OF DUTY refers to a historical agent—an infantry soldier in the Second World War—despite the fantastical treatment.

The first and third-person adventure games in the MISSION U.S. series are similar in some ways to ASSASSIN'S CREED and CALL OF DUTY, in that the player takes on the role of an individual character. Like CALL OF DUTY the characters mirror historical agents. In the first episode, the player takes the role of an apprenticed Boston printer, in the second a young enslaved girl, in the third a Cheyenne youth, and in the fourth a young Russian Jewish immigrant to the United States. Clearly showing it was designed to educate, gameplay consists primarily of interacting with various historically authentic characters and making basic decisions that affect the outcome of the player character's in-game narrative but do not meddle with real-world historical outcomes. Unlike CALL OF DUTY, fantastical elements are essentially missing from MISSION U.S.; the player character does not have special powers or access to information.



Figure 1. Assassin's Creed II (©Ubisoft).

SID MEIER'S CIVILIZATION is a very different sort of game from the other three. Instead of taking on the role of a particular character, the player becomes the guide for an entire civilization. In this capacity she decides all manner of things: where to settle cities, what armies to recruit and public buildings to construct, technologies to research and wars to fight. With CIVILIZATION, it is harder to say that the player takes on the role of a historical agent, insofar as the powerful, all-knowing, and impossibly long-lived (up to 6000 years) manager of a civilization has no historical counterpart. Still, the gameplay itself focuses on manipulating variables in a series of interconnected systems that, in a simplified way, mirror some historical aspects of the development of civilizations and some of the decisions leaders in these civilizations faced.

The TOTAL WAR series by Creative Assembly is a hybrid of turn-based and real-time gaming. In the turn-based campaign mode, the player manages an empire or state in settings ranging from ancient Rome and Japan during the Shogunate to early modern Europe. As in CIVILIZATION this consists of managing cities, conducting diplomacy, selecting buildings to construct, levying troops, and so on. When a battle occurs between two armies, however, the game shifts to a real-time mode. Players position their troops on the battlefield and direct units full of individual soldiers to maneuver, attack, and defend against their enemies, all in real time. In a sense, the player is a general but a general with powers and knowledge that are ahistorical, not to mention super-human.

Finally, the war-games by John Tiller Software are highly detailed, turn-based strategy games. Games in this series cover battles and campaigns from the 16th century to the World Wars and even include some *what-if?* conflicts from the Cold War. The player acts as the supreme commander of an army of units represented by counters or miniature figures on a terrain map divided into hexes. Players maneuver units and

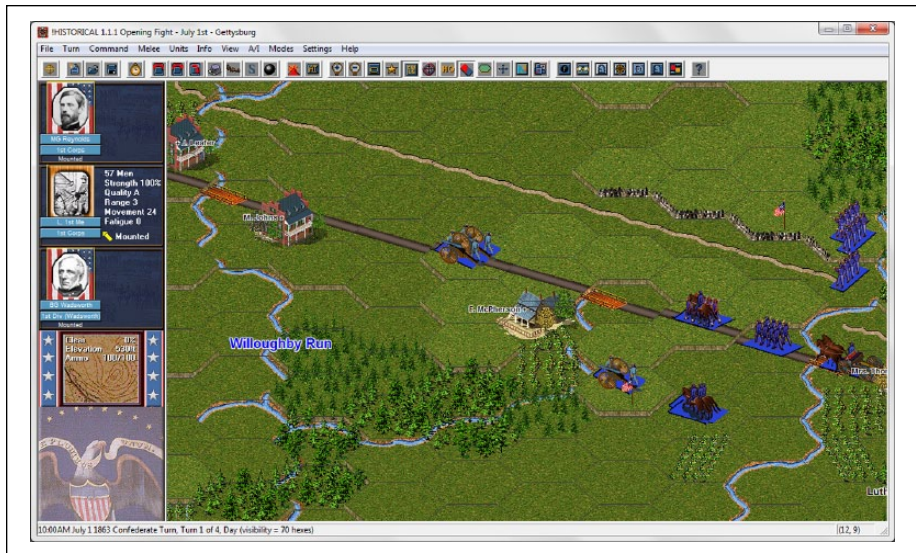


Figure 2. Campaign Gettysburg (Copyright © John Tiller Software – www.johntillersoftware.com).

direct them to fight against the enemy, controlled by another player or the computer. Features such as terrain, supply levels, troop qualities, and weapon-types constrain the player as he attempts to engineer a victory. As with the TOTAL WAR series, the player-general in this game has more information and control than his historical counterpart.

This brief survey illustrates that a wide variety of games fall under MacCallum-Stewart and Parsler's genre of historical games. More has been done, however, to distinguish meaningfully the ways historical games connect to the past and, thereby, guide educators to the types of play experiences that different sorts of games offer. Uricchio usefully positions historical games along a spectrum. On the one end are games that refer to a specific past. These, according to Uricchio (2005), allow "the player to engage in a speculative or 'what if' encounter with a particular past" (p. 328). At the other end of the spectrum are games that are less specific in their historical treatment. These games do not focus on a particular event, says Uricchio (2005), but instead

deal with historical process in a somewhat abstracted or structural manner. Civilization III and the Oregon Trail typify these historically situated games in which a godlike player makes strategic decisions and learns to cope with the consequences, freed from the constraints of historically specific conditions. Although games of this sort also elicit speculative engagement with the past, they tend to be built upon particular visions or theories of long-term historical development. (p. 328)

It could equally well be said that this spectrum ranges from games where the player assumes the role of a discrete individual—the specific games—to those where she takes the role of a more powerful manager with no precise historical analog—characteristic of the so called *god games*. Games like CALL OF DUTY and MISSION U.S., and perhaps all historical first-person and third-person action/adventures, fall on the historically specific side of the spectrum. Their gameplay centers on an individual in a particular set of historical circumstances. Real-time and turn-based strategy games like those in the CIVILIZATION and TOTAL WAR series, on the other hand, fall upon the non-specific side and present a more systemic and abstract presentation of history. Historical games, however, do not always easily categorize this way. John Tiller battle simulations, for example, fall in the middle, placing the player in a godlike position but covering a particular historical event. ASSASSIN’S CREED offers a different problem of classification, where the core gameplay and player role do not actually refer to any particular historical event, process, or role, even though the physical setting is specific, historically researched, and detailed. However, this is a helpful way of looking at historical games in that an educator can consider whether a game can be used to study a particular event or individual or a larger scale set of processes.

Historical Games and Historical Simulation Games

Another way for educators to assess different types of historical games is to consider the differences between games, simulations, and their hybrids, simulation games. Work on defining these terms extends back at least to the 1960s. Definitions of simulations highlight operating models that have a degree of verisimilitude but are simplified (Blaga, 1979; Joyce, 1974; Marsh, 1981; Ochoa, 1969; Vowinkel, 2009). Sauv  , Renaud, Kaufman, and Marquis (2007) review recent scholarship—from 1998 to 2005—and conclude academics have made clear definitions and distinctions between games and simulations in their writing. Wright-Maley (2015), however, argues the opposite: that, in social studies at least, the term simulation is too often conflated with role-plays and games. Fundamentally, however, Wright-Maley seems to agree with the definition of Sauv   *et al.* Games have players engaged in an artificial conflict governed by rules to achieve one or more predetermined goals with some form of quantifiable outcome, *i.e.* winners and losers, scores, *etc.* (Gredler, 1996; Joyce, 1974; Lee, 1994; Salen & Zimmerman, 2003). Simulations, on the other hand, are dynamic—in the sense of their variables being manipulable—and simplified models of reality that have a degree of verisimilitude (Corbeil, 1999; Sauv   *et al.*, 2007; Wright-Maley, 2015). Wright-Maley would go further, however, and suggest that simulations, unlike games, are “pedagogically mediated” (p. 67) in that teachers intend them to be educational in some sense. Arguably, however, though pedagogical mediation is an important part of using a simulation effectively, it is not a feature inherent to simulation games. Still Wright-Maley offers an important reminder that how a teacher uses a simulation game in class matters. Ultimately, the lines between games and simulations are fuzzy to say the least, and more important than the label is the degree to which the system, whether game or simulation, models the past accurately.

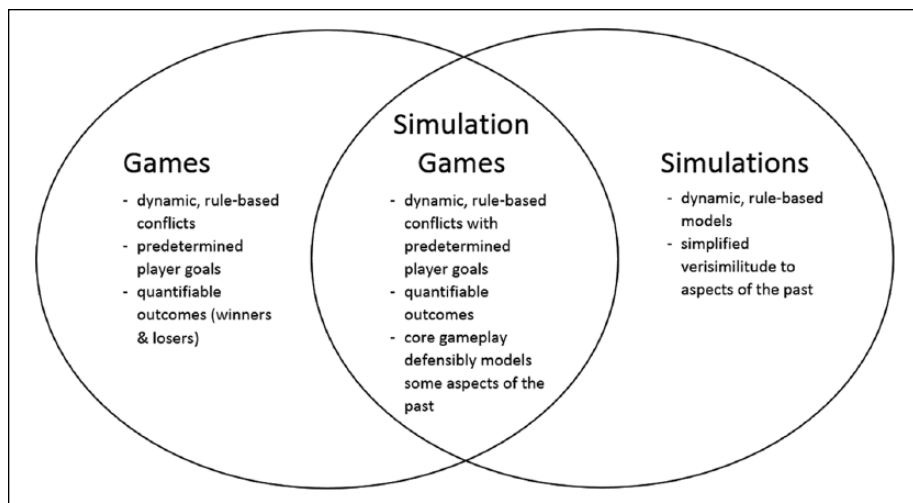


Figure 3. Games, simulations, and simulation games.

Some have attempted to define a middle ground in the gray area between simulations and games, the *simulation game* (Joyce, 1974; Marsh, 1981; Ochoa, 1969). Consistent with Sauv   *et al.* McCall has defined historical simulation games to deal with the ambiguous boundaries between rule-based playable systems that model the past accurately—simulations—and those that do not—games. Historical simulation games, then, occupy that middle ground as games—dynamic, rule-based and quantifiable conflicts—that provide playable models of a historical event, system, or process (McCall, 2011a, 2012f, 2014). This definition, however, still needs tweaking. Though ASSASSIN’S CREED does offer a simulated historical physical setting for the player’s activities, calling it a simulation game may be problematic. McCall (2011a) suggested a defining characteristic of simulation games: “The core gameplay,” of a simulation game “must offer defensible explanatory models of historical systems” (p. 23). Accordingly, some games will be historical but not simulations. They are set in a historically plausible world, but the core gameplay does not simulate real world events, systems, or processes. Edge cases like ASSASSIN’S CREED will arise whenever the defensibility of the core models of a particular simulation game can be debated.

Ultimately, pinning down exact definitions, though often helpful for discussion, is not necessary for educators. Rather it is important to know that:

- A variety of games can be termed historical, and all are not equally appropriate for a given learning task
- These historical games can be distinguished to a certain extent by a more specific or more abstract relationship to particular historical events
- These games can also be distinguished by the extent that their core gameplay models historical processes.

Moving beyond initial definitions, some scholars have explored, theoretically, how historical games mediate the past and the implications of that mediation for understanding history through such games. Among other questions raised are these: How do historical games mediate the past differently than other textual, aural, and visual media, and can historical games legitimately mediate the past in a way satisfying to historians and history educators.

Characteristics of Historical Games—The Role of Choice

In this next stage of discussion our attention will focus on historical games whose core gameplay arguably model aspects of the past. Two features distinguish historical games from other media. The first is that good ones provide what could be called systemic context for human action. They create navigable virtual worlds made up of systems that players can manipulate and explore (Corbeil, 1988; McCall, 2012a, 2012f; Schut, 2007; Squire, 2004, 2011). It is all too easy, especially in history education, to get so wrapped up in the particulars that one forgets historical agents operated within a world of context. Historical games can encourage players to consider that context; the systems, environmental affordances, and constraints of a historical problem space (McCall, 2012a, 2012d, 2012f). They present challenges in terms of limits on resources and actions, the presence of obstacles and, sometimes, antagonists. In this way they can illustrate the systemic context of people in the past, the complicated physical and even ideological milieus in which agents in the past found themselves or, as Taylor (2003) put it, they allow players “to perceive past events and issues as they were experienced by the people of the time, to develop historical empathy as opposed to present-mindedness” (para. 2).

What truly distinguishes historical games from other media like text and film, however, is the role of choice. Historical agents could, by definition, make decisions that affected their lives and those of others. These decisions in turn were influenced by social, cultural, and environmental contexts, the actions of others, and of course, chance events. Historical agents, in short, inhabited historical worlds that, to some extent, shaped their choices. The game, and by extension the historical game, alone among media with the possible exception of hypertext, also allows players choices, and some of those choices at least approximate historical choices. This is an important part of teaching history. Schick pointed this out in 1988: “Objectively, individuals have choices, however limited. Without the element of choice, history does become ‘One damned thing after another’” (p. 21). Accordingly, high quality historical games, with their focus on choice and consequence can be an important part of teaching history.

A number of others have concurred, identifying choice-making as a distinct offering of historical games (Brown, 2008; Corbeil, 1988; McCall, 2011a, 2012f; McClymer, 1987; Schick, 1984, 1985; Schut, 2007). So, for example, John Tiller’s CAMPAIGN series allows the player to decide where, when, and how to employ troops in conflicts ranging from the Civil War to Normandy and beyond. The TOTAL WAR series allows the player to decide how to manage the military, economic, and diplomatic aspects of

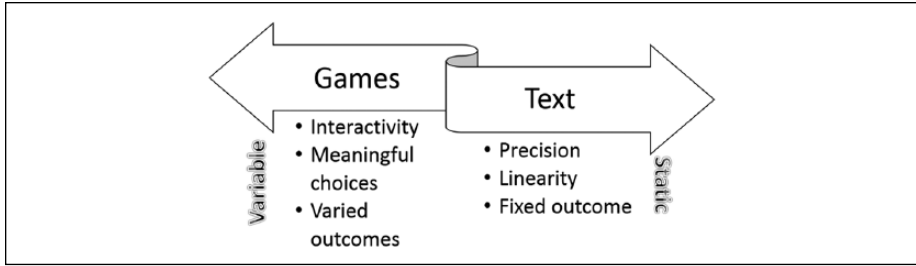


Figure 4. Contrasting media—Games and text.

a historical state, choosing what to trade, with whom to ally, and when and how to fight wars and battles. As a final example, the game *EAST INDIA COMPANY* allows a player, in the role of head of the EIC, to decide where and what to trade with the ports of Africa and India in an effort to generate profits. The replayability of games is also an important part of making choices. Games allow multiple playthroughs with the promise that different choices will lead to different outcomes. In this way they become lab-like, allowing players to explore historical contingency.

The central role of choice within systems and replayability make playing and studying historical games quite complementary to the practice of counterfactual history with its focus on *what if?* (Brown, 2008; Burns, 2002; Corbeil, 1988; MacCallum-Stewart & Parsler, 2007; Schick, 1988; Taylor, 2003; Wainwright, 2014). Essentially, historical games generate the material of counterfactual narratives. The outcome of a simulated situation, if the simulation has enough complexity and offers the player sufficient choice, will often not match what historical evidence suggests actually happened. Therefore the player can consider the differences between the simulated event and the historical evidence. An important argument in favor of educating with historical games is the reality that explaining the historical causes and effects of any event requires counterfactual reasoning. To understand the significance of any historical cause requires supposing on some level what would have happened were that cause non-existent (Ferguson, 1997; McGill, 2007). One cannot, for example, say that slavery was an important cause of the American Civil War without supposing what would have happened were slavery not still practiced in the 1850s.

Uricchio's work (2005) clarified that historical games in general do not represent the past so much as they simulate it. In doing so, they generate counterfactual outcomes.

Unlike a representation, which tends to be fixed in nature, a simulation is a process guided by certain principles. Simulation is capable of generating countless encounters that may subsequently be fixed as representations, fixed, that is as narrative or image or data set summations of a particular simulated encounter; whereas representation does not necessarily generate or include within it simulation . . . A simulation is a machine for producing speculative or conditional representations (p. 333)

So, for example, if a player plays as William the Conqueror in Paradox's *CRUSADER KINGS 2*, he will have control of the counties of England and the Duchy of Normandy. The rest of Europe, North Africa, and West Asia is divided into various kingdoms and subdivided into regions that roughly represent, when known, the political affiliation of these regions c. 1066. Wherever possible, Paradox placed known historical characters into something approaching their known historical roles. The starting point of the game, in short, offers a reasonably historically accurate representation of the geopolitical status of much of Western Eurasia and North Africa. As soon as the game begins to run, the computer AI will make choices for all of the other leaders on the map, hundreds if not thousands in all, while the player makes decisions for William and, when William eventually dies, for his primary heir. The political, familial, military, and economic character of each region on the map will change over time according to player and AI choices and the rules encoded in the game. In such an open-ended world, the player might find 200 years into the game that the geopolitical balance roughly matches what is known of 13th century Europe, but more likely the game will have diverged from what is known of the past. Perhaps William's descendants will be driven from Normandy and the Kingdom of France will unify and come to dominate all of Europe. Perhaps the Muslim states of Spain will have engaged in a reverse Reconquista, driving the Christians out of the land. The possibilities are endless.

Criticism of Historical Games

This portrayal of systems and open-ended situations, along with the presence of choice and thus counterfactual outcomes, however, raises some objections to historical games and their portrayal of the past. History, one might assert, focuses on what happened precisely and why precisely it happened, not what could have happened. Recently, Robison (2013), in an effort to move educators away from simulation-type historical games and toward an entirely different sort of history game, articulated a rather extreme stance against the historicity of simulation games in general.

If a battle proceeds differently in a role-playing situation than it did in actuality—which is almost inevitable—students are not learning history. They may acquire some understanding of strategy and tactics, but if, say, Robert E Lee wins the game version of the Battle of Gettysburg, that teaches students nothing about the real general, the real battle, or the real Civil War (p. 578).

However, it goes too far to suggest that one cannot learn about the past through such means or that one who plays through a counterfactual battle learns nothing about the real one. One cannot fully appreciate the decisions Lee made without knowing about the systems and processes, the context, in which he operated. This is precisely what a valid historical game of Gettysburg, such as *CAMPAIGN GETTYSBURG*, can supply, a better understanding of Lee's motives, successes, and mistakes within the context of the systems in operation. The game suggests what the environment was like



Figure 5. Crusader Kings II (Copyright © 2012 Paradox Interactive AB. www.paradoxplaza.com).

in which actors made choices. It suggests what factors shaped agents' actions and indeed caused some options to be more plausible or desirable than others. In this way the game is an aid to counterfactual reasoning, which is the basis of determining why the past happened the way it did.

Robison's assertion also imposes a false dichotomy by comparing a historical game as a sole instructional aid to a lecture or text. Rather, as this article notes more than once, the merits of a historical game must be considered within a full educational context, as part of a whole set of materials and experiences including teacher instruction, primary and secondary sources, and debriefing opportunities. Why would a student only have the game to learn from? Why would no other historical materials ranging from historical monographs to primary sources be considered alongside the game? It is a misleading proposition to say that a game cannot help one understand history because it does not provide a precise representation of the real-world historical events. The criterion in choosing a game should be whether the learning environment and activities as a whole instill knowledge of the real-world historical events while the possibilities are explored.

What does this debate mean for history educators? Most of all, it is of immediate practical importance that educators consider their working definitions of history; those definitions dictate whether historical games may effectively be used. If history is the study of the past and the exploration of how people lived and died, the possibilities and limitations on action, and the context that shaped past action, historical games become a potentially critical tool. Effective games allow players to experience, virtually, the influence of historical systems on their choices, and to explore and experience the

outcomes of those choices in a virtual world. One can play with the past, trying different strategies and observing the different outcomes that followed. This can be an engaging way to think about historical contingency and historical context. This is also a remedy to viewing history as preordained, a problem often raised by history educators.

If history, however, is primarily the record of the past, an accurate master narrative of sorts that needs to be transmitted to students, the open-ended flexibility of simulation games essentially undermines the enterprise. In Uricchio's words, "history in the rankean sense of '*wie es eigentlich gewesen ist*' ['as it actually was'] is subverted by an insistence on history as a multivalent process subject to many different possibilities, interpretations, and outcomes" (2005, p. 328). If one understands history in any way to have been pre-determined, the historical game—open ended and allowing for a variety of outcomes—has little place. In return for playing with the past, however, one can gain a much richer understanding of why certain possibilities were more likely than others and why actors ultimately did what they did.

Biases of Historical Games

Even proponents of historical games in history education need to be aware that such games, like all media, have problems of interpretation. Indeed, several critical biases are part of the medium. The first and perhaps most important, noted by Schut (2007), is the bias towards presenting history in systematic ways. Because a video game, by definition, must be encoded as a series of inter-related systems, historical games present the past in highly systematic ways or, to put it another way, highly rule-bound ways. What this means in practice, Schut notes, is that

The people modeled in historical games tend to have highly defined roles, the games tend to present the development of history with a clear chain of cause and effect, and any unavoidable nonsystematic elements of life are rendered as inconsequential or random (p. 223)

In addition to the points Schut noted, systematic history reveals itself in video games through a bias toward quantification (McCall, 2011b, 2012f). Computer game models are based on quantification, numbers being the only language a computer really understands. Consequently every resource in a game must be expressed as a quantity. This is unproblematic with resources such as fuel, building materials, and other things that are readily counted. Computer games, however, even express less quantifiable resources, like happiness, as numbers that can be added to or subtracted from.

The clarity of player roles and goals is also a part of systematic history that games tend to deliver (Schut, 2007; see also McCall, 2011b, 2012f; McClymer, 1987). Simulation games tend to have well-defined goals. Through assigned tasks, achievements, and scores, the game tells the player what goals are worth seeking. Though of course the player can reject these goals, doing so often cuts short the play experience.

So, players of historical games generally are clearly aware of their roles, goals, and the rewards for reaching those goals in ways that historical agents were often not. Added to this is the exaggerated access to power and information many games offer players (McCall, 2012f). Carefully designed interfaces provide the player with all sorts of quantifiable information that was not as quickly and easily available to the player character's historical counterparts. In *CIVILIZATION* for example, the player can quickly determine the available resources, military units, and building programs of every city in her civilization by quickly consulting a chart. Issuing orders requires only a mouse-click or two. In *TOTAL WAR* and many John Tiller games, a general can readily determine the fatigue of her troops with a simple mouse-over or glance at the user interface. Orders can be issued with the click of a button to troops that are supposed to be hundreds of yards, if not several miles, apart. In most city builders, like *CIVICITY: ROME*, control over the food supplies of the city is a mouse-click away. The exaggerated power of the player is one of the things that often make games appealing and is closely connected to the systemic portrayal of history.

However, all media come with their own biases that shape the messages they carry. Indeed, the biases of computer games serve as a useful target for students to identify and critique. Many writers have analyzed the assumptions designers encode into their games. *CIVILIZATION*, unsurprisingly, is at the top of the pile with scholars examining everything from its Western bias to its ability to create utopias (Ghys, 2012; Henthorne, 2003; Owens, 2011; Poblocki, 2002). *SID MEIER'S COLONIZATION*, games depicting the American West and those depicting the Second World War have also been considered (Donaldson, 1996; Gish, 2010; Wills, 2008). Several volumes of essays explore a wide variety of intersections between history, the past, and video games including *Playing the Past* (Whalen & Taylor, 2008), *Playing with the Past* (Kapell & Elliott, 2013), *Greek and Roman Games in the Computer Age* (Thorsen, 2013), and *Digital Gaming Re-imagines the Middle Ages* (Kline, 2014). Additionally, PlaythePast.org since 2010 has been a forum for scholars to discuss games and history. Beyond their value to scholars of media studies, all these works help educators grapple with the assumptions promoted by particular games and genres. Equipped with this understanding, educators can better select games and prepare for classroom discussions, reflections, and debriefings about gameplay.

Research and Best Practices for Historical Games in History Education

In the past four decades a number of scholars have discussed how and why to use digital games effectively in the history classroom. Beginning in the 1980s *History Microcomputer Review* took the lead and published a number of articles on the topic. Corbeil (1988) suggested that the use of simulations might urge the rethinking of the discipline of history. According to Corbeil, simulations' great contributions include their ability to immerse players in a historical context and, ideally, mitigate the hindsight that plagues historical interpretations. Schick wrote a number of justifications for using simulations and advice

on how to do so (1984, 1985, 1988). He developed the idea that simulations are powerful for their ability to present the kinds of choices historical agents faced. He also emphasized the contribution counterfactual thinking can make to understanding history. As he put it, "only by looking at the range of choices and isolating the one selected can an understanding of the past be attempted" (1985, p. 5) Of particular value is his contribution to a roundtable (McClymer, 1987) where he articulated, among other points, the importance of integrating simulations into a complete educational experience.

Studies on historical games in history education have increased significantly since then. The 1990s, with the exception of Taylor's discussion of *CIVILIZATION* (1994), were largely silent on the topic of how to use simulation games in history classes, though Corbeil (1999) wrote an article in defense of learning through play and simulations. In the twenty-first century, however, a number of new studies have appeared. One of the most important analyses comes from Squire's unpublished dissertation, "Replaying History" (2004). Squire investigated the use of the game *CIVILIZATION III* with several groups of adolescents to consider how such a game might influence the learning of world history. What Squire found, among many insights, is that the game itself was not the most important variable when evaluating the usefulness of the game-play experience for learning about world history. Rather, what was most important were the kinds of learning communities and learning practices fostered by playing, discussing, critiquing, and expanding upon the game. The game was effective insofar as it could be used to promote inquiry into the historical past. After considerable time and effort were spent learning to play the game, students began to inquire about the past in a variety of ways, "using geography and history as tools for their game, and drawing inferences about social phenomena based on their play" (p. 332). Though different students had different levels of engagement with the game, Squire was impressed by the number and variety of questions about history and geography that the students asked as they strove to understand the game and play it more skillfully.

Egenfeldt-Nielsen's insights are compatible with Squire's. His dissertation (2005) explored the use of Paradox's *EUROPA UNIVERSALIS II* with 72 Danish high school students. Some lessons from these experiences crystallized in a later article (Egenfeldt-Nielsen, 2007). There he categorized the educational use of computer games into three generations that differ in how educators approach using games. The most sophisticated is the third-generation approach that

doesn't exclusively focus on the specific computer game, but looks at the broader process of educational use of computer games. It stresses the key role of providing a social context that facilitates asking the right questions and going the right places. Here the teacher becomes central as facilitator for balancing the educational computer game experience as connected to school, other practices and drawing on other learning. The third generation is less interested in the actual content in computer games, but focus more on the students' engagement with the computer games (2007, p. 275)

This critical point is worth repeating: from an educational perspective, a game's portrayal of the past, more precisely its accurate portrayal, is not nearly as important as the ways the teacher uses the game to foster inquiry and inculcate the practices of

the discipline of history. In brief, this means connecting the historical materials in the game to evidence that historians draw upon and questions that they ask, fostering students' natural historical questions raised by their engagement with the game into a deeper investigation of the past.

A step in articulating how teachers can use games to develop historical thinking is McCall's (2011a) *Gaming the Past*, a book focused on the use of simulation games in history classrooms. The work begins by considering the reasons one might have students play historical simulation games and discusses how to make the case for these games to those in need of convincing. Then discussion shifts to matching game genres and titles to academic standards for history and social studies. Much of the book involves instructional strategies for games in history education and specific types of learning exercises and assessments that can be coupled with simulation games. McCall also drafted a six-part series of blog entries for Teachinghistory.org, guiding teachers through the steps involved for selecting, learning, observing, and debriefing on simulation games in class (McCall, 2011b, 2011c, 2012b, 2012c, 2012d, 2012e).

In addition to the lengthier works of Squire, Egendfeldt-Nielsen, and McCall, a number of case-studies explore particular games in the history classroom. McMichael (2007) related his experiences employing historical games in his *History of Western Civilizations to 1648* course. In various iterations of the course, CIVILIZATION III was the staple game, supplemented by AGE OF EMPIRES II, PATRICIAN II, or EUROPA UNIVERSALIS II. In McMichael's classes these games were essentially treated as texts, and students were given the opportunity to reflect on how these game-texts represent the past. Chief among his objectives was for students to "analyze the way in which the present is connected to the past through the public discourse of the marketplace of videogames," (para. 19) by which he meant not only the marketing of games but the ways that the games connect present to past as interpretative texts.

Weir and Baranowski (2011) examined CIVILIZATION as a tool for teaching about international relations. They investigated how CIVILIZATION models concepts of international relations and historical processes. Finally, they closed with suggestions for employing the game in class, drawing from their own experiences and noted some potential obstacles for implementation. Helpfully, they provided extensive questions for debriefing.

Watson, Mong, and Harris (2010) studied the game MAKING HISTORY in a high school history class. They concluded that the game transformed the class from a teacher-centered model to a student-centered one with high levels of student engagement. They also observed and commented on a number of the strategies the teacher used to implement effectively the game in class.

Alexander (2013), also teaching at the collegiate level, provided a case study of CIVILIZATION IV in a *World History to 1450 CE* course. He hoped to determine whether his students "would demonstrate and be able to articulate a clearer grasp of the broad principles of civilizational growth, development, and decline due to their scenario-based game play" (p. 3). He assessed the success of using CIVILIZATION through a student survey. As a result of the feedback from this survey and his class observations, Alexander shifted the pedagogical goals of his experiment with CIVILIZATION. Rather

than using the game simply as an instructional text, he created opportunities for students to critique the modeling of history in the game, ending the course with a take-home essay on how the game might be made more historically accurate.

Wainwright (2014) discussed in detail his collegiate course, *History in Video Games*, and his goal to use CIVILIZATION IV and other games as a route to studying historiography and grand theories of historical development. He offered an overview of the games' models of the past in light of seven course themes: Game Mechanics, Economics and Environment, Cultural Bias, World Systems and World History, Determinism and Contingency, Combat and Brutality, and Gender. He concluded from informal surveys and observations that the games effectively illustrated complex subjects. He also found it educationally valuable to have students critique each game's models in discussion and writing. Helpfully, Wainwright included his course syllabus, complete with readings from historians and games played and studied.

McCall (2014) provided a case study of ROME: TOTAL WAR and CIVCITY: ROME in a ninth-grade ancient world history class. He used this study to illustrate some extrapolated guidelines for implementing simulation game lessons in history classes. Discussion included the entire process of lesson design from classroom activities to final assessments.

Some note should be made of Devlin-Scherer and Sardone (2010). Though not a case-study of historical simulations in action, the authors studied a group of teacher candidates' attitudes toward the use of simulation games in the history class. As part of their discussion and conclusion, they included some suggestions to help teachers effectively use such games in class.

Finally, though not specifically about digital games, Cicchino (2015) is also worth noting. He investigated the discourse of students engaged in a multi-day exercise playing an analog game that roughly simulated the grand politics and strategy of the major participants in the French and Indian war. Post-tests and delayed post-tests demonstrated that the groups playing the game fared as well on gaining and retaining content knowledge as the groups who received more traditional instruction about the French and Indian War. This finding suggested that game-based learning was a viable form of classroom learning. The heart of the research study, however, analyzed the discourse in which students engaged as they played the game. Classroom dialogue was recorded with video cameras as the groups of students played the game. And so, the recordings captured students engaging in many levels of discourse as they played the game from simple comprehension questions to problem-based critical analysis. He concluded that, in this instance, the game had demonstrated that game-based learning is, "a viable means for promoting critical thinking and learning" (p. 14). Cicchino's insights regarding the potential discourse around in-class games should also hold true for digital games, so long as players have an opportunity to engage in conversation.

A list of best practices can be pulled from these works for effectively using simulation games in history classes. The following list of seven is distilled from the various studies.

1. *Do not expect every student to welcome gaming in history class* (Alexander, 2013; Egenfeldt-Nielsen, 2005; McCall, 2011a; Squire, 2004, 2011).

The proposal to employ a game in the class will likely not be met with the universal enthusiasm of students. Some students will be hesitant and some, perhaps, even opposed to the use of video games in the class. A couple of factors largely feed this reluctance. First, not all students are comfortable with the types of historical simulation games often used in classes. These games tend to be complicated PC strategy games such as *CIVILIZATION* and *EUROPA UNIVERSALIS*. Such games take a significant investment of time and intellectual energy to learn to play and require a different skill set than simple smartphone games. Perhaps most striking, however, is the belief some students have that history is essentially a discipline focused on facts and dates about the past, and a game that does not present those facts and dates cannot really be used to learn history. Related to this last point, some students will simply want to know what “the facts” are for the next test.

Simply put, the reactions of students to a videogame-enriched lesson can vary widely. Because of this it is actually best not to justify the use of a simulation game to students by projecting the fun they will have. Fun, after all, is relative to the individual and is not equivalent to educationally sound. Rather, explain the merits of using a simulation game to study the past, merits that justify the use of the tool, just as good educators do as needed with any tool. It is also a good idea not to set up distinctions between gamers and non-gamers by making statements, for example, such as, “the gamers in class will really enjoy this.” Comments like these can alienate those who do not consider themselves gamers, potentially turning them off from the important learning that can take place through historical games.

2. *Devote time and resources to learning to play* (Alexander, 2013; Corbeil, 2012; Egenfeldt-Nielsen, 2005; McCall, 2011a, 2012e, 2014; Squire, 2004, 2011; Watson et al., 2010; Weir & Baranowski, 2011).

Web games, such as *MISSION U.S.*, are usually designed so that they can be learned in a matter of minutes. Commercial strategy games, however, can take hours to learn the basics of play. A number of researchers who used complex strategy games found that students struggled for some time with the games before eventually learning how to play them. The bottom line is that the teacher needs to allocate the time and resources needed for students to learn to play. Take care not to overestimate how skilled students are with digital technologies. Underestimating the amount of time students will need simply to learn to play one of these games can jeopardize the learning experience: engaging in analysis and evaluation when most students are still learning to play is a recipe for turning students off to the experience.

Ultimately, educators must assess whether the learning curve of a game is steep or shallow and plan accordingly. When a game is complex, direct instruction in gameplay is an effective method of helping students learn to play. Pointing students to tutorials and information online is also helpful as is having more-skilled players assist those who need more time learning the basics of play. However one accomplishes it, the time and support needed to learn to play must be factored into lesson plans.

3. *Encourage active, reflective play: observe, log, and analyze; debrief along the way* (Alexander, 2013; McCall, 2011a, 2012e, 2012f, 2014; McMichael, 2007; Weir & Baranowski, 2011).

Once sufficient time and support have been provided to help students learn to play, play sessions should become more active observation sessions. It is all too easy to immerse oneself in play without reflection, especially reflection about connections between the game and history (Brown, 2008). Keeping play logs can help. Players should begin recording observations about the game and providing a record that can be used later for analysis, evaluation, and debriefing. When it comes to historical simulation games in education, the goal is to promote inquiry and analysis, not simply to play. Pausing to make notes is a critical part of this process. Also note that debriefing, the seventh point in this list, need not be left for the end of the play experience. Instead, the class can valuably conduct partial debriefings as students play in the form of break-out discussion sections or reflective writings, which can be very valuable for learning. Breaking up gameplay with some debriefing is a good strategy.

4. *The teacher serves as an active facilitator, taking advantage of teachable moments* (Brown, 2008; McCall, 2011a, 2012e, 2012f; McClymer, 1987; Schick, 1984; Squire, 2004, 2011; Watson et al., 2010).

The teacher is an active and critical part of any gameplay sessions in class. As students play, the teacher should roam the room, observing game play, and listening to what students say as they play. As students comment about and question historical elements, teachers can provide some information or guiding questions to leverage the game for historical learning. For example, a teacher might ask a student as she plays what she thinks about something currently going on in the game. If a topic of interest comes up during the play sessions, the teacher can prepare and deliver quick direct instruction on the historical background. Squire (2004) refers to these as “just-in-time” lectures, because the information in them is presented at the moment when students’ interest is piqued by game experiences.

5. *Explicitly connect the game to course instruction* (Alexander, 2013; Egenfeldt-Nielsen, 2005; Schick, 1985; Watson et al., 2010).

Though not mentioned as much as some other factors, this is, nevertheless, a very important point. Perhaps ideally, all students would independently form powerful connections between the history studied and the game played. Practically, however, the teacher needs to connect the dots explicitly and often between the game and history. Egenfeldt-Nielsen sums this up: “instruction should aim at making explicit what is implicit” (2005 p. 246). This means teachers should prepare instruction that clearly links the game and its mechanics to important historical concepts. This can be done through specifically designed lectures and also by referring to the game during relevant discussions. Noting areas where the game effectively simulates historical

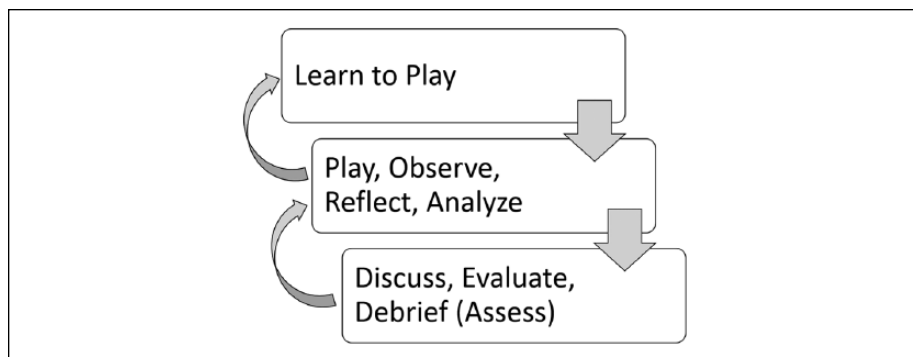


Figure 6. The steps for game-based lessons.

processes and systems and areas where it does not is an important part of the learning. It is important when doing so to guide students explicitly to look beyond the game's surface and consider the systems and rules at work underneath.

6. Treat the game critically as one interpretation out of multiple interpretations considered; integrate the game into a whole learning experience (McCall, 2011a, 2012f, 2014; McClymer, 1987; Squire, 2004, 2011; Wainwright, 2014; Weir & Baranowski, 2011).

A historical game provides only one interpretive point of contact with the past, complete with its own problems. The discipline of history is about working with varied interpretations of the past and developing a strong, evidence-based claim for what happened in the past, why, and to what effect. A historical game really should never be the only interpretation referred to in class. Rather students should compare the game's models to other sources of evidence: primary sources, secondary sources, and the teacher's instruction. Teachers should encourage students to corroborate and contrast the various sources in order to gain skill at doing history and a fuller appreciation for the topics under study.

7. *Discuss, debrief, and evaluate* (Alexander, 2013; Crookall, 2010; McCall, 2011a, 2012b, 2012c, 2014; McClymer, 1987; McMichael, 2007; Wainwright, 2014; Weir & Baranowski, 2011).

In some ways, teaching is the art of getting students to slow down and consider what they might otherwise gladly breeze past. Educators must devote time to making the connections between the game and the historical topics explicit, determining what is accurate and inaccurate. Doing this helps develop skills of historical thinking and a deeper knowledge of the topics discussed. It is critical, therefore, that students debrief and discuss. Done properly, debriefing sessions may even last longer than the gameplay itself. Formats can vary. Students can write brief or long reflection pieces on the game,

or discuss the game in small groups and as a whole class. The debriefing time is a good time to bring up critical questions about the game, especially those that compare the game experience to other historical evidence. As for topics, if the class has treated the simulation game as one of multiple texts interpreting the past, debriefing should move beyond gameplay to a critical evaluation of the game and historical sources.

Conclusion

Digital historical games are a powerful medium for interpreting and engaging the past, one that a number of teachers have found to be useful for the history classroom. Enough work exists about best practices that it is possible to provide some practical guidelines to help educators both new and experienced in the classroom use of simulation games. Key among those practices is the understanding that historical games are texts, interpretations of the past, and therefore should be treated critically by students and teachers. This in turn means that a complete lesson or unit involving a game will involve comparing the game to historical evidence in the form of primary and secondary sources, as well as teacher instruction. Clearly, however, more work is needed. Two areas will be of particular importance for educators. More detailed worked examples of classroom-tested lesson and unit plans, assignments, and assessments involving specific games—and moving beyond the already often-discussed CIVILIZATION series—can provide useful models for educators. Additional studies of how specific games simulate the past complete with the strengths and weaknesses of their simulation will also provide useful analytical material for educators as they design and hone their own classes using games. Most important, however, is simply that educators continue to write and share their own practical experiences with digital historical games to the wider community.

Appendix A

Sample Games

Educators interested in using simulation games need to know what games are available. *Gaming the Past* (McCall, 2011a) provides an extensive list of available history simulation games up to 2010. This final section gives a few brief notes about more promising games and resources, noting some of what is available and, equally importantly, noting the gaps in historical topics treated by games.

While internet-based games can be played on any computer with a suitable web browser, most desktop commercial games, and hence historical games, are designed for PCs. Fewer have Mac-specific versions. A great number of games can be purchased and downloaded digitally. Two main vendors distribute digital-download games. The first is Steam (store.steampowered.com), which requires a client program installed and a separate account set up for each desktop or laptop. Good Old Games (gog.com) specializes in selling older video games that are tweaked to run on more recent Windows (and to a lesser extent Mac) operating systems. A number of other vendors exist for war-games as noted below.

U.S. History has a great number of games available. Several commercial games stand out. COLONIZATION, from the makers of CIVILIZATION, simulates the process of European

colonists settling in the Americas and eventually gaining independence. THE POLITICAL MACHINE 2016 puts the player in the role of campaign manager for a presidential campaign. 270Soft makes a pair of detailed electoral simulations: PRESIDENT FOREVER and CONGRESS INFINITY. Some educators have used ASSASSIN'S CREED III for its treatment of the American Revolutionary War. The game is rated M for mature audiences, however, and will not be appropriate in many school settings. When it comes to freely available web games, many choices are available. MISSION U.S. (mission-us.org), as noted, has created four installments in its series. ICivics (www.icivics.org/games) has a series of games, some simulation, some not, on U.S. Civics topics. Additionally, a host of web games deal with current events that are relevant to a U.S. history class (see below).

CIVILIZATION, now in its fifth iteration, is still probably the best choice for surveying world history. Paradox makes a number of titles that, together, span the period from ca. 800 to 1950: CRUSADER KINGS II, EUROPA UNIVERSALIS IV, VICTORIA II, and HEARTS OF IRON III. Some of the games are quite complex, however, certainly more so than CIVILIZATION. Interested educators should review these games carefully and plan accordingly for teaching students to play. Of the series, CRUSADER KINGS II and EUROPA UNIVERSALIS IV are probably the easiest to play as they have the most polished user interfaces and gameplay. The TOTAL WAR series has several titles covering political and military history in different places and times: ROME: TOTAL WAR (and its sequel TOTAL WAR: ROME II), MEDIEVAL II: TOTAL WAR, EMPIRE: TOTAL WAR, NAPOLEON: TOTAL WAR, TOTAL WAR: SHOGUN II, and TOTAL WAR: ATTILA. As their names suggest, they focus on the military, combining real-time battles with turn based strategic campaigns and empire building.

Some city-builders allow players to construct and manage cities in historical periods. CIVICITY: ROME and GRAND AGES: ROME, as their names suggest, deal with Rome and GRAND AGES: MEDIEVAL with the Middle Ages. PHARAOH and IMMORTAL CITIES: CHILDREN OF THE NILE focus on ancient Egypt. STRONGHOLD and STRONGHOLD CRUSADER focus on manor and castle building in the Middle Ages. TROPICO III, IV, and V put the player in the role of a dictator in a Cold War era Caribbean island-state. Additionally, PATRICIAN IV places the player in the role of a merchant from the Hanseatic League in the Middle Ages.

When it comes to the World Wars, in addition to Paradox's HEARTS OF IRON series, MAKING HISTORY and MAKING HISTORY II by Muzzy Lane provide grand strategy games of international politics and military conflict on the road to World War 2. These are complex strategy games that, nevertheless, can be used effectively in history classes, as noted by Watson et al. (2010). Most recently, Muzzy Lane has published MAKING HISTORY: THE GREAT WAR to cover the period of the First World War.

For contemporary events, something often referred to in the history class, it is well worth visiting the Games for Change site (www.gamesforchange.org). When it comes to current games focused on contemporary events and issues, G4C is a critical resource. It contains descriptions and links to a large number of freely available web games and points to interesting commercial titles too. Topics include conflict, the environment, human rights, and poverty.

Finally, many war-games exist, covering all manner of conflicts and ranging from the strategic to the tactical. Important publishers and distributors are Matrix Games (www.matrixgames.com), Ageod Games (www.ageod.com), Slitherine Games (www.slitherine.com), and John Tiller Software (www.johntillersoftware.com).

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