Gaming history: computer and video games as historical scholarship

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'Gaming History' explores how scholarly computer and video games could be developed to present original historical scholarship and meet the standards of the discipline. Instead of a monograph and the presentation of the history as lineal narrative, the work of the historian could be produced as a video game. Not historical fiction that sacrifices history for story and not a video game that sacrifices history for gameplay, but a video game that presents original research rivaling any great work of history, transforming readers, learners, and viewers into players interacting with history. The video game offers far greater potential for the creation and presentation of history than any other entertainment or interactive media. Although computer and video games may seem to be far removed from the historical narrative, both examine and form points of view about how cultures, economies, polities, and societies function. Ignoring the realities of budget and hiring a game design team, this article will imagine how historical research could be presented as a scholarly game. To explore these issues, the article analyzes key game mechanics and narrative structure in the popular history-based video games: the Assassin's Creed series, the Total War series, Rockstar Games' L.A. Noire and Red Dead Redemption, and Paradox Interactive's Crusader Kings II and Europa Universalis. It also examines Tracy Fullerton's experimental game Walden. In addition, it explores how the game design process could be applied to developing a scholarly game.

Keywords: scholarly games; history-based video games; historical scholarship

Computer and video games offer new ways to present findings from primary source research; explore new paths of inquiry; and enhance the fields of digital humanities, digital history, and virtual heritage. In short, the historian could become the producer of a scholarly game; a game based on original primary source research that forms an argument and provides a close examination of a historical topic. Unlike other entertainment media, videogames allow for the historian to meet scholarly standards. In contemporary computer and video

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games, historical content has proven to be a successful choice for informing game play, developing characters, narratives and settings, establishing game mechanics, and determining strategies. History is so important to contemporary game design that in *The Art of Game* Jesse Schell (2008) recommends aspiring game designers study history.

With a game, the historian can engage research questions, incorporate primary and secondary source evidence, explore historical themes, present a thesis and make historical arguments. Clyde, Hopkins, and Wilkinson (2012) make the case for the scholarly game and establish that the 'gamic mode of history' rather than simulating a scholarly argument becomes the historical argument (6). The historical narrative and the video game both examine and form points of view about how cultures, economies, polities and societies function. The narrative presents arguments about how historical social and cultural systems work in the world as can the scholarly game (8). Video games represent 'the behavior of systems' (Fullerton and Swain 2008a, 57, 2008b, 2008c) and 'make arguments about how social or cultural systems work in the world – or how they could work' (Bogost 2008, 136). Constructing a work of history easily translates into designing games. History like critical play engages participants in questions about human existence (Flanagan 2009).

Increasingly, video games use history to immerse players in historic arts, cityscapes, cultures, landscapes, music, and the act of historical thinking. In education, gaming as pedagogy is eminent across disciplines in both secondary and post-secondary education and historians need to become more engaged in analyzing, developing, and utilizing video games. Games that incorporate and present history content illustrate not only how history informs environments, narratives, game play, mechanics, and strategies, but how original primary source research can become those elements. Developers do a considerable amount of historical research to inform their games and model the environments, and many of the games make historical arguments. The presentation of a historical argument combined with the use of primary source evidence creates a voice of authority in the historically based commercial games. While the commercial games and educational materials do not represent a 'gamic mode of history' or scholarly game, they do offer insight into how the scholarly game can be researched and designed (Clyde, Hopkins, and Wilkinson 2012, 9; Fogu 2009).

Commercial games provide a glimpse of how scholarly inquiry and research may inform the future of video games, both for education and entertainment, as well as how historical research methodologies can inform the iterative design process. They offer examples of how a scholarly game could be constructed blending traditional historical methodologies with game design. These games show the possibility of constructing the virtual environments, mechanics and narrative from historical material. In addition, similarities exist between the iterative design process used to develop computer and videogames, and the process of researching historical scholarship. In spite of the vastly different outcomes, the process of researching and writing historical scholarship is iterative by nature.

The dialogues about the presentation of history in video games and the use of video games for teaching history are well under way. Scholars have explored how representations of history influence a popular understanding of history (Munslow 2007; Snow 2010) and digital humanists urge historians to use video games as primary sources (Antley 2012a, 2012b). Games have been used to question the nature of history itself and the video game can be considered 'a historical mode of expression' (Chapman 2012, 2013, 326). One of the few in-depth discussions of history games by a panel of historians, 'Towards a Theory of Good History Through Gaming,' shows signs that historians may be engaging more seriously in game studies and the use of games as teaching tools (Kee et al. 2009). However, with the exception of Clyde, Hopkins, and Wilkinson (2012), scholars have not assessed the scholarly game.

The edited volume *Playing with the Past: Digital Games and the Simulation of History* represents the most comprehensive analysis to date of 'historical representation,' 'historical simulation,' as well as 'how games advance history' (Kapell and Elliott 2013). Kapell and Elliott argue that 'historical video games allow for an in-depth understanding not just of facts, dates, people, or events, but also of the complex discourse of contingency, conditions, and circumstances, which underpin a genuine understanding of history' (402–409). A must read for analyzing and utilizing history in video games, it offers an overview on the use of historical narrative, the complications of user-generated historical content, and historical authenticity and realism. However, it approaches the topic from the perspective of game studies and does not demonstrate how a historian could develop a scholarly game.

The use of video games to teach history at the secondary school level has a strong body of literature supporting the practice (McCall 2011; McMichael 2007; Squire 2011; Steinkuehler, Squire, and Barab 2014; Watson, Mong, and Harris 2011). One of the most comprehensive examinations of the use of computer and video games in history education involves *Civilization* and research being carried out at the University of Wisconsin-Madison. The Games, Learning and Society group, part of their serious games and meaningful play program has been designing and studying educational activities, and the studies being conducted there show success in engaging students in historical thinking and identifying the 'underlying ideological framework' (Squire 2004, 2006, 2008). Building on this research, they have created an afterschool program CivWorld that develops, researches and supplies curriculum using *Civilization* (Squire, DeVane, and Durga 2008). While this body of recent literature provides the foundation for an academic justification to develop a true scholarly game, the material does not explore the use of historical research to design and develop the games or the presentation of the respective histories in terms of game play, narrative and strategy.

Popular history-based video games such as the *Assassin's Creed* series, the *Total War* series, Rockstar's *L.A. Noire* and *Red Dead Redemption*, and Paradox Interactive's *Crusader Kings II* and the *Europa Universalis* series offer examples of how to create a scholarly video game. Each offers an aspect of potential genres,

means of constructing historical narratives, and ideas for developing historically-based game mechanics. In addition, Tracy Fullerton's experimental game *Walden* about Henry Thoreau's time at Walden Pond offers a unique example of playing a historical moment. In *Playing the Past*, Kapell and Elliott (2013) assess the levels of historical engagement that a video game may possess. Foremost, the player may be a 'historically situated agent' directly engaged in a historical past (322). They also point to Espen Aarseth's dimensions of a game to illustrate other means of historical engagement – 'the gameplay (the players' actions, strategies, and motives'; 'the game world (fictional content, topology. level design, textures, etc.)'; and 'the game structure (the rules of the game, including the simulation rules' (Aarseth 2004; Kapell and Elliott 2013, 330–339).

As a historical game, the turn-based strategy series *Total War* uses history to inform world and system design, game writing, and user interface design. As centuries of table top games demonstrate, battles and military strategies make ideal game mechanics. The events of history determine armor, battles, characters, environments, interactions, maps, rules, settings, resources, and weapon development. Starting with *Shogun: Total War* (2000), Creative Assembly replicated Rome, Medieval Europe, and post-Enlightenment Europe. With feudal Japan as a backdrop, *Shogun: Total War* included interactive videos designed to present the outcome of decisions made by the players. Subsequent games, starting with *Rome: Total War* (2004) introduced free tactical movement across the strategic map, allowing the player to make tactical choices for maneuvering their armies. Their games provide users with real-time tactical battle controls as they play out historical engagements, and menus for choosing equipment and strategies. Creative Assembly does thorough secondary source research and it is reflected in the quality of the games and their loyal fan base. Like *Civilization*, the series certainly offers numerous possibilities for history education.

Set in Medieval Europe, the Middle East and North Africa, *Medieval II: Total War* (2006) and its expansion further developed characters and expanded its scope to include the Mongol and Timurid invasions, the Age of Discovery, and New World colonization. Its expansion went on to include battles at the decline of the Aztec and Mayan empires. In *Medieval II*, religion serves as a game mechanic and players' faction selection defines them as Catholic, Orthodox Christian, or Islamic. A choice of Catholicism creates missions generated by the Pope that the player must complete such as converting, building churches, being called upon to complete a Crusade, and forming alliances with other Catholic factions. The choice of Islam puts the player under the rule of an Imam who in term can require that the player complete a Jihad.

Empire: Total War (2009) set in the eighteenth century took players through Industrialization, North America, the American Revolution, and the colonization of India. With settings in Europe, North Africa, and the Middle East, *Napoleon: Total War* (2010) received acclaim for its visuals and use of story-driven campaigns. Playing as Napoleon or his opposition, players opt for one of three major military campaigns. *Total War: Shogun II* (2011) takes players to sixteenth

century Japan to role-play clans and shoguns. The subsequent *Total War: Shogun II: Fall of the Samurai* (2011) takes place in the late nineteenth century and introduces modern technologies such as railroads and ironclad ships, as well as giving the player control of two armies.

Though the *Total War* series ultimately places game play over historical accuracy, the games demonstrate a range options for the scholarly game (Kapell and Elliott 2013, 382). In addition to military history, the *Total War* series uses political, social, and religious history, as well as historic material culture to determine armor, battles, characters, environments, interactions, maps, rules, settings, resources, and weapon development. The videos introduced with *Shogun: Total War* (2000) offer a means for presenting narrative when game mechanics alone cannot present the information. The games also offers excellent examples of how the historian can present their notes and bibliography in the scholarly game without disruption gameplay. Much like Chicago/Turabian allows historians to communicate like a backchannel twitter conversation at a conference without disrupting the narrative, *Total War* games include 'encyclopedias' that contain historical data on people, events, and military equipment. The series offers an outstanding example of how to develop a scholarly game about nation and empire building, as well as demonstrates how to document sources and present narrative when game play cannot sufficiently convey the scholarship.

Paradox Interactive's grand strategy game series, *Crusader Kings* (2004, 2012) and *Europa Universalis* (2000, 2001, 2007, 2008, 2013), offer cultural and social perspectives on the articulation of historical conflicts. Set in the Middle Ages, *Crusader Kings II* (2012) is a feudal dynasty simulator that allows the player to establish and maintain a medieval dynasty. While the game does not have a historically accurate end goal, it explores historical strategies for achieving and maintaining a feudal dynasty. In pursuit of power over the European and Mediterranean feudal states, players manage their family and their alliances. The game allows players the choice of playing as a range of historical leaders and the game mechanics include alliance building, diplomacy, double crossing, taxation, and strategic marriages (McInnis 2012).

Set in the Renaissance era, the empire building games *Europa Universalis I–IV* allow players to colonize, develop technology, engage in war, explore, and practice diplomacy and trade (Apperley 2013, 4023). A downloadable content expansion for *Europa Universalis IV* (2013) includes a map-generating system that simulates the experience of adventuring into the unknown of the New World. While traveling, maps will be randomly generated and though the maps that the game generates may not be historically accurate, it simulates a historically accurate experience. In other words, like the explorer traveling to the New World relying on a map with limited accuracy, the player ventures into the unknown. Like the *Total War* series, the Paradox Interactive games provide examples of history-based gameplay and game structure.

Ubisoft's historical fiction series the *Assassin's Creed* franchise (2007–2014) reconstructs historic settings and provides players with a glimpse of life during

the Crusades, the Renaissance, the American and French revolutions, and a pirate-occupied Caribbean. The open-world, action-adventure games use diegesis as a user interface to weave tales of historically based fiction with real-time historical events. Above all other historical features, the worlds built for these games illustrate the potential for the scholarly game. As open world games, presenting the character primarily in the third person, they allow the characters free run of historical settings.

The game worlds of the *Assassin's Creed* franchise present a model for developing any historical environment. The games clearly demonstrate the rich historical detail a scholar could offer in a video game (Kapell and Elliott 2013, 3994). The location itself and the details such as the art, architecture, and the more basic aspects of life such as indoor lighting, furniture and utensils put a player into a historical moment. The original *Assassin's Creed* (2007) reconstructs historic Jerusalem, Masyaf, Acre, and Damascus. The Renaissance themed *Assassin's Creed II* (2009) recreates Florence, Forli, San Gimignano, and the Tuscan countryside. *Assassin's Creed: Brotherhood* (2010) and *Assassin's Creed: Revelations* (2011) expanded the Renaissance setting to Rome and Constantinople. *Assassin's Creed III* (2012) takes the player to colonial North America and includes reconstructions of Boston, New York, and 'the frontier.' *Assassin's Creed IV: Black Flag* (2013) allows players to sail throughout the colonial Caribbean islands. *Assassin's Creed Unity* (2014) takes place in Paris during the French Revolution.

The games provide rich historical details about cultures, economies, and societies, from the most basic game elements, such as clothing and weapons to complex economic, political, and social systems. Viewing the street shows street culture at the respective time, how people interacted in public space, and commerce that occurred in public spaces. A trip to an inn or tavern illustrates furniture, utensils, décor as well as what people ate, how they were entertained and how they conducted monetary transactions. *Assassin's Creed IV: Black Flag's* (2013) simulation of boating uses gameplay to allow meaningful historical investigations of Colonial era nautical exploration, piracy, trade and whaling. *Assassin's Creed Unity* (2014) includes the violent revolutionary mobs roaming the Paris streets. Though often violence based, using hand-to-hand combat, sword play, and in the case of *Assassin's Creed* also planning and carrying out stealth assassinations, the action-adventure genre of games offers an excellent model for game play. In addition, the action-adventure genre can immerse the player in the historical environment providing a sandbox for historical exploration.

Rockstar's *Red Dead Redemption* (2010) and *L.A. Noire* (2011) go beyond just using history as a component to a popular game, primary source historical research informed the game worlds, mechanics and narratives, forming historical spaces (Schut 2007). Rockstar designers, from Rockstar San Diego and Team Bondi, respectively, conducted considerable research for the games and are renowned for accurately reconstructing open world environments. Researchers for *Red Dead Redemption* uncovered new historical insights, and *L.A. Noire* used

real-life crimes and extensive primary source material. Pushing new boundaries in video game narrative and performance, *L.A. Noire* became the first video game shown at the Tribeca Film Festival.

For the film noire inspired action-adventure detective game, *L.A. Noire* (2011) researchers examined upwards of 180,000 images, police records, newspapers and maps to recreate Los Angeles in the 1940s. Based on these findings, gameplay involves crime solving, investigation, hand-to-hand combat, and gun battles. The game dialogue also incorporates historically accurate colloquialisms and slang. For developing the game environments, the developers made extensive use of Robert Earl Spence's aerial photographs from 1918 to 1971 when he photographed California and the American West. His pictures document 'the growth of suburbs and freeways, along with harbors, dams, aircraft plants, and skyscrapers' (Kalambakal 2014). *L.A. Noire* also utilizes advanced capture technology, filming actors to capture realism in the game characters actions, and thus allowed expressions to factor into game play (Edge 2010; Pierce 2010). The use of the 32 cameras to capture actors' facial expression and gestures allows for an 'interrogation mechanic' to be built into the game. Players must read the faces of other characters to judge a suspect's reaction. In theory, this technique offers historians the opportunity to truly present historically accurate characters down to period-specific body language and mannerisms.

Exploring the gap between historical fact and historical myth, *Red Dead Redemption* (2010) offers an example of how historical arguments can be made through video games. The western action-adventure, open-world game explores changes to the USA in the early twentieth century. It creates an argument about the country during this era. It explores issues of cultural, economic, political, and social change, as well as the relations of the USA with Native American communities and Mexico. Set in a fictional American West of 1911, at the border of Texas and Mexico, it depicts the taming of an Old West of lore and shows the area in decline as changes in the twentieth century transform the frontier. *Red Dead Redemption* takes on major themes of the era: the transformation of the country into an urban nation, the Interstate Commerce Clause of 1887, the vast network of railroads, Manifest Destiny, the expansion of electricity to rural areas, and the development of the automobile and aircraft. Ongoing discussions throughout the game explore the expanding of the role of federal government. In addition, the main character, John Marston, experiences the Mexican Revolution of 1910.

Primary research informed that the historical play space aims for accuracy in architecture, characters, landscape, material culture, and, of course, weapons. The designers based characters on real people such as Pearl Taylor Hart, alleged to have been the last individual to have carried out a stage coach robbery, and Tom Horn, legendary western lawman, and researchers even uncovered new primary source evidence while researching the game. The historical narrative about the country depicts technology and the increase in the power of the federal government as forces driving the change. Largely represented in cut away scenes,

these themes help guide the limited story along. Generally, the conversations are driven by the secondary characters and with frequency they comment about the cultural, social, and political changes occurring in the country. The conversations often occur as characters are en route and the player is controlling a horse or wagon. Discussion topics also revolve around changes occurring in the West such as the role of federal government, advances in technology, and changes to the arid landscape brought on by irrigation. Other topics include Native American policy and the idea of manifest destiny, as well as early twentieth century ideas about free enterprise and the use of advertising. Without relying solely on narrative, *Red Dead Redemption* (2010) demonstrates the range of ways that a historian can advance a thesis and argument in a scholarly game.

The experimental game *Walden* (2007), being developed by the University of Southern California Game Director Tracy Fullerton, offers a close look at a historical moment. *Walden* explores the experiences of Henry David Thoreau during his time at Walden Pond between 1845 and 1847. It expands the use of aesthetics and narrative in game play, and uses basic survival and aesthetic experiences as game mechanics. The player lives as Thoreau did, attempting the most basic of survival and immersing oneself in aesthetic appreciation and contemplation. The activities of daily life become the mechanics of game play. Once the player masters survival, they then turn to the more aesthetic and contemplative aspects of life as the game tracks the player's observing time and rewards the player with more vibrant colors as the observing time progresses (Gutsche 2014; Shumway 2014). *Walden* offers an example of how daily life during a historical moment could be translated into a scholarly game.

In the 1930s, when Dutch cultural historian Johan Huizinga wrote that 'play is older than culture,' he likely did not have in mind Xbox 360s, PS3s, and Wiis, yet his words inform twenty-first century game design theory. In *Homo Ludens*, he makes the case that from human play comes the creation of cultures, the forming or meaning, and the learning and transmitting of knowledge. Huizinga's 'playing man' engages in game-like practices and rituals, be it the destruction and violence of war, the organization of societies, or the wrangling of American politics (Huizinga 1938, 1955). While computer and video game theorists use Huizinga's ideas of play, and Huizinga informs contemporary cultural history, US historians have not engaged his ideas. Yet, intrinsically, historians understand the value of play and the design of games, using it routinely in their research and writing of historical scholarship, and some in their teaching methods (Ferguson 2006; Kee et al. 2009; Squire 2004, 2008).

As the work on history video games shows, a game used as a teaching tool does not represent a scholarly game. Certainly more sophisticated games and simulations will be created for educational purposes. It is easy to envision the sandbox of a historical epoch, an open-world learning play space of peoples, nation, civilization, or a moment, a simulation of each detail of the environment, the material culture, and life's necessities. The gameplay could be the needs, the wants, the hardships, and the social, political, musical, economic, creative, and

artistic manner in which the population in that moment, in that culture and society, on that land mass went through. For instance, the first year college American History survey course could be developed as a sandbox video game and students could play their lessons. However, such an endeavor represents history informing games and not a 'gamic mode of history' (Clyde, Hopkins, and Wilkinson 2012).

Scholarly games would ground the design process in the historical goals, objectives, or perspective. The mechanics can be drawn from the cultural, economic, political, and social questions being asked, as well as material culture, man-made and natural environments, and the rules can have a context within the historical questions (Frasca 2003; Uricchio 2005). The games discussed demonstrate the possibilities for recreating every level of a historical space and integrating history beyond merely dressing up mechanics with historical aesthetics and dynamics (LeBlanc 2006). However, translating the information that goes into a historical monograph presents the challenge of not allowing gameplay or story to trump scholarship.

Within the scholarly game, the objects, the interfaces, the settings, and the mechanics can portray extremely detailed historical information. The characters can be based on historical figures, not just prominent figures, but also representations of any type of citizenry from a given historical moment. The history under analysis can determine the rules or the rules can serve as a way to demonstrate to the player the nature of the historic moment, events, or epoch. A good game requires good mechanics which present the scholar with problems of narratology versus ludoulogy. The scholar must convey the relevant historical narrative while putting gameplay at the center of the design process. In a developing a game, gameplay takes precedence over story and this factor becomes more complicated when historical fact must come before game mechanics.

A review of Jesse Schell's *The Art of Game Design: A Book of Lenses* (2008) demonstrates how game design could be translated into scholarly game design. Schell points to key elements for a successful game and poses a series of questions related to the design process that illustrates how a scholarly game could be constructed. Schell points to 'two simple steps to using a theme to strengthen the power of your game's experience,' foremost determining the theme and then using 'every means possible to reinforce that theme' (49). In the case of the scholarly game, the theme would extend to developing a clear thesis and historical argument. Then, like the game designer ensuring all aspects of the game reinforce the theme, the historian would construct the game so as to reinforce their thesis and argument. For instance, *Red Dead Redemption* (2010) constructs an argument about crime and lawlessness resulting from the tension of America's closing frontier.

Schell (2008) points to four basic elements that must be kept in balance – mechanics, story, aesthetics, and technology (41–43). In designing the scholarly game, these translate into your historically based mechanics, historical narrative,

and historically accurate aesthetics, the battle mechanics of the *Total War* series, the crimes of *L.A. Noire*, the narrative of Thoreau's time at Walden Pond or the historically rich environments of the *Assassin's Creed* series. Then of course, the technology must be appropriate for the construction of the game, as well as the gameplay for intended audience. In the case of historians, more than likely the games should be designed for PC as historians more than likely use computers and do not necessarily play Xbox, Wii, or PlayStation.

One stark difference from preparing a scholarly monograph is the relationship to the audience. Historians tend to write for other historians and history students, not to the public, and they do not put the enjoyment of their reader ahead of the scholarship. They consider where they fit into the historiography, how other historians will accept or refute their argument, and how well their thesis holds up, but less so how much pleasure their reader will get. However, with a scholarly game, the player ultimately must remain at the center for game design whether the game is designed only for other historians to play, students, or a public audience. In designing the scholarly game, the historian must assess the relevant primary source material and determine how engaging with it could be most enjoyable.

History can easily dictate the challenges and choices for players in a game (Schell 2008, 179). The major challenge arises from the fact that a game is a 'competition.' This factor easily translates to the context of creating an educational game where the player can be rewarded for acquiring the prerequisite knowledge, but the purpose becomes less evident within the context of the scholarly game (186). Here, *Walden* offers new possibilities about competition. First, the player Thoreau must compete with the forces of nature to survive, and then the competition moves to achieving higher levels of contemplation and aesthetic appreciation.

The historian must determine how they want the player to experience the historical moment, as well as how to make the game enjoyable for the player. As Schell (2008) states, 'a good game designer should always be thinking of the player, and should be an advocate for the player' (106). 'The job of a game,' Schnell argues 'is to give pleasure' and the designer must determine 'the kinds of pleasure your game does and does not provide' (12). The designer should ask 'What experience do I want the player to have?' 'What is essential to that experience?' and 'How can my game capture that essence?' (21). The scholar should ask the following questions: what historical era, time period, theme, turning point, etc. do I want my player to experience? What historical facts are essential to that experience? What historical approach will capture the essence of that historical experience? What historical understanding do I want to leave the player with? Should the game approach the topic as cultural, economic, social, or political history? How should those approaches be balanced and conveyed in terms of mechanics, narrative, and aesthetics? Which approach will best convey the historical experience for the player?

Schell (2008) urges designers to consider the questions that the game will prompt in the players' thinking and consider how to make the player 'care about

these questions' and 'invent even more questions?' (30). For the scholarly game, the historian wants to encourage the player to engage in historical questioning going beyond passively receiving a narrative into actively engaging them in questioning history. According to Schell, the designer must determine the relationship between the 'value in the game and the player's motivations' and ask 'What is valuable to the players in my game? How can I make it more valuable to them? What is the relationship between value in the game and the player's motivations?' (32). The scholar must in turn determine: What is valuable to the historical actors? How do I make it valuable for the players? How do I balance historical value in the game with motivation and value for the player? Every game must present the player with problems to solve (37). The designer of the scholarly game must in turn decide what historical problems the game will ask the player to solve. These problems can range from grand strategy problems presented in games such as the *Total War* franchise, *Crusader Kings*, and *Europa Universalis* to basic human problems such as surviving in the wilderness that the player encounters in *Walden*.

In *Game Design Workshop: A Playcentric Approach to Designing Games*, Fullerton and Swain (2008a, 2008b, 2008c; Fullerton 2008) divide the elements of games into formal and dramatic. The dramatic elements provide 'context to gameplay, overlaying and integrating the formal elements of the system into a meaningful experience,' and offer the historian the opportunity to incorporate the historic theme, actors, and narrative (86). The formal elements include players, objectives, procedures, rules, resources, conflict, boundaries, and outcome. As with Schell, the game experience ultimately rests with the player. The game invites the player to play and the player enters into 'Huizinga's "magic circle"' where 'the rules of games take on a certain power and a certain potential' (49 and 50). Players strive for objectives and these objectives can easily be informed by history. Taken from Fullerton and Swain's list, examples of objectives that could work for the scholarly game both independently and in combination include capture, chase, rescue or escape, construction, exploration, solution, and outwitting (60–64). In achieving the objectives, players are bound by 'the methods of play' and actions that they can 'take to achieve the game objectives.' Also, described by Fullerton and Swain as 'Who does what, where, when, and how?' (66). All questions that can easily translate into historical questions about historical agents, eras, locations, events and actions.

Fullerton and Swain (2008a, 2008b, 2008c) posit that 'rules define game objects and allowable actions by the players' (68). In the scholarly game, the primary sources of the given research topic combined with the thesis and historical argument set the parameters for developing the rules. The development of resources can come organically from the theme or topic at hand. As Fullerton and Swain argue, game resources function much as 'the real world resources . . . that can be used to accomplish certain goals,' assets such as 'natural resources, economic resources, human resources' (72). All of the games discussed provide examples of real-world resources being translated into game resources. While the

developers rely primarily on secondary source material, Rockstar's *L.A. Noire* and *Red Dead Redemption* utilize original primary source research and offer excellent models for translating research into a scholarly game.

In developing the scholarly game, historical thinking and historical research methodologies can inform the design process. Schell (2008) points out that 'A game is its rules,' though with the caveat that 'a game's rules are arrived at gradually and experimentally' (150). This iterative process shares similarities to a historian's research process. The research process for history has play-like and game-like properties. History can be conceived as critical play and the historical research process in inherently game like (Flanagan 2009). When historians research a topic, they ask new questions and take new approaches to explore history. They look for questions not yet asked and new ways to approach historical knowledge. In other words, they create the rules that will govern and guide their research and resource gathering. Then, they embark on gathering as much pertinent information as possible. Though currently archives are working diligently to digitize as much of their holdings as possible, many primary materials cannot be found online and obtaining primary source material can require extensive travel, and thus resource and time management. It can take historians all over the world in search of primary evidence. The while, each source must be documented meticulously.

The historian in their continual attempt to transcend bias in the historical process must allow the evidence to speak for itself. In other words, the questions that initiate the research cannot be allowed to distort what the evidence says (Novick 1988). Thus, as the research process ensues, new questions arise that may require completely different paths and more new questions. At any moment, the historian must be prepared to completely redesign the rules of their research game. Projects may go through many complete redesigns before a historian is done with the research phase. As the resource gathering and adventure ensue, though not too soon so as to bias the process, the historian starts to form a thesis and central argument to connect and explain the historical subject matter. This process may also result in completely having to redesign the research game. Then, once all the evidence is gathered, it must be analyzed and organized, and conclusions must be formed. Finally, the historian faces what amounts to a game of Tetris, piecing together bits of evidence from hundreds to thousands of sources into a narrative. While the output may be different, the process is iterative by nature and can inform design for virtual spaces and video games.

The inherently game-like qualities of historical research, the popularity of history-based video games, the use of games as pedagogical tools, and the movement by game studies to analyze history games point to the possibilities of developing a scholarly game. As with the game design process itself, to fully assess the possibilities, a game must be put into development and iterative research must be used to explore the best practices in translating historical scholarship that meets the standards of the discipline into game play. The video game offers far greater potential for the creation and presentation of history than any other entertainment or interactive media.

Notes on contributor

Dawn Spring is a US historian. Her most recent book is *Advertising in the Age of Persuasion: Building Brand America, 1941–1961* (Palgrave Macmillan, 2011).

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