Klio Stamou, Anna Sotiropoulou, Phivos Mylonas and
Yorghos Voutos

6 A Video Game for Byzantine History – *Akritas*: Playing at the Byzantine Borders

Abstract: Integration of new technologies into the learning process lies among the
objectives of the contemporary educational approach related to historical periods.
Thus, students familiar with the use of technology approach the traditional history
lesson by participating in modern educational games of historical content. To in-
trigue them more into deepening their knowledge in history, we propose a history-
based video game, so that they can familiarize themselves with Byzantine era and
interact with aspects of its everyday life, such as military organization and actual
public administration. The latter will be achieved through digitized copies of
artifacts, so as to endorse and resemble a regular Byzantine life, e.g., as a com-
moner, a soldier, a high-level official, or even an emperor. By participating in
these educational scenarios the students will have the opportunity to acquire direct
knowledge about artifacts placed in Byzantine museums or the architecture of
buildings, e.g., a Byzantine church, a palace or a house. The motivation behind this
educational video game that is based on real cultural data/metadata is the develop-
ment of students' historical thinking and social awareness, and the production of a
valuable teaching tool to make the learning process as appealing as possible.

Introduction – Byzantine history in Greek Schools

Byzantine History has been a topic in Greek schools that usually has been
treated with dismay by both students and teachers. The theocratic spirit of the
Empire, the lack of qualification of teaching history by the teachers, and the
normal dislike of students about the past have all created a vicious cycle mak-
ing this part of history a difficult course to study and teach.

Byzantine history has been taught in Greek primary and secondary educa-
tion as the connecting link between Ancient and Modern Greek history, in three
different grades in primary and secondary education. That is students in the
fifth grade of elementary School (ages 9–10), in the second grade of High
School (ages 13–14), and in the second grade of Lyceum (ages 16–17) are being
taught Byzantine History. Generally, the syllabus starts with a summary of

Roman history, while Constantine's decision to move the capital from Rome to Constantinople marks the beginning of the journey to what Greek students come to know as Byzantium.

The syllabus – which is designed by the Ministry of Education and the ministry-supervised Institute of Educational Policy[1] and must be followed by all educators, is directed mainly to facts, emperors, and battles. In fifth grade of primary school only two of 38 lessons about Byzantine history concern everyday life, while one is about women in the Byzantine society, and six more about art and letters. In High School, Byzantine history is presented in the context of an era starting in 330 and finishing in the eighteenth century. Four of the book's seven chapters are about Byzantine history. The first three present – in chronological order – events, information about the administration, economy, and society, while the fourth takes into account everyday life, literature, art, and science.

Finally, in Lyceum, Byzantine history is presented in the context of the era 565–1815, with four chapters concerning mainly Byzantine history (events, diplomacy, economy, and society), along with some mention of Arab expansion, and Western Medieval Europe. A fifth chapter presents the civilization in Byzantium, Western Mediaeval Europe, Balkans, and Russia and the caliphates.

In order to make Byzantine history more attractive to students – especially those at elementary and high school level – a number of digital approaches have been proposed through "Photodentro"[2] (Tree of light – a Ministry of Education supported repository for digital approaches to courses). Regarding Byzantine History most of the resources are PowerPoint presentations, which are supposed to be used by the teachers during their lectures as to make them more attractive or interesting to the students.

Our proposition gives more power to the student. Elementary and high school students being taught Byzantine history know their way around technology. Most of them own a smartphone or a tablet, or they are using one owned by another family member. They know how to use a PC – computer usage has been included in the curriculum of the first grade in Greek elementary schools – and some of them even have a video–game console like PlayStation[3] or Xbox.[4] Gaming is something normal for them, and they do play medieval oriented games like

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1 "Institute of Educational Policy," accessed May 20, 2021, http://www.iep.edu.gr/en/.

2 "Photodentro – Greek National Aggregator of Educational Content," accessed May 20, 2021, http://photodentro.edu.gr/aggregator/?lang=en.

3 "Playstation," accessed May 20, 2021, https://www.playstation.com/en-us/.

4 "Xbox," accessed May 20, 2021, https://www.xbox.com/en-US.

Age of Empires: Castle Siege,[5] *Clash Royale*,[6] and so forth. The use of video games in teaching history – as we shall show in the following paragraphs – is an established educational method,[7] which promotes the collaboration in the classroom and provokes the interest of the students.

The rest of the chapter is organized as follows. First we give a short presentation of recent works (state of the art) regarding video games technology in educational practice. Next, we present how to integrate video games in the teaching of history, in general. Finally, we shall present the video game we propose and how we expect it will encourage students to study Byzantine History.

Integration of Video Games in the Teaching of History

Good Practices of Teaching Strategies

Over the past four decades, many researchers have discussed how and why to use digital video games effectively in the history classroom. Studies on historical games in history education have increased significantly since then. The 1990s, with the exception of Taylor's discussion of *Civilization*,[8] were largely silent on the use of simulation games in history lessons, although Corbeil[9] wrote an article in defence of learning through play and simulations. However, several new studies have emerged in the twenty-first century. One of the most important analyses comes from Squire's unpublished dissertation, "Replaying History."[10] Squire investigated the use of *Civilization III* with several groups of

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5 *Age of Empires: Castle Siege* (Smoking Gun Interactive Inc., 2014).

6 *Clash Royale* (Supercell, 2016).

7 Marco Rüth and Kai Kaspar, "Commercial Video Games in School Teaching: Two Mixed Methods Case Studies on Students' Reflection Processes," *Frontiers in Psychology* 11, no. 11 (2021): 3802, https://doi.org/10.3389/fpsyg.2020.594013.

8 Tom Taylor, "Using the Simulation 'Civilization' in a World History Course," *History Microcomputer Review* 10, no. 1 (1994): 11–16, http://survey.hshsl.umaryland.edu/?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ493946&site=ehost-live.

9 Pierre Corbeil, "Learning from the Children: Practical and Theoretical Reflections on Playing and Learning," *Simulation and Gaming* 30, no. 2 (1999): 163–80, https://doi.org/10.1177/104687819903000206.

10 K. Squire, "Replaying History: Learning World History through Playing Civilization III," *Indiana University, Indianapolis* (Bloomington, IN: University of Indiana, 2004), http://website.education.wisc.edu/kdsquire/dissertation.html.

teens to examine how such a game could affect the learning of world history. What Squire found, among many pieces of information, is that the game itself was not the most important variable when evaluating the usefulness of the gaming experience for learning world history. Instead, what was most important were the types of learning communities and learning practices cultivated through play, discussion, critique, and expansion of play.

An important reference to how to use digital gaming with historical content comes from educator and researcher McCall and his book *Gaming the Past*.[11] The book focuses on the use of digital games to simulate historical content in classrooms. His research begins with the reasons why one can get students to play historical simulation games and how to engage them with digital games. The book is focused on the educational strategies for the utilization of digital games, in the historical education with specific types of learning exercises.

Utilization of a video game refers to the category of game-based learning, as explained above in the text. Below we present five cases in which, according to McCall,[12] the video game could be used in the teaching of history:

1. **Game Overview:** Introduces students to a critical analysis of games, helping them to think about the limits and possibilities of the video game, while encouraging them to think about how the story is created.
2. **Immersion in the game:** Students immerse themselves through the rules of the game emphasizing causes, consequences, and strategies without focusing on deeper historical analysis.
3. **Exploring a historical problem:** Students contrast primary and secondary sources with assumptions that emerge from the game.
4. **Reflection:** Students discuss the representation of the past unfolding in the game, which can be compared to other visual and non-visual sources. Students can evaluate the existing representations of some games and reflect on why they were created in this way.
5. **Game reliability:** Develops a critical attitude of students towards the game, avoiding comparisons with how the situation really was. A reflection is made on the significance of a historical event.

Recent works indicate that video games are potential motivators for extracurricular learning in history class, by enabling students to experience a given

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11 Jeremiah McCall, *Gaming the Past: Using Video Games to Teach Secondary History*, *Gaming the Past: Using Video Games to Teach Secondary History* (New York: Routledge, 2012), https://doi.org/10.4324/9780203831830.

12 McCall, *Gaming the Past*.

narrative.[13] Furthermore, Metzger and Paxton[14] identified the dangers of subjectivity in the conception of a historical game and highlighted the dangers of a biased representation of the given historical context, an element that is also found in written texts. On the other hand, it is believed that games give enough orientation to empower students' critical engagement with the medium and its content.[15]

Bass[16] proposed a method for games as an interactive mean of teaching medieval history under the notion of enhancing the learning experience. He presented a collection of games that could be utilized in a classroom environment, which offer a narrative for better understanding the medieval era. Moreover, students are challenged to deepen enquiry into specific events and their effects through formal and secondary sources.

Boom et al.[17] argued the idea that historical video games support experiential learning, while students as actors relive the past from the "first person" perspective. Although aggressive behavior is prevalent in most commercial video games, they indicated that several applications offer educational capabilities through specific mediated approaches in a wide variety of contexts and for different audiences.

On the other hand, Fokides, Polydorou, and Mazarakis[18] dealt with the use of modern tools such as smartphones and Google Cardboard[19] compatible devices for history teaching within the high school environment. Essentially, they introduced enjoyable activities into classroom practice under the scope of creating an animating environment for teaching history.

13 Scott Alan Metzger and Richard J. Paxton, "Gaming History: A Framework for What Video Games Teach About the Past," *Theory and Research in Social Education* 44, no. 4 (2016): 532–64, https://doi.org/10.1080/00933104.2016.1208596.

14 Metzger and Paxton.

15 Richard Pfeilstetter, "Gamifying Anthropological Theory Teaching. Critique, Learning and the Video Game Civilization," *Disparidades-Revista De Antropologia* 75, no. 2 (2020).

16 Ian Bass, "The Potential of Video Games for Enhancing Teaching History," *International Journal of Management and Applied Research* 7, no. 3 (2020): 308–18, https://doi.org/10.18646/2056.73.20-022.

17 Krijn H. J. Boom et al., Teaching through Play: Using Video Games as a Platform to Teach about the Past. In: Hageneuer, S (ed.), *Communicating the Past in the Digital Age*. London: Ubiquity Press. DOI: https://doi.org/10.5334/bch.c.

18 Emmanuel Fokides, Eleni Polydorou, and Panos Mazarakis, "Using Google Cardboard Compatible HMDs and Spherical Videos for Teaching History to High School Students," *International Journal of Smart Education and Urban Society* 11, no. 4 (2020): 18–34, https://doi.org/10.4018/ijseus.2020100102.

19 "Google Cardboard," accessed May 20, 2021, https://vr.google.com/cardboard/.

Li[20] argued that game enthusiasts are taking part in a new form of storytelling – an emergent form of public consent – due to their interactions with historical context video games. These games are constructed into a historic field and consequently involve "people as well as nations and communities in the creation of their own histories." More specifically, the issue of historical narrative is to represent the past according to the developers' own means and concerns and allow the player to take part in a constructive dialogue about the past. His research indicated the relation between designer and gamer, in order to collectively shape the historical consciousness of players. The educational practice which can be gained from the pedagogical virtue of historical video games can potentially yield a new generation of public historians.

Hanes and Stoen[21] proposed a model that defines how historical context can be presented in a video game at a content level and demonstrate how it can be applied to the analysis of the content in a commercial historical game. They tried to examine games' mechanics and contents to calculate and explore the educational factors of each commercial computer game. Also, the authors tried to trace non pre-defined learning objectives, making them exploitable in history class by educators as an additional analysis tool to assist in the selection of an appropriate historical context. Furthermore, this method proposed the integration of games along with history classes to assist them in converting real and feasible serious game designs into heritage informational content and learning objectives and vice versa.

The aforementioned works indicate the special scientific interest in the search for the benefits in the pedagogical practice found in games. We gathered a small selection that underlines useful information related to the expert's[22] requirements. The following sections provide an overview of the proposed methodology to the reader that can be applied in different historic backgrounds.

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20 Na Li, "Playing the Past: Historical Video Games as Participatory Public History in China," *Convergence*, 2020, https://doi.org/10.1177/1354856520967606.

21 Laurence Hanes and Robert Stone, "A Model of Heritage Content to Support the Design and Analysis of Video Games for History Education," *Journal of Computers in Education* 6, no. 4 (2019): 587–612, https://doi.org/10.1007/s40692-018-0120-2.

22 Teacher, game designer, scientist or enthusiast.

Creating a Video Game for the Teaching of History

Many video games deal with historical events, creating digital representations which communicate with the players. According to Chapman,[23] historical games have become one of the most widespread and successful forms of public history. Atkins[24] calls video games a "new form of historical text" that is very popular and also promises to change the way history is consumed by the general public. Furthermore, the immense virtual worlds are characteristic to modern computer games, which allow the player to be part of the narrative separately from the words and symbols which exist in written text.[25]

Šisler[26] records his research endeavor by creating a digital game (serious game). He defines a reference framework for creating the game, which aims to address the above issues by incorporating the following five design principles:

1. **Versatility:** Unlike storytelling, digital games are a form of representation that can offer many alternative perspectives.
2. **Authenticity of historical content:** The main challenge of a serious game with historical content is related to authenticity: how can a game whose main advantage is to run and execute procedures and systems deal with real historical memories?
3. **Constructivism:** Players must critically evaluate the gathered information, use social skills and empathy to critically approach the social aspect of history.
4. **Participation:** As Schut[27] argues, most historical digital games focus almost exclusively on politics, economics, and war. Köstlbauer[28] adds that

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23 Adam Chapman, "Is Sid Meier's Civilization History?," *Rethinking History* 17, no. 3 (2013): 312–32, https://doi.org/10.1080/13642529.2013.774719.

24 Bary Atkins, "'History Is Bunk?: Historiographic Barbarism in Civilization' Published as 'La Storia è Un'assurdità: Civilization Come Esempio Di Barbarie Storiografica?,'" in *Civilization: Storie Virtuali, Fantasie Reali*, ed. Matteo Bitanti (Milan: Costa & Nolan, 2005).

25 David Williamson Shaffer et al., "Video Games and the Future of Learning," *Phi Delta Kappan* 87, no. 2 (2005): 105–11, https://doi.org/10.1177/003172170508700205.

26 Vít Šisler, "Procedural Religion: Methodological Reflections on Studying Religion in Video Games," *New Media and Society* 19, no. 1 (2017): 126–41, https://doi.org/10.1177/1461444816649923.

27 Kevin Schut, "Strategic Simulations and Our Past: The Bias of Computer Games in the Presentation of History," *Games and Culture* 2, no. 3 (2007): 213–35, https://doi.org/10.1177/1555412007306202.

28 J. Köstlbauer, "The Strange Attraction of Simulation: Realism, Authenticity, Virtuality," in *Playing with the Past: Digital Games and the Simulation of History*, ed. A. B. R. Elliot and M.W. Kappel (New York, NY: Bloomsbury, 2014), 169–83, https://doi.org/10.5040/9781628928259.ch-011.

many historically inspired digital warfare games exclude aspects such as political casualties or the unintended socio-political and economic long-term consequences of military action. However, in part as an attempt to correct the hegemonic bias of traditional historical research, the discipline of history has expanded its scope to include a wide variety of topics. Engaging players with content that was not edited due to dominant narratives is a challenge for serious games.

5. **Historical context:** Galloway[29] argued that a realistic game must maintain some kind of relevance, for example some kind of environmental fidelity, which translates from the player's social reality to the game environment. Galloway calls it a "necessary agreement" to achieve "realism" in gaming.

Teaching Practices

The didactic practices applied in the digital serious game are not limited to simple citation, decoding texts, and comprehension questions, but push to highlight the opposing views of the main characters (such as Akrites) at the negotiating table and in the field of diplomacy, organization, planning, and in the execution of warfare, with the aim of understanding and discussing their argumentation and logic. For teachers, the digital game is desirable to be an educational tool that motivates students to learn about the history of the Middle Ages, and specifically Byzantine history. The purpose of designing this educational digital game is to stimulate students' critical discussion and willingness to research, as well as to provide a multifaceted perspective on historical events.

The digital game must be useful, provide clear targeting, and necessary or even immediate feedback in order to facilitate the streaming experience. The feedback helps the student to look for better solutions to problems that arise, resulting in the extension of knowledge.[30]

Considering serious games as a type of intentional learning as they are designed with a specific educational goal in mind, Anderson[31] structures this type of learning around four organizational questions:

1. **The learning question:** What should the student learn?

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29 Alexander R. Galloway, "Social Realism in Gaming," *Game Studies* 4, no. 1 (2004), http://www.gamestudies.org/0401/galloway.

30 Šisler, "Procedural Religion."

31 J. B. Anderson, K. J. Swick, and J. Yff, "Service-Learning in Teacher Education: Enhancing the Growth of New Teachers, Their Students, and Communities," in *AACTE* (Washington, DC, 2001), accessed May 21, 2021, http://files.eric.ed.gov/fulltext/ED451167.pdf.

2. **The teaching question:** How should instruction be provided in order to achieve high learning requirements?
3. **The evaluation question:** How should accurate evaluation instruments be designed or selected?
4. **The alignment question:** How should learning, teaching and assessment be balanced?

Game-based Learning is a way of teaching where students explore content learning through digital games, which have predetermined learning outcomes, according to Prensky.[32]

Scenarios and Digital Games

In recent years, the design of educational or teaching scenarios, which concern proposed ways of teaching sections of History, has gradually evolved and been integrated into the teaching practice. A scenario can last more than one teaching hour and is implemented through a series of educational activities, which are parts of the scenario, integrated in either simple or complex form. A typical structure of an educational scenario includes the scenario identity, the scenario implementation framework, the teaching process, and the implementation.

Collaborative scenarios can provide the supportive framework for the teacher to make use of digital games, guiding student interactions. Scenarios can provide the structure and guidance that students need, so that the game experience can help them reap significant cognitive and meta-cognitive benefits, even if the digital game does not actually support some form of collaboration. To this end, we suggest to the teacher the following basic stages of work for the utilization of learning games and the integration of cooperative scenarios in them:

1. **Preparation**
2. **Cooperation**
3. **Reflection**

The benefits of this effort are expected to come primarily from the motivation for increased engagement with the game, which is expected to be enjoyed by student-players. The student will want to play the game in order to experience

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32 Mark Peterson, "Computer Games and Learning," in *Computer Games and Language Learning*, ed. J. Raessens and J. Goldstein (Cambridge, MA: The MIT Press, 2013), 33–50, https://doi.org/10.1057/9781137005175_3.

the interesting emotions that this experience creates. As a consequence, it must activate the cognitive processes required by the learning mechanism, the one integrated in the game. The result is expected to be increased engagement and interaction (students with each other, with the teacher, with the game and the educational material), which will gradually lead to the achievement of essential learning objectives such as:

– **Emergence of the cognitive object** (learning basic / advanced knowledge, familiarity with multiple perspectives / interpretations, connection of knowledge with everyday situations, analysis of strategies, etc.),
– **Development of skills** (self-action for problem solving, cooperation, social interaction (communication), project time planning, search and organization of information, etc.).

However, creating an educational and, at the same time, fun game is not a simple matter. It requires an understanding of human nature and what is really fun for the student group. An additional difficulty is related to the possible contradiction between educational goals and game features. Winning orientation in a game may lead student users not to try strategies they deem inappropriate. This may prevent them from fully investigating the consequences of specific strategies.

Also, the efficiency of learning using games should not be expected to be high if the only thing that will be counted as a learning outcome is the knowledge of the subject. The game is not expected to be as efficient as a traditional form of educational activity, because in the game the student spends time on secondary – but necessary – activities, such as learning instructions and getting acquainted with how to play.

Perhaps the most important design element of a learning or educational digital game is the relationship that the game develops between the scenario and the learning method. The learning method should be aptly integrated in the scenario and gameplay of the game, so that the student learns in their attempt to play the game, without feeling that the learning effort interferes with and interrupts the smooth development of the game. Depending on how successfully this relationship is formed, it can be characterized as Intrinsic, Relevant or Arbitrary.[33]

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33 Michela Bernarducci, *Multimedia for Learning: Methods and Development (3Th Edition) – Book Review*, *European Journal of Education Studies*, vol. 1 (Boston, MA: Pearson Education, 2016), accessed May 21, 2021, http://oapub.org/edu/index.php/ejes/article/view/5/53.

Intrinsic: The most efficient way to design a learning game is when the game script effortlessly activates the learning method, that is the learning elements jump straight out of the scenario, effectively promoting the game. It simply means that the student-player activates the necessary cognitive learning processes, because he feels that this way he will play the game successfully and not because he has to learn something foreign in relation to the game.

Relevant: In many games the learning elements logically influence the development of the game (for example the position of the player on the game board); it is therefore relevant to the scenario, but without being well integrated and springing from the scenario as in the previous case.

Arbitrary: Finally, the relationship is characterized as arbitrary when the learning method seems completely foreign (and therefore arbitrary) in relation to the game scenario.

In the context of creating a digital serious game, it is essential to present the teaching strategies, which are based on the digital game and will be followed in the design of the educational scenarios and consequently the serious game, as their use engages students in alternative forms of learning and satisfies modern learning needs. The utilization of digital games in the teaching of History provides students and teachers with many possibilities in relation to the management of the historical past. Also, in the educational digital game (serious game) the educational goal setting and the playful way of approaching the knowledge coexist with the didactic practices of the game per Mission. On the other hand the role of the teacher is strengthened in the modern educational environment and especially in the case of the digital serious game. It must be emphasized that the teacher assumes the role of the thoughtful-critical teacher, both during the implementation of the activities, which are closely intertwined with the plot, as it develops in the individual missions of the game, and during the reflection of the process.

A Game to Play

What we propose is a video game that will allow students to interact with life in the times of the Byzantine Empire. The students, playing individually or in a group, will start by choosing the era they are going to explore. The options will be the early Byzantine period (330–717), the middle Byzantine period (717–1025), and the later years (1025–1453), as these are defined in the school curriculum.

Subsequently, the students will have to decide the area in which their mission is going to take place: an agricultural area, the borders, Constantinople or another city like Salonica, or the palace. The student's final choice will be the character with whom they will identify. Available characters may be an everyday man, woman or child, as well as a priest, monk or a nun. Characters specific to missions or regions may include merchants, teachers, administrative personnel (tax collecting officers or cabinet members) and military personnel (soldiers or officers), as well as persons like the emperor or the empress (both as a consort and as the titular empress) and the regent.

Depending on the choices the student makes, a number of missions will be available for the student to follow. Depending on their choices the mission may be impossible – for example choosing a monk or a tax collecting officer to play a military mission would probably lead to the failure of the mission and the defeat of the army. This way the student will be able to learn the consequences of their choices, while the mission repetition will allow for the better understanding of the historical facts and issues behind the mission.

Use-case Scenarios

A Woman in the Byzantine Empire

A number of missions would take into account the everyday life of a woman, giving the player the opportunity to play as a woman or a young girl. The woman will have the goal to take care of the household chores and provide her family with their everyday needs, while the girl may be helping her mother. The student will be called to perform certain chores that were normal for an everyday woman: praying, helping around the house, taking care of her children, preparing meals for the family, looking after the elderly, but also getting dressed, using her jewellery and so on. Depending on the region in which the mission takes place the woman will have different chores, as a woman in an agricultural area would have to take part in the cultivation of the land, along with her household, while a woman in one of the Empire's cities will probably have to take care of a small garden.

Meanwhile, choosing a woman that is part of the palace, either as part of the court or even as the empress herself, will mean that a different mission will be at hand. Many things will be the same, as in the case of a commoner, but in this case palace intrigue will also be part of the mission. Diplomacy will thus be part of the mission, presenting yet another aspect of the Byzantine Empire.

During these missions the students will be called to use artifacts which will already be known to them through their lessons. Their teacher may use the web pages of the Museum of Byzantine Culture in Salonica, or the one of the Byzantine and Christian Museum of Athens, in order to introduce the students to the artifacts that will be used in their missions. When such an artifact is chosen, the student may remember the information about it and correctly use it in their mission. Thus, students are immersed into the historical setting by incorporating the authentic scenery of the heritage sites into the game environment.[34]

Ruling the Empire

For the more ambitious students, another scenario of the game will be to play as an emperor, an empress or a regent, the ruler or sovereign. In this case the student will be presented (depending on the time they have chosen) with choices such as going to war, raising taxes, and making diplomatic decisions. In this scenario, the user will have access to information about the person they are impersonating. Also, there will be available information about the allies and enemies of the Byzantine Empire, both to the east and to the west – information that will aid them to better understand the connections and interrelations among Byzantium and the rest of the world at this period of time, and make the appropriate choices in diplomatic dilemmas.

Of course, the choices the student might make in such a scenario won't be infinite. The choices the student will be presented with may change the course of history, providing for a different outcome in certain cases. A battle may not be won, making the student go back and take the mission again, so as to make those choices that will get him or her to the correct outcome.

Fighting for the Empire's Borders

The largest use case is that of the "Akritas," the soldiers whose duty was to defend the Empire's borders. The very word, *Akritas*, originates from the Greek word akri (*ἄκρη*) meaning edge, or border in a wider sense. Akritas is a collective name used to define the soldiers stationed at the borders of the Empire,

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34 Michał Mochocki, "Heritage Sites and Video Games: Questions of Authenticity and Immersion," *Games and Culture* (2021), accessed May 21, 2021, https://doi.org/10.1177/15554120211005369.

those who replaced the Roman Empire's *milites limitaneos*, as well as the inhabitants of the borderland in general. Akrites gained the peak of their importance during the ninth to eleventh centuries, when the expansion of the Caliphate was threatening the Empire. A mixture of military troops and militia (as part of the *Themata* system), they were both soldiers and farmers living in the borders. Soldiers were given land to cultivate and live in it, with their families, with the obligation of defending the borders. Land would be passed to their children, along with the military obligation.

The Akrites were part of folk culture, especially through songs, called the "Akritika" (of the Akrites or of the border), songs that would praise their valor. The epic poem of Digenes Akritas[35] written in the late eleventh to early twelfth century describes the life of the most prominent of the Akrites and is the basis of a number of later folk songs written about Digenes Akritas. The epic poem can be found in six different manuscripts with variations in each one.[36]

Who was Digenes? Vassilios "Digenes" Akritas was not a historical person, but rather one of legends. He was the son of an Arab – the Saracen Amir – who had converted to Christianity to marry Digenes' mother. So Digenes was of two origins, of two races – of two geni – and this gives him his nickname (duo geni – *δύο γένη* – Digenes). He is presented as the best of each race, creating a kind of superhero. His diversity is an advantage, even if he is still a man of his time with all the problems one can imagine, that will surface when creating a video game. For the folk tradition he is a kind of superhero and this provides us with the narrative needed to grab the attention of children who are hooked on Captain America or Spider-Man.

Digenes was sent to defend the borders and performed very well. He lived with his wife somewhere near the Euphrates river, on the "farm," while he completed a number of deeds he had to perform. He started with killing two bears and a lion at the age of 12 (long before meeting his wife). When his father-in-law (a general) didn't accept him, he abducted his favorite daughter and managed to defeat her father's army, and after their marriage he protected her from a number of dangers (animals and persons) and of course he protected the borders.

Local legend has it that he was in charge of protecting the islands of Cyprus and Crete, so he would leap from mainland (Asia) to Cyprus, and then Crete, to take care of Saracens who might be trying to invade. His handprint was said to be imprinted on the Cyprus' mountain, when he fell, granting its name Pentadaktylos (five fingers) and his footprint is said to be on the Psiloritis mountain of Crete.

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35 John Mavrogordato, ed., *Digenes Akritas* (Oxford: Oxford University Press, 1970), https://archive.org/details/DigenesAkritesGreekEnglish.

36 Eliso Elizbarashvili, "The Formation of a Hero in *Digenes Akrites*," *Byzantine Studies* 50, no. Bristol (2010): 437–60.

The legend provides us with more than enough stories to add into our narrative, with the best of all being his fight with Death: the only fight that Digenes lost. The story cannot be found in the epic poem, but variations of it can be found in different folk songs both of Cyprus and mainland Greece. And this will be one fight that we expect to be thoroughly used and fought in our game. After all who wouldn't like to fight with Death and win?

Having all this information, this narrative, so many missions can be made available for the student to choose. The student will enter the game and they will have to choose from a number of Akrites to play as. There is always the question of how to deal with diversity, how a feminine Akrites would fit in this very much masculine role. There is the possibility to allow for a feminine hero, based on the modern Greek meaning of the word Akritas: both male and female inhabitants of borders. Having this in mind, a woman living in the borders may well be one of the options presented to the student. Another kind of mission that the student might also choose to play with may be the narrative of an "akritiko" song, that is try to recreate the story the song narrates.

As the Akrites were at the time both farmers and soldiers, another mission may be a fully peaceful one. The student may decide to have their hero cultivate the land and manage the farm. The hero's mission would not be to defend the borders, but to provide for their family, and take care of the farm and every day chores. A battle happens even in the fully peaceful mode, as invasions were something expected in the life in the borders of the Byzantine Empire. The student would be able to choose to decline a battle, if they did not want to participate. This mission would have the option to continue, even without the battle. Of course cultivation of land is a difficult mission by itself, allowing for play to continue without getting boring for the students.

On the other hand the soldier Akritas would have to deal with invasions and battles, and dealing with all sort of enemies (including Saracens and Apelatai). During these battles every win will provide more "points" to the hero to pass their mission. As the hero wins more battles the student will be presented with more options for their missions.

At some point the student will be able to choose a mission in which Digenes will be the hero. Most of the Digenes' missions would be about invasions that need to be defeated, giving more points to the player. When playing as Digenes, the battles will be fiercer and the enemies will be more difficult to deal with. Just like real Digenes had to pass "stages of self-establishment,"[37] as Elizbarashvili remarks, the student has to pass different stages in the game to get to the final stage.

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[37] Elizbarashvili, "The Formation of a Hero."

The final mission when playing as Digenes will be the final battle of Digenes himself: the battle with Death. The option of winning this battle is available, provided that the student makes the correct decisions in a number of cross-points, however it will be difficult. Digenes did lose that battle and the students know that, but they do have the opportunity – difficult as it may be – to get a different outcome.

Conclusions

The primary purpose of the implementation of an educational video game for the history of the Byzantine Empire will be the development of historical thinking and social awareness of the student. This will allow them to understand the historical facts, to link causes and results, to interpret human behavior through time with the aim of realizing that the modern world is a continuation of the past and that it is directly connected with their life.

By proposing an educational video game on the subject of the study of Byzantine History, we aid the fundamental goal of every teacher, to make their course more interesting and effective for their students; the approach will guide students towards self-driven learning and the discovery of knowledge through the investigation of the aforementioned historical period.

Finally, application of such methodology ensures the students' ability to identify factors, causes, and consequences of historical events, and in addition it allows them to correlate, compare, draw conclusions, and exercise their historical knowledge, thus nurturing their historical thinking.

We do keep in mind the fact that Byzantine history, at least as it is presented in the curriculum of the Greek Ministry of Education, covers a vast time period, increasing the potential educational scenarios in an almost exponential manner. We can therefore conclude that both the choice of appropriate educational scenarios and the choice of missions that will be implemented in the game is a huge undertaking.

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