E-teaching History
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Edited by

Joanna Wojdon
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INTRODUCTION

*Using New Technologies to Enhance Teaching and Learning in History* (Routledge, 2013), edited by Terry Haydn, is an up-to-date set of reflections by both academics and practicing teachers on various aspects of introducing digital media into history classrooms. The authors concentrate mostly on Internet resources, and especially on social media and Web 2.0. There are chapters on the most popular media to date, such as PowerPoint presentations and applications for interactive whiteboards.

Our book does not intend to repeat nor to question those findings, but it draws readers’ attention to the two aspects of new technologies that influence history education but are not mentioned by Haydn and his colleagues: electronic textbooks that have been developed in more and more countries in the last couple of years, and computer games related to history that sell millions of copies and are played by both old and young.

The e-textbook market is growing rapidly, in some countries (including Poland) thanks to the subsidies of governments. The term e-textbook is not very precise, however, and it may vary from a pdf of a traditional book, sometimes with a few animations or pictures to enlarge, to a kind of interactive set of resources and tasks that resemble an educational game rather than a book. So far, there is no empirical research on the ways of use and/or effectiveness of any model of an e-textbook, or their comparison with traditional books. What we present here is a set of (sometimes critical) remarks by authors or co-authors of various models of e-textbooks from different countries on the content of their work, the problems they encountered in development of the teaching materials and the potential benefits for learners.

Computer games are a controversial medium among teachers, students, parents, educational authorities and researchers due to the influence they may or may not exert on young learners. One cannot ignore, however, the fact that young people do play such games, notwithstanding the controversies, and that the school, and the teachers in particular, should take this into consideration one way or another. The authors discuss the educational potential of both individual titles and history-related computer games in general, not only in relation to developing historical knowledge but also imagination, attitudes or, more generally, historical consciousness.
Sometimes they refer not only to computer games but more generally to historical edutainment which the games are a part of. Most (but not all) of the articles originate from the papers presented in September 2014 during the conference of the International Society for History Didactic in Wrocław (Poland). Some other aspects of history and edutainment, that do not necessarily involve digital technologies, are discussed in the 2015 volume of *The International Journal of Research on History Didactics, History Education, and Historical Culture* published by the Society in Wochenschau Verlag.
The objective of this chapter is to present and discuss the conditions determining the shape of a multimedia online history textbook for primary, lower secondary and upper secondary schools written at the behest of the Polish Ministry of National Education (MNE) in the period 2013–2015. The issue I would like to explore in this essay can be reduced to the following question: can differences of a cultural nature between children and the adults responsible for realizing the project’s goal of shaping the textbook be identified? If so, can the effects of these differences impact on the shape and future perception of the e-textbook? I would like to keep the theoretical divagations to a minimum, focusing rather on describing and analysing the creation of the e-textbook as a case study. In this context, the narration is of a highly subjective nature. As the person responsible for initiating the project and directing the team of researchers preparing the textbook under analysis, I am incapable of presenting the events without any reference at all to my personal engagement in the composition of the work. In order to confirm the veracity of the information presented, the

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1 An outline of the comprehensive programme for the digitization of Polish schools currently being implemented by MNE, including the creation of digital educational resources which are to include e-textbooks for the humanities, life sciences and hard sciences, was presented in 2012. Cf. http://men.gov.pl/jakosc-edukacji/edukacja-informatyczna/cyfrowa-szkola-aktualnosci/e-podrecznik-nowa-jakosc-w-polskiej-szkole.html.

2 The team was divided into two sub-teams composed of scholars at the University of Wrocław Institute of History, responsible for preparing a series of textbooks for primary school and for secondary schools. The first series, divided into textbooks covering particular chronological periods, was authored by Małgorzata Pawłak (antiquity), Wojciech Mrozowicz (Middle Ages), Robert Kołodziej (modernity...
events described are placed in a timeline with reference to documentation developed in the course of the project. The ultimate objective of this publication is to shed light on phenomena transforming the classic educational environment in which children and youths learn within the context of changes in the way information is communicated in a society characterized by commonplace, global communication.

Chronology – Of No Little Importance

I received a proposal to submit an offer for authoring a history e-textbook addressed to pupils in Polish schools from the 4th form to the 1st year of upper-secondary schooling in June 2012. This was the result of the Council of Ministers’ adoption in April 2012 of legislation to establish the “Digital School” project. This project was composed of four actions, including the preparation of digital education resources for schools of stages II-IV of the educational process (primary, lower secondary, upper secondary). At the time the project did not possess a detailed framework, but the fundamental objective was defined. That objective was to prepare textbooks of the highest quality for the MNE, which would be made available in digital form at no charge to pupils around Poland. A proposal to author textbooks in humanities-related subjects – including history – submitted by the University of Wrocław was victorious in the bid process operated by the MNE. This gave the team of university scholars – potential authors – a unique opportunity to inject the most recent achievements in historical research directly into the school system. What is more, the information supplied by the client gave reason to suppose that the textbook was to provide access for pupils across the country to multimedia resources presenting the riches of Polish and world culture. The assumption was adopted that the authors would have wide-ranging discretion in selecting both historical objects and modern works of art to be used as multimedia elements in exercises and presentations. Reproductions of works of art were to be accessible for all pupils to use freely. All this created the conditions for real efforts to reduce social inequalities in respect of education and provision of access for all children to the richest and most up-to-date knowledge about the culture through 1789), Joanna Wojdon (19th century and contemporary era). The second series was composed by Andrzej Wypustek (antiquity), Przemysław Wiszewski (Middle Ages), Leszek Ziętkowski (modernity through 1789), Monika Piotrowska-Marchewa (19th century) and Barbara Techmańska (contemporary era).

surrounding them. As it would later turn out, history textbooks were in this respect to be supported by textbooks for teaching Polish. During the course of preparing the materials, the team of authors also focused on presenting pupils with the meanings of cultural texts and methods of interpretation.\(^4\) The impact of the project on society was to be enhanced by the fact that simultaneously with the publication of the textbooks, the MNE was to support universal access to broadband Internet in schools and the homes of pupils (distribution of tablets as end devices).

In March 2013, the MNE supplied the final guidelines for the e-textbook, which we used as the basis for beginning our work. During that time, the Ministry left us with broad freedom of action in preparing the textbook. The team of authors did not receive guidelines from the contractor concerning the form of the work. Conditions as to the content were also quite general. The textbook was to facilitate implementation of the core curriculum as published by the MNE at the primary level.\(^5\) In May 2013, we received a schedule to follow in our preparation of the textbook. The deadline for submitting a working version of the material suitable for editing was set as February 2014. Work on the version to be published, following editorial review, proofreading and multimedia tests was to be completed by July 2014.\(^6\) Alongside the preparation of methodological assumptions, the rules for the presentation of content including a draft design of the layout, primary text, exercises and comments to multimedia content, our responsibilities also included authoring multimedia exercises and games. The authors were obliged to select all of the multimedia content that was to be published from familiar sources. After a time it was then specified that only items previously published on open licences and fulfilling certain quality standards would be acceptable. In August 2013, the authors were to supply a detailed description of all maps and pictures of monuments which they planned to use in their portion of the textbook.


\(^5\) The core curriculum for history in the Polish educational system contains a keyword-based listing of the primary educational content that should be communicated to pupils at various levels of education. There are 29 themes for primary school, 39 for lower secondary, and 12 for upper secondary. The content of the core curriculum for general education in Polish schools was published in 2009 in a Regulation of the Minister of National Education of 23 December 2008 (OJ L 2009, no 4, item 17, attachment 2 (primary schools) and attachment 4 (lower and upper secondary schools), Cf. http://www.bip.men.gov.pl/men_bip/akty_prawne/rozporzadzenie_20081223.pdf (accessed 29.07.2015).

\(^6\) Determinations of the meeting held on 25 May 2014.
As time passed, the deadline for submission of the content to the contractor was extended. This was the result of changing requirements concerning the content of the textbook, and also information received as to the technological capabilities that the authors were required to account for in their work. The final text version, accompanied with a description of multimedia content and appropriate metadata, were supplied to the contractor at the end of December 2014. At that time the authors were still in the dark as to the final shape of the layout, which had been revised following the submission of the authors’ proposals, as well as the final selection of multimedia materials for publishing and the manner of distribution of the e-textbook. This portion of the project was the domain of cooperation between the MNE and the entities responsible for the technological aspects of the undertaking. The authors were to make changes in their texts in accordance with the instructions given by those implementing the technological side.

The schedule adopted by the contractor did not include research on the needs of children and youths in respect of using e-textbooks. There was also no attention given to consultation with teachers. Many of the changes to the content and form of the textbook made in the course of its preparation resulted from the \textit{ad hoc} requirements of the contractor or technological partners. Up to the completion of the authors’ portion of the project there was little attempt made to test the product in interactions with the user.

In the description given above of the administrative and organizational conditions for the development of the textbook, I have purposefully focused on aspects which may be assessed negatively. Such a judgement, however, flows from the assumption that an e-textbook should constitute an instructional aid that offers an entirely new approach to meeting the challenges posed to classic textbooks. A negative evaluation of the elements of the production process is not, however, the sole potential one. Let us observe that the organizational aspects of the project as presented were the result of it being shaped in a manner consistent with the development of tried-and-true products following an established pattern, intended for end users with well-formed and understood habits in respect of the receipt and processing of information. To put it simply – in ordering an e-textbook for children and youths, it was acknowledged that it could be developed in the same manner as consumer products created for adults, by adults. Hence it was assumed that content designed by adults for the end users – children and youths – would adroitly line up with children’s communicative needs.
The Foundations of Meanings.  
The “e-textbook” as Understood by the Team of Authors

Neither in October 2012, when I put together the team of authors, nor in March 2013, when we began work on the textbook, did we possess any convincing, widely used contemporary examples of such a product. And this was true not only of Poland. Research into textbooks available in 2012 (when we began conceptual work on the project) demonstrated that an e-textbook was most commonly treated as a means of transferring solutions applied in traditional textbooks to the digital environment. This did have its positive aspects, as the form of the message – like a traditional textbook, and thus very familiar to educators - allowed teachers to focus on content. However, from our perspective this truth masked a very serious trap – the authoritarian method of communicating content and creating a vision of the past, so very characteristic of classic textbooks, was to be hammered into the frame of a medium which promotes freedom of choice and diversity of cognitive strategies while providing access to overflowing treasure troves of supplementary information (the Internet). Digital instructional aids – mostly exercises, tests, short video and audio programs - demonstrate a far more diverse and open character. They do not, however, comprise comprehensive wholes providing access to historical phenomena, processes and eras. This is why, as in the case of the Polish ‘Digital School’ programme, they were then and remain today a complement to the skeleton of knowledge offered by traditional textbooks. It should also be noted with regret that during this period we were unable to establish contact with the team implementing the mBook-Gechichte project, a history e-textbook published in 2014 and developed at Katholische-Universität Eichstätt-Ingolstadt. However, it can be said with satisfaction that the assumptions and solutions adopted by that team are in very many aspects consistent with those of our own.

Nevertheless, in 2012–2013 the most important question for us was whether children and youths from a fully digital generation experience reality by applying the same metanarrative patterns as those of our own.

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8 For example, Catalanian http://www.edu365.cat/ or a repository focused on audio-visual materials http://www.edu3.cat/ (accessed 29.07.2015).
Do they seek to gain a sense of events around them in the same manner as we do, reaching far back into the past and comprehending the chain of causal links? Do they develop their own vision of the world as we do, by draping a fabric of facts over the skeleton constructed by a model of the truths governing reality, bringing clarity to the emerging image by joining it to successive chains of events and facts? This linear narration, so familiar to us and based on the continual reference of the products generated by analysis of particular cases to a synthetic vision of the world, which was continually subjected to evolution, was vital for us in a time of information paucity. It was then necessary to capture information and build a model out of a few disjointed scraps. This model, in turn, would then serve to justify decisions in respect of the manner in which the contours of the past were presented, as well as the proper way to proceed in the present. However, in a world of excess information, easily available, is such a model of seeking and using information necessary? Is it not being replaced by a model of *ad hoc* use of information which should function as separate wholes, answering the specific question of the user? In this model, acquisition of information is not a process, but rather an act; information is not something we receive for our effort, but rather an instantly accessible product ...

At present, we have at our disposal broadly accepted knowledge about the psychological development of children and associated potential for concrete and abstract perceptions of both simple and complex content. However, and paradoxically, there is little agreement as to the effects wrought within the scope of children’s construction of models for describing the world and the shape of those models by changes transpiring in communication compared to the classic, pre-digital generation. It is no less difficult to evaluate these changes from the perspective of society’s future viewed through the prism of the traditional values of our contemporary culture.

In this situation, the methodological and content assumptions proposed by the team for the e-textbook were based on analysis of available traditional and digital educational aids, as well as empirical experiences from 1) teaching in primary and secondary schools; 2) reviews of previous traditional textbooks authored by members of the team; and 3) last, but not least, consultations with our own children aged 7–16 years. The effect of this avant-garde procedure was the June 2013 preparation of the fundamental assumptions for the e-textbook. In accordance with the current educational model in Poland, children complete the full history course over two cycles. The first is taught in forms 4–6 of primary school (primary education lasts a total of 6 years). The second is taught in lower
secondary school (3 forms) and the first year of upper secondary school. As a result, we adopted the assumption that the publication of the e-textbook would comprise two series – one for primary schools, and the second for lower secondary and the first year of upper secondary schools. Because of the obvious differences in children’s developmental stages, the majority of assumptions of the two series were also formulated differently. They were linked, however, by one leading idea: we are striving to transmit accurate knowledge about historical events and social processes in a manner that will interest pupils while placing emphasis on developing skills.

This triad of meta-objectives for our project was to be reflected in the structure and construction of the e-textbook. Accurate knowledge was to be ensured thanks to the professional experience of the historians preparing the textbook. The fact that nearly every member of the team had prepared traditional commercial textbooks for primary and secondary schools was grounds for faith in the authors’ capacity to stimulate children’s interest. They had been invited to write the textbooks based on their ability to ensure sales of those products on the open market. Furthermore, every member of the team possessed years of experience in authoring popular scientific publications. Additionally, Małgorzata Pawlak and Joanna Wojdon had been involved for years in the methodology of teaching history in schools. Joanna Wojdon in particular has conducted research on the potential for the use of information and communication technology for history instruction in schools (cf. Wojdon, Analyzing, 2011: 159-180; Wojdon, Obudowa, 2011, 394-415).

The team adopted two goals with regard to sparking the interest of pupils. Firstly, and rather obviously, increased emotional activity of the pupils channelled by the structure of the textbook and particular messages contained within it was to facilitate their openness to perception of the communicated elements of knowledge and skills. Secondly, it was considered of equal importance to use positive emotions to construct clear signposts within the memories of students that direct them to specific events, phenomena and processes. These were intended to refer primarily

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10 Interesting children in the content of textbooks on the Polish publishing market was not easy. Several to several dozen versions of the same textbook were sold around the country by an equal number of publishers. At the same time, textbooks authored by the members of the team are no longer among those permitted by MNE for use in schools, which eliminates conflicts of interest between the older publishers and the present authors of the e-textbook. Cf. current list of textbooks for history at educational levels, http://men.gov.pl/podreczniki/wykaz_dopuszczone_lista3.php (accessed 30.07.2015).
to the rich Polish and European symbolic heritage, but would span even broader periods and territories if possible. The primary task of this undertaking was to transmit to children a dictionary for the symbolic language of culture that surrounds them. In this manner, we sought to reinforce their self-awareness in the world of their native, i.e. Polish and European, culture. We also wanted to help them in precisely and quickly communicating with members of that cultural community, in which they would most likely spend the majority of their lives. Thirdly, and lastly, positive emotions – interest – were to be the factor encouraging pupils to engage in their own travels through history beyond the confines of the textbook. In this respect we wanted to emphasize both intra-group interaction and independent activity by the pupil.

This was linked with the conviction that it was possible to educate pupils through the teaching of history in not only the particular skills associated with that area of knowledge (chronological thinking, constructing a historical narrative). We also desired to facilitate pupils’ development of universal skills, both cognitive and social. Our conviction was based on the acknowledgement of history as a science specialized in the goal-based critical analysis of diverse information produced by people. We felt that type of instruction would facilitate introducing textbook users to the world of critical analysis of the wealth of information surrounding them, not only through developing the inclination to seek genetic links among pieces of information, but primarily through defining the contexts in which messages arise, are distributed and exert their influence. Most importantly, we wanted to emphasize the necessity of relating the content of the information obtained to the objective which led to its creation, and the cognitive capacities of that creator. In this manner, elements of criticism of a historical source were to support the development of open minds, yet which remained critical towards the flood of information that characterizes the modern world.

The synthetic application of the three pillars in the structure of the textbook’s content described above was intended to facilitate enhancing children’s sensitivity and awareness of issues of values. This was to be achieved not through the introduction of their concrete forms, but rather by indicating those which are characteristic of a given culture or even individual as factors determining decisions which are taken and shaping relationships with the environment. A significant role to this end was to be played by exercises encouraging reflection on one’s own set of values, justifying them in discussions with classmates and the teacher, determining the impact of their cultivation for life in the contemporary
world.\textsuperscript{11} We desired to make pupils aware not only of the multiplicity of attitudes in life, but also of the patterns of values which function alongside one another and are of benefit to the entire community. At the same time, we wished to raise awareness of the dangers resulting from aggressive promotion of particular forms of values at the expense of other participants in social life.

\textbf{Structures}

In order to implement these assumptions, we proposed a multi-layered structure for the e-textbooks. It was to possess a unified character within each particular level of education (primary, lower secondary, upper secondary). The structures of the particular levels were to differ from one another. However, we treated each of the closed unique narratives encompassing particular epochs of history as a work composed in accordance with the plan developed by the author, which best addressed the epoch presented by that author and its issues. This led to the fundamental division of content being expressed in the separate series of textbooks for primary schools and for secondary schools. Within each of them, particular eras retained their distinctness, and the textbooks addressing them were prepared by different authors (antiquity, Middle Ages, modernity (through 1789), the long 19th century (1789–1918) and contemporary history). This rather conservative chronological approach resulted in part from the needs of the contractor. However, it was also derived in part from the convictions of the authors that it was necessary to give teachers a message constructed in accordance with patterns familiar to them.

The same assumptions determined the selection of the fundamental building blocks of the textbooks. With the differences in developmental levels among children attending different types of schools in mind, it was decided to reduce the structuration of textbooks for primary school in relation to secondary schools.

\textsuperscript{11} For example, in a lesson for pupils in stage III of education, focusing on the functioning of European societies in the early Middle Ages, there was an exercise in which pupils were to learn about the duties placed on emissaries (missi dominici) in 802 by Charlemagne. Next, they were to formulate instructions that the Emperor would give to his/her ministers. Their objective was to understand the values acknowledged by Charlemagne. Next, they were to compare the proposals for the Emperor’s hypothetical instructions in class, and then determine what values – according to their classmates – his/her ministers adhered to, lesson by Przemysław Wiszewski, \textit{Społeczności plemienne i tradycje rzymskie}. 
In the case of secondary schools, we desired to give the user the potential to develop alternatives to the new chronological-thematic construction and cognitive paths weaving throughout all of the textbooks. We decided upon 1) labelling multimedia screens and exercises with a few basic thematic keywords (e.g. war, family, society, religion, etc.); 2) giving users the ability to define their own keywords they could use to label their own version of the textbooks and create their “own path” through history. This would allow the user at any given moment to select and aggregate her/his mini-book of the thematic areas of interest to him/her for a portion or the whole of human history described in the textbooks.

Thematic navigation of the textbook was also to be supported by a subject index designed to facilitate acquisition of skills used in searching for, analyzing and filtering information. Support for the user was to be provided through two dictionaries available at the text level – subject and personal. An integral part of the system of reference was to be the capacity to cross over to the other e-textbooks being prepared under the MNE project. Our primary focus was placed on giving pupils using the history textbook the capacity to access resources from textbooks for geography and Polish. This last textbook, developed under the direction of Tomasz Piekot, was conceived (primarily) as a textbook on the history of European
Alongside the proposed capacity to search Internet resources at the e-textbook level, the user would also receive a tool facilitating the concentration in one place of a significant volume of information either prepared and vetted by experts (e-textbooks) or subjected to fewer formal requirements. This was to serve as the starting point for the previously mentioned practice of selecting and analyzing information. The next step was the synthesis and publication of statements within the framework of the e-textbook referencing resources which are generally accessible, and therefore verifiable by the class.

Individual chapters (lessons) in the textbook were to have a standardized structure within the borders of their educational level.

Figure 2: Structure of the division of content in chapters of history e-textbooks authored by the team from the University of Wrocław at the behest of the MNE, 2013–2015

<table>
<thead>
<tr>
<th>Primary school</th>
<th>Forms of communication</th>
<th>Secondary school</th>
<th>Forms of communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Narration, multimedia</td>
<td>Introduction</td>
<td>Mini-lecture, lecture, other multimedia form; exercise with historical source referring to previous modules</td>
</tr>
<tr>
<td></td>
<td>(fable, story read aloud, filmed, recreated)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modules</td>
<td>Integrated multimedia exercises</td>
<td>Modules</td>
<td>Interwoven fragments of text and multimedia exercises</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td>What have I learned?</td>
<td>Summary</td>
<td>Multimedia exercises referring to the most important items presented in the module; This encounter with history has</td>
</tr>
<tr>
<td></td>
<td>(conclusions which the work done in particular modules should lead to)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th><strong>What can I do?</strong> (skills)</th>
<th><strong>What should I think about?</strong> (values)</th>
<th>given me knowledge... skills... understanding...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Want to learn more?</strong></td>
<td>Additional literature, media, etc.</td>
<td>Additional literature, media, etc.</td>
</tr>
</tbody>
</table>


This rather conservative structure was supposed to aid in ordering the content and make it easier for teachers to use it. From the user’s perspective, this was only a proposal. The users themselves were to define the contours of the textbooks through selection of the aforementioned thematic cognitive paths. In addition, in both series of textbooks the modules, multimedia exercises and also the screens included in the textbook for secondary schools were to retain their potential for autonomous use. It was assumed that they could be used independently in the pursuit of a specific educational objective. This autonomous structure of a portion of the textbook would allow teachers and students to pair modules, exercises or screens with other structural elements of one or several textbooks. As a result, the textbook in the form described in Table 2 was to serve as a starting point for the free-form activity of pupils, shaped purely by the inspiration of teachers and the children’s own creativity. This duality of structure received the full support of the contractor (MNE).

That contractor placed strong emphasis on constructing multimedia forms that were appropriate not only for exercises, but also for simple transmission of information. The team of authors fully supported efforts aimed at boosting the use of activating forms in communicating educational content. This was expressed in the minimization, and in some places the abandonment, of text supplying information in the

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13 Emphasis on the significance of activation methods in the process of transmission of educational content resulted from the direct experiences of the authors in teaching (cf. Wojdon, 2012: 177-186).
textbook. It was replaced by exercises whose design and outcome were to guarantee the communication of historical content while at the same time forming a creative attitude on the part of the addressee. Completion of tasks was intended to lead to solving the problem contained in the content of the module.\textsuperscript{14}

In the case of secondary schools, we placed greater emphasis on the skills of decoding, analyzing and using a text delivering information. At this stage, multimedia exercises should not dominate the imagination of the learner, while at the same time they should facilitate the achievement of objectives contained in the assumptions which appeal to emotions (reinforcing traces of memory, motivating to independent exploration, etc.). While the concentrations and forms were different, in both series of textbooks we placed strong emphasis on confronting students with cultural texts as historical sources.\textsuperscript{15} Within the modules, there were also supposed to be separate fragments for those interested, as well as direct references to the reality around us through pointing out its links with the past (so-called ‘time capsules’, for example, showing how the shape of a contemporary city’s market square was formed in the Middle Ages).

We assumed that pupils should not be left alone in their efforts to explore the past. On the one hand, they were to be accompanied by the most outstanding Polish historians through interviews and mini-lectures peppering the textbooks. However, a similar role was to be played by fragments of archival film, radio and musical recordings. They were supposed to introduce pupils to the world of the era being studied (for example, recording of early music or declamation of poems in their original language, such as Beowulf). Our primary desire, however, was to increase the share among exercises of tasks which would force more discussion in classes (e.g. brainstorms), or would involve directed social

\textsuperscript{14} One example is the exercise from the lesson “The elephant and the Polish issue”, presenting the efforts of Poles to resurrect their own state in the 1920s. Joanna Wojdon scrapped a lecture on approaches by Polish politicians who contributed at the start of the 20th century to the battle for independence - Roman Dmowski and Józef Piłsudski. This was replaced with two source texts – short biographies of the politicians – and a table which the students completed on the basis of source material on the views of the two figures. They were also to add their own views, and compare them with the positions of the two politicians.

\textsuperscript{15} This concerns not only written sources, but also iconographic presentations. In a lesson on ancient Greek democracy (stage III), Andrzej Wypustek placed the oldest existing inscriptions from Athens alongside a presentation of scribes and readers on a vase from the 4th century BC to demonstrate the link between the dissemination of the ability to write with the birth and development of democracy in Athens.
interactions in the course of gathering materials outside of class (recollections, albums with copies of pictures, genealogical trees for younger children, etc.).

Finally, we assumed the introduction of elements of gamification in the course of using the textbook. Each user was to receive an avatar at the beginning of work with the textbook. The appearance of the avatar would evolve concurrently with progress through the work, adapting to the epoch the user was in. After solving tasks, exploring additional content and publishing unique compositions in a shared virtual space, the user would receive new accessories for the avatar, which would “get promoted” and act as an individualized presentation of the user in a virtual world of learning.

Ultimately, in attempting to fulfil what we believed to be children’s expectations towards the textbook, we decided that knowledge and skills should be transmitted to pupils through:

- diversity, elasticity and openness to creative connections of elements in the structure of information;
- emphasis on analysis of messages with close reference to modernity, while stressing the historical context;
- emphasis on gamification as an aspect awakening interest and a bond between the user and operations performed within the textbook’s framework;
- opening the textbook to transformation and elaboration of knowledge by the user in the course of work with additional information, including external, and primarily – interdisciplinary;
- independently of the elements listed above – retaining control by the authors of the content of particular information chunks in order to ensure the authoritative character of the message.

**Problems and Summary**

From among the assumptions presented above, only a portion of them – so far – have been implemented. A large majority of the original ideas submitted during the publication process turned out to be impossible to realize for the project’s leading technological partner. Limitations in access to media materials, including multimedia, caused serious problems (nearly all of the planned multimedia maps were scrapped). The majority of problems in this respect was caused by financial limitations, excessive licensing conditions (CC-BY), legal issues related to acquisition of multimedia content and project management organizational issues. Time
limitations and fluctuating requirements and expectations on the part of the contractor during preparation of the project also made it difficult to execute the project according to the initial assumptions for smooth completion of the work. Political considerations also impacted on the conditions set out by the contractor. With a view to the parliamentary elections planned for October 2015, the leadership of the MNE placed heavy emphasis on the visual attractiveness of the portion of the textbook scheduled for publication in September of that year.16

Lastly, from the perspective of the objectives adopted by the authors in 2013, the most troubling problems were the restriction in access to key monuments of culture, the rigidity of the textbook’s final structure (absence of alternative thematic paths), the abandonment of its openness to the external world of information, and finally removal of gamification aspects. In these circumstances, the team of authors looks with trepidation on the upcoming reaction of children to the proposal for the transmission of educational content they will soon encounter. At present, decisions taken at the project management level motivated by factors other than the substantive goals of the project are leading to a dangerous decoupling of the project with the vision and desires of its authors.

The technological maladaptation of the project to its objectives may also impact its future. The clock is ticking, and technological solutions considered cutting edge in 2010 are already far from sufficient to catch children’s attention. Development of the technological assumptions applied in an e-textbook cannot be a closed process. Quite the opposite – an e-textbook should function as an open, adaptable system that adjusts to the educational needs formulated by the authors of the educational concept and its users. The reverse dependency, in which the model and technology used in the transmission of knowledge and skills are adjusted to meet precisely formulated, closed technological requirements of the moment, is not only logically erroneous (since the overriding objective is historical education, and not only history of technology). Most importantly, it simply renders the e-textbook inaccessible to young users. For them, a closed and autocratic project can in no way serve as a symbol of modernity capable of

grabbing their attention. Even if it takes this form for only a short time, it will rapidly become obsolete.

Technology alone is insufficient to create a textbook that children will accept as sufficient to meet all of their expectations. We are not – or at least we have not been so far – capable of keeping pace in our educational offerings with the revolutions in young people’s technological tastes. Paradoxically, in respect of maximization and optimization of exploiting an available medium for educational purposes, traditional printed textbooks and their electronic versions with multimedia enhancements remain the best forms. They do not need to direct the teacher’s or pupil’s attention to the technology. The author’s contribution, i.e. the content of the message, remains the essence of the material. However, such a classic book with a linear, closed structure suggesting a totality of knowledge does not encourage creativity in the user. Furthermore, by avoiding interaction in real time with the surrounding world of information, it runs contrary to one of the fundamental experiences and social problems faced by young people in Europe – the excess, shallowness and fluidity of accessible information. A book is not capable of meeting those requirements. Its objective has always been to record and transmit information, not to react and participate in discussion over it.

In this context, a multimedia, digital, internet-based history textbook, that may be used on-line, downloaded or printed would seem a good solution to the problems of shaping the skill of analyzing and selecting information, of fostering informational interactions in a community, and also of ensuring affordable access to the highest possible quality of knowledge and cultural heritage. It seems that all of this is within our grasp. However, what is needed is not only acceptance of the distinctiveness of such a textbook compared to the classic book form. It is worth defining fundamental educational objectives with the assistance of a digital networked medium. Perhaps we should ask the question of who really needs a textbook that simply summarizes knowledge from a particular discipline in an age of global, diffuse and non-authoritative information? Maybe adults more so than children? Maybe it would be a better solution to offer continually updated, authoritative, diffuse educational materials, which would be prepared in an appropriate and narrow scope by specialists? It would be easier to adjust small wholes to newly emerging informational challenges. As a result, rather than undertaking large publishing projects every several years, a continual process of review and modernization of educational modules could be maintained. This is also the tone of remarks from the contractor, indicating that e-textbooks should be treated as a collection of autonomous wholes at
the level of modules. The teachers can then freely shape them owing to the broad scope of permissible use under the CC-BY licence.

To a large degree this was consistent with the assumptions of the authors. We did not wish to prepare yet another textbook based on a rigid division of content transmitted in a fixed chronology. Autonomy of educational chunks in the humanities does, however, have its limits. Textbooks for understanding history and culture must be based on a story, a narration describing processes. In painting a picture of a community’s past – a phenomenon whose nature is continuity – it is not possible to offer a result consisting of a collection of separate, fully autonomous, small fragments to be used freely. The user should have the capacity to use exercises, multimedia content or even entire modules as he/she sees fit. The fact remains, however, that their content interacts. During a lecture on estate societies in the Middle Ages, a pupil may participate in a simple role-playing game which requires a decision between submitting to the authority of an aristocrat and becoming his subject, or rather attempting to retain his freedom. However, in order to take the right decisions – and to acquire knowledge about the foundations of European civilization – he must have learned about the functioning of Roman society in the 2nd–3rd centuries and the Germanic tribes of the 3rd–4th centuries. Of course, this knowledge does not have to come from our textbook, it can be drawn from other sources. However, if an educational objective is to be achieved in the course of the game, the user must possess particular knowledge. The author’s metanarrative gives order to the manner in which pieces of the past are discovered; if the user chooses to abandon it, this should be done consciously and with reference to another, previously accepted cognitive scheme.

We wanted our offer to satisfy new expectations related to the flow of information. At the same time, we also worked to retain what is most valuable in the European tradition – the capacity to conduct a discussion leading to the development of a shared, collective, holistic description of reality. One which will unite, but will also be elastic and adapt to the needs of its user – while remaining open to change, discussion and enrichment. This constitutes merely a test run, and certainly an imperfect one at that. However, I believe that contemporary, traditional textbooks in the humanities are an attribute of industrial education just as classes with rows of desks, summer vacation during harvest time, and assessment of progress using evaluative symbols are. They once served as a means of forming

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17 Lesson by Przemysław Wiszewski, “The ideal and the reality of the three estates” (textbook for stage III education), exercise “Take the challenge...”.
subjects and the citizens of nation-states. Perhaps – we may hope – schools will soon be relieved of this function. They will be less concerned with conserving social structures, and more focused on the development of society’s creativity. It may be the case in this context that our e-textbook is the final stage in the collapse of the classic model of educational aids. Written by adults for children; I have no doubt that it will soon fall by the wayside – and I only hope: may it be replaced with more suitable tools.

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Unity in Diversity. The Council of Europe and History Education

From the very beginning of its existence the Council of Europe, founded in 1949 by the governments of Belgium, Denmark, France, Ireland, Italy, Luxembourg, the Netherlands, Norway, Sweden, and Great Britain, made history education one of its priorities. Article 1 of its Statute declared that “the aim of the Council of Europe is to achieve a greater unity between its members for the purpose of safeguarding and realising the ideals and principles which are their common heritage and facilitating their economic and social progress.”\(^1\) It soon became clear that in order for such a vision to come true, it was necessary to undertake a serious re-evaluation of the politics of history (also referred to as the politics of the past) in Europe (Swoboda, 2009) as well as “the symbolic uses of history for the purpose of national identity formation” (Beattie, 2008: 9). The new ideas have been reflected in the subsequently adopted Council of Europe official documents, which, however, one must bear in mind, contrary to European Union regulations do not constitute mutually binding normative acts, but are rather an expression of a common will to undertake specific steps by all member states.

As early as its Resolution no. 17 in 1952, the Committee of Ministers recommended that “Member Governments should give special consideration to the question of revision of textbooks on history and geography” as well as that “such assistance as may be feasible should be

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given to both official and private bodies engaged on the revision of
textbooks on history and geography and that facilities should be granted to
organisations and persons working on this problem.\textsuperscript{2} Furthermore, Article 2 of the European Cultural Convention of 1954 stated that, since the achievement of the main aim of the Council of Europe’s existence “would be furthered by a greater understanding of one another among the peoples of Europe”, each Member Government would “encourage the study by its own nationals of the languages, history and civilisation of the other Contracting Parties” and would “endeavour to promote the study of its language or languages, history and civilisation in the territory of the other Contracting Parties.”\textsuperscript{3} Already at that time it was assumed that nationalistic and xenophobic attitudes widespread in Europe in the past had largely stemmed from a sense of alienation and lack of knowledge of neighbours’ languages, cultures and identities; thus the causes of such attitudes could be eliminated through modification of the member states’ systems of education and mutual promotion of divergent national cultures.

Yet another fundamental step towards launching European history politics aiming at forging a common European identity was the Resolution of the Committee of Ministers no. 11 on “Civics and European Education” adopted in 1964, containing a comprehensive list of European values. The document proclaimed:

\textit{Considering that the aim of civics is to provide a training in democratic citizenship and that its current objectives must therefore take account of the fact that today the individual is no longer a citizen of his own country only but also of Europe and the world;}

\textit{Considering that, at a time when Europe is becoming a reality, it is the imperative duty of secondary education to inculcate into its pupils an awareness of European facts and problems;}

\textit{Considering that the effective teaching of civics in the European countries is at present hampered by the lack of appeal of existing school courses and by the lack of preparation of the teachers;}

\textit{Considering that the textbooks and basic material at present in use need to be adapted to the times;}

\begin{flushleft}\textsuperscript{2} Resolution (52) 17 (19 March 1952) of the Committee of Ministers – www.coe.int (accessed 23.07.2015).\end{flushleft}

\begin{flushleft}\textsuperscript{3} European Cultural Convention (19 December 1954) – www.conventions.coe.int (accessed 23.07.2015).\end{flushleft}
Considering, finally, that education in democratic citizenship is a continuous process, which should not be confined to a single subject of the curriculum but should permeate the whole course of education both inside and outside the school.\(^4\)

In full consideration of all the above-mentioned ideas and circumstances, the Council of Europe urged all Member Governments to “do everything within their power to ensure that all disciplines concerned – for instance history, geography, literature, modern languages – contribute to the creation of a European consciousness”, while the European dimension of national curricula was expected to go beyond a purely static description of European institutions, by explaining their function in the light of the vital interdependence of the European peoples and of Europe’s place in the world, and by attempting to bring out the dynamic aspects of the European integration process and the concessions, indeed sacrifices, that it entails, and the political and cultural difficulties, even tensions, it may create.\(^5\)

Although this particular topic had also been present in the Council of Europe documents before, it was only in 1984 – and in a somewhat new historical context of mass-scale migrations – that the question of teacher training was thoroughly addressed. Recommendation no. 18 of the Committee of Ministers called upon Member Governments to “make the intercultural dimension and the understanding between different communities a feature of initial and in-service teacher-training”. In particular, teachers were expected to

- become aware of the various forms of cultural expression present in their own national cultures, and in migrant communities;
- recognise that ethnocentric attitudes and stereotyping can damage individuals and, therefore, attempt to counteract their influence;
- realise that they too should become agents of a process of cultural exchange and develop and use strategies for approaching, understanding and giving due consideration to other cultures as well as educating their pupils to give due consideration to them [...];
- become conscious of the economic, social, political and historical causes and effects of migration.\(^6\)

\(^4\) Resolution (64) 11 of the Committee of Ministers – www.coe.int (accessed 23.07.2015).
\(^5\) Ibidem.
Such a definition of the teachers’ role provided a response to the gradually growing awareness of Europe’s new multicultural reality resulting both from greater mobility between the European countries and an influx of non-European populations in the aftermath of decolonisation. Importantly, the Recommendation viewed migration as “an irreversible and generally positive development”, thus first emphasising its inevitability and implying a necessity to handle the process in such a way as to reduce its challenges and to exploit its full potential, which would as a result produce the “generally positive” effect.

Such a policy was meant to – in the opinion of the Committee –

help to further closer links between the peoples of Europe as well as between Europe and other parts of the world [...], considering that the presence in schools in Europe of millions of children from foreign cultural communities constitutes a source of enrichment and a major medium- and long-term asset, provided that education policies are geared to fostering open-mindedness and an understanding of cultural differences.7

In this somewhat paradoxical situation – with ethnic and religious diversity growing in Europe in the 1980s while a greater measure of political and economic unity was being achieved – the famous slogan of “Unity in Diversity” was coined to provide a neat expression of the specific pattern of a new European identity: “Unity in diversity is what produces the richness of the common European cultural heritage” (Resolution on European Cultural Identity, 1985).8 However, it soon occurred that the increasingly conspicuous internal diversity of the original member states of Western Europe proved less challenging. A new scale of multicultural differences came to the fore as the post-Communist countries of Central and Eastern Europe were admitted to the Council of Europe following the collapse of the Soviet bloc. They brought their own, often surprisingly different, historical and cultural sensibility and the voice of societies that had for decades been subjected to the experiments of authoritarian regimes, such as those from Poland (admitted in 1991), Romania (1993), Albania (1995), Russia (1996), Georgia (1999), Armenia (2001) or Azerbaijan (2001).

When joining the Council of Europe, new Member states ipso facto recognised the organisation’s heritage and values as their own (including the above-mentioned documents concerning civics and history education). However, as has already been stressed, since the Council of Europe has

7 Ibidem.
always relied on its soft power much more than other European Union institutions, no “regulations” or “directives” have ever emerged within its organisational culture, even if “resolutions” and “recommendations” have been adopted. For that reason – while formally recognising, as expressed in Article 3 of the Statute of the Council of Europe, “principles of the rule of law and of the enjoyment by all persons within its jurisdiction of human rights and fundamental freedoms” \(^9\) – individual Member Governments have remained free to choose the method of applying the jointly elaborated proposals.

Meanwhile, in many countries of Central and Eastern Europe following the political transformation of the 1990s new tendencies concerning history education had surfaced, some of them rather preoccupying from the point of view of the European cultural identity project. New voices – for decades having been silenced by censorship and Soviet supremacy imposing a Marxist-Leninist paradigm of history – had come to prominence. They propagated nationalism aiming to revive national master narratives perceived as “the historical truth” as well as to restore the cult of national heroes, an often biased and glorious vision of national history, previously commonly ridiculed by the official Communist-dominated discourse (Kamusella, 2009: XIV). Such approaches adopted by many countries located in the same region obviously soon caused bitter disputes concerning regional history, stirring old feelings of animosity among nations and communities, and at time escalating into open conflicts.

In these circumstances the question of history education had assumed a new importance. Instead of being a noble and generous project aiming at a long-term cooperation in building a common future, it became a hot issue and there was an urgent need to face current and complex realities while preventing dangerous developments from materialising. It was in that context that the Council of Europe – through its History Education Unit – launched a series of initiatives aiming to practically apply the previously developed principles and theoretical recommendations. Among these one can distinguish between 1) comprehensive projects meant to enhance mutual understanding between countries and nations according to the basic Council of Europe documents and 2) locally based projects conceived as instruments of intervention aiming to solve some particularly acute problems related to the historical experience of a given region.

Since 1997 the Council of Europe History Education Unit, in accordance with a mandate from the Member Governments Ministers of

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\(^9\) Statute of the Council of Europe.
Education, has accomplished four comprehensive European educational projects. The adopted procedure included in each case organising a series of conferences to be attended by experts on academic history, history education, and pedagogy representing a number of Council of Europe member states. The crucial task of the series was to develop a set of specific, practical teaching resources to be implemented in daily classroom use as examples of good practice, indicating new paths and perspectives teachers might adopt in modern history education, according to the European spirit.

In the years 1997-2002 the main theme of these works was broadly defined as *Learning and teaching about the history of Europe in the 20th century*. The project’s final publication entitled *The 20th century: an interplay of views* (2002) propagated the need to:

- understand the links between past and present;
- understand the forces, movements and events which have shaped 20th century history;
- understand the historical roots and the context of the main challenges and conflicts facing Europe today;
- reflect on the kind of Europe in which they [learners] wish to live tomorrow;
- develop skills and reflexes enabling them to think for themselves amidst the wealth of information now available, deal critically with statements and historical interpretations,
- take in another person’s point of view, recognise and comprehend differences,
- detect errors and prejudices in historical representations and not to be swayed by biased information.\(^\text{10}\)

In the following period, i.e. from 2002 to 2006, the Council of Europe undertook a similar project on *European Dimension in History Teaching*. The authors’ intention was to draw more attention to those developments and processes in history which can be truly defined as pan-European due to their presence and consequences felt by people living throughout the continent. A crucial objective was to encourage teachers and learners to embrace a comparative approach, i.e. looking at the same facts in European history from a number of divergent national perspectives (the principle of “multiperspectivity”). An international team of experts

\(^{10}\) *Learning and teaching about the history of Europe in the 20th century*–www.conventions.coe.int (accessed 23.07.2015).
selected five topics to serve as practical examples of those suitable to undergo such a treatment: “1848 in European history”; “The Balkan wars of 1912–13”; “The search for peace in 1919”; “The end of the Second World War and the beginning of the Cold War in 1945”; and “The events and developments of 1989–90 in Central and Eastern Europe.”

The final product of the project was a volume entitled Crossroads of European Histories: Multiple Outlooks on Five Key Moments in the History of Europe (Stradling, 2006). Rather than making attempts to construct one common vision of the analysed historical developments, the editors chose to seek objectivity through subjectivity or to present individual, often contradictory, national interpretations as a starting point for the reader’s independent reflection and common debate. The main lesson learnt seems to have been that “common European history” does not need to be perceived as morally ambiguous “negotiating the truth” but rather as an invitation to familiarise Europeans with existing perspectives other than their own and thus to enhance the culture of debate and critical thinking.

Logically, the years 2006–2008 were a period devoted to the development of a project on The image of the other in history teaching. The key objectives – in the light of conspicuously growing cultural and religious diversity in Europe – were defined as “to contribute to reconciliation, acknowledgement, understanding and mutual trust between different cultures and outlooks and to overcome stereotypes and prejudices by promoting the values of tolerance, openness to and respect for others, human rights and democracy.”11 At the very heart of the core values of the project stood the original Council of Europe idea that in order for peaceful coexistence between different ethnic and religious communities in Europe to be possible, old exclusivist nationalisms needed to be overcome and disarmed.

Finally, a project on Shared histories for a Europe without dividing lines in the years 2010–2014 brought a certain modification of the previous philosophy of action and discourse at the Council of Europe. Facing resistance from national historiographies and accusations of an ambition to fabricate a non-existent common European history, the widely used adjective “common” was thus replaced with the term “shared”, referring to history. The nature of this change was to emphasise that even if Europe’s history cannot be described as “common”, taking into consideration the scale of conflict, rivalry and violence was much greater than that of cooperation in the past, nevertheless nations and individuals

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11 The image of the other in history teaching - www.coe.int (accessed 23.07.2015).
have “shared” a comparable experience of the consequences of broader economic and social processes as well as their own actions, even if undertaken not jointly but against one another (Shared histories, 2014). The outcomes of this project are discussed in the second part of the present chapter.

An even more practical approach could be seen in the bilateral and regional projects, whose roots dated back to the 1990s, undertaken by Council of Europe experts with reference to those areas where ethnic and religious tensions resulting from a difficult past affected the model of history education. These projects were conducted in a number of regions of the Russian Federation, the Caucasus, Ukraine and Moldova, the former Yugoslav Federation, and Cyprus. They were run in cooperation with formal or informal local history teacher associations, respecting the autonomy of such associations and trying to secure positive feedback to the projects as well as the possibility of actually implementing the results in classroom practice after the foreign experts’ departure.

Unlike the above-mentioned comprehensive European projects, publications resulting from such regional initiatives were expected to provide teachers and learners with not only general guidelines concerning new trends and good practices in history education, but – due to the high level of tensions and painful memories related to the subject matter of history – extremely specific, ready-to-use teaching units that were well-balanced and supportive of the process of reconciliation. In order to avoid master narratives and hence biased interpretations unacceptable to other communities, when presenting any factual knowledge absolute priority was attributed to primary sources, including widely accessible visual sources, enabling learners to establish a more direct contact with a wide range of real-life situations in their area in the past. The key to success was to become the plurality and multiperspectivity of primary sources used.

One of the authors participating in the Cyprus project, Robert Stradling, observed that

> history teaching can be made more multiperspectival and less monocultural, exclusive and universalistic by making the content more diverse, using a wider range of sources, ensuring that students have opportunities to read contrasting accounts of historical events. But multiperspectivity is not just about possible changes in the content of history curricula, and the use of a wider range of sources, it is also about helping students to think historically about the past (Stradling, 2003: 59-60).

A natural conclusion resulting from this approach to history teaching was the necessity to teach in a more interactive way, engaging learners to
actively participate in the process rather than simply “receive” the factual knowledge transmitted by their teachers.

In full accordance with those concepts, Council of Europe experts have regarded the experience of their cooperation with teachers working in the conflict zones as an opportunity not only to share their expertise but also to learn and draw more general conclusions to be utilised across Europe. These were reflected in two recent recommendations for all Member Governments. As it was proclaimed in 2001, history teaching in 21st century Europe should, contrary to the unfortunately still dominant practice

- be a decisive factor in reconciliation, recognition, understanding and mutual trust between peoples;

- play a vital role in the promotion of fundamental values, such as tolerance, mutual understanding, human rights and democracy;

- be one of the fundamental parts of the freely agreed building of Europe based on a common historical and cultural heritage, enriched through diversity, even with its conflictual and sometimes dramatic aspects;

- be part of an education policy that plays a direct role in young people’s development and progress, with a view to their active participation in the building of Europe, as well as the peaceful development of human societies in a global perspective, in a spirit of mutual understanding and trust;

- make it possible to develop in pupils the intellectual ability to analyse and interpret information critically and responsibly, through dialogue, through the search for historical evidence and through open debate based on multiperspectivity, especially on controversial and sensitive issues.\(^\text{12}\)

Similarly, the aims of history teaching were defined in the most recent 2011 recommendation on intercultural dialogue and the image of the other in history teaching as:

- raising awareness regarding the great cultural diversity of present-day European societies, and to increasing sensibility to the diverse cultural legacies of those societies; [...] 

- the development of a multiple-perspective approach in the analysis of history, especially the history of the relationships between cultures; [...] 

- enabling future citizens to give their fully informed consent to “live together” in complex, changing contexts whose developments are often unpredictable or unexpected.\textsuperscript{13}

In this way the Council of Europe has repeatedly urged Member Governments to radically transform the model of history education. Paradoxically, instead of serving the 19\textsuperscript{th}-century goal of nationalising the masses and forging the idea of ethnic solidarity and unquestionable loyalty to authority, history teaching in its modern form is supposed to become a powerful instrument of reconciliation and peaceful coexistence among nations and groups in a democratic community, favouring the perception of human similarities and accepting diversities of values and lifestyles in an attempt to build a heartfelt sense of European unity. The *Shared histories* e-Book is but a further step on this path chosen by the Council of Europe decades ago.

**Objectivity in Subjectivity:**

**The *Shared Histories* e-Book and Its Uses**

As mentioned above, the final product of the latest Council of Europe project on *Shared histories for a Europe without dividing lines* is an interactive e-book. As Tatiana Milko, the Head of the History Education Unit, put it,

> the project marks a new step in responding to the challenges for education in the 21st century [...] The project also points out a new role for a teacher who is now seen more as a partner and a diversity manager rather than a supervisor. [...] The main outcome of the project is this interactive e-book aimed at teacher trainers, teachers in training, practising teachers and their pupils. The e-book contains examples of teaching materials relating to significant historical examples of interactions and convergences within Europe along with strategies, methods and teaching techniques directed towards gaining a fuller awareness of these interactions (\textit{Shared histories}, 2014: 10-11).

Thus the e-book is regarded by the Council of Europe expert team as “a new step”, marking the transition from the era of paper textbooks and lecturing teachers to the digital and interactive age of internet resources and learner teamwork assisted by the teacher. The target group is rather broadly defined as “teacher trainers, teachers in training, practising

 teachers and their pupils”, which implies that the e-book structure is largely open and subject to the user’s own initiative as far as its potential uses are concerned.

The production process in itself seems as extraordinary as it is unprecedentedly democratic in its scale. It lasted throughout the four-year period (2010-2014), during and between numerous meetings held in Strasbourg, and brought together a hundred potential e-book contributors representing a range of member states. They were “historians, curriculum designers, authors of teaching materials, history teacher trainers, practising teachers, museum specialists and representatives of NGOs” (Shared histories, 2014: 10-11). First, the four main themes were outlined in a focus group discussion involving a dozen history education experts. Then four plenary seminars were held, each devoted to one of the main themes. Participants had been encouraged to share ideas, resources and examples of good practice from their own country pertaining to the selected thematic areas. Several enriching discussions followed as historians from various regions of Europe were confronted with interpretations of seemingly familiar historical facts which proved surprising, original, or controversial. The proposals shared were subsequently edited as written texts and included in the final version of the e-book as parts of the main text or “seminar papers” accompanying it. Finally, John Hamer, Brian Carvell, and Luisa de Bivar Black, all of whom are experienced Council of Europe history education experts and teacher trainers, edited the volume, which involved collecting all the resources, authoring much of the main text, and putting the e-book draft together for the final critical remarks at the last plenary Strasbourg meeting in 2013. Throughout the process the Council of Europe maintained contact with its permanent partners, the European Association of History Educators (EUROCLIO), the Georg Eckert Institute for International Textbook Research, and the Norwegian Ministry of Education and Research which granted a generous financial support (Shared histories, 2014: 14).

The e-book is 901 pages long (both in its interactive and pdf versions). Readers can either browse through and “turn” the pages by clicking on the page corner or utilise the structural hyperlinks provided in order to navigate between the related items, according to their own analytical approach or didactic criteria (Shared histories, 2014: 19). The e-book consists of an introduction and four sections featuring the main selected themes. In the opening remarks John Hamer, one of the key authors, thoroughly examines the crucial notion of “shared histories” emphasising that what is to be found on the subsequent pages as an image of the past is
“not a homogeneous European whole but rather a patchwork Europe” (Shared histories, 2014: 41). He also adds:

In this sense, ‘shared history’ is not a phrase identifying those parts of the past that might be considered to be jointly owned, but a pointer to the willingness of countries to teach and learn about each other’s national histories. [...] Implicit in this sense of sharing the past is that, although they may differ and some may be more vulnerable to interrogation than others, all histories have value. No one historical account may claim the status of being the sole repository of truth and the moral superior of all others. In particular, national histories need to guard against their narratives depicting those considered to be outside the nation not only as the ‘other’, but more insidiously as the ‘enemy’ (Shared histories, 2014: 39).

Section 1, “The impact of the Industrial Revolution”, contains three topics: “Demographic and social change”, “Time and space”, and “Our industrial heritage”. Specific teaching and learning units include “Expanding populations”, “People on the move”, “Women, children and families”, “Workers’ organisations”, “Faster than a galloping horse”, “Clock watching”, “Telecommunications”, “Salvation or obliteration”, and “Exploring the European Industrial heritage Route” (Shared histories, 2014: 50-223). Each unit is assigned a clearly defined target age group: primary (8-12 years); lower secondary (11-14 years); upper secondary (15-18 years); and teacher trainees (undergraduates) (Shared histories, 2014: 18).

In Section 2, “The development of education” is examined through the three perspectives of “Access to education”, “The reform of pedagogy” and “The exchange of knowledge, ideas and factors”. Within the first topic special importance is given to “Gender equality”, “Social segregation”, and “Length of compulsory schooling and lifelong learning”. Within the second one, emphasis is placed on the “Influence of religion”, “Expansion of popular education”, and “Changing views on learning and learners”. Within the third topic, “Early universities” and “Globalisation and education” are the major themes (Shared histories, 2014: 224-415).

Section 3, “Human rights as reflected in the history of art”, is devoted to the study of “Valuing individual human life”, “Living together in dignity in culturally diverse societies”, and “Individual autonomy and freedom of expression”. The teaching and learning units here have been built around the following quotes and questions: “Only if you are human”, “Do we not bleed?”, “Butterflies do not live here”, “How can architecture contribute to a strategy of opposing exclusion and discrimination?”, “Whose stories do museums tell?”, “Public representation of national


The choice of the four main themes as well as the individual teaching units clearly reflects the overall Council of Europe concept of the kind of history that deserves broader promotion in the common European framework due to its usefulness and potential in building a common identity. Clearly, themes belonging to the realms of economic, social, and cultural history have been privileged as these had long been deemed more suitable than those favoured by the nationalistic old school approach that focused on political and military history. When studying battles and political systems, learners are as a rule prone to get emotionally involved and glorify the “great men” of their own nation or community while rejecting the arguments or successes of its adversaries. Such history thus forges proud, but hardly critical and hardly well informed, patriots or nationalists. Whereas, it has been argued, the study of the lives and fates of “the common man” determined by the vast economic, social, and cultural structures of the longue durée, are likely to make learners grasp and internalise those crucial aspects of the lives of millions of Europeans throughout the continent (Haydn, 2003: 17-19).

Already in the introductory part of the e-book an impressive list of online publications in the field of history teaching can be found, constituting a wide range of educational resources on European history (Shared histories, 2014: 12). These are supplemented by a variety of practical teaching materials within each of the four sections. They all open with a theoretical introduction, often discussing historiographical matters, authored by academic experts in the field. What follows and constitutes the core of each section are the teaching and learning units featuring comparative statistics, visual sources, classroom-tailored exercises (“assessment opportunities”), maps, graphs, proposed webquests, and more. Again, the principle of diversity is applied through case studies
comparing the historical experience of Western and Eastern Europe, e.g. the impact of the Industrial Revolution on Manchester and Łódź (*Shared histories*, 2014: 78-85), with materials provided by experts from different countries, complete with internet resources (e.g. university websites, Youtube videos, BBC documentaries). Within each of the four sections a third element is present – seminar papers proposed by participating scholars from a wide range of European, and not exclusively Western European, universities, from Iceland to Georgia, with reflections by experts from China and the United States appearing in Section 4 (“Europe and the world”). The seminar papers either shed light on a local dimension of the pan-European process discussed (e.g. “Access to education in Northern Ireland”) (*Shared histories*, 2014: 406-409) or present a particular point of view on the broader reality (e.g. “Individual autonomy and freedom of expression as reflected in art through the eyes of a curator in a cultural institution”) (*Shared histories*, 2014: 568-577).

In virtue of the project’s broad participation and co-authorship, a carefully planned campaign of dissemination of its outcomes has been carried out. Under the leadership of the Council of Europe History Teaching Unit, project participants have worked to assure public accessibility to the e-book as its final product. A brief Google search on “Shared histories for a Europe without dividing lines” provides 736,000 results (some of them obviously irrelevant) from all countries involved, from Finland to Greece. The findings reflect a vast array of initiatives and publications, including pamphlets about the project sponsored by European NGOs, accounts of dissemination meetings with local history educators, or official reports by state institutions. However, one must admit these are often simply superficial mentions, which would imply the e-book may be praised as far as the idea of Europe’s “shared histories” is concerned but sadly does not seem thoroughly studied or used in the classroom, which brings us to a critical analysis of the e-book’s actual potential in the field of history education, an awkward task since the author of the present paper is also a project participant and a contributor to the e-book.

Several points of criticism can be identified. First, the e-book was initially published in English and French only (it is at times bilingual, mixing the two), while it was the Council of Europe’s hope that individual Member States would make the effort to sponsor translation into their national languages. Before this happens the e-book, realistically, remains accessible only to schools based in English- and French-speaking countries and a restricted number of bilingual institutions using the two as their working languages. Thus, for purely linguistic reasons, by no means
can the e-book be regarded as a truly universal European teaching resource. A similar aspect to be taken into consideration is that, despite the numerous participation of contributors coming from all parts of Europe, the main text in English was authored by three eminent British history education experts. While this decision was both understandable and logical, the texts to a certain extent represent the authors’ own mentality and cultural formation, which obviously cannot be said to reflect Europe as a whole.

Second, with the target audience so broadly defined (“teacher trainers, teachers in training, practising teachers and their pupils”) it remains unclear who exactly is supposed to be using the e-book in their classroom practice on a regular basis. While it is true that each target group can probably find some useful and inspiring resources suitable to their needs, it is doubtful whether this will suffice to drive them to study the vast volume of diverse texts and materials. Given the diversity of school history curricula throughout Europe it was inevitable that the e-book does not fit in any specific “unit”, “chapter”, or “prescribed subject” of the national curricula while offering an alternative perspective, and thus it needs a lot of skill on the teacher’s side to make it a meaningful part of their specific educational path.

Third, a history textbook on “patchwork Europe” has quite inevitably become something of a patchwork textbook. The choice of the four main themes cannot be considered anything but arbitrary, and the book does not offer any comprehensive outlook on Europe’s past. Here, too, the research-orientated approach, far from embracing any master narrative, is visible. A problem might be that in this way what has been produced is a volume of four rather detailed monographs comprised of academic papers with few generally outlined common points of reference, devoted to rather specialised topics (e.g. Time and space in the Industrial Revolution) which can certainly be studied or researched but do not necessarily seem relevant or interesting to a young classroom learner. Nevertheless, if not as a direct teaching resource, the e-book can certainly be used as a starting point for reflection and a source of inspiration on how specific topics in history are perceived and can be taught throughout Europe.

**Conclusion**

*Shared histories for a Europe without dividing lines* is a precious and impressive initiative in the field of European history education. It is the fruit of a long programme the Council of Europe has developed since its foundation in 1949, with a rich variety of official documents and
educational projects aiming at building a common European culture of peaceful coexistence in a democratic society. As Snežana Samardžić-Marković, Director General of Democracy at the Council of Europe, has observed:

_The Council of Europe has always considered history teaching as a subject with unique value, a subject which cannot be replaced by any other discipline. [...] Historical knowledge and understanding help us to develop important skills and attitudes, such as critical thinking, open-mindedness, an ability to reach independent conclusions and tolerance–competences that in education policy are often referred to as “transversal” or “generic” (Shared histories, 2014: 4-5)._ 

The Council of Europe has thought it apt to commemorate the 100th anniversary of the outbreak of the First World War (“a European Civil War”) and to celebrate the 60th anniversary of the European Cultural Convention with a publication conceived as a step towards avoiding the horrors of the former and developing the values of the latter in Europe’s common future. With its loose patchwork structure and an unprecedented diversity of contributors, the project’s final product perhaps best summarises the challenges and potentials of European unity in diversity, offering a thought-provoking insight into Europe’s past achieving objectivity through subjectivity, and allowing the reader to grasp the full measure of our shared histories by looking at them from a sufficient number of standpoints, often different and remote from their own.

**References**


The following chapter explains how we from the Center for History Teaching & Learning and Recalling the Past of the Lucerne University of Teacher Education, in a cooperation project with Docmine, a Zurich and Munich-based firm for Visual Story Telling, on behalf of the Bourbaki Museum in Lucerne, convey history by means of Tablet PCs. The intention is to provide an insight into the possibilities of how students can encounter history and how they are encouraged to talk about history through the Tablet PC. Through our work we have been able to create a link between history, education and entertainment, and thus provide “histotainment” to students.

The chapter is divided into four parts:

In the first part, I briefly outline the historical context of the knowledge to be conveyed, that of the German-French War that took place in 1870-71.

In the second part, I present the Bourbaki Panorama. This is a historic circular painting that shows a selected episode from the war.

In the third part, I demonstrate how students encounter both the panorama and its historical context by means of a Tablet PC. They do this by selecting people depicted in the Bourbaki Panorama and, through researching the backgrounds of the chosen characters, engage in historical learning and create their own Bourbaki Album.

In the fourth part, I explain how this virtual learning environment can serve as a model for history textbooks.

The German-French War, 1870-71

Wars take place simply because people want them to. That is true today, and was no different in the 19th century.

In 1870 the French wanted neither the prince of Hohenzollern nor any other Prussian prince to ascend the Spanish throne. To reflect this position,
the duke of Gramont read out a strong declaration before the Chambre legislative that was approved both by Emperor Napoleon III and unanimously by the government on 6 July. France was not willing to accept the succession to the throne to develop in such a way, since it was thought that this would lead to an empowering of Prussia and, as a consequence, to France being encircled. On the strength of these sharp French protests, the Hohenzollern family renounced the Spanish crown and, in fact, at this point the conflict could thus have been resolved (Clark, 2007). It escalated, however, as France subsequently put forward further demands which Prussia judged to be excessive and, accordingly, expressed this sentiment in the Ems dispatch, which then caused an outrage in France (Wawro, 2003: 16-40). As a result, on 16 July the French legislative chamber approved, with only six votes against, a resolution to provide the financial means for the state to go to war. On 19 July 1870 the French foreign minister informed the Prussian ambassador to Paris of the fact that France regarded itself as in a state of war. In the event that Prussia would be attacked, the other German states were obliged to provide assistance to their neighbour. As a result, the French declaration of war led to a rapid attack on France by the German states.

These events triggered deep concerns in Switzerland as well. As a border state to France and Germany, the still-young liberal federal state found itself in a rather precarious situation since it did not have a standing army (Senn, 2010). As a first step, the 51-year old army officer Hans Herzog was appointed general and commander of the federal troops. He came from a family of textile entrepreneurs from the Canton of Aargau. He, however, was much more interested in artillery than in the textile industry (Senn, 1945). In 1860 he was appointed artillery commander of the Swiss troops. This, however, was a difficult task. He did not find any support for his calls for a modern army in any of the political, administrative or public spheres. Moreover, he had a low income and the family-run business faced huge problems. It is no wonder then that time and again he wanted to resign as artillery commander, yet his patriotism seemingly kept him in the army (Senn, 1945).

When he was appointed general, the condition of the Swiss troops was alarming: because the cantons responsible for them had little money and many other obligations to meet, the troops were poorly equipped. Often they conscripted men who were sick or even invalid simply to achieve the target number. Herzog, being a perfectionist, experienced a deal of emotional suffering due to these conditions; he frequently sought to improve them, but achieved almost nothing due to the opposition of political and administrative bodies (Jacky, 1914).
In December 1870 and January 1871 the advance of the French Eastern Army (the Armée de l’Est) towards Belfort meant that the war had reached Switzerland’s borders. The Federal Council approved the assignment of some border troops but there were far too few soldiers available to be able to cover the border running from Basel to Geneva, which passed through the Bernese, Neuenburg and Vaud Jura regions (Strässle, 2002: 20).

Jules-Émile Gluck from Mulhouse, like Hans Herzog, had worked in the textile industry before the war. Gluck was 25 years younger than Herzog. He had completed secondary school and then vocational school, later working in the commercial sector after joining Schwartz-Trapp & Cie at the age of 16 (Gluck, 1908).

At the outbreak of the war in the summer 1870 he was drafted into the mobile guard of the Department of Haut-Rhin as a forager, i.e. he was responsible for replenishing food supplies. He then became a sergeant in the Eastern Army. This division, under the command of Denis Bourbaki, included four corps that had been set up in an improvised way and counted a total of 120,000 men. Much like Gluck himself, these other men had been recruited hastily, were insufficiently educated and were ill-equipped. The French government had to resort to such emergency measures because the war had developed in a catastrophic way for France: already at the beginning of September the Prussians had achieved a great victory and took some 100,000 French soldiers prisoner, among them Napoléon III (Wawro, 2003).

Bourbaki had orders to advance northwards with his new Eastern Army, crossing Alsace, and to cut off the supply of the German armies in front of Paris. However, the ill-equipped Bourbaki army failed to achieve its first goal, namely to break the siege of Belfort by the German army, and were forced to retreat. Simultaneously, the German army seemed to attack from the rear (from the north) which cut off the path of retreat towards Burgundy. As had already taken place in Metz and Sedan, once again one of the larger French armies was threatened to be surrounded by German forces. The situation appeared to be so hopeless that General Bourbaki attempted suicide on 26 January (Wawro 2003).

Two days later, on 28 January 1871, Prussia and France concluded a ceasefire agreement. However, the French government and the army leadership explicitly excluded Bourbaki’s Armée de l’Est because they hoped to be able to change the course of war in the east (Clarke, 2007).

Indeed, at the base of the Eastern Army no signs of any change in the course of the war could be recognized. On the contrary, the situation was desperate: in the cold winter conditions, hardly any food could be provided in the Jura region, and supplies were cut off (Lecaillon, 2002). The Fourth
Battalion, under the command of Sergeant Gluck, was stationed at Pontarlier to help cover the withdrawal. Gluck’s battalion remained together as a unit, despite all the disorganization, marches and counter-marches, orders and counter-orders, but the Germans were coming closer and closer. The entire Bourbaki army was forced back towards the Swiss border. General Clinchant, who had replaced Bourbaki after his suicide attempt, saw only one way out: escape into Switzerland. He hastily met Swiss officers and struck an agreement with them on the internment of the French Armée de l'Est: all of the soldiers, including Sergeant Gluck, were allowed to cross the border and had to hand over all their arms (Gluck, 1908).

The Bourbaki Panorama

The French Eastern Army crossing the border into Switzerland at Les Verrières is displayed at the Bourbaki Panorama in Lucerne. The giant painting – 112 by 10 metres – is one of the few original circular paintings that have survived over time (Kämpfen-Klapproth, 1980).

In the 19th century circular paintings were a new visual medium (Koller, 2010). These are works of art that serve educational, propaganda and entertainment purposes, and they were visited by thousands of people every year. The panoramic pictures reflected the extension of how to look at things in the 19th century and conveyed a new illusion of space: the immense amount of detail invited and still invites viewers to discover new things each time they viewed the paintings without, however, losing sight of the bigger picture. At the same time, the observer gains the impression that the picture truly reflects past reality. However, the golden era of panoramas did not last for very long: very soon they were replaced by films. But many of such circular paintings have lately experienced a renaissance, and new ones are also being painted, for example in Egypt, Russia, Turkey and China, where ten new circular paintings depicting some of the historic battles of the 1940s and 1950s have been produced since 2000.

In contrast to them and the many European circular paintings of the 19th century, the Bourbaki Panorama does not, however, show a battle. Instead of war and violence it shows humanity and solidarity. It was designed and in substantial parts painted by Édouard Castres. Castres first learnt his trade in Geneva and then he travelled to Paris in 1859 to be educated as a painter. After a failed attempt he was admitted to the École des Beaux-Arts and, for the purpose of education, devoted himself to
copying masterpieces at the same time as Édouard Manet und Edgar Degas (Kämpfen-Klapproth, 1980).

Here he was taken unaware by the outbreak of the German-French War in the summer of 1870. Castres felt committed to France, it being a land of art and where his origins lay (his ancestors had been Huguenots); he therefore became a paramedic. Armies in those times hardly felt obliged to look after their injured, but the Red Cross Convention of 1864 allowed committed private individuals like Henry Dunant at Solferino to care for the wounded under the auspices of the Red Cross. Castres acquired a cart with horses and, at first in Le Havre, used it along with two doctors to transport injured soldiers from the battlefield to the sick bays. After the French army was defeated in the first phase of the war, Castres became part of the Eastern Army, with which he experienced the border crossing into Switzerland and documented this event in many sketches (Hauptman, 2005).

It was not uncommon for painters to follow battles; since photography was not yet widespread and could not, in particular, be reproduced in newspapers, painters found gainful employment in war. Castres’s painting *Ambulance internationale par un temps de neige* gained recognition at the Paris Salon in 1872, and particularly stood out because of its un-heroic theme and perspective. The fact that Castres himself walked alongside the cart in the painting, added a special authenticity to the picture. Such paintings by realists with their topical themes opened up access to art for a broader public (Häsli, 1979).

Castres became famous, meaning he could sell more pictures and finance longer expeditions. In 1876 he received a commission to produce a circular painting of the internment of the Bourbaki army by the Belgium Panorama Society. At the time this event was still very fresh in the public consciousness in Switzerland due to the numerous memorial booklets and monuments to deceased soldiers it inspired, and therefore the painting would be able to attract French visitors (Deicher, 2009: 66). This was important, since a panorama for which a special building had to be erected was a commercial business (Kämpfen-Klapproth, 1980: 31). Castres took the order as an artist very seriously. He spent the winter of 1876/77 at Les Verrières in order to study the landscape. He made sketches and paintings of many individual types of scenery. He attached little importance to heroic depiction; he was much more focussed upon catching the atmosphere. For this reason, he did not choose the perspective from a hill to paint the scene as it was common at the time, but he took the perspective from the ground in the middle of the action, which allows for particular closeness. In 1881 he, together with ten fellow artists –
including Ferdinand Hodler, who was later to become famous himself (Kämpfen-Klapproth, 1980: 37) – painted the Panorama in just five months. From 1881 until 1889 it enjoyed considerable success in Geneva. When public interest faded, it was transported to Lucerne by Benjamin Henneberg, who had bought it in the meantime (Kämpfen-Klapproth, 1980: 39).

The Bourbaki Panorama App

Today, the circular painting is exhibited in Lucerne and viewed by thousands of visitors every year. The painting has great potential to entertain and convey history in equal measure. It shows a point of intersection in the history of Europe and of Switzerland in the second half of the 19th century. Thanks to the abundance of people depicted, the circular painting is an inexhaustible reservoir of stories from politics, culture and economics, and thus functions as a mirror of the society of the time.

Because these opportunities can be utilized even better by new media, we from the Center for History Education and Memory Cultures of the Lucerne University of Teacher Education, in cooperation with Docmine, a Zurich and Munich-based firm for Visual Story Telling, received a mandate to make history accessible in such a way that it is educational as well as entertaining for visitors and students. The objective was (and still is) to produce something that can broadly be described as “history edutainment”. To this purpose, we developed a virtual learning environment – the Bourbaki Panorama App – that invites visitors in general and secondary level I and II students in particular to observe the Bourbaki Panorama accurately, discover it through interactive experience, make their own interpretations and finally to form their own opinions based on everything they have learnt. Entertaining historical learning is therefore the ultimate aim.

Tablet PCs are the carriers of the virtual learning environment. They are able to hold significant amounts of information and tasks can be carried out on them. By means of this virtual learning environment, history is told through stories about specially selected individuals such as Hans Herzog, Jules-Émile Gluck, Édouard Castres and many others in an entertaining way.

Students (as well as other visitors) are thus invited to interactively explore the Bourbaki Panorama with a tablet, and through this process, which involves selecting from the materials provided, taking photos, reading and writing and dragging and dropping, they develop their own
Bourbaki Album, which they subsequently send as a data file to other students by e-mail. In this way "histotainment" is put into practice. Histotainment is an addressee-oriented linking of history and entertainment. The objective is to convey history in an entertaining way which, as far as possible, relies on empirically proven phenomena, events or actions of people, and invents stories in a plausible and completing manner only where disturbing gaps arise. Narrative validity is thus more important than empirical validity (Rüsen, 1997: 160-163). History is therefore told through stories about people.

The learning environment for discovering the Bourbaki Panorama is composed of three phases:

- first, a location-independent exploration of the painting and its history through a public app, which can also serve the purpose of preparing for the museum visit;
- second, a tablet-based encounter with the Bourbaki Panorama on site at the museum;
- third, an in-depth history-related educational activity thanks to the students’ self-developed Bourbaki Albums, which can also function as a means of post-processing the museum visit.

Students – or their teachers – prepare for the museum visit in the classroom through a videobook, which they receive free of charge. The core of the videobook is the chapter on Swiss historical views from the video book Pioneers of Modern Switzerland that everybody can download from Apple’s App Store, from Google Play or from the home page of our website in German, French, Italian or Rhaeto-Romanic – also one of our Swiss national languages (Gautschi et al., 2013). In videobooks, which are displayed on tablet PCs like the iPad, video sequences, picture galleries, interactive diagrams and in-depth texts are joined together to form a multi-layered, multimedia-based narrative. This enables visual narrative elements to become the main focus. They are complemented by extensive texts or original documents. You navigate by swiping and scrolling. Videobooks are sold either as individual apps or as part of a large app which contains several videobooks. In this case, our videobook provides interested people with their first encounter with the Bourbaki Panorama. They can therefore study the materials before visiting the Bourbaki Museum, although it should be pointed out that studying the videobook is not in any way a prerequisite for the visit.

In the Bourbaki Museum itself each student gets a tablet PC and, after receiving some preliminary information, chooses one of the people who
are depicted at the border crossing of the French Eastern Army at Les Verrières. We have made a pre-selection of the groups of people: army officers and soldiers of the Bourbaki army, Zouave soldiers and Turcos (soldiers of the French army of North African origin), and sutlers and helpers of the Red Cross. Each group of people consists of several concrete figures who mostly cannot be discovered in the painting at first sight but require close viewing of the Panorama. Most of the figures are people of “humble origin” like Jules-Émile Gluck or Édouard Castres. This ensures personification (Schneider, 2012): the students, as it were, take on the roles of the selected people, enabling them to gain a specific insight into the living conditions during the second half of the 19th century and accompany their figure from his/her place of origin to Les Verrières, then to the internment and back home.

The students then also select a second individual who might encounter the first chosen person at Les Verrières, for example Hans Herzog. They also get to know his history, after that lose sight of him due to the internment, but write him a letter later on in which they tell him all that they have then experienced after Les Verrières.

At the Bourbaki Museum a “programmed conveyance and entertainment” is offered as well. The learning pathways, the programme of the conveyance, are chosen by the students themselves. The choice applies to the “what” which is different each time depending on the chosen person. The students also have the opportunity to delve more deeply into certain topics if they wish; for example, they can access more detailed information about the course of the war or individual groups of people. Additionally, the aspiration level of individual tasks can be chosen by the students themselves: whereas some of them choose to write a letter themselves, others may compose a letter out of text modules (beginnings of sentences). The choice of learning pathways within the learning environment is made through interaction and causes differentiation.

By experiencing the Bourbaki Panorama in an interactive and differentiated way in the Museum the students develop their own individual product: “My own Bourbaki Album“. This can fulfil two functions; first, it can help students remember their own experiences at the Museum; second, within the framework of post-processing the museum visit it can also serve as a further learning opportunity at school – by comparing the different albums of individual students a more comprehensive picture of the events, the period and history is established. Through reflecting on the experiences, the act of delving into historical topics, memories, media and art is ensured.
The following student activities take also place at the Bourbaki Panorama. The students may:

- develop knowledge about history, memories, media and art;
- check this knowledge by taking a quiz;
- interact with the Panorama and its historical context;
- choose a figure who is depicted in the Panorama;
- take a picture of this figure;
- gain historical knowledge and get to know stories about this individual;
- write down reflections about this figure;
- convey their thoughts about humanity and solidarity;
- choose a second figure from the individuals depicted in the Panorama;
- gain historical knowledge and get to know stories about this individual;
- write a letter;
- take photos of themselves at the Museum;
- send the self-developed Bourbaki Album to their own e-mail address.

**The Bourbaki Album as a Model for Future History Textbooks**

What we are today implementing with the Bourbaki Album we will tomorrow do with the history textbook. The programme enables students to learn through histotainment, and they are able to gain knowledge about history and recount it by themselves on their personal tablet PCs. Thus analytical and synthetical mental operations are parallelized and connected thanks to media convergence. Historical learning content via textbooks and students’ interaction with such material take place on the same device: on the tablet PC. Students write their thoughts directly on the pictures on the tablets. So supply and use move more closely together; meaning-producing linking of phenomena with time difference can more easily be carried out. The opportunities provided by tablets for anybody who wants to convey history or wants to acquire historical knowledge are huge. Tablets allow the creation of personalized history textbooks. Therefore using the Bourbaki app to teach history has a lot of advantages: Firstly, the content is visually attractive thanks to the multi-media presentation of material. Secondly, the sheer variety of learning paths enable students to make their own choices: they can choose different people, they can learn
in whichever order and whatever pace they choose and they can select the degree of difficulty appropriate to them. Thirdly, there is multiperspectivity and controversy in the material. Fourthly, the app offers different avenues of communication between students or between teacher and students. Fifthly, it is easy to update the app if there are mistakes in the material or new knowledge comes to light. In addition, regardless of whether or not the tablet displaying the videobook has a live internet connection, videobooks ensure a closed learning environment because navigating beyond the links provided can be prevented. In the final analysis, a videobook is clearly structured, since the main narrative can be read by swiping from left to right while scrolling allows users to delve down into more in-depth areas.

Teachers and other people who convey history face new challenges brought about by tablet PCs and apps: they need to design their materials wisely and ensure that the different forms of media used complement one another. Developing animations and interactive web pages demands considerable imagination. Despite the availability of modern tablets, history teachers and others who convey history are still confronted with the same well-known tasks, namely: how can we win and retain students’ attention? How can we involve students in historical thinking processes? What history and what stories should we offer? How can we encourage viewers and learners to interpret what they see? How can interpretations and orientations be put in a communicative relationship and how can they be validated? What arrangements ensure that the offers are not only made use of, but are self-actively acquired and further developed? How do we succeed in making students experience history as edutainment? Ultimately, the main goal for people who convey history is always the same: to make sure that learning history is both educating and entertaining.

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A radical change in the (text)book market is expected. The printed textbook is no longer unchallenged as its electronic equivalent has arrived. This raises two important questions: What are the consequences for instructional designers, and where are the challenges and opportunities?

Until now, publishing houses have only hesitantly reacted to new trends in the textbook market as they did not want to lose their profitable and well-established paper-based business model. But the evolution towards digital textbooks seems both inevitable and desirable (Karagiorgi and Symeou, 2005: 24).

Several recent occurrences indicate an upcoming change. The multinational corporation Apple introduced the freeware iBooks Author to create multimedia textbooks in February 2012. Furthermore, a store for the distribution of these works, the e-book application iBooks, was released. An important stage of the development was the large sales of the iPad, which was first launched in 2010, and the subsequent tablet computer hype it sparked. Moreover, some isolated solutions for digital textbooks are emerging. For example, German publishing houses made a first step in introducing a platform for digital (but not multimedia) textbooks in February 2012. However, this project is more a sales channel for traditional products in a digital form (pdf documents) than an independent and new concept of digital textbooks which allows the creation of a narrative system with new elements.

The process seems to be following a clear path. The question, then, is not whether, but when multimedia textbooks will be widely used. People are now beginning to realize that, given that technical problems (handling, use ability, battery service life, displays, etc.) occur less and are therefore
no longer an obstacle, multimedia textbooks offer numerous advantages. Today, issues such as the individualization of learning material, the creation of relevant learning environments, the encouragement of collaborative learning, and the studying of multiple perspectives can be practically implemented within a textbook.

As a result, the textbook is not likely to become extinct, as many predicted, but is about to evolve into a new form. The challenge is now to combine the advantages of the printed textbook (the promotion of curriculum-based narration as a basis for “solid” teaching) with the advantages of digital media. Combining the two forms also implies that not all of the technological possibilities available within such a multimedia textbook should automatically be used. Media other than text should only be used if they are able to bring added value, and if they can be justified through didactical theory.

Today, the challenge is to find a constructivist, competence-oriented way of doing so. Consequently, empirical studies will be necessary to prove the assumed added value of the new learning devices.

The creation of a new multimedia learning tool implies the collaboration of different academic disciplines. The superordinated conjunctive conviction has to be constructivism. Under this “roof” the various academic disciplines can gather: psychology, pedagogy, technical didactics, the respective scientific disciplines, and computer science.

The implementation of multimedia textbooks can only be the trigger for the intended revolution if empirical data is collected and analyzed and used for implementing adaptations and enhancements. New branches in the information technology sector, such as educational data mining, can play a vital role in this endeavor.

“Textbooks” vs. “Multimedia Textbooks”

The breakthrough of tablet computers, especially the iPad, can, as previously stated, possibly be the technical basis for the new development, as tablet computers are supposed to be easy to work with. They generally reduce functionality and offer easier usage solutions. Practically every function equals one application. Tablets are mobile computers with a long battery life (which is especially important for usage in schools) and internet access. Moreover, prices when compared to laptops are generally lower. Additionally, the tablet computer could be seen as a connecting link between a book and a computer. It is directly operated by finger touch interaction, and therefore it almost provides a haptic book experience.
Consequently, it seems to be a good choice for school purposes at the moment.

Combining user-friendly technology with the didactic knowledge of the respective subjects based on a theoretical constructivist background can help create a new product: a multimedia textbook. This instructional product has to first meet several requirements, however, if it is to find its way into classrooms:

1. The handling has to be as user-friendly as possible. Teachers and pupils with little or no technical experience have to be able to use them.
2. The multimedia textbook has to be a cross-platform application. The most promising solution here seems to be browser-based.
3. It has to be based on the latest instructional design insights. Karagiorgi and Symeou moreover stress the fact that “designers must develop reflexive awareness of the theoretical basis underlying the design and must continuously assess and review instructional theories, tools and resources” (Karagiorgi and Symeou, 2005).
4. It has to invent the textbook in order to preserve it and create added value.
5. It has to assist teachers in their efforts to fulfill the requirements of the respective curriculum. Especially in today’s era of “digital defibrilation”, teachers and educators in general want the “textbook principal” – a guideline through the jungle of educational propositions. The textbook as mediator between political intentions, statutory provisions, pedagogical beliefs, and policies has to translate the curricula into practical instruction. This also implies a reduction of functions. The integration of multimedia elements thus has to be justified with instructional arguments.
6. It has to support teachers in the performance of competence-oriented tuition.

If these requirements are fulfilled, two ways of thinking, two allegedly contradictory worlds, textbooks and new media, can be blended. One example for an interpretation of the new situation can be found in Repoussi & Tutiaux-Guillon (2010), who state that textbooks are “still the dominant translation of the curriculum in schools and they continue to constitute the most widely used resource for teaching and learning, despite the development of new media and educational technologies”. The first part of the sentence is absolutely correct; the second part would be too, if
it were not for the word “despite”. It would be correct if it was replaced by the phrase: “and this role will continue because of...”.

Textbooks have an opportunity to remain the most widely used resource for teaching because of, and not despite, new media and educational technologies. Textbooks and new media should not be seen as antagonisms but as complementary partners.

Multimedia textbooks provide an opportunity to work with multimedia content embedded in the linear narrational structure of a book. It can include the rich variety of media available on the internet but without the possibility of becoming “lost in hyperspace” (Edwards and Hardmann, 1999).

This combination seems to be the answer to many claims made in recent years. Here are some examples of requirements which now can be fulfilled:

Karagiorgi and Symeou (2005) claimed that empowering students “to make choices about how and what they will learn results to a shift from having all learners learning the same things to allow different learners learn different things.”

Jörn Rüsen (1992) called for a workbook which gives “space for the development of the ability to debate, criticize and evaluate” (“Freiraum zur Entfaltung von Argumentations-, Kritik- und Urteilsfähigkeit“). Trepat and Rivero (2011) summed up the demands of high school teachers for learning material: “Scientific update of content, brevity of audiovisual material, effects and animations, selected on its respective didactic potential, easy usage through basic tools etc.”

Multimedia Textbooks, Constructivist Instructional Design and Competence Orientation

Constructivists point to the creation of instructional environments that are student-centered, student-directed, collaborative, supported with teacher scaffolding and authentic tasks [...] Such learning environments involve an abundance of tools to enhance communication and access to real-world examples, reflective thinking, multiple perspectives, modeling or problem solving by experts in a context domain and mentoring relationships to guide learning (Karagiorgi and Symeou, 2005: 19).

These postulations give many reasons in favor of multimedia textbook solutions.

The task is to look at the requests of Karagiorgi and Symeou in the light of the possibilities of a multimedia textbook. It will also be important to find the points where possibilities should not be integrated in a
multimedia textbook but have to be outsourced. These functions can and should still be available on electronic devices, but should not be embedded in textbooks.

As the material should be student-centered and student-directed, a digital version of a textbook should enable students to make their own choices. One possible method of achieving this that cannot be replicated in a traditional book is to provide an abundance of material. Materials for different learner types and with different needs can be integrated. A shift from teacher-centered to student-centered learning is possible through social interaction and presentation possibilities. Every learner now has the tools to present the results of his work directly in class. Presentation tools are available as freeware and should not, as a tribute to the claim that multimedia textbooks have to be easy to work with, be integrated in the book, but provided “outside” the book.

Moreover, collaborative working is important. According to the postulate that usability should be high and the technology barriers low, it might be the best choice to outsource the tools for collaborative working. Many proprietary and free software solutions are available. Collaborational forms of work can be organized within these software solutions where learners can work together on one task. As “collaborative learning does not just entail sharing a workload or coming to a consensus, but allows learners to develop, compare and understand multiple perspectives of an issue” (Karagiorgi and Symeou, 2005:20), projects such as creating a wiki for a special topic seem to be promising.

Without a well-trained, reflective, and self-reflecting teacher the lessons will not improve only because of a multimedia textbook. Teacher scaffolding is therefore a task of the teacher. He or she has to know the problems of the learners and the needed instructions and assistance. Technology can play a supporting role, as “authentic learning occurs when instruction is designed to facilitate, simulate and recreate real-life complexities and occurrences” (Cey, 2001; cf. Karagiorgi and Symeou, 2005). The possibility of achieving this within a multimedia setting is far greater than in printed books. The world wide web and its endless possibilities is, under the regulatory control of the teacher, only one step away. Maureen Tam points out, that “the important point ... is, that it is the problematic situation or context that is central to the learning process in constructivism” (Tam, 2000: 52). The internet is one possible source of these “problematic situations”. Additionally, an electronic book can remain up to date and involve the current “problematic situations” in a demanding didactic context at the same time. Current affairs can now find a way into textbooks and can be treated in a questioning and methodical
way. This is an important component to achieve progress in the orientation competence of the pupils.

Moreover, teachers are now able to produce their own content which can be distributed to all portable devices. For example, teachers can now produce their own screencasts for students in order to give instructions for every step in the learning process.

Through the vast amount of possible material, the mixture of media and specific method sections pupils can be enabled to become specialists in their respective subjects.

*The design task, therefore, is one of providing a rich context within which meaning can be negotiated and ways of understanding can emerge and evolve* (Hannafin et al., 1997).

A very important aspect is to create a “variety of viewpoints so they [learners] can construct their own knowledge of various concepts.” (Rice and Wilson, 1999). Especially in social sciences, the comprehension that narrations are constructions is essential to understand the subject. To work with multiperspective views can help learners to understand better. Kafai and Resnik put it as follows: “Another important strategy is the presentation of multiple and alternative views to learners. A rich learning environment encourages multiple learning styles and multiple representations of knowledge from different conceptual and case perspectives” (Kafai and Resnik, 1996)

To conclude, the new technology “also carries with it a renewed conception of instruction that shifts attention from instruction as the imparting of knowledge to instruction as the guidance of social-based exploration in intellectually rich settings” (Salomon, 1991: 56).

**Designing and Developing a Competence-Oriented Multimedia History Textbook**

The department of theory and didactics of history at the University of Eichstätt-Ingolstadt and the Institute for Digital Learning have developed a prototype for a multimedia history textbook (Schreiber, Sochatzy and Ventzke, 2013). The Institute brings together educators and educational system developers. It is connected to teachers, departments of education, instructional designers, psychologists, and IT developers and is therefore an interface between many different disciplines and interests. The scientific interest in the project spans from development to evaluation to implementation- and intervention studies.
The school subject History seemed very suitable for such a prototype as the textbook was supposed to be based on constructivism and competence-orientation. History is especially promising for a prototype as “we only have one past, but many accounts, ‘(hi)stories’ about it.” The reconstruction of past events and the processing of “historical narrations” (de-construction) takes place in everybody’s historical consciousness and in the exchange of many individuals (Körber, 2007). Many different intentions and interpretations are always embedded in narrations about the past. It is crucial to approach this subject in a multi-perspective way in order to see different interpretations as “history”, as narration is always a retrospective, perspective, selective, and partial construction.

Our first partner in the creation of the multimedia history textbook was the German-speaking community of Belgium. It is composed of areas which were annexed in 1920 from Germany as consequence of the Treaty of Versailles. The local population numbers about 75,000 inhabitants. The community has its own government, which is formed by four ministers. It has a minister for education, formation and employment, and is therefore able to make its own educational policy. The German-speaking community has developed new, competence-orientated curricula. The department of theory and didactics at the University of Eichstätt-Ingolstadt was the partner for the new history curriculum. In order to implement the new curriculum it was necessary to produce new instructional material. As no publishing company develops a printed history book for only eight secondary schools, new ways had to be considered. The idea of a multimedia history textbook was born.

This development shows that small minority communities might be the first ones to introduce multimedia textbooks as they are easier to produce and are distributable in smaller quantities. The German-speaking minority of Hungary has also requested out cooperation for the same reasons.

However, bigger countries also see the advantages of this approach as, for example, it allows multicultural and multireligious aspects to be taken into account in a more convincing way.

The theoretical basis for the constructivist instructional design is the procedural model of historical thinking, a structural competence-model which is deduced in a stringent way and consists of four competence areas: the competences to deal with historical questions (“Historische Fragekompetenzen”), to deal with historical methodology (“Historische Methodenkompetenzen”), and to use history’s potential for human orientation and identity (“Historische Orientierungskompetenzen”) arise from the process of historical thinking. The competences to acquire and command relevant historical terminology, categories and scripts, i.e.
declarative, conceptual, and procedural knowledge ("Historische Sachkompetenzen"), are the “sedimentation” of the organization of historical thinking, of its premises and results. This area of competence is systematized by means of structures, namely principles, the subject’s conceptions of identity and alterity, categories and methodological “scripts” (Körber, Schreiber and Schöner, 2007).

History, in this understanding, is therefore not about “swotting” or drumming facts into the heads of pupils; it is about fostering a reflective and (self-)reflexive approach to history and is therefore about history as a subject of thinking. In other words, this concept of a multimedia history textbook transposes the well-known postulations about a self-directed learning process in practice. “The goal, for instance, is not to teach a particular version of history, but to teach someone how to think like a historian” (Karagiorgi and Symeou, 2005: 19). Stearns points out that learners should develop a “historical habit of mind” which allows them “to assess different magnitudes of historical change, different examples of conflicting interpretations, and multiple kinds of evidence” (Stearns, 1998).

The task is to develop a prototype which can show the new possibilities afforded by multimedia textbooks and the opportunities they present for constructivist instructional designers.

There are specifications which will only work within a history multimedia textbook. Some of these elements will nevertheless be transferable to other cultural studies like geography, ethics, and social sciences.

It is crucial that a text-based narration with a common theme is deepened, widened, and opened by multimedia elements. Additionally, the elements of the main narration have to be transparent to the learners. Learners acquire that knowledge, including how the narration of the “book” is constructed by the author, as the constructor reveals his or her construction principle. Short video interviews with authors, designers etc. can play a vital role in providing transparency for the construction process. “Dialog-texts,” texts that make clear how the book was constructed, give reasons for the argumentation, and communicate with the learners can support this purpose.

What follows is a short description of some elements that have been developed for the mBook. The focus lies on the “historic functions”.
Historical map animations

Animated historical maps, in contrast to printed and therefore static historical maps, can show developments of the past, including their structural contexts. Maps are a vital part of historical learning as historical knowledge can be located. As “classic” history maps are static, they are not able to show evolution of time. With different kinds of animation this problem can be solved. Different types of animation are possible. Progress can be shown by using several maps which can be used in an individual way within a picture gallery. One example would be the worldwide span of World War I. With several maps the span, the countries involved, and the battlefields can all be shown. A slight variation is a .gif animation. These animations can be used if the processes are too emphasized. Less information can be given here, and it is not possible to interact with them. One example would again be the expansion of World War I, if the process of expansion and not the precise opponents and places are emphasized.

Another option is a “full animation”, with narrator, text, and picture overlays. The result is a stringent narration about a certain event or evolution. The user can interact by using the pause and play buttons, and use a timeline to get to the position he or she wants. These kinds of animations are suitable for rather complex narrations. These maps show how events develop and pupils are able to distinguish and evaluate the specific (strategic or logistic) reasons for military moves, political plans, and propaganda decisions, helping pupils to connect these issues. Examples here are the map animations “Schlieffenplan” and “The alliance systems before the First World War.” All kinds of map animations help to overcome the static character of maps. As with every kind of material it is important to make the construction of the narration transparent.

Primary Sources

Primary sources can be presented in a variety of ways, ranging from the original document in the original language to adapted versions with modern translations. The multimedia textbook also offers the possibility to “read out” the texts. With this function primary sources can be brought back to the original context. If you have a source of a military song sung by children at a parents’ evening in 1916, you have the possibility to listen to a children’s choir in order to understand the “core” of the source. The enactment has to be clearly defined and made transparent to learners. It has to be clear that the choir is not a source from the past but an aid to understanding the source, as the learner can empathize with the former
contexts and meanings and imagine the effects. As every learner has had different experiences and therefore different foreknowledge, it is important to have many different primary sources to select from. Furthermore, the construction of one’s own reality is based on multiperspective views of the world. But, as “not any interpretation or option is as good as any other and the learner is not free to construct any knowledge”, the construction principles have to be clear as constructions “will only survive in terms of viability (not in terms of truth) and ‘usefulness’ in a pragmatic or instrumental sense in the context they arise, and in terms of whether they either do or not do what they claim to do” (Spiro et al, 1991b).

**Glossary**

Historic categories, concepts, dates, names, and places are vital for the subject. Only if you understand the concept and the historical change of meaning of a term like “revolution” is it possible to get an understanding of the subject. In the classic textbook only seldom could glossaries be found, mostly at the end of the book and therefore not in the right context. Now, all important terms can be provided by way of a glossary. Moreover hierarchies of terms can be made explicit. Learners can use the glossary when they need it and ignore it when they do not need the explanation. It should also be possible for learners to make their own entries too.

**Memo function**

In the history of textbooks it will be the first time that pupils will not only be allowed to make notes in their “books”, but will be encouraged to do so. This is a radical change in the medium. The learner can individualize the learning material, make their own notes, and highlight important or relevant passages. With these interactive functions a “knowledge construction tool” (Karagiorgi and Symeou, 2005: 20) can evolve as knowledge is actively constructed.

**Collection of extra material**

Beyond the main narrative of the textbook, extra material is important to construct learners’ own narrations or de-construct already existing ones. Today, students are not regularly confronted with written historical narrations but with videos and computer games. History documentations about nearly every subject are omnipresent. As a result, youtube and other video platforms are full of this kind of material. If pupils are not able to
“read”, understand, and de-construct those filmic narrations, they are defenselessly exposed to all kind of interpretations. Media literacy can only work within the respective subjects. A multimedia textbook can be the place for this work. This is also true for all other kinds of narrations: radio productions, newspaper articles, museums, national monuments, etc. Therefore it is important not only to provide this kind of material but also to give methodical advice as to how the different media work. This can take place in methodology sections.

It is important here that learners can work freely. Von Glaserfeld indicates that “constructivists recommend that designers provide problems which may be solved in different ways and leave students to struggle with problems of their own choice” (von Glaserfeld, 1993). Karagiorgi and Symeou stress the fact that “meaningful understanding occurs when students develop effective ways to resolve problematic situations. Such situations foster motivation because students develop effective ways to resolve problematic situations” (Karagiorgi and Symeou, 2005: 19). Perkins recommends to confront the learner “with a ‘phenomenarium’ (an artificially limited area where phenomena to investigate occur, such as an aquarium or a computerized Newtonian ‘microworld’” (Perkins, 1991 b).

**Presentation tools**

It is important that students present and defend the results of their work. Therefore, the multimedia textbook takes advantage of the opportunities that tablet computers offer to enable students to make their own film sequences, present the results of the groupwork via a projector to the class, show the results of a mindmap, post results in social networks, create a wiki to a historical development, and so on.

The tablet or laptop allows this kind of work, but there are no special presentation tools within the multimedia textbook. The only exception is the presentation of fulfilled tasks and notes via a projector. In order not to make the handling too complicated it is recommended to create presentations in already existing freeware applications.

**Collaborative working**

Social interaction is important for construction of knowledge. As the multimedia textbook should be a blend of the traditional textbook and the new media, at some points deductions are deliberately made. As functions should be reduced some functionalities have to be sourced out, collaborative forms such as wikis, blogs, etc. can and should be used. The
“digital environment” allows such excursions. Hints for such forms will be given.

**Perspectives**

Until now, it was not possible to produce precise research on how school textbooks are used. With digital textbooks, however, it is now possible to collect empirical data through estranged log file protocols. An opportunity exists that textbook researchers have never experienced before: they can now record user behavior: When do students open particular materials, and which materials do they use? Which level of difficulty do they choose? Do they use the glossary for terms they do not know, and can they handle the concept and definition of the term they looked up or did not look up in the tasks at the end of the chapter? Do they only use the animations and video sequences or do they also use the texts before and after? Do they use the primary sources or do they blindly trust the text of the authors? Do they have the historical concepts at their command or do they try to learn the “facts” by heart?

Based on this data, it will be possible to improve existing concepts and adapt them to the needs of different types of learners. The emerging discipline of educational data mining, which explores data from educational settings, can promote this goal. A study with all the pupils of classes nine to twelve in the German-speaking community of Belgium is currently starting. Well-known partners for this educational research project are the Knowledge Media Research Center (Member of the Leibniz Association), the German Institute for International Educational Research (Member of the Leibniz Association) and the Center for Educational Science and Psychology at the University of Tuebingen.

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IT IN HISTORY TEACHING IN ESTONIA: 
CHALLENGES FOR THE TEACHERS

MARE OJA

Using ITC in teaching is a challenge in many countries. The aim of this chapter is to discuss the changing teaching environment and the risks and possibilities of using IT, and to introduce good practice through some examples.

Options and Justification for Using ICT

In today’s society one cannot survive without the use of information and communication technologies (ICT). The skill of being able to find information, which is necessary for orientation in a world of information abundance, for life, work and learning, is the base of the knowledge society (Wilson, 2014: 159; Eesti elukestva õppe strateegia 2020: 22). According to key educational principles, the main goal of general education is to prepare young people for life in society. Citizens should be able to find information from the web pages of state institutions and ministries, fill out tax declarations electronically, provide an electronic signature, draw up and sign electronic contracts and take part in electronic elections, among many other functions. Therefore, Estonian schools must teach pupils the skills necessary for tomorrow, today (Raivo, 2015). In addition to subject teaching, the national curriculum (2011) requires developing key competences through general education – digital competence is one of the eight listed. Graduates should have diverse knowledge and skills (communication, cooperation and problem-solving skills, etc.) and be an active and responsible citizen that is able to use a variety of digital tools.¹ This means that teachers should use electronic

equipment and environments when teaching history to support pupils’
digital competence.

In schools today, teachers have to constantly ask pupils not to use
mobile phones or any other electronic equipment during the lesson
(Sheldrake and Watkin, 2013: 30). Teachers also find that pupils do not
want to learn. But why? Couldn’t these technical gadgets be employed in
teaching? Pupils learn differently today; their way of thinking has
changed, they are constantly connected with each other and the wider
world. Pupils need education that is modern and different (Sheldrake and
Watkin, 2013: 30-35). Access to information is available and almost
unlimited all over the world (Wilson, 2014: 159). This generation, born
and raised in the information society, has been labelled the iGeneration by
Watkin and Sheldrake.² The iGeneration has advanced playback and
photo-visual literacy, but its members’ information selection and critical
assessment skills require development (Pata, 2010: 420; Sheldrake and
Watkin, 2013). The teacher must therefore find ways to employ
technology in teaching for it to be purposeful and not become the goal
itself (Sheldrake and Watkin, 2013). The digital revolution in education
should result in the integration of digital opportunities into the learning
process, which makes teaching more effective and provides better training
for today’s learners.³

The Current Situation and ICT Usage Trends

According to the lifelong learning strategy of Estonia, 100% of
learners should use a computer in everyday learning by 2020. On top of
that, all graduates of elementary schools should have basic ICT skills by
2020 (Eesti elukestva õppe strateegia 2020: 21).

In 2014, the Estonian and Finnish ministers of education, Jaak
Aaviksoo and Krista Kiuru respectively, signed an Estonian-Finnish
memorandum to create a common educational cloud, which means a new
environment for digital teaching materials and resources that are needed
for learning today. The environment is similar to Wikipedia, which can be

² The i-Generation is the generation born in 1990 and later that has lived and
grown up in a electronic world. The term refers to the tecnology company Apple’s
various brands, such as iPod, iPad, iPhone, etc. the i-Generation defines itself
through the use of technology and media, and the need to use technology on a daily
basis. – Rosen, Larry D. Teaching the iGeneration
(http://www.ascd.org/publications/educational-leadership/feb11/vol68/num05/
Teaching-the-iGeneration.aspx).
created by teachers, students, parents and others working together (Raivo, 2014: 1). The responsibility for making textbooks available digitally is given to publishers. The format has not yet been agreed upon, but e-books are preferred to PDF files. The establishment of a single repository is currently being planned. It is likely that an E-schoolbag will become the portal through which digital learning resources are organized and linked to the national curriculum. Existing quality learning materials will be digitalized by the state.4

**E-environments, Programmes and Learning Resources Used in Schools Today**

Estonia currently has an e-School.5 Every element connected with learning and teaching is stored in this environment: homework, what happens in lessons, assessments. Parents can enter the environment with their ID code and look at the achievements of their children.

Universities and schools use environments like Moodle, IVA and e-Didaktikum, which are not connected to each other. Teachers increasingly use electronic resources for teaching. The portal Koolielu6 (school life), which makes learning materials created by teachers available, was opened in 2001. At the moment, digital learning resources are stored on different platforms: Koolielu presents materials made by teachers, but these are random and do not represent all learning topics in the history syllabus.7 It is very good that the environment encourages teachers to share the teaching materials they have developed themselves, but the quality can be inconsistent – the material is not edited. In Koolielu it is possible to find PowerPoint presentations, games, illustrations, maps, tasks for pupils such as worksheets and many more. Materials are organized via a curriculum tree. If one clicks on a certain class, all existing materials for that group will appear.

The Information Technology Foundation for Education (Hariduse Infotehnoloogia Sihtasutus – HITSA), which coordinates learning resources activities, has been active since 2013.8 In the same year a review of

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4 Personal communication via e-mail with Mariann Rikkaga (18.06.2015).
5 www.ekool.ee (20.06.2015).
6 http://koolielu.ee/waramu/search/sort/created/curriculumSubject/42951227 (20.06.2015).
7 http://koolielu.ee/waramu/search/sort/created/curriculumSubject/2%3A42894403 (20.06.2015).
8 https://www.innovatsioonikeskus.ee/et (20.06.2015).
electronic learning resources was carried out and an understanding of the parts required in digital textbooks was developed.9

Future history teachers, i.e. graduates of the Institute of History in Tallinn University, have contributed by making available their own teaching materials, teaching tools and methodological guides.10 Some teaching materials are available on the home page of the History and Civic Teachers’ Association, such as guides to using images and films in history teaching along with tasks for pupils.11 Materials sponsored by Foundation Units are hosted in a special environment named TunneOma Ajalugu, where teachers can find lesson plans and tasks for pupils made for using memories in history teaching.12 There are simplified texts and tasks in the E-Fant environment to help pupils study the history of Estonia.13 A digital bank of tasks for learning and assessment is assembled by the foundation Innove.14 Digital documents from the National Archive,15 digital newspapers and journals from the National Library,16 digital Estonian films17 and more are available for history teaching, but it is the teacher’s responsibility to select suitable sources and create tasks for pupils to be used in lessons. So far, there is no integrated environment where teachers can find all available material.

Very good sources are also available in the archive of the Estonian Public Broadcasting, such as history programmes produced to celebrate a specific historic event, for example thematic telecasts, reconstructions of events or television series generated for anniversaries of events. Programmes often include primary sources, while documentaries are shown alternately with commentaries of historians and memories of people who participated in the events (Stradling, 2005: 181-182). Teachers can use documentaries, real life shows and series which broadcast a single

9 Digital Learning materials should comprise learning texts for students as well as access to further information on subject/topic (articles, information texts, etc.), the bank of illustrations, different types of sources and maps, presentations, lesson plans, student worksheets, methodological articles, including a description of methods. The teacher decides the design of the lesson and make selection of the material with the students – the author's comment (Aas et al., 2013: 4).
12 http://tunneomaajalugu.ee/category/lahiajalugu/ (20.06.2015).
13 http://www.efant.ee/std/ (20.06.2015).
14 www.innove.ee (20.06.2015).
15 www.ra.ee (20.06.2015).
16 www.digar.ee (20.06.2015).
17 http://www.filmi.arhiiv.ee/ (20.06.2015).
event, an issue, interviews with politicians or other related people. Documented shots can sometimes be the only suitable source for dealing with topics like victims of persecution, the situation of refugees, and so on (Joassoone and Peterson, 2011: 15-16). The archive also has radio reports which describe life in different areas in the 1960s. The best source for studying the history of the 20th century are news broadcasts. Informative entertainment casts a humorous glance at any age, artistic or cultural power, social change etc. (Stradling, 2005: 182). For example, the TV show “Ancient frothing” depicts changes in Estonian life with humour, such as changes to buildings, faith, neighbourhoods and so on. Dramas and other TV series give a fairly good idea of what life might have been like during the depicted period, including what the environment and living conditions were like, which problems were experienced and which general developments took place in society. Based on these sources, it is possible to carry out research on changes in everyday life during different years or decades.

E-teaching materials are in development. There are some very good interactive materials for elementary schools, but not yet in history. E-books for gymnasiums are in pdf-format with active links, like Wikipedia. The e-books contain texts for pupils, illustrations, videos and radio broadcasts. If one clicks on a term, an explanation of what it means will appear. It is also possible to compare different events in a timeline. However, audio-visual sources are long. Teachers should select the appropriate part themselves and work out the tasks for pupils. It also takes a long time to look through all the visual sources to find the relevant part.

The existing e-environment, E-Fant, has also been developed to assist individual learning for pupils whose mother tongue is not Estonian. Here pupils can find shortened and simplified learning texts in three different levels, from very poor language skills to advanced. Pupils can select the level appropriate to them and carry out tasks to check whether they understood the text correctly. The tasks are very simple – no open-answer questions are possible. Most of the tasks are multiple-choice types in different forms. The technical parameters of the environment were limited.

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18 http://arhiiv.err.ee/otsi/mikrofoniga (20.06.1015).
Learning Environments

Teachers are encouraged to use different environments and to develop tasks for pupils by themselves given there is not a single, centralized environment to use. Universities and the history teachers’ association supports them by providing training and instructional materials.²¹ There are a number of suitable environments through which pupils can increase their knowledge and develop skills when learning history.

Orientation in time could be supported with MyHistro,²² an environment for creating timelines, where in addition to indicating the date and information about an event, it is possible to set the location on the map. The environment is in Estonian, as it is developed by Estonians.

The ability to use the map is one of the most important skills in history. Google Maps are very helpful, allowing users to go to specific places and look at historical sites. But LearningApps, which is an interactive web application that supports the learning process by creating, collecting and sharing tests,²³ is mostly orientated towards testing knowledge, and one can also indicate geographical points on a map. For example, pupils can write down which geographical or historical points are marked on the map and afterwards check if they were right. It also offers the possibility to undertake sequencing, sorting, matching and multiple choice tasks. The function of immediate feedback makes the environment very useful.

Working with different sources, such as images, documents and so on, is possible in Thinklink,²⁴ an interactive image-creation tool that allows users to create digital stories – text, web references, images and videos can be applied to the image. Students can be directed to find assigned information and put it in the environment. There is also the option of putting different marks on the picture, along with tasks for pupils, detailed information or explanations of historical terms. Teachers can give pupils a ready-made environment or ask them to create it themselves.

Discussions, debates and arguments are possible with TodaysMeet,²⁵ which facilitates the organization of such activities. The duration of the discussion, which can last from one hour up to one year, can be set by the

²² http://www.myhistro.com/ (20.06.2015).
²³ http://learningapps.org/ (20.06.2015).
²⁴ http://www.thinglink (20.06.2015).
²⁵ https://todaysmeet.com/ (20.06.2015).
teacher. The teacher has the right to moderate, which gives him/her the ability to direct the conversation. Another program, Tricider, offers pupils the possibility to argue and defend their own opinion, and also to organize votes on debates.

TitanPad helps to develop critical thinking and communication skills, and also enables group work to be organized. It is a joint writing tool, which allows users to edit the document or design the text at the same time and discuss the work they are doing collaboratively. In addition to analytical skills and critical thinking, this environment also develops communication skills, which are important in today’s society. Linoit is a good environment for group discussion, which makes it possible to present documents, images and videos, among other media. Teachers can see on the screen which students are signed in and what they wrote in the public discussion area.

NoteApp is suitable for brainstorming and starting a new topic. It allows information to be aggregated quickly and looks like a notice board. Yet another tool is AnswerGarden, where the answer to the question appears like a word cloud. Teachers write a question or key word in the centre and ask pupils to add what they think about it. This gives teachers an understanding about students’ pre-knowledge of a topic and allows them to correct any misunderstandings. It is more difficult to find suitable environments for the development of reasoning skills, however.

Some environments are very good for testing and/or receiving feedback. Kahoot is a very popular web-based feedback tool. Pupils can answer questions using a smartphone or tablet. The appropriate form – discussion, feedback or test – can be selected for assessment and relevant questions inserted according to the choice. The teacher can monitor the results in a separate table. There is no obligation to correct the answer. Similar to Kahoot is Socrative, which is considered to be the best by specialists for its variety of functionalities and ease of use.

26 http://www.tricider.com (20.06.2015).
27 https://titanpad.com (20.06.2015).
29 http://noteapp.com/ (20.06.2015).
30 http://answergarden.ch/ (20.06.2015).
31 http://getkahoot.com/ (20.06.2015).
32 http://www.socrative.com/ (20.06.2015).
Explanations on how to use different environments for educational purposes are available on the home page of the association together with examples for teachers.\(^{33}\)

**What to be Kept in Mind when Using Archival Sources**

Documentary footage and clips used in any program are, ultimately, someone’s choice: somebody chooses the plans, actors and events. Footage conveys their inherent expectations and perceptions of the time; for example, at the beginning of the century people did not wish to appear on screen wearing working clothes. During the Soviet era, the media was censored, which reduced the possibility of anything critical being broadcasted. Photos, as well as films, are easily changed and manipulated. Digital photography, the distribution of computer programs and relatively good availability have made this problem even more pronounced. In reality programs, it should be noted who or what is shown on a large picture and what the camera focuses on. Television or radio broadcasts are usually assembled from many cuts and takes and, therefore, do not present a complete and true picture. The impact of the camera should also be taken into account when dealing with reality programs. How has video-capturing influenced human behaviour? (Stradling, 2005: 86-87) Are people violent because they are being filmed? Has it, perhaps, given some more courage?

**Efficiency of ICT**

Using electronic equipment is normal for pupils. Electronic learning resources are flexible and can be changed to suit one’s needs. Digitalization makes access to the national archives available. Different types of sources, especially audio-visual types, make history for pupils more lively and, because of that, also more interesting. Focusing more on historic disputes will help to motivate pupils to gather information and to learn further (Peace, 2010). Increased interest in learning helps to

\(^{33}\) On October 6-8, 2015 the Council of Europe Pestalozzi seminar was held in Tallinn, where teachers from different countries discussed the possibilities of using ICT, its pluses and minuses through practical work in different environments. Advisers were Estonian history teachers Madli-Maria Naulainen and Maidu Varik, who put together information about the used environments and made it available for all Estonian teachers – the authors’ comment. https://drive.google.com/a/tlu.ee/file/d/0B_CFIYQx8VGPankeVnZIM1ByR1E/view (20.06.2015); https://drive.google.com/a/tlu.ee/file/d/0B_CFIYQx8VGPUDFPU0dkc3V0UUU/view (20.06.2015).
memorize information and make connections. Working in e-environments can develop the cultural and value competences, and also empathy; it encourages pupils to better understand what people went through, what they thought (Stradling, 2005: 156-157). It also helps to develop critical thinking and the ability to search, select and evaluate information. TV and radio broadcasts may be considered the primary sources of an era – they focus on the themes, key words, visuals, people – that were crucial for people of that particular time (Metzger, 2010). By the use of ICT it is possible to develop the ability to act as a citizen, to get to know what kind of information is found on the state portal and which (practical) issues can be solved electronically.

Challenges

However, e-learning is not necessarily better than traditional methods and does not always lead to better outcomes. The sheer abundance of information can hinder attempts to concentrate on a topic (Smith, 2007: 81, 89). The negative side of using digital equipment is that it can become a goal in itself, while obtaining knowledge and skills are no longer a priority. Aimless activities on the Internet, such as surfing, pinball-style searching or playing learning games which provide little information and have a low development value, are unproductive (Haydn, 2011: 236-237).

The Internet offers a wide variety of sources for all kinds of topics. First, the question of why and how to use Internet sources must be answered. It is important to find ways to integrate technology into the learning process (Haydn and Counsell, 2003: 254). The development of information literacy is one of the key aims of using modern technology. Various source information and databases should be used actively and systematically in the learning process (Walsh, 2003: 115).

Publishers found a number of things, including that producing teaching materials with new capabilities of interacting with the contents requires much more time and resources than a paper textbook; the majority of the material comes from images from foreign photo banks that do not give up digital rights; and the preparation of entirely new (digital) teaching materials will take time and requires knowledge that can be developed only through work.

34 Personal communication via e-mail with Ursula Vent (9.06.2015).
35 Personal communication via e-mail with Kadri Haljamaa (15.06.2015).
36 Personal communication via e-mail with Kadri Haljamaa (16.06.2015).
Educators fear that the technology could become a goal in itself and obscure the learning objectives of the subject. There is also a risk that environments become chargeable or companies will stop their support, and will thus dictate the use of ICT opportunities. Different systems are not compatible with one another and teachers should be able to continue work during a power cut by using a blackboard and chalk.

But developments in this area should continue. The close cooperation of pedagogues and technical staff is necessary to find the best solutions. The challenge is to take advantage of the myriad possibilities that technology brings while not losing focus of key educational aims.

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Information technology is often regarded as a philosopher’s stone in the educational reformation. In the context of classroom teaching, the integration of “old” teaching methods with “new” technological innovations receives increasingly more attention in the agenda of educational development in today’s China, especially in the fast-developing urbanized regions, such as Shanghai.

In 2004, Guidelines to improve Integration between Curricula and Information Technology were attached as an appendix to the Curriculum Program of the Primary and Secondary Schools, the first blueprint on the overall course system issued by the educational authority of Shanghai.\(^1\) Since 2010, “Informational Education” has once again been highlighted as one of the eleven “Core Tasks” in the Long-Term Program of Educational Reformations and Educational Developments, 2010-2020.\(^2\)

Significantly, in the view of policymakers in Shanghai today, in terms of education as a whole, the application of information technologies is expected to undergo a significant escalation, its status changing from currently being one of several exterior additions to be integrated into the established curriculum to becoming an indispensable part of the interior foundation in the reconstruction of the education system in the foreseeable future.

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\(^1\) “Guidelines to Improve the Integration between Curricula and Information Technology”, as an attachment of the “Curriculum Program of the Primary and Secondary Schools.” See http://www.shmec.gov.cn/attach/article/72.doc

However, in the context of history education, one of the traditional humanistic disciplines, much controversy remains over what role information technology is supposed to play in lessons. Especially in didactical practice inside the classroom, one fundamental question remains unresolved: what could history teachers improve by introducing information technology in teaching practice and how could the expected improvements be realized based on concrete didactical activities?

This article explores these problems using the example of the “Electronic School Bag” (ESB), which is the flagship interactive platform in the 10-year long-term education reform of Shanghai, as well as its tentative application in classroom history teaching at Minhang Secondary School, Shanghai, in 2013-2014.

The case study starts with a brief overview on the context of the ESB experiment, which addresses previous explorations of how information technology can be applied within history teaching in China. This is followed by a description of the design and result of an ESB trial, which attempts to answer the following questions: which areas of history teaching will ESB hope to improve? How is ESB designed to achieve didactical objectives? Do teaching practices using ESB fulfill the expectations of the designers? Finally, the article will conclude with a brief outlook on the potential and problem of ESB, as a representative of general issues of introducing IT into the classroom.

Information Technology and its Application in History Didactics in China

It was at the beginning of the 21st century that educators in China began to realize the potential value of information technology in history teaching. As a result, the importance of technological application has increased over the past few years, but its actual role is still not clearly defined by either curriculum designers or didactic experts.

In the Curriculum for Junior Secondary School of 9-Year Compulsory Education issued in 2000, information technology is mentioned for the first time as an alternative in a variety of media, which suggests there should be a “variation of teaching methods” used in the organization of teaching:

*Teachers should pay attention to the variation of teaching methods ... It is important to utilize multi-media and internet in the organization of history teaching, to develop history courseware and to launch computer assisted instruction in history discipline* (Institute of Curriculum and Textbook, 2000: 716).
In the latest version of the national history curriculum issued in 2011, curriculum designers extend the significance of information technology as a feasible “resource” in teaching:

*Information technology provides convenient and abundant resources for history learning. Relevant software, multi-media courseware, websites, databases and e-libraries and e-museums should be applied in history instructions so as to obtain various resources of history learning where conditions permit.* (Ministry of Education, 2011: 45).

In the same period, as a part of a wider decentralization of the education system, a series of regions with higher levels of social and economic development were authorized to design their own local history curriculum. In the first autonomous history curriculum for secondary school in Shanghai published in 2004, didactic experts made further efforts to define the use of information technology in didactical practice:

*New approaches for history didactics emerged in the development of multi-media and internet technologies. These technological innovations should be integrated in history didactics. With the support of multi-media and internet techniques, these innovative teaching approaches, which are active, open and interactive, should encourage students’ initiative and creative learning. The learner is supposed to be the center of learning* (Zhiliang, 2002).

According to Su Zhiliang, the designer of the 2004 history curriculum for Shanghai, digital technology facilitates the reconstruction of teacher-learner interaction in classroom teaching as it moves from the traditional teacher-centered approach to a more learner-centered structure in the future.

In the context of theoretical research in history didactics, Professor Ye Xiaobing contributed the first systematic discourse on the integration of information technology in 2003. The motivation to apply new technologies in history teaching is contextualized in the overall trend towards an “information society” and the multiple advantages that modern technology brings, including data storage, virtual reality, interactive communication and individualized utilization.

According to Ye Xiaobing’s (2003: 55-59) classification, information technologies applied in history teaching practices could be broadly categorized as multi-media instruction and internet instruction. Multi-media instruction refers to construct interactive communication between history teachers and learners with the assistance of multi-media platforms in didactical activities in the classroom, while internet instruction covers
the possibilities of applying online historical resources as well as organizing online activities, which points to further forms of learning, such as inquiry learning.

Following Ye Xiaobing’s classification, it is possible to differentiate practical explorations into the utilization of technology in history teaching in China since the 2000s.

With regard to multi-media instruction, for instance, in a 2002 exemplary lesson on Ancient Egypt, the teacher utilized multiple technological means within the framework of classroom didactic activities: images were shown to inspire the interest of students, databases were available to assist pupils as they formulated narratives on the construction of pyramids (with tips provided by computers) and a virtual forum/BBS was designed to facilitate interaction between groups of learners (Hong, 2003: 67).

As for internet instruction in a 2002 project carried out in the city of Tianjin, for example, in addition to traditional classroom teaching, students from multiple schools were organized to carry out inquiry studies in groups focusing on the common topic “the Industrial Revolution and its aftermath”, with the help of a shared website created by local didactic experts and history teachers with corresponding historical sources (Modernized educational technology research group, 2002: 28-31).

As usual, in further teaching practices, the two paradigms overlap one another, mainly because of the rapid developments in overall internet access since the 2000s. In addition, thanks to the continuous improvement in the infrastructure of secondary schools in China today, it is increasingly common to apply multi-media illustrations in daily history teaching and to utilize internet to assist inquiry learning.

However, as various technological innovations in history teaching have become more popular, many history teachers have begun to notice problems in the way digital technologies are currently applied. For example, as one in-service teacher commented in 2013 on using a multi-media approach:

As a matter of fact, modernized technologies are not truly integrated into history didactics. Technology is misused as a decoration with the cost being lower effectiveness in teaching in schools. Some teachers load their lessons with a huge amount of illustrations, videos and courseware... Accustomed stereotypes remain with the teacher as the center, while students continue to be the passive object in the instillation from the computer rather than teacher (Haoli, 2013).
As for the internet aspect, one didactic expert summarized one of the most significant problems in internet-based inquiry history learning in 2006 as “intellectual laziness”:

*The internet enables the history learner to obtain a vast information within a short time. As a result, students are reluctant to refine the scope of their studies, to reflect which information is valid, why certain information is valid and what they should do if some piece of information is absent* (Shujing, 2006: 102).

On the one hand, in the case of the former complaint, teachers overuse the illustrative function of multi-media and neglect the interactive functions. This problem is a result of the generalized request of previous history curricula to a large extent. National curricula tend not to clarify the overall objective of using information technology. In the curriculum of Shanghai, for example, the aim of reconstructing teacher-learner interaction is outlined, but curriculum designers do not provide detailed guidelines about how to achieve the objective. Consequently, teachers only take advantage of the most impressive dimension of multi-media as a way of supplementing the traditional model of teaching history.

On the other hand, in the case of the latter, from the perspective of history didactics, the decision on how to utilize digital technology mainly comes from what the technology can do rather than which part of the training of historical competence could be improved with technological assistance. This problem lies in the absence of a didactical perspective in existing didactical research. The objective of the application of digital technology hardly points to concrete historical competence, such as the capacity of analyzing sources, either in theoretical discourse or in practical teaching. As a result, in the above mentioned case, students are confronted with vast amount of information on the internet before they analyze the source and learn how to deal with different sources.

**The Electronic School Bag and the Design of its Trial in Classroom History Teaching**

According to the above retrospection, there are two major defects in the application of information technology in classroom history teaching in China today:

1. A failure to reconstruct the interactive communication between the teacher and learners;
(2) A failure to integrate technological applications into the development of concrete competence.

Seeking to address these two problems, a new experiment was carried out in Shanghai in 2013-2014. The trial was launched in Minhang Secondary School, one of the top middle schools in the city. A think-tank of senior scholars was in charge of the didactical guides and the academic consultation, including historian Professor Wang Side, historian and history textbook editor Professor Meng Zhongjie, initial teacher training expert Professor Li Yueqin, in-service teacher training expert Yu Yichuan and senior history teacher Feng Guangyu. A team of history teachers, under Lin Wei, the vice principal of Minhang Secondary School, was in charge of technological support and teaching practices.

In terms of technology, the “Electronic School Bag” (ESB) was the digital platform used in the trial.

The concept of the ESB refers to multiple programs aiming to integrate digital technology in school education. Its framework and function varied in different countries, periods and technological contexts.³

In China, it was not until the last decade that ESB began to be regarded with increasing importance in education. In December 2010, the Didactical Standards of the Electronic School Bag (catalog) as well as the Definition and basic Terminology of the Electronic School Bag were issued as national standards for the application of ESB in teaching by the Chinese Association for Educational Technology (CAET) (Jiahou, 2011: 111).

In Shanghai, ESB is outlined as the flagship platform of “informational education” in the Long-Term Program of Educational Reformations and Educational Developments, 2010-2020.⁴ The city was authorized to conduct a trial on ESB and its application in school education before its popularization nationwide. According to the designer of the trial, the definition of ESB is as follows:

The Electronic School Bag is a systematic platform, with students as the subject of the learning, personal electronic terminal and internet learning resources as the vehicle, integrating each learning steps such as preview, lesson, homework, revision and evaluation and covering all learning scenarios such as pre-lesson, in-lesson and after-lesson (Jiahou, 2011: 111).

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³ For one example, see Chabert et al., 2006.
In the context of practical classroom teaching, the ESB contains (1) a wireless LAN in the classroom, (2) a personal terminal for the teacher and each student (a PC for the teacher and tablet PCs for students); (3) software for textual, graphic and video illustrations and basic interactive communications.

Thanks to improved data communication and storage capacity, ESB enables teachers and pupils to interact with each other in real time through a local area network in the classroom. For example, in the case of Q&A, a teacher can present questions from his terminal to the pupils’ tablets; in turn, pupils share their ideas inside the network; pupils’ responses will be collected by a server; teachers could gather this feedback and show any of them to each terminal in the classroom. All the data generated will be stored in a database for further analysis.

Previous trials of ESB were limited to subjects as English and mathematics, where knowledge could be easily represented in digitalized forms, and in primary and junior secondary schools (pupils aged from 6 to 15), in which being interesting and visualization are of more importance in the classroom teaching. As a result, history was absent from previous ESB trials, especially history subjects in senior secondary schools (students aged from 16 to 18).

In term of the overall aim of the preliminary trial on the potential of ESB in history didactics, the research team focused on two major issues:

1. Whether and how ESB could assist the reconstruction of the interactive communication between the teacher and learners, in which students are supposed to play initiative role.

2. Whether and how ESB can improve the instruction of concrete historical competences.

With regard to interaction, in order to formulate learner-centered interaction inside classrooms, teachers were asked to organize interactive activities using ESB in their didactical practice, aiming to inspire students’ participation in the interaction.

Based on a summary of previous experiences in the application of digitalized technology, trial designers paid extra attention to solve the problem in establishing effective communication between the teacher as an individual and students as a group.

As a country with a huge population, one teacher usually instructs 30-60 students in a typical class in Chinese secondary schools today. History teachers can only interact with individual pupils using traditional didactical skills such as “question and answer” and group discussion.

Although information technology is supposed to be “interactive” according to the curriculum, teachers usually neglected its ability to
inspire interactions, especially among multiple students, in previous explorations on integrating technological assistance into teaching practice.

Consequently, it is difficult for teachers to detect the inevitable differentiation and individualization of the history consciousness of “the silent majority” in classroom didactical practice, except through unpopular tests. In turn, teachers are incapable of estimating the validity of their instruction in a reasonable way which is not time-consuming.

Therefore, the realization of ESB’s potential to inspire interaction between the teacher and students is outlined by the trial designers as one of the two key points in the experiment.

**With regard to competence development**, in this trial this mainly constituted the capacity to handle historical sources since the trial was inserted into the teaching of ancient Chinese history, especially the chapter of “*Shang and the Bronze Culture*”.

The Shang (ca. 1570-1045 B.C.) is regarded as the first historical dynasty in the history of China, because it has left multiple written sources, including traditional accounts, bronze inscriptions, and primarily, the oracle-bone inscriptions.

In academic research, historians place Shang within the bronze civilization of ancient China when comparing to different kinds of sources:

>One can for the first time begin to speak with confidence of a civilization that was incipiently Chinese in its values and institutions, a civilization characterized by its political and religious hierarchies, centralized management of resources, and complex, deeply rooted art forms. (Keightley, 1999: 236).

Therefore, in China, Shang is usually integrated with instruction of source competences.

In a 2007 revision of the Shanghai curriculum, three “key points” are outlined in the corresponding module: (1) Shang as the beginning of the historically convinced dynasty of China; (2) The alliance of earlier states and (3) Bronze ware and inscriptions on bones.

Students are expected to understand the above-mentioned knowledge together with basic methodological objectives in analyzing historical sources, summarized in the curriculum as:
Knowing multiple approaches to obtaining historical sources, such as archeological excavations, written literature, survey and interview, information in the sources and the value of sources.\(^5\)

Therefore, the trial designers created didactical activities to develop students’ competence in analyzing a source as another key point in the ESB experiment.

**In term of the process**, multiple didactical activities were designed based on the ESB platform and inserted into regular didactical practices in the classes by in-service history teachers of MSS. These tasks could be broadly categorized into three paradigms:

1. underlining key information in sources;
2. forming a mind map on “evidence chains”;  
3. reading and evaluating a short essay.

**In the case of source analysis**, the teacher presented clips from historical sources about Shang. The students were invited to categorize the historical source, underline key words in the source and finally share their findings with the teacher as well as other students using the real-time interactive platform. This task was additionally supposed to improve as well as test students’ competence in categorizing different types of historical sources and formulating narratives with information in sources.

For example, the teacher presented texts about Shang in ancient Chinese accounts as shown Figure 1.

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\(^5\) Yu Weimin, History curriculum for senior secondary school in Shanghai (2007); also see Weimin, 2008: 9-12.
Both sources 1 and 2 narrate the ancestor legend or origin myth of the clan of Shang, namely that a virgin gave birth to the masculine forefather after she swallowed an egg left by a divine blackbird. According to the designers, the students were supposed to underline “blackbird” or the

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7 For English translation, see James Legge, 1876: 387; the Chinese version see http://www.guoxue.com/jinbu/13jing/shijin/shijin1140.htm.
8 For English translation, see Legge, 1865: 175; the Chinese version, see http://www.guoxue.com/book/shangshu/0010.htm.
name of ancestor as key words and label the two pieces of sources as the “traditional account”, “legend” or “myth”. In addition, through comparing further accounts about political events dynastic as subrogation (sources 3 and 4) and the political landscape of the Shang (source 5), students were expected to form a narrative about Shang from a clan to a state with a complex political system. In the meantime, they were expected to distinguish written accounts from oracle-bone inscriptions and other sources.

In the case of mind-map making, based on previous illustrations on sources about Shang, the students were invited to summarize the varied dimensions of information about Shang within the framework of different sources provided by the teacher and, again, share their views via ESB. This activity aims to construct a mind map between concrete historical information in sources and abstract categories of sources so as to improve students’ understanding of historical sources.

For instance, the teacher provided four categories of sources on Shang: (1) Shang in the legends; (2) Shang in written accounts; (3) Shang in archaeological excavations; (4) Shang in oracle-bone inscriptions. Students were expected to memorize the corresponding information from each source in order to place them in the appropriate category, such as “ancestor myth” in the category of “legends”, war and political mechanism in “accounts” and burials, palace architectures and bronze wares as “archaeological evidence”. Furthermore, they were to notice the mutual testaments between the traditional account and the oracle-bone inscriptions. Later, they were guided by this activity towards the academic terminology of the “double evidence”, first raised by Wang Guowei (1877-1927), one of China’s most important historians in the 20th century, as a fundamental principle in the research of earlier periods of China, whereby the validity of written accounts has to be examined through corroboration with other categories of historical sources, especially inscription sources rediscovered in modern archeological excavations (Figure 2).

In addition, in the case of mini-essay evaluation, students were to evaluate short essays created by their classmates about the content they recently acquired, by giving the essays a grade or score. By sharing their history narratives and corresponding evaluations, students shared and criticized each other’s individualized interpretations on a common historical topic, meaning that they were expected to acquire a reasonable method to exchange, compare and discuss different historical views. Unlike the two above-mentioned didactical activities with concrete competence as the
objective, the essay evaluation paid more attention to the interaction between individual student and their partner learner.

Figure 2: Mind Map, design by teacher

<table>
<thead>
<tr>
<th>Shang in the legends</th>
<th>Eulogies of Shang, The Book of Ancient Poetry the origin of Shang and the rise of Shang</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shang in written accounts</td>
<td>The Yin, Basic Annals, The Grand of Scribe’s Record subrogation of dynasties and political mechanism</td>
</tr>
<tr>
<td>Shang in archeological excavations</td>
<td>bronze ware, cities and burials bronze age civilization</td>
</tr>
<tr>
<td>Shang in oracle-bone inscriptions</td>
<td>oracle-bone inscriptions royal lineage the earliest written language</td>
</tr>
</tbody>
</table>

Conclusion: double-evidence principle

The Result of the ESB Trial and Further Reflection

According to interviews with teachers, student questionnaires and analyses of videotaped teaching practices, the research team recognized that modules developed by ESB resulted in multiple significant changes in classroom history teaching.

In the following paragraphs, these mutual affected phenomena are to be classified based on the theoretical grounds of “big data”. Big data is believed to be a revolutionary innovation that transforms how we live, work and think. If we set aside the rigorous technological definition, simply speaking, big data means the techniques for collecting and analyzing huge bodies of data, which will help us to make sense of the world with reasonable new insights on potential patterns that underpin the chaotic world in which we live.\(^1\)

Here, in the case of history didactics, the idea of big data implies the possibility of inserting data-based techniques, including data collecting, communicating, analyzing and presenting, into existing didactical practice to assist history teaching and learning. Therefore, the performance of ESB in the experimental activities could be classified:

In terms of the training of competences, with its advanced capacity to collect data, ESB is capable of capturing students’ real-time feedback,

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\(^1\) For the basic framework of the concept of “Big Data” see Mayer-Schönberger, 2013: 7-12.
which reveals significant differentiation and individualization beyond the expectation of both teachers and didactic experts.

In the case of analyzing sources, the students’ feedback presented significant differentiation. For example, given the two accounts about Shang (Table 1), among a tested group of 25 students, 72% of students were able to recognize the categorization of sources, while 16% were unaware of the necessity to distinguish sources of a different nature prior to summarizing the information (see Figure 3). However, a further differentiation phenomenon emerges when the complexity of the source increases. In the analysis of sources about political events, only 36% correctly summarized the event of “dynastic subrogation” from the source, while 60% were incapable of giving any feedback.

In addition, there were unexpected problems in students’ ability to underline key words from the source. It is significant that a subsequent number of students tended to underline not one or two words, but one sentence as a whole. In several cases, the teacher had to stop and spend five minutes explaining the concept of a key word which she expected the students to find. This implies that, on the one hand, learners’ capability in reading is varied; on the other hand, teachers should reflect on their task design.

Figure 3: Collected feedback by students on source analysis

<table>
<thead>
<tr>
<th>Source 1 and source 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Myth</td>
<td>12</td>
</tr>
<tr>
<td>traditional accounts</td>
<td>4</td>
</tr>
<tr>
<td>the rise of Shang</td>
<td>3</td>
</tr>
<tr>
<td>no answer</td>
<td>3</td>
</tr>
<tr>
<td>myth and traditional accounts</td>
<td>2</td>
</tr>
<tr>
<td>The life of Hsieh</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source 3 and source 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>subrogation of dynasties</td>
<td>9</td>
</tr>
<tr>
<td>heroic ruler</td>
<td>1</td>
</tr>
<tr>
<td>no answer</td>
<td>15</td>
</tr>
</tbody>
</table>

In the case of the mind-map making, students’ feedback presented significant individualization. In one group of 31 students, it was impossible to identify either two identical mind maps or one mind map that was close to the presupposed standard answer. Given the four categories of historical sources, some students filled in the table with
various inhomogeneous fragments about Shang, while some paid extra attention to the sources as the vehicle, such as the oracle-bone inscriptions. Others emphasized symbolic conclusions, including the Shang as the first historical dynasty; only one student managed to summarize the “double evidence” principle. Nevertheless, even these answers are different from the presupposed answer designed by the teacher (Figure 4).

This implies that students form individualized structures to classify the historical information of different levels and dimensions rather than following the standard model of systematic classification which their teacher aimed to teach them.

Figure 4: Mind Map, feedback by a student

<table>
<thead>
<tr>
<th>Shang in the legends</th>
<th>---</th>
</tr>
</thead>
<tbody>
<tr>
<td>The rise of Shang</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shang in written accounts</th>
<th>---</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political mechanism</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Double-evidence principle as the mutual testifying of written accounts and archeological evidence</th>
<th>---</th>
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<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Shang in archeological excavations</th>
<th>---</th>
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<tbody>
<tr>
<td>bronze age civilization</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Shang in oracle-bone inscriptions</th>
<th>---</th>
</tr>
</thead>
<tbody>
<tr>
<td>the earliest written language</td>
<td></td>
</tr>
</tbody>
</table>

In the case of the mini-essay evaluation, there was an unexpected convergence phenomenon. The teachers were surprised that, even without their guidance, the majority of students shared a common standard in the evaluation of historical interpretation, including reasonable framework, reliable sources and a logical discourse between different historical phenomena.

**In terms of the reconstruction of a teacher-learner interaction in classroom history teaching**, thanks to the designers’ deliberate employment of the real-time interactive function of the ESB platform, the application inspired more balanced communication between the teacher and students.

For teachers, ESB made it more challenging to teach and ask questions than in the traditional model since they had to face the uncertainty of receiving multiple feedback on an unprecedented real-time scale. Teachers could no longer ignore “false answers” from “untalented” pupils by asking...
“intelligent” ones. In another words, ESB forced them to face variable cognitive levels and participation initiatives, which means that assessments of teaching validity could extend from after-class to in-class, from the end to the beginning, from written tests to students to teacher vs. learner discussion and from experience-based to data-based.

For learners, the data communicating function of ESB seems to be a double-edged sword since it both offered them “freedom of speech” and forced them to articulate responses at the same time. On the one hand, ESB interaction gives learners more opportunities to express their own views in the classroom. This tendency is consistent with the aim of the curriculum to create a more “interactive” classroom. Students’ feedback on the ESB function represented a kind of democratic vote, forcing the teacher to notice their ideas. On the other hand, some students complained about being forced to respond to questions and losing the time and space to think by themselves. However, this problem is not difficult to solve – perhaps ESB can simply offer pupils several immunities from answering questions in each class hour.

Generally speaking, “stressful freedom” is generated by the data communicating function of ESB. Each student has to write and upload his or her thoughts or assessments to the teacher’s server. This process conformed to the essence of history teaching, i.e. thinking rather than just accepting. For example, in the case of the mind map, no answer could be regarded as “right” or “good”. Therefore, the variety of answers from the students forced their teacher to reflect on the initial conception: is the question easy to understand? Is the teacher’s guidance informative enough to guide learners?

In addition, ESB also can help to promote a more interactive atmosphere inside the classroom. The interaction between individual students and their classmates is more frequent and informative, partly because different ideas inside the classroom are visualized by ESB. In the essay evaluation, the teacher intentionally encouraged students with different ideas to debate and defend their views. Therefore, the classroom became an open forum. Each speaker was eager to convince potential supporters, though some had more, some less. In the end, the teacher made a conclusion and showed her own ideas to the learners.

ESB provides an interactive public sphere to express and exchange individual ideas in the classroom. Teachers now play a less dominant role as an organizer rather than a guider in the debate. As a result, pupils are convinced by the consensus of the whole community rather than an authoritative source. This change is certainly closer towards the fundamental goal of learner-centered history learning.
As for problems, the most significant shortcoming is the absence of a data-analyzing module, which assists teacher in summarizing the data collected by ESB in teaching.

Although most teachers and pupils spoke positively of ESB, all users noted how ESB interfered with the timing of the lesson. In most cases, the teachers didn’t finish their planned objectives. They had to respond to unexpected feedback generated by further interactions which ate up time.

Apart from timing issues, ESB was criticized by teachers who felt that it pushed them into “overdrive”. All teachers felt that preparing lessons with the “assistance” of the ESB platform was challenging. The validity of their questions was questioned, the accustomed rhythm in teaching was disturbed and they were no longer capable of dealing with the feedback from pupils instantly.

This may at first glance seem to be an issue of teacher competence, but in fact it is a major shortcoming of ESB. Currently, the ESB server only uploads or downloads data as an image, rather than digitalizing data into analyzable forms. The reason for this is to preserve necessary hand-writing routines in schools. However, it blocks the possibility of developing programs to analyze data for teachers.

In the final analysis, it can be concluded that ESB in general and trials of ESB in particular are, as things stand, still imperfect and preliminary. In term of practice, it is unknown which aspect of history teaching is suitable for using ESB. Teachers are satisfied with ESB’s function as a tool of organizing certain exercises or discussion, but the research team is not sure whether to apply the ESB in other phases of classroom teaching. To some extent, it is because ESB only provides data without also giving teachers necessary data analysis assistance, which causes ESB-based teaching to become time-consuming and stressful work.

In terms of theory, historians are skeptical on the possibility of “datafication” in history didactics. Which parts of historical consciousness could be transmitted in a digitalized or quantified way? Due to limited resources, previous experiments could not prove or falsify designers’ hypotheses.

Certainly, ESB is not the best solution available. So far, the most obvious way to improve ESB is through humanizing the technology. Even minor revisions in human-computer interaction could improve user experiences. For instance, knowing pupils’ confusion on the terminology of “key word”, if the necessary explanation on what constitutes a “key word” could be supplied into the users’ interface, the time-consuming explanation about this inessential problem will be solved once for all. Ideally, if ESB could store and classify students’ feedback in broad
categories based on statistic features, it will be much easier for teachers to
discover patterns of differentiated historical consciousness.

Technology might provide some necessary assistance, but it is still
humans that make decisions. Historians and teachers should update their
way of thinking by applying the concepts of the big data era. In the case of
mind-map making, ESB gathered tens of different mind maps on “double
evidence”, which could be sources to analyze the differentiation and
individualization of historical consciousness. Are the teachers’ improper
explanations the cause of learners’ misunderstanding the historical term?
How do students understand/misunderstand it? Are there any different
patterns that can be identified? Experts should not waste these resources
but use them to improve their teaching plans.

Of course, technology is not the only approach to improve Chinese
history didactics. However, the preliminary trial of ESB indicates the great
potential of technological innovations in history teaching. It can be one of
the cornerstones to break deep-rooted stereotypes.

As for practice, ESB can inspire more interaction and transform the
structure of interaction. Instead of a one-way instillation of knowledge
from the teacher, history lessons can become a “community of free
thinkers”. Every learner is independent, but interconnected. By doing so,
history lessons are no longer seen as stuffy and out of fashion, but a forum
close to younger generations’ way of thinking and communicating in the
era of multi-media, internet and the coming “big data”.

As for theory, ESB offers an opportunity to analyze historical
consciousness and mediate it using ideas generated in the coming era of
big data. Which historical topic is more interesting? Which forms of
terminology are difficult to understand? Which didactical methodologies
are effective? Which aspect of historical consciousness represents which
feature while being mediated in various ways? Which new characteristics
could be found in the history culture of the younger generation? Although
ESB cannot give us complete answers to these questions, it could certainly
contribute to efforts to find them out.

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USING VIDEO GAMES TO TEACH HIGH SCHOOL HISTORY: THE CASE OF CIVILIZATION V

ALEXANDRE JOLY-LAVOIE AND FRÉDÉRIC YELLE

Introduction

Historical video games have been gathering interest in recent years from developers, gamers, teachers and scholars. What was once perceived as no more than a marginal hobby for kids who wanted to escape the confines of the real world is now seen as a potential teaching tool for the social studies. Recently, some researchers such as Charsky and Mims (2008), Lee and Probert (2010), Probert (2013), and Squire (2004) have highlighted the potential for commercial off-the-shelf video games (COTS) to be used in a classroom setting. COTS are games found on store shelves for which the main objective is to entertain the player. Among all the historical COTS games, the Sid Meier’s Civilization series has garnered a fair share of interest from researchers and has shown some potential as a teaching tool. Notably, it appears to engage students in learning history as well as helping them approach historical thinking in a meaningful way (Lee and Probert, 2010; Pagnotti and Russel, 2012; Probert, 2013; Squire, 2004).

However, almost no attention has focused on the actual historical content the games present. Thus, this research will assess the historical viewpoint of the scenarios presented by the game Civilization V: is it valuable enough to be used as a teaching tool in social studies classrooms? Therefore, we chose to channel our attention toward one particular scenario, which focuses on the fall of the Western Roman Empire. We will strive to answer three questions: what does the scenario teach us about the fall of Rome? Does it enable a rich conceptualization of the historical context? And finally, what is the intrinsic historiographical perspective of the scenario? Furthermore, we will pay close attention to the version of the
fall of Rome presented by the game when compared to the one we present below.

To begin, we will provide an overview of the use of video games as a learning tool before addressing important concepts for our subsequent analyses. We will then present a short overview of the reasons which garner some scientific consensus leading to the fall of Rome before moving on to the presentation of our methodology. Finally, we will present our results and interpret them before concluding with a discussion of the aforementioned results.

**Games as a Tool for Learning**

As tools for learning, games have shown some promise. As Kee (2008) and Gee (2005) have pointed out, games offer long, complex and authentic situations in which students can experiment with and experience long-winded learning situations. These complex situations allow the development of problem-solving skills through recursive play, where the student will, time and time again, restart the game to solve the proposed problem space (Sánchez and Olivarez, 2011; Squire 2004, 2011). Problem spaces offer a virtual, controlled environment, which includes auditory, spatial and visual stimuli, and where students are confronted with an issue they must solve with limited resources (McCall, 2012). Furthermore, Chapman (2013) and Taylor (2003) both showed that historical video games could allow players to act as agents of history. Thus, games could help students develop a deeper understanding of the causes that brought about historical change through historical empathy, which is enabled through the solving of problem spaces (McCall, 2012).

As for the Civilization series per se, Pagnotti and Russel (2012) found the game to be engaging for students who were experiencing difficulties in world history. Thus, the researchers assessed that students who participated in the study developed high-order thinking toward history and were able to draw sophisticated links between their game experience and lessons tailored to follow their gaming experience. Lee and Probert (2010) also found that students participating in their study were more engaged. Furthermore, students seemed to develop a better substantive knowledge base following game session, although the depth of understanding between students greatly varied. Probert (2013), in an experimental study where students were randomly assigned to either an experimental or control group, showed that students who played Civilization IV: Colonization outscored students in the control group and demonstrated a deeper historical understanding of the topics touched upon by the researcher.
Squire (2004, 2011) corroborates this last finding in a study that showed the emergence of historical abilities from students who participated in a class where Civilization III was played. Those abilities – historical questioning, historical empathy, hierarchical thinking towards cause and consequence and the acquisition of substantive knowledge – all point toward the development of historical thinking as defined by Seixas and Morton (2013).

Rome and the Barbarians: 
A Short History of the Fall of Rome

The following section will provide a quick overview of the main causes which are mostly consensually believed to have brought about the fall of Rome. Using literature from a variety of historians who wrote about the Roman Empire, we will identify causal categories and build a general framework that will serve as a reference point for our subsequent analyses.

Historians disagree on the importance of each cause and on the interpretation of the overall process of “decline”. In his examination of the work of 400 authors who studied the fall of the Roman Empire, Demandt identified 210 different causes (Lançon, 1997: 16). Thus we argue that the fall of the Roman Empire was the culmination of a variety of causes including, but not limited to, the relations between Romans and the barbarian populations and the inefficacy of the inner economic structure of Roman society. We highlight four dimensions (economic, social, military and political; see Figure 1) that contributed to the decadence of Rome. As Dalongeville (2001) pointed out, in France, common knowledge attributes the fall of the Roman Empire to waves of barbarian invasions which brought the Roman Empire to its knees. However, the process leading to the fall is far more complex. Furthermore, even the use of the terms invasions and migrations is not unanimous. The two concepts can still be found in the literature, and are used in different ways. For Veyne (2005), this is not a matter of one or the other but more of a little bit of both (Veyne, 2005: 858). The population movements which occurred upon the Empire’s territory were numerous and brought about the displacement of thousands upon thousands of men, women and children. Therefore, it appears that reducing this phenomenon to migrations or invasions is a common oversimplification. These expeditions were not simply acts of war with the objective of ravaging or conquering, but also led to the permanent settlement of tribes which would go on to be the founders of future kingdoms.
It is also important to note that before the 5th century, some barbarians, like the Goths, had been living on the territory of the Roman Empire for thirty to forty years not as enemies, but as fédérés. As such, their king, Alaric, was an important officer in the Roman army. While some would argue that the presence of barbarians in the army was an error (Le Bohec 2012), others, such as Veyne (2005: 870), support the theory that the fédérés were not mere soldiers but true patriots. When the Goths rose against Rome in 408–410 A.D., it was not so much an invasion as a manifestation of civil unrest within the Empire. The xenophobic attitude of Roman citizens prevented access to important political offices to high-ranking fédérés generals, which, in turn, probably led some barbarian chiefs to want to seize power by force.

Figure 1: Causes of the fall of Rome

<table>
<thead>
<tr>
<th>Economical causes: Technical stagnation in production; rural economy in crisis; lack of understanding about economy (soldiers overpaid, farmers overtaxed, aristocracy over-rich, ...)</th>
<th>Military causes: Unstable military forces; territory too vast to maintain control over provinces or to contain barbarian invasions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political causes: Emperors’ political power crumbling; superstitious religious beliefs about war defeat and emperor; barbarians military officers want to gain access to political power; rivalry between Eastern and Western Roman Empire</td>
<td>Social causes: Lower classes over-exploited for the benefit of upper classes; society relying on oppression and repression</td>
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</tbody>
</table>

For Harman (1999) the fall of Rome was due, in part, to the oppressive society in which Romanized populations lived. Any attempts from the lower castes to free or liberate themselves from economic, social and political oppression ended in violent repression. Citizens abandoned their lands because of high taxes and lack of protection from the Empire (Harman, 1999). In addition, the general Roman population felt that the gods had abandoned the emperors (who, at the time, were more often losing than winning military campaigns) when they converted to Christianity. This state of affairs encouraged the nobility and a part of the population (both Romans and Romanized Germans) to attempt multiple coups d’états with the objective of replacing the emperor with militarily successful generals. This, in turn, generated more political instability.
Unable to protect its own territory, the Empire was also unable to continue its territorial expansion. However, the need for new conquests was generated by the Empire’s reliance on slaves (Scheidel, 2010) and luxury goods to fuel its economy (Harman, 1999). Le Bohec (2012) also underlines that the Romans themselves misunderstood their own economy, which eventually led to a crisis. Soldiers were overpaid and farmers overtaxed, while the Empire was running out of money. In addition, the relative stagnation of the means of production during Roman times caused the economic ecosystem to crumble when the Empire stopped living off the plundering of other civilizations (Harman, 1999). However, as the territory of the Empire kept on growing, it became increasingly difficult to capture new slaves who would have been put to work in mines or fields (Anderson, 1983; Bloch, 1947).

As shown above, causes of the fall of the Roman Empire are numerous and their interrelations complex. Nevertheless, this brief summary and the four categories of causes which emerge from it will serve as a baseline to answer our research question: what version of the fall of Rome does Civilization V present to its players?

**Methodology**

The game chosen for our analysis is Sid Meier’s Civilization V, and the player’s objective is to emerge as the most powerful nation in the world through one of five means: domination (military victory), science, cultural, diplomatic superiority or by simply being the player with the highest score by the end of the game. Civilization is a turn-by-turn strategy game, where each turn corresponds to specific lengths of time and allows the player to have his civilization evolve from the Stone Age through the future. Players can experiment with diplomacy through interactions with artificial intelligence personas controlled by the computer. Finally, players compete for the control of strategic resources such as minerals, coal or uranium, which are revealed as technology progresses throughout the game. Tiles dictate unit movement and range, each unit possessing a precise number of tiles that can be used each turn (one or more). In addition to the standard play type, the game also provides players with specific scenarios which recreate major events throughout world history. The basic Civilization V game has been followed by two expansion packs: Gods & Kings and Brave New World, both of which included new civilizations, balanced tweaks and new scenarios. The fall of Rome scenario that we analyzed is taken from the first expansion for the core Civilization game, Gods & Kings. This scenario tasks the player to either safeguard the Roman
Empire as Honorius (Western Rome) or Theodora (Eastern Rome), or to conquer it as Vahram V (Sassanid), Boudicca (Celts), Chlodio (Franks), Alaric I (Goths), Attila (Huns) or Genseric (Vandals).

We used and adapted a general inductive qualitative approach for our analysis. Thomas (2006: 238) describes this approach as one that “primarily use[s] detailed readings of raw data to derive concepts, themes, or a model through interpretations made from the raw data by an evaluator or researcher.” The corpus is comprised of a 115-word text, eight images and a logbook used while playing the scenario. The text has been extracted from the loading screen that is presented to players before the scenario starts. Since all available civilizations share the same text it was only analyzed once. The first set of eight images is taken from the loading screens presented to players and depict the eight leaders that may be chosen by the player. The logbook contains notes and screen captures taken during play. The logbook was completed by one of the researchers following an observation checklist (as seen in Figure 2) inspired from Carretero and Van Alphen (2014).

Figure 2: Observation checklist

<table>
<thead>
<tr>
<th>General Criteria</th>
<th>Specific example from the game</th>
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<tr>
<td><strong>Agency</strong></td>
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<tr>
<td>The agent can influence the course of events.</td>
<td>The player has the power to make lasting changes. His decisions have an impact.</td>
</tr>
<tr>
<td>The agent cannot influence the course of events.</td>
<td>The actions undertaken by the player have no lasting impact. Events will happen regardless of the decisions he makes.</td>
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<tr>
<td><strong>Causes of the fall of the Roman Empire</strong></td>
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<tr>
<td>Economical</td>
<td>The narration, as presented by the game, presents economic causes.</td>
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Screen captures taken from the game were analyzed using the logbook of the researcher who played the scenario. Analysis of the images depicting the various leaders was done through a mixed approach. This allowed us to establish a closed set of categories (Figure 3) while retaining the ability to create new categories as they emerged throughout the coding phase (Van der Maren, 1996).

The coding process was iterative and is derived from Thomas (2006). First, one researcher made a first coding of three of the eight images of the leaders. Second, both researchers reviewed that first coding. Then, we each analyzed the same image independently to validate, internally, our understanding of the codebook. Finally, each researcher coded half of the remaining corpus (2 images per coder). Our analysis led us to consolidate the codebook to the one that is presented here. Subsequent interpretation derived from the items that emerged during the coding and analysis phase.

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<tr>
<th>Political</th>
<th>While being at war with every barbarian civilization, the player is allied with the Eastern Roman Empire.</th>
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<tbody>
<tr>
<td>Social</td>
<td>The Empire is dealing with multiple social problems illustrated by the adoption of negative social doctrines.</td>
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<td>Military</td>
<td>The Empire is at war throughout the entire scenario.</td>
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<tr>
<td><strong>The barbarians</strong></td>
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<tr>
<td>… as invaders</td>
<td>The barbarians are presented as invading the Roman Empire with violent intent.</td>
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<td></td>
<td>The barbarians are all over the Roman Empire boarders and are continuously attacking the player’s cities.</td>
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<tr>
<td>… as a migrating people</td>
<td>Barbarians are presented as establishing themselves inside the boundaries of the Roman Empire as part of a migratory process.</td>
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<td>Players can recruit barbarian soldiers illustrating their presence within the Roman army.</td>
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Results and Interpretations

Images and scenario description

Results. Analysis of the images (n=8) revealed two clear categories (brought about by the natural grouping of codes) in which it was possible to classify the civilization leaders depicted. The first category, named “Empire”, is comprised of the representations of Honorius (Western Rome), Theodora (Eastern Rome) and Vahram V (Sassanid). All of these leaders shared two codes, rich garments (CBRG), such as robes of rich colors, and objects depicting wealth (CBOR), such as jewellery seemingly made out of gold or precious stones. They were also similar due to the absence of the codes military objects and emblem depicting force. Finally, Theodora and Vahram V shared the code haughty facial expression while Honorius stood out by bearing the code desperate facial expression. All the other codes were unequally present and were less interesting.

The second category, named “barbarians,” is comprised of all the other leaders (n=5) depicted in our corpus (Alaric, Attila, Boudicca, Chlodio, Genseric). Each of them share the codes military object, such as swords or armours, and emblem depicting force, may it be a stick or the representation of a mythological creature. Furthermore, they also share the
absence of the codes objects depicting wealth and rich garments. As for facial expressions, they all share the menacing facial expression code, except for Alaric who bears the smiling facial expression code. Figure 4 (at the end of the text) illustrates the distribution of codes for both categories.

**Interpretation of results.** All in all, it appears that the images depicting the leaders available to the players in the fall of Rome scenario support the preconceived idea of a confrontation between the cultured and rich representatives of the empires, and the rough and violent barbarians. When we examine the representations of Theodora, Honorius and Vahram, one can only surmise that their power derives not from their military might (as it does for the barbarians) but more from their wealth and the influence they can wield over those who control armies. In opposition, the barbarians are all depicted with elements that are linked to warfare, be it a sword, a horse or armour. For them, it seems as if power derives from their ability to conquer through military might. Thus the opposition between members of the “empire” and “barbarians” is quite clear.

Also worthy of mention is the fact that Vahram V, leader of the Sassanids, falls in the same category as the leaders of the Roman Empire. He is depicted as being a haughty and rich man who bears little resemblance to the other violent and less refined barbarians. This seems like an odd coincidence, since during the game his objective is to conquer Eastern Rome and each time his civilization captures a city, the game prompts the players with a message warning them that one or more of their city has fallen into barbarian hands. While the presence of Vahram V as an enemy of the Eastern Roman Empire is historically sound (Williams and Friell, 1999), we hypothesize that his depiction follows the common conception that after the fall of Rome the Arab world became the depository of refinement, culture and scientific knowledge while Europe waddled through a so-called “dark-age”. This impression is confirmed by the different social doctrines that further differentiate Vahram V from other barbarian leaders. Whereas, for most barbarians, the different social doctrines are aimed toward building and maintaining military might, those of the Sassanids contribute to economic and cultural wealth of the civilization.

Similarly, Alaric seems at odd with the other barbarian chieftains as he is depicted as wearing armour similar to the one worn by Roman soldiers. Furthermore, he smiles and is pictured in front of a light background, which offers a stark contrast with the other leaders falling in the barbarians category who are, for the most part, depicted in front of a dark
Using Video Games to Teach High School History

background. This is probably due, in part, to the fact that Alaric was a Roman general before rising against the Empire and leading the 410 sack of Rome. Here the creators of the scenario seem to lump all the enemies of Rome into the same general category of barbarians and fail to distinguish between foreign and domestic enemies.

As shown earlier, Honorius is the only one of the empire leaders who is not depicted as being haughty but rather as desperate. While Theodora leans back and seems perfectly in control and Vahram V seems to be towering over everything, Honorius slouches forward as if all the cares in the world were on his shoulders. In a way his attitude symbolizes the troubles facing the Western Roman Empire with enemies without and within, the emperor having little reason to present himself as his counterparts do.

Overall, the depiction of the leaders remains in line with the usual misconceptions regarding Roman and barbarian leaders. It encourages players to associate refinement with the Roman world while the barbarians are menacing warriors.

**Content and conceptions about the fall of Rome**

**Economic dimension and its implications.** When choosing the Western Roman Empire, the player starts with a very low amount of gold and an empire that spends too much in relation to its income. However, being out of gold for too long will eventually lead the player to lose troops, since he will not be able to “pay” them. Furthermore, economic and diplomatic options are disabled. This particular disposition prevents the player from negotiating and entering into economic agreements or treaties which could stabilize the situation. Hence, in one turn (from turn zero to turn one) the economy crashes rapidly and an emptying of the treasury is almost inevitable. Taking a closer look at the expenditures reveals that the Roman road network costs more than it benefits the player (in terms of gold income). This is due to the fact that maintaining roads cost a fixed amount of gold per turn. However, Roman roads give two major advantages to players: first, by connecting the resources of one city to another, thus creating a trade network; and second, by allowing faster movement for soldiers and workers alike. This situation is not only a game mechanism, but also a faithful representation of the perceived usefulness of Roman roads in history.

At the start of the scenario, it is obvious that the Roman Empire is in some sort of economic crisis. This seems pretty accurate according to the historiography. However, resolving the situation is somewhat simple: the
player only has to destroy roads (less roads means less gold spending), create markets and turn city production toward gold production, thus giving the impression that Roman economics were a simple matter of arithmetic. This, in turn, leads the game to avoid important elements such as slavery, plundering, taxation and economic relations with other civilizations, all of which were an integral part of the Roman economy. While it is possible to stabilize the economy by focusing on the strategy described above, its impact on other dimensions of the Empire is great. Focusing on the economy will adversely affect the growth of the Empire and will hinder troop creation and building of fortifications.

Moreover, after several play-throughs of the scenario, it becomes apparent that the actual agency of the player is somewhat limited. Focus on the economy and the barbarians will quickly overwhelm the Empire borders. Focus on the creation of a bigger army and in no time troops will be randomly lost because of the inability of the player to provide wages because of the lack of gold in his coffers. As such it seems, at first glance, that historical agency is somewhat nullified by game mechanics. However, the present research cannot provide a definitive answer but multiple attempts at playing the scenario using different approaches seemed to point in the direction of a rigid narrative that can scarcely be affected by the player. We will further explore this dimension later on.

**Political Dimension.** Our analysis of the game revealed that the parameters defined by the scenario creators greatly limit the political and diplomatic options that are typically found in the “regular” Civilization game. Usually, it is possible to manage alliances and rivalries by using tributes, negotiations and oaths of protection. It is also possible to trade strategic resources with allies or incite them to attack other civilizations. However, this is not the case for the fall of Rome scenario. Its initial starting point has players locked in perpetual war with every civilization with the exception of the Eastern Roman Empire. Furthermore, all diplomatic options are completely blocked. This historical simplification reinforces the common misconception about the actual complexity of diplomacy during Roman times. It implies that the western and eastern parts of the Roman Empire were strong allies rather than locked in a fierce competition for influence and power. It also gives the impression that political relations between barbarians and Romans were non-existent, leaving only aggression and military confrontations. This comforts the idea that it was a barbarian invasion, while reality was by far more diverse and complex.
**Social dimension.** On the social dimension, we considered the happiness, culture, scientific, and religious ratings. While those are specific to *Civilization* game mechanics, analogies can be made with reality. The happiness rating indicates how happy or unhappy the people of a particular empire are. At the beginning of the scenario, the happiness rating is relatively strong (at +17). In *Civilization*, a happy people will bring about a “golden age,” during which the players get bonuses (higher gold income and increased productivity). On the other hand, unhappy people will produce riots, among other consequences. Thus, a rating of +17 at the start of the scenario suggests that people in the Roman Empire where quite happy and well. However, modern historiography clearly shows that even during the golden age of the Roman Empire, not everyone was enjoying the glory of Rome. Peasants, slaves and merchants did not share in the same luxury as the elite. In fact, *Civilization* establishes the happiness rating according to the presence of coliseums, theatres and luxury goods (which can be built or obtained through different actions by the player). This implies that slaves, peasants and small merchants are not considered in this “happiness rating.” It also gives the impression that all is well in an empire as long as food, games and luxury products such as jewellery, cotton and salt are plentiful. It ignores the exploitation of rural populations or the reality of slave populations, which were considerable at the time.

In a regular game of *Civilization*, the culture rating is linked to the importance the player gives to “cultural buildings,” such as coliseums or circuses and specific culture enhancing research. Culture serves as currency to obtain new “social doctrines,” which serve to enhance their civilization. However, in the fall of Rome scenario, culture is related to the “decadence” of Rome. Thus, new doctrines adversely affect the civilization of the player. In turn, this leads the player to try and stop producing culture in an effort to slow development of cultural doctrines. However, each city lost to the barbarians makes the culture rating increase. Usually, a “regular” *Civilization* game will include science and religion ratings, however for the fall of Rome scenario, the developers omitted these two dimensions. Therefore, it is impossible to win the game, as one normally could, through diplomacy, scientific or religious victory conditions. It leaves the player with no other choice than winning by military might.

The absence of science could be interpreted by a way of illustrating the relative stagnation in the means of production and scientific discoveries in the Roman Empire during the period depicted by the scenario. As Harman (1999) pointed out, the Romans did not need to innovate since they relied
on technology taken from the civilizations they had subjugated and
gathered from conquered provinces.

The absence of religion is also surprising. At the time in which the
scenario takes place, the Roman Empire was made up of multiple
religions: Christianity for some Romans (notably the emperor), Arianism
for some barbarians and paganism in rural parts of the empire. The
religious dimension was therefore an important one and its exclusion
contributes to the overall military focus of the scenario.

**Military dimension.** As this scenario is purely militaristic, it is no surprise
the game asks the player to “gather your courage and fight to decide the
next thousand years of history” (Firaxis, 2009). Legionaries are the more
powerful unit (17 damage points versus around 15 for barbarian units) but
the barbarians have troops in greater numbers and powerful military
bonuses that allow them to easily dispatch the player if he does not use the
terrain to his advantage. Furthermore, due to the sheer number of
barbarian units all around the Empire borders and the smallish Roman
army, it is impossible for the player to win on every front. Thus, choices
must be made to protect some parts of the Empire and let others fall into
enemy hands. To succeed at this, troops must travel across the Empire, an
action that takes a certain amount of turns (it can take up to eleven turns
for one unit to cross the whole Empire), thus making some frontiers more
vulnerable to attacks. However, intelligent use of the terrain (such as the
Alps or the Mediterranean sea) can contain the barbarian in certain zones
for quite some time. Finally, legionnaire units can, while engaging
barbarian soldiers in combat, convert enemies into friendly units, thus
expanding the Roman army as the fight goes on.

It seems that only through military actions can the player enact some
form of agency, and this can only be achieved by knowing particular
mechanics specific to the game. Furthermore, the scenario seems to over-
estimate the strength of the barbarians and especially their position within
the Empire. Regarding the size of the barbarian army, Riché and Le Maitre
(1953/2003) suggested that the barbarians were actually fewer in numbers
than the Roman army. Historiography also shows that the Roman army
constantly evolved. For example, in later years the importance of cavalry
was greater, leading to the emblematic Roman legion having a diminished
role. However, this is absent from the scenario. The game also seems to
suggest that the barbarians were all around the borders, leading
simultaneous assaults with no other interests than extending their own
territory. Aside from a few exceptions (like the enrolment of barbarians
when they are defeated and some allusion to them in the social doctrine
that harms the Empire), barbarians are always depicted as being from the outside and are presented as less evolved (in a civilized and technical way) enemies that outnumbered the stronger Roman army. However, it is widely known that barbarians were, at the time depicted by the scenario, an integral part of the Roman army.

**Barbarian conceptions**

During the course of the scenario, the barbarians seem to be presented as invaders. From the beginning they are all over the Roman borders and move to quickly engage the player’s army and cities for conquest. They are also absent from the Roman Empire, while in reality they were present in the military hierarchy and the aristocracy (mostly by marriage). Also, their number in terms of military units is impressive and the fact that you cannot interact with them except through combat gives the impression of a ruthless enemy. Each time they take a city, a prompt informs the player that their civilization is inexorably falling into chaos, further associating barbarians with conceptions of “chaos” or “evil.” While being inaccurate for the time period depicted by the scenario, it also reinforces preconceived conceptions associated with the events leading to the fall of Rome.

Our results indicate that the fall of Rome scenario is clearly presenting an ethnocentric and positivist viewpoint of the history of the Roman Empire. First of all, the strong focus on the military dimension and the use of words and images suggesting barbarians are invaders from the outside conceal equally important (if not more important) social, political and religious dimensions integral to the decline of the Roman Empire. Some of those simplifications and omissions are related to the very nature of the game conceived with geographic determinism and economic and military biases (Poblocki, 2002). Furthermore, the decision to lock the religious, political and scientific tabs indicate that the creators of Civilization V view history as a fixed narrative, making the scenario they conceived little more than an interactive movie where historical agency is severely limited, which translates to a marginal influence on the story told. It is also worth considering the inequality between the social doctrines of Roman and other civilizations as a way to make the decadence of Rome seem inevitable and giving the impression that history is something people cannot control, change or even influence. Finally, the lack of historical context and the presence of “great” men and women in the presentation pictures, to the detriment of the ordinary people, indicate a view which
seems to adhere firmly to the great-man theory of historical progress (Novack, 1972).

**Discussion: Some Considerations and Suggestions for In-Class Use**

As described in the results, the scenario presents a very simplistic version of the fall of Rome. This interpretation focuses on the notion of *invasion* and *decadence*. As both of these are presented as inevitable due to the particular (and limited) setting of the scenario, the player is given an impression of history as composed of unquestionable facts which can be embodied through good staging. While narratives are an acceptable form of history, they are governed by narrative necessity (such as coherence) more than by facts (Wertsch, 1997). For the fall of Rome scenario, the importance given to military, geographic and economic dimensions combined with the representations of barbarians and Romans calls for some apparatus to create cognitive dissonance and critical (or historical) thinking (Dalongeville, 2001).

**Technical considerations**

Before considering the in-class use of the *Civilization V* fall of Rome scenario, one must take into consideration some fundamental aspects that we will highlight here. First, mastering *Civilization*, as a whole, is a huge task requiring countless hours of game play. Even considering the limited scope of the analysed scenario, we evaluate that in order to use the full potential of the scenario, a teacher should envision up to 25 hours of preparation for the game alone. This corroborates findings by Charsky and Mims (2008) and Engefeldt-Nielsen (2012). This excludes any preparatory readings a teacher could need in order to familiarize her/himself with the time period depicted in the scenario. These readings seem necessary in order to fully see the possibilities offered by the scenario. In our opinion, most of our observations were made possible by the fact that we had previous knowledge of the different causes presented by the game. However, we concur with previous observations that suggested that the game would be engaging to students (Pagnotti and Russel, 2012; Squire, 2004; Watson, Mong and Harris, 2011). While assembling the data, researchers needed to remind themselves of their purpose or else fall prey to the game experience. While it is perfectly acceptable for students to have a pleasurable experience while learning, teachers should carefully consider their didactic intentions before using the game in class.
(Boutonnet, Joly-Lavoie and Yelle, 2014). Therefore, the first steps for teachers willing to use this scenario would be to familiarize themselves with game mechanics and the time period, and then determine what exactly the objective of the game session with students would be. Teachers should also carefully determine if they have the necessary technical resources to implement Civilization V, since the game requires a somewhat powerful computer to allow for smooth gameplay. Furthermore, they should take into consideration the level of proficiency of students with the game. A particularly good student could eventually go through the scenario without giving any real thought to historical content, while less proficient students could be overwhelmed by the game and forget all about history and even become disengaged. This, for us, directly affects the possible agency students could exercise through the game.

Ideas for in-class use

In this regard it is difficult, in the particular context of this study, to determine if playing the fall of Rome scenario can help in the development of historical thinking. While a certain form of agency is possible, it is clearly limited by the ability of the player to control the particular economic and military mechanics of the game and has less to do with their understanding of what actually happened according to a particular historical perspective. As for the causes and consequences dimension, it is once again somewhat limited. The scenario clearly encourages pre-conceived notions of the fall of Rome making cognitive dissonance more difficult because players seem to experiment the same “story” no matter how many times the scenario plays out. However, we feel that playing the scenario could contribute to the practice of historical thinking heuristics such as sourcing, contextualization and corroboration (Wineburg, 2001) if teachers put proper mechanisms in place; for example, a whole-class play setting where the teacher can frequently interrupt play to bring forward elements, ask students to interpret historical sources in light of what happened in the game, etc. In a way this corroborates the approach taken by Pagnotti and Russel (2012) in their study. For the time being, we believe that playing the scenario is not detrimental to the development of historical thinking in a setting where activities are put in place to favour its development. However, in-class research is needed to offer more tangible answers.

In his 2004 study, Squire remarked that by using Civilization students could “re-write” or in this case “re-play” history, leading them to realize that they “had been treating the game as a fixed narrative with pre-defined,
scripted events rather than a simulation for exploring hypotheticals” (Squire, 2011: 115). These explorations of hypothetical scenarios are, for some historians, an integral part of the search for historical causes (Prost, 1996). Thus we feel it could contribute, to an extent, to a better understanding of causality in history. However, the fall of Rome scenario allows for only a minimal re-play of history (as stated earlier concerning the overall agency power of the player) compared to what can usually be found in a regular Civilization game.

However, it could be possible for teachers to make use of the scenario in the context of a historical inquiry where students could be tasked to compare certain parameters of the game to actual historiography. Considering the amount of time such an endeavour could take, we suggest combining this approach with the use of an inverted classroom setting (Lockwood and Esselstein, 2013) where students would play at home or at school, as a homework assignment and then follow through with the inquiry in class. The inquiry could take the form of activities focused on the analysis and critique of ideology biases or other historical thinking tasks. We feel this could be fertile ground for further exploration in the future.

**Limits of the present study**

Firstly, as Civilization V contains many scenarios, the choice of the fall of Rome and the subsequent focus of the study was arbitrary. Thus it is impossible to know if other scenarios could have wielded better results for the teaching of social studies. Secondly, analysis focused primarily on the point of view of the Western Roman Empire, leaving alone the assumed different perspectives of the barbarian civilizations. Thirdly, even with interjudge agreement, results of the study remain biased by the representations of the researchers who are both trained as high school teachers and are pursuing post-graduate studies. Lastly, as this is a purely theoretical study, it is impossible to determine effects of the game on students or hypothesize as to what the perceptions of the scenario by teachers or students would be.

**Further Research**

Different aspects stood out during the study that warrant further exploration, for Civilization as a historical object and video games as a whole. Further research should concentrate on actual classroom integration of games such as Civilization as to better understand their effect on
learning and on the development of historical thinking. Second, the place of historical agency in video games such as Civilization or even Assassin’s Creed should be more documented. Studies are currently underway on that topic and should yield results in the coming years (Boutonnet Éthier and Lefrançois, 2014; Joly-Lavoie, 2015). There has recently been a call to consider games as worthwhile historical texts that must be treated like a historian’s interpretation of an historical event (Chapman, 2012; Wilhelm Kappel and Elliot, 2013). We feel that this approach to video game research could provide more interesting results for the teaching of history as they are an important and now unavoidable cultural object (Swidler, 1986; Wertsch, 1997) which intervene in the didactic relationship between student and teacher (Martineau, 1999). Finally, as Pomian (2000) showed, fiction and history are now interdependent. This relationship is particularly true for historical video games and should be examined by researchers in the field.

Conclusion

We have shown that the fall of Rome scenario of Civilization V seems to encourage the common view of barbarians as violent invaders while restricting the historical agency of players. We also hypothesized three different ways such a scenario could be used in a classroom setting. As such, it seems that the scenario could be used in class; however, it is important to emphasize that such an activity, especially if targeting the development of historical understanding, should be coupled with a specific didactic apparatus.

In conclusion, as a field of research, the study of historical video games is still in its infancy. Researchers are slowly moving away from the simple detection and critique of historical inaccuracies to more complex forms of analysis. We hope the first step we took with this study will help researchers and teachers in developing classroom situations in which Civilization could be used, while fostering new questions for the progression of the field.

References


Carretero, Mario, and Floor van Alphen. “Do master narratives change among high school students? A characterization of how national history is represented.” Cognition and Instruction 32, no. 3 (2014): 290-312.


Figure 4: Repartition of codes for the analyzed images

<table>
<thead>
<tr>
<th></th>
<th>Facial Expression</th>
<th>Clothes and Background</th>
<th>Background</th>
<th>Symbols</th>
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<td>Haughty (FH)</td>
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<td>Menacing (FM)</td>
<td>Rich garments (CBRG)</td>
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<td>Smiling (FS)</td>
<td>Dark or sober elements (B-)</td>
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<td>Desperate (FD)</td>
<td>Objects depicting richness (CBOR)</td>
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<td>Tatoo</td>
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<td>Genseric</td>
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Why Assassin’s Creed?

Many argue that cultural products often act as substitutes for school and academic history (Marcus and Stoddard, 2007; Rosenstone, 1995; Seixas, 1993; Wineburg, Morsborg, Porat and Duncan, 2007). For example, the historical film is particularly recognized by students as a direct window into the past, as if the film told them what really happened (Seixas, 1993 and 1994). The historical film attracts a growing interest among education researchers as it allows one to analyze the historical narrative illustrated by a film and therefore to exercise the skills related to historical thinking, such as contextualisation, interpretation, corroboration, etc. (Marcus, Metzger, Paxton and Stoddard, 2010; Wineburg, 2001). However, interest in historical video games is still limited, especially in the field of education, despite sales in this sector generating billions of dollars each year.

In the United States, more than $21 billion was spent in the video game industry in 2013 (Entertainment Software Association 2014), which is twice the amount recouped from cinema admissions sales. In Canada, it is estimated that 90% of young people (12 to 17 years old) play video games and 54% play every day (Association canadienne du logiciel de divertissement, 2012). In Europe, 80% of young males (16 to 24 years old) are entertained by video games (Ipsos Media-CT, 2012). These statistics should interest the education field because increasing numbers of students regularly encounter these kinds of cultural products. But there is more. Should we recall that video game production budgets can exceed blockbuster movie budgets? The latest installment of Rockstar Games, Grand Theft Auto V, required a budget of $265 million, the most expensive game ever produced, surpassing even Hollywood blockbusters.

See http://www.boxoffice.com/statistics/yearly
such as *Avatar, King Kong, or Avengers*. *Assassin's Creed 3 (AC3)* is another example of the popularity of video games: it has sold over 12 million copies worldwide and the whole franchise now exceeds 77 million copies. Even better, some universities offer history courses with the purpose of analyzing *AC*’s content and reflecting on historical interpretations and historiographical issues (Boutonnet, 2014; Trépanier, 2014).

*AC* is also a transmedia storytelling enterprise (Arsenault and Mauger, 2012; Jenkins, 2011) dispersing historical content through multiple platforms like short movies, comics, special issues in history magazines and soon its very own feature film announced for 2016. This growing popularity has sparked some interesting controversy in several media. For example, the historical representation of certain elements in *AC3* (about the American Revolution) in 2012 and *AC5* (about the French Revolution) in 2014 aroused a variety of public reactions. Based on trailers or advertising campaigns (but without undertaking a thorough examination of the game itself), some people denounced the games’ lack of historical accuracy. They also fear possible negative effects on players’ social identity, risking the erosion of a national collective memory, due to the alteration of some canonical historical figures or events (Audureau, 2014; Boutonnet, 2012; Brown, 2013; Pinchefsky, 2012).

However, to increase sales, Ubisoft’s marketing plan is all about players being able to be part of History through their games, which allow players to live and to feel key moments of a specific historical period: “*AC3* invites players to experience the untold story of the American Revolution,” and “There’s the American Revolution you know from history books. And then there’s the revolution you’ll be fighting, set in a world that’s far more realistic, gritty, and alive than any history book ever could be.” These quotes are crystal clear – you should play this game to experience something different, to learn something you cannot find anywhere else. It is a bold invitation, yet this marketing plan seems to work considering their game sales. Should we worry about this?

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4 In France, a monthly magazine of general history *Historia*, has teamed up with Ubisoft to publish a special issue on the historical period illustrated by the game. So far, two issues have been published, first with *AC 4*, about piracy in the 18th century (2013), and lastly with *AC Unity*, about the French Revolution (2014).
5 Visit IMDB at http://www.imdb.com/title/tt2094766/
schools and history teachers worry about this? I think we have to take advantage of it. Let me explain how.

**What is Assassin’s Creed 3?**

You play as Connor (born to a British father and a Mohawk mother), whose role is to perform a series of assassinations during the American Revolution. These assassinations are justified by a bigger conflict, one that has thrived for centuries between two secret factions: the Templars and the Assassins. This fictional conflict is part of the meta-story of *AC* and illustrates the fight for order (Templars) versus liberty (Assassins), a recurring theme through the *AC* franchise (Price, 2012). You face some difficult choices trying to save your Native American village from the British military, the loyalists and the colonists. It is an action/adventure game with a realistic historical background. You might freely roam around Boston or New York swarming with people, horses, pigs, etc. You pass points of interest such as churches, town halls or harbours. The architecture was designed to be faithful to this era with authentic buildings. During the game, you will meet some important historical figures (Samuel Adams, George Washington, Benjamin Franklin, etc.) whom you can talk to and listen to their ideas. You will play some role during canonical events such as the Boston Tea Party or the Boston Massacre. You will be a witness to and an actor in many other events: the Battles of Lexington and Concord, of Bunker Hill, of Monmouth, of the Chesapeake. The attention to detail drives this game – you can feel history all around you. All those elements, when encountered in the game, are also described and contextualized in a database called Animus. The Animus is in fact a machine that lets you travel to the past of your ancestors because of your DNA. While you travel through the American Revolution, you are connected to the present by this device. The Animus is accessible by the player at all times and is updated by a fictional character from the present, the historian Shaun Hastings.

As such, *AC3* is a realistic simulation supported by a lot of historical content and details, in an open and immersive world that allows a certain amount of freedom of action and choice. This realism is due to the advancement of technology in the video game industry, but also because of the historians and experts consulted by the creators of the game.

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7 François Furstenberg is a history professor at the John-Hopkins College and collaborated with Ubisoft on *AC3*: [http://www.nouvelles.umontreal.ca/udem-](http://www.nouvelles.umontreal.ca/udem-).
(Brown, 2013). However, for the purposes of the scenario, fictional elements are blended with the historical narrative. It is therefore important to ask whether or not experiencing this game contributes to an understanding of a historical narrative. Specialized websites\(^8\) about gaming praised AC\(^3\) for its detailed historical environment and its gameplay mechanics. Critics were excited with the action and the important role you play during the American Revolution. Connor is always a key character (even though he is a fictive character) during the main events of the American Revolution. However, one important issue arises: the game lets you feel that it would not have happened without your actions and that because Connor was part of a secret society, it is absolutely normal that you never read this in history books about the American Revolution. The fictive historian in the game, Shaun Hastings, constantly reminds you of how the history was shaped by the Templars. So, how do players engage with these historical narratives when fiction is central to the game? How do players make sense of history? How do they deal with the game’s inaccuracies? Are they really involved in making and in understanding history? Can this gameplay experience cause negative effects to the players’ social identity?

**Historical Video Gameplay and Historical Agency**

Before I offer some reflections about these questions, we need to place these thoughts into a theoretical framework. Specialized websites focus primarily on the aesthetics and functionality of the game, unlike many types of media which criticize historical inaccuracies. In fact, various media highlight the danger of this game revolving around the way history could be taught by AC and how players might get wrong ideas. However, very few researchers have analyzed AC and it was never examined through an empirical study (Arsenault and Mauger, 2012; Berger and Staley, 2014; Dow, 2013; El-Nasr, Al-Saati, Niedenthal and Milam, 2008). Those research articles, even though they are very interesting, focus on the game’s content. In this context, it is very difficult to really grasp the media’s claims because they are not supported by any empirical evidence. That being said, AC does present a dual challenge: the historical narrative itself and the actual consumption of this historical account by players. It appears to us essential to consider not only the content of the game (which

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\(^8\) Read some critics on Gamespot.com, IGN.com, Gamekult.com or Eurogamer.net. AC\(^3\) obtained the metascore of 80 out 100, which is good.
parts are accurate and which not), but also its treatment in the media and players’ reactions, which could show us how players deal with the historical narrative.

The first concept that could help us is that of affinity space. This is the term Gee (2013a) uses to describe a situation where people are drawn by a common endeavor, which in this case is to master the game. This affinity space is quite interesting because it is not only about the game’s content or its historical accuracy but also about everything that encircles this content: specialized web sites, forums, youtube videos, tutorials, media articles, etc.; anything that enables players to master the game and lets players talk about it. Students play this game and are interested by its story, but we need to consider this affinity space in our classrooms to discuss historical content and interpretations. If not, we are just confirming the media claims about games taking the role of teachers and schools. The purpose here is not to discredit AC because it is a fictional account of an historical era, but to give the necessary tools to the students/players to understand history and to foster historical thinking. But how can this be achieved?

We still know very little about the effects of video games on historical thinking and understanding. In fact, most empirical research in this area focus on popular strategy game franchises such as Civilization, Europa Universalis or Sim City (Egenfeldt-Nielsen, 2005; Lee and Probert, 2010; McMichael, 2007; Squire, 2004; Tanes and Cemalcilar, 2010; Watson, Mong and Harris, 2011; Weir and Baranowski, 2011). This research reports that students develop conceptual and problem-solving skills that foster historical thinking. Furthermore, several researchers suggest that playing video games contributes to an advanced learning of history by solving problems and mobilizing various historical concepts (Chapman, 2013; Charsky and Mims 2008; Gee, 2005; Kee, 2014; McCall, 2011; Pagnotti and Russell III, 2012; Squire, 2008 and 2011). Indeed, the player faces virtual situations that are more immersive, realistic, complex and that require choices and specific actions which could trigger significant learning. Others observe that, in order to analyze the design, content and paratext presented by video games (Apperley and Walsh, 2012; Gee, 2013c; Kee, 2011; McCall, 2011 and 2012; Squire, 2008), it is essential to develop special skills related to digital literacy. Therefore, the consumption of a historical narrative through the use of a video game would vary depending on the player and his skills.

We also know that teens and young adults generally tend to understand a historical narrative – and assign meaning to it – according to their religious beliefs, their ethnic origin or generation (Andrews, McGlynn, and Mycock, 2009; Barton, 2012c; Barton and Levstik, 2008; Barton and
McCully, 2005; Charland, Éthier and Cardin, 2010; Gottlieb and Wineburg 2012; Grever, Haydn and Ribbens, 2008; Levstik, 2008; Peck, 2011; Wineburg et al., 2007). We could argue that any cultural mediation influences the formation of the identity of an individual and his adhesion to a collective identity by means of a shared historical narrative (Wertsch, 1997). However, if the intention of the historical narrative (or scenario) is not always clear and explicit, integrating its content is not guaranteed either. Indeed, any individual could easily learn any historical narrative without recognizing it as legitimate. For example, narratives offered by history textbooks are not always perceived as legitimate or meaningful by students, according to various empirical research (Apple, 1992; Epstein, 1994 and 1997; Goldberg, Porat, and Schwarz, 2006; Goldberg, Schwarz and Porat, 2011; Hsiao, 2005; Porat, 2004). Therefore, we should consider any cultural mediation as a negotiation between the cultural medium and its user.

Even if AC may seem realistic, it is created with fictive content and the player choices are limited by a predetermined scenario interrupted by cinematic cut scenes. Note that the video game is the result of conscious choices made by its creators (Chapman, 2013; Kee, Graham, Dunae, Lutz, Large, Blondeau and Clare, 2009). As history – and its multiple narratives/interpretations – is a social construct (Carr, 1986; Marrou, 1975; Prost, 1996; Veyne, 1971), historical narrative offered by a video game is also constructed and requires as well analysis of the experience it creates (Arnseth, 2006; Chapman, 2013; Kee, 2011; McCall, 2012; Taylor, 2003). A video game is particularly interesting because it does not play by the rules of academic history: there are no boring footnotes and no historiographical debates. Nonetheless, video games present an historical interpretation as much as a historical movie or a novel does. As a piece of interpretation, historical video games should be played and analyzed. So the real question should not be whether the game transmits the real history but how this gameplay experience contributes to renegotiate traditional historical narratives.

Moreover, while history is about narratives, it is also about agents playing a role in history: historical agency has a structuring effect on the ability to act as an individual (Bourdieu, 1994; Giddens, 1979). History should help students recognize human action (or agency) as the driving force of history and change related to the choices made by groups or historical figures (Barton, 2012a, 2012b; Barton and Levstik, 2004; Éthier, Lefrançois, and Demers, 2013). Historical agency should be analyzed through narratives to determine actions and the meaning of these actions. The actantial structure of a narrative borrows from linguistic semiotics.
(Greimas [1976], c1966). The analysis focuses on the action of an individual (agent), but also the object of his action (quest), those who profit from this action (recipients) and those who help (adjuvants) or limit (opponents) that action.

To consider historical agency and its actantial structure is to study the values and interests leading to decision making. It is also about confronting a conception of the historical narrative that portrays agents as passive and at the mercy of historical events and social structures (Lefrançois, Éthier and Demers, 2011). The presence of agency in a historical narrative should illustrate the ability to act without necessarily portraying history as linear or inevitable. In other words, the study of history would help students to recognize human action as the drive of history and change in relation to the choices made by groups or historical figures (Barton 2012a, c; Barton & Levstik, 2004; Éthier and Lefrançois, 2011; Éthier, Lefrançois and Demers, 2013; Lefrançois, Éthier, Demers and Fink 2014; Martineau and Laville, 1998; VanSledright, 2004). Some researchers claim that students who are aware of their historical agency (that is to say, who regard themselves as co-authors of their own actions and history) would be more motivated to act politically (Charland, Éthier and Cardin 2010; Pagé, 2004; Santisteban and Pagès, 2009). Although video games are confined to a more or less fictive environment and a set of specific rules, freedom of action and choice is sometimes illusory (Arsenault, 2013; Charles, 2009; Jensen, 2013). Yet historical agency is very useful for the analysis of the negotiation of a historical narrative by an individual. By recognizing spaces of actions, struggles and choices, players could understand the process of historical change, or at least, attribute it to human actions and social structures rather than just great figures or fatality. In turn, this could lead an individual to see himself as a historical agent who can act to some extent and thus build his social identity.

Some Thoughts about Using Assassin’s Creed in the Classroom

As was mentioned above, freedom of action and choice is sometimes illusory in video games (Charles, 2009). This is especially true with AC3. If some things seem realistic and accurate, the game also includes a good deal of fiction and the player choices are limited by a linear\(^9\) scenario. You

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\(^9\) AC does not provide much scope for players to choose their own path or even to change the course of the scenario. That being said, some games really do offer
have to perpetrate assassinations in order to progress in the game even though they are mainly fictive and have nothing to do with history (the main plot of the game is about the eternal conflict between the Templars and The Assassins). Nonetheless, as Connor, you face some cruel moral dilemmas while playing the game. You are caught between two visions of the world (order vs liberty), trying to benefit from both. Your British father is a Templar trying to take advantage of the Revolution to establish order in the colonies. But Connor fights for his freedom and his people. He enrolls with the Assassin’s Order to make everything right. You understand through your actions that it is not that simple even if you try to remain neutral just for the sake of your village. In the end, you realize that everything you went through (even killing your own father) did not help your village, but perhaps accelerated its fate: your village is burnt down and your fellow tribe is scattered across the land. From a gameplay perspective, the ending is punishing, but from a historical perspective and agency it allows players to absorb a painful truth: American Natives were the one who lost the most. Even if you fought for liberty and freedom, you could not save your village. The representation of this Mohawk tribe is just a glimpse of AC’s potential to foster learning and understanding of history. It truly poses some interesting questions about the consequences of the American Revolution and the role of many groups or historical figures: who benefits the most? Why isn’t freedom for everyone? Why didn’t American Natives keep their lands? Which historical figure is responsible for this? Can we even find someone responsible? Is the game interpretation faithful to what really happened?

Before the game’s worldwide release in October 2012, trailers were presented with different content, leading to anti-British accusations (Boutonnet, 2012; Pinchefsky, 2012): the UK trailer shows Connor killing Patriots and Redcoats, while the US trailer shows Connor exclusively killing Redcoats (to preserve the patriotic representation of the American Revolution). Nonetheless, Ubisoft reminded the public that the game was not about Patriots versus Redcoats, but Assassins versus Templars (Brown, 2013). However, not all the American colonists at the time were supporters of the Revolution and it is really curious to try to manipulate this historical reality by cutting a few seconds of a trailer. Besides, the goal is not to play as a Loyalist or as a Patriot; you play as a Mohawk. So why present these choices? Why these anti-British claims? As Connor, you do not take sides, even though at some point you side with either

more freedom of choices, thereby creating multiple story arcs to follow and even proposing different endings. Such games are usually Role-Playing Games like Mass Effect 3, Dragon Age: Inquisition or Witcher 3.
George Washington and the Patriots or your father and the British army. In the process, you come to realize you cannot trust either side, you even have to stop your own people from killing Patriot messengers. In the end, your tribe loses its territory to a man who was granted the land by the new Congress. How is this anti-British? Is it not anti-Patriots also? My point is not to refute the media claims, but to illustrate how AC tries to present a historical narrative blended with fictive elements. All this confusion must be cleared up by putting forward a critical perspective and in my view this game creates exactly what we need in a classroom: a situation where students are forced to truly examine a historical problem by considering historical agency.

Now, let us examine other examples to showcase AC3’s historical interpretation issues and how students could tackle a historical problem. One of the most memorable scenes in the game is probably the Boston Tea Party event. First of all, this is because this event is one of the most popular and iconic both in the United States and abroad. Secondly, it is one of the first rebellious acts from the Patriots giving it its unique meaning. The sequence in the game starts close to the Old South Meeting House and you hear the alleged Samuel Adam’s signal for the Tea Party: “This meeting can do nothing further to save the country.” Then you rush toward Griffins’ wharf and clear the way killing British Redcoats. The Animus contextualizes this event very well (you can read entries about the tea act, no tax without representation, Sons of Liberty, etc.) and makes an interesting remark about John Adams’ life: “it is claimed that he gave the signal (although some question his implication)” confirming the interpretation issue raised by historians. There is clearly an effort to address historical issues related to the interpretation of this event without really going further… However, there is a gap between what you really do and what is being told to the player by the Animus. In fact, you could play this whole sequence without reading the Animus and thus not be confronted with an alternative (more historical) narrative. The fictive pretext presented in the game to throw away tea crates is to destroy William Johnson’s tea, a British superintendent, so that his income would be stunted and so he would not be able to buy Natives’ lands. Even though

10 See the Broken Trust, chapter 10 – sequence 02 (Price 2012).
11 See the Tea Party, chapter 6 – sequence 3 (Price 2012).
12 That particular phrase was said by John Adams, but historians have argued if it was an intentional signal to start the Tea Party (Ray 2004). According to sources, the Tea Party started later and John Adams was not really the instigator. In fact, the alleged signal was implied ninety-two years after the event by John Adams’ first biographer (Ray 2004).
Johnson is a historical figure who really did but Natives’ lands – and made quite a fortune from it – he was not involved in the Boston Tea Party and he was known to sell rum (Gwyn, 2003). That being said, you have to throw away tea crates (a historical event) from two ships while defending your teammates by killing a lot of Redcoats (not historical). Historical sources say that no one was killed and that around 30 to 130 men participated in this protest, some being disguised as Mohawks (Drake, 1884 [2008]). In the game, you are busy throwing the crates helping Paul Revere (historical character, but not confirmed to have thrown crates) and Stephane Chapheau (fictive character). The Boston Tea Party illustrates perfectly the fictive content blurring the historical one. This simple analysis could be read from two perspectives. The first one would be to list all the inaccuracies, like I did, and to throw away the game because of its misinterpretation. The second one would be to consider those inaccuracies and guide the players with some critical interpretation. The game was not designed to be a history lesson, but it could be a history lesson if taken seriously and closely confronted by students with historical sources. Is it not history to confront sources and propose an interpretation out of it?

Yet we still have to know what players really think about this game. Here I present a brief analysis of Ubisoft’s forum about AC3 and its historical accuracy. I searched for posts containing keywords like historical, inaccuracies, truth, etc. I found some interesting quotes that illustrate very different discourses about AC. First, some players are just expressing doubts about the game:

_Oh, and the fact that there wasn’t any substantial killing AT ALL during the Boston Tea Party, yet Connor and pals seem to be massacring Redcoats by the dozens. Though, admittedly, the Templars could’ve covered up that in the history books, like they covered up the fact that there was a freakin’ Assassin there […] It bothers me. I am such a fan of AC because it connects with history and I love history._

Those players cannot seem to go further in their explanation, they like history but they just express some minor disappointment. The reference about the Templars covering up facts in history is just a reminder of how players could be confused about it. Do players really believe in this conspiracy theory proposed by the meta-story of AC? Even if they do, the

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13 The following quotes are transcribed verbatim.

way history is constructed could be used to let students reflect about the meaning of history in our society.

Some other players simply do not care about the game being historical or not: “If I am honest this does not affect me. An ant crawling on my hand affects me more than this!”9. Another player was more cautious and would view the game as an opportunity to learn more about the American Revolution:

> or we could ask... does the historical accuracy really matter for a "work of fiction" as it is called in the opening load screen of the game? we could ask, and I would think the answer would be "no". IMO [In my opinion], the fact they included so many historical figures makes it be a game worth looking over historical inaccuracies...

15.

This particular player is aware of some inaccuracies, but would not mind going further because the historical background should be checked. Yet, we do not really know how this player would “look over historical inaccuracies.”

For someone else, these inaccuracies are not a deal breaker because he likes the historical twist of the game:

> Yeah whenever I was told about how this happened, everyone always said that they dressed up as Natives. I also thought they did it in secret in the silence of night. It looks like there are about 6 redcoats attacking, and it even says it in the description. That’s fine though. I love the fact that Connor actually starts the Boston Tea Party. I’m glad he’s going to play such a huge role in history16.

Here, we can observe how the player takes what he learned about the Boston Tea Party (“they dressed up as Natives [and] did it in the silence of the night”), compares it to what the Animus tells him and how he just likes the new experience provided by the game. There is no doubt, no critical interpretation, everything make sense, it is fine. Yet, from a historical agency perspective, that player really likes the involvement in the event. Even though Connor is a fictive character, the actions the player simulates within the game could lead us to a new way to make history. But, again, we do not know if those actions performed in the game changed the historical representation for this player.

The last quote is probably the most interesting one:

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Vincent Boutonnet
I didn’t want to get into the middle of this, but something needs to be cleared up. Short Version: If the gameplay from the Inside AC series is the final version, they’re depicting the Boston Massacre correctly. One of the Redcoats apparently says, "Fire" and this is correct. As has been noted, no order to fire was given, that much is true [...] John Adams defended them at trial, as has been noted. All but two were acquitted. The two that weren’t, were found guilty of manslaughter, but only had their thumbs branded as punishment. Sources: "The Boston Massacre", Zobel, Hiller B. Published 1970, W.W. Norton & Company, pp 194-200; "The American Pagent", Bailey, Thomas; Cohen, Lizabeth; Kennedy, David Published 2006, 13th Edition, Cengage Learning, pg 13017.

That player does exactly what we would like our students to do: sourcing! He refers to two sources and rests his case on those serious references, like a historian would do. We could argue that it is a very simple argument, but here is a player who really confronts the historical game interpretation with historical sources.

Conclusion

If we recall the media claims about how AC could misshape players’ social identity, we could say that some of it is true but not yet proved. AC3 clearly sets up historical issues and gamers seems to engage with these narratives in many different ways, but we have very few examples of these in the forums. We need more empirical evidence of how players engage with the game. Therefore I would like to pursue this research with a more thorough examination of Ubisoft’s forums for the whole franchise. Conducting interviews with players should also be a priority because those quotes are very short and we cannot really access how players think about historical interpretation and their means of confronting the perspective put forward by the game.

The few examples described above should make us think about how to teach history. New technologies and new ways of communicating are entering schools. If history lessons do not change their ways of fostering historical thinking, people will still face historical interpretation outside of classrooms. We need to address these new cultural products and take advantage of it. AC3 might not be the most accurate possible account of the American Revolution, but it creates a convincing universe of what could have happened. Like the creative director of AC3, Hutchinson, declared:

So any time we use historical characters or historical events, we try as much as possible to be objective and not bend history. But any time we find cracks—areas that aren’t reported very much, or days that aren’t documented—we try to take those spaces (Brown, 2013).

Academic history is built on sources, clues, footnotes, bibliographies and historiographical debates, but ultimately the subjective interpretation of the historian remains (Carr, 1986). Historical narratives are carefully crafted by historians, just as AC3 was carefully crafted to tell us a significant story about those undefined spaces. I find it hard to let go of this resource just because it challenges our way of teaching and knowing history. After all, what are we supposed to do? Let the entertainment industry shape our young minds, hoping that players will suddenly be critical or simply take advantage of a game like AC by carefully crafting history lessons to equip the students better? It is currently at our fingertips, or shall we say at our fingertip…

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Background

According to research by Rideout, Foerh and Roberts (2010) cited by Michael Young et al. (2012: 61), in 2009 60% of youths aged between 8 and 18 years played video games on a typical day, and this trend was increasing. The e-magazine Polygon predicts that in 2015 the global market for video games will be worth 91.5 billion dollars, 9.4% more than in 2014 (http://www.polygon.com/2015/4/22/8471789/worldwide-video-games-market-value-2015).

History-based games have their place in this market. The most popular one, Civilization V, has sold as many as 5.8 million copies as of April 2015 (https://en.wikipedia.org/wiki/List_of_best-selling_video_games). Of course, the primary concern of the producers of history games is achieving high sales, not furthering the education of young people. Thus they pay more attention to the attractiveness and playability of their products than to their educational value.

Researchers, conversely, seek opportunities to increase the historical knowledge and skills that young people can acquire while playing, and try to find ways to implement them into the teaching/learning process in order to make learning history more effective, or at least more enjoyable. To this end, a common method is to assess the accuracy of a particular game’s scenario(s), and present various proposals of how to include the game in existing models of school instruction, timetables and curricula, taking into consideration all the limitations of the school system in which they work, from the computer equipment available to a lack of time.

Jeremiah McCall proposes a whole set of strategies to maximize students’ learning outcomes from playing computer games related to school history, including creating pre-tests, observation sheets and lab-style activities, conducting research projects, annotating screenshots,
diagramming game systems and even setting writing assignments such as blogs or journal articles (McCall, 2011). At the same time, however, he notes that such an approach makes playing a form of work rather than fun (McCall, 2011: 20). Since students have a tendency to avoid work, the teacher has to monitor whether and how they actually complete their assignments.

The best researched history-related computer game to date is probably *Sid Meier’s Civilization*, although there are also publications devoted to the *Total War* series, *Europa Universalis* and even first-person-shooters (FPS) such as *Assassin’s Creed*. Discussions usually concentrate on the educational potential of a given game, whether or not a given game should be recommended to be used at school, what age group it should be addressed to and how to include it in teaching practice. A position taken by J. McCall regarding *Assassin’s Creed* illustrates this approach: “Because the core of *Assassin’s Creed* is not focused on modeling historical systems, and does not, as a result, offer any meaningful explanation of historical systems, the game is not the most effective for history education”, and it is “not sufficiently a simulation game to warrant its use by history students.” (McCall, 2011: 28, 29). Later the author focuses on the issue of what makes a valid simulation game.

**Colonization**

I adopted a similar strategy during an academic course called *History in Games* that I taught two years ago to undergraduate history students at the University of Wroclaw, Poland. The course lasted for one semester, i.e. fifteen 90-minute-long meetings with a group of twenty-five students. We started with board games that concentrate on historical issues that have been played in Poland at least since the beginning of the 20th century (*Piast. Historyczna gra planszowa* by Ossolineum is probably the oldest one). Today, games featuring WWII and Communist rule enjoy considerable popularity among youths. We played *Mali Powstańcy* (*Little Insurgents*), a game about the Warsaw Uprising of 1944, as well as *Kolejka* [*the Queue*] and *Pan tu nie stał* [*This was not your place, sir*] which focused on the economy of Communism. In the second part of the semester we moved to computer games, starting with “serious games” on CD-ROMs that recently have been attached to regular school textbooks, especially by the publishing house *Nowa Era*. Then we moved to *Caesar* and *Cleopatra*, which students played mostly in class to ensure that

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1 See chapters by Vincent Boutonnet, Alexandre Joly-Lavoie and Frédéric Yelle.
everybody knows how to play computer games (there were students, and not only females, who had never played this sort of game before). *Civilization IV* was mostly played at home (we tried to set up an on-line session in the class but failed) and was followed by *Colonization*. *Sim City* concluded the semester as an example of a game that could be related to civic education at school. Comparing *Civilization* and *Colonization* provoked quite a lively discussion, the outcome of which I present below, together with my reflections.

*Sid Meier's Colonization* is a turn-based strategy computer game based on the early European colonization of the New World. It was first released in 1994; the version used during my class was from 2008. The game starts in 1492, with a colonists’ ship arriving in the New World (continental America or a Caribbean island). A player can choose to represent English, French, Spanish or Dutch colonists. Each of them has their own unique features, e.g. the French convert natives more easily while the Dutch start with a larger ship, meaning they are capable of taking more carriage than their rivals. The proposed names of the colonies also differ, e.g. the British start with Jamestown, while the French name their settlement Quebec. The aim of the game is to set up colonies and make them economically and militarily strong enough to be able to declare independence and defend themselves during a war with a European power. In order to achieve this goal, a player brings new colonists and “grows” his own, explores and exploits the new land, establishes contact with native tribes and with other colonies and maintains relations with the “home” country, mostly through transatlantic trade and tax-paying.

Following the above-mentioned approach of judging whether or not a game is “a valid simulation game”, students enumerated the following potential educational benefits of *Colonization*:

a. Young players may become more aware of what was imported from the New World to Europe and vice versa, which professions were required in America and what life looked like there;

b. They can improve their reading and map-reading skills. Reading comprehension is crucial for playing games such as these. Text messages are the basic communication tool used in the game, while a map is the standard navigation tool. Everything that happens takes place on the map. Some elements are fictional (such as the names and locations of the cities, etc.) but the very concept of the map and of the relationship between the geographical features of the terrain and its potential economic prosperity or military tactics that may be used correspond closely to conditions in the real world;
c. They become familiar with the names of the Indian tribes, the colonial powers and their leaders, the cities established by the colonists, the types of ships used in the colonization period, the time period of the colonization and important persons and events related to the colonization (e.g. the concept of the “Founding Fathers”);

d. They become acquainted with the economic realities of the trade between the colonies and Europe (e.g. that it was more profitable to sell products than raw materials; that some goods, such as horses, had to be imported due to a lack of them in America; that taxes imposed by the king grew over time and made the colonists angry);

e. They become aware of some of the political and military problems experienced by the colonies and the ways to solve them (through treaties or wars);

f. Like other computer games, Colonization helps students to memorize certain names, dates and phenomena thanks to the fact that the player constantly interacts with them (through looking at the map, talking to the chiefs, controlling production etc.) and also because of the very fact that playing is both an interactive (according to the popular “learning pyramid”, about 80–90% of knowledge acquired during interactive learning is retained, compared to only 10% from reading a text) and emotional (sometimes very strong) experience.

At the same time, the students mentioned certain drawbacks and hidden concepts of the game that are promoted but not questioned or discussed by the designers:

a. “Our” colonists versus Europe. The world is only shown from the colonists’ perspective. You work hard, try to survive and to make money from selling raw materials (e.g. silver, iron, tobacco, cotton, furs) or products made by your people (cigars, cotton fabrics, coats) – the latter are much more profitable than the former. Europe mostly wants to profit from the colonies. Your king cares about you only in order to get money. When you are performing well he raises taxes. He imposes a high commission on transporting goods when you do not have enough vessels. From time to time he simply asks for a donation (sometimes a very high one). If you do not comply he punishes you.

Another European concept addressed in the game is that of immigration. People from Europe who suffer religious persecution can be attracted to your colony by producing “crosses”. You can also encourage immigration by paying money or by hiring certain specialists to bring them to the New World (which costs more).
b. Other colonists. Other colonies are your rivals. To a large extent whether they become your enemies depends on the policies you pursue but you cannot exist on friendly terms. This made the game an emotionally demanding experience which resulted in complaints, especially from female students, about the nature of the gameplay. Playing a role which requires you to always work alone and maintain a level of suspicion towards all the other characters in the game, with whom it is impossible to build durable partnerships with others since in fact they are only waiting for you to display the slightest sign of weakness before they try to eliminate you from the game, results in enduring feelings of paranoia and loneliness.

c. Native tribes. Indians are generally presented as good people. They offer their help, bringing you large treasures and small gifts. They buy your products (especially rum, cigars and guns) for much better prices than you are offered in Europe. They train your people in farming, fishing and growing cotton and tobacco. In this regard they are skillful and helpful. They can be converted into Christians by the Jesuit missionaries and then join your settlements. It is your choice whether you make peace or war with them, if you get involved in their tribal conflicts or they become embroiled in yours. On the other hand, native villages always remain small while the colonists’ settlements grow. You cannot enjoin a village to your colony. You can either keep good relations with its chief or plunder and destroy it. Therefore, two separate worlds exist – that of the colonists and that of the natives – and it is impossible to connect them.

The visual representation of the Indians in Colonization is absolutely stereotypical. Looking at an Indian village on the map, a player can see a male Indian in his traditional costume, with plumes, dancing a “folk” dance. Interestingly, the students did not pay any attention to this representation, apparently finding it “natural”. Only during our in-class discussion did they notice that it is not and that they themselves would not like to be portrayed in this way.

d. The black population is completely neglected in the game. So is slave labor and slave trade. It simply does not exist, despite the fact that African slaves were reported in American colonies at least from the beginning of the 17th century. Searching to explain this omission, one can notice a general tendency of avoiding controversial or painful topics in edutainment and often also more generally in public history. Games (edutainment, public history) want to make people feel better, not worse; they want their audiences to return; they want to sell more copies, and traumatic topics do not help achieve these goals. This is probably why WWII games usually ignore the Holocaust, and why they do not show the
lives of the wounded (you recover pretty quickly and never become disabled in a computer game) or of the POWs. Cathy Stanton suggests that public history (and not only the computer game industry) generally prefers to ignore controversial, painful topics or uses a strategy to put them into safe frameworks of the past that suggests that they used to cause problems some time ago, but then were “solved” and do not exist anymore (Stanton, 2006). The story needs to have a happy ending.

In the case of black slavery and *Colonization*, apparently the strategy of ignoring the issue was chosen. This decision therefore simply constitutes one more element of the construction of the story of brave colonists who conquered the New World, notwithstanding numerous obstacles from their home European countries, rival colonists and the natives. They were strong and smart enough to survive and to create the New World. And, at least in the case of my students, it succeeded, as nobody noticed the lack of the black population. Of course, there are several factors that may explain this and which may not be applicable in other contexts: for a start, they were Polish, and the issues of colonization are quite distant from the Polish experience or memories – Poland never had any colonies; also, none of the students specialized in American history. However, they were asked to focus on the potential drawbacks of the game and they should have noticed something as significant as that.

**Conclusions**

This last point opened my eyes to the new challenges faced by history didactics. Computer games, like many other public history products, have considerable potential to shape players’ imagination about the past but the reconstructions they offer do not necessarily correspond to academically approved ones. Young people play the games but often they are not able to identify the misconceptions presented in the games’ narratives. They do not need encouragement to play or a choice of games to play but rather critical analysis and discussion on what they themselves choose as entertainment. It requires deep background knowledge and critical attitude to contrast one’s own vision of the past with the virtual world presented in a game, especially since public history messages (including those of the video games) are designed to be persuasive (Sayer, 2015).

This situation requires new tasks and roles within school history education to be created. It seems that history teachers are best placed to have such a critical attitude and to convey this to their students, especially since new curricula tend to put less stress on factual knowledge and more on historical and general skills and on preparing young people to live in
the society of the 21st century. However, it is necessary that teachers accept this role, and their primary concern should not be to choose the best historical games and include them into the teaching process by encouraging students to play them and discrediting or – even more often so – simply ignoring the rest. Instead, they should learn what their students are playing and respond to their interests during lessons. School history education should not be only a “transmission belt” conveying academic history to the young generation, aimed at increasing students’ knowledge on certain historical topics. It should also take note of the extensive sphere of public history that addresses both young and old people on a daily basis, and should teach people strategies for how to deal with this sphere in order not to be mocked or manipulated by various agents on this field (including but not limited to game producers). The academic discipline of history didactics should help teachers in this mission. It seems that academic history and public history are in the process of negotiating their mutual relations (Mooney-Melvin, 2004). It is important to include history education and methodologies of teaching history/history didactics/teacher training – however we choose to call it – in this dialogue.

References

Introduction

Globally speaking, the smartphone has become THE multifunctional digital tool in recent times. According to a recent study, more than 85% of teenagers (11–19 years old) in Germany own a smartphone.¹ For the vast majority of kids it has become a universal medium of vital importance to send and deliver messages, news, take photographs, receive GPS data and look for directions, access the Internet and listen to music – all mostly in passing and with the help of thousands of applications. The app market is one of the fastest-growing markets at the moment, mainly focusing on categories like entertainment and games, health and fitness, travel tools, shopping and trading and socialising/networking. We can also observe a growing market for apps dealing with or making use of history, making these apps the latest part of our current history culture.² Apps with historical content range from providing nostalgic and trivial access to history (e.g. the typewriter app “Hanx” by Tom Hanks), to all the adventure and battling aspects of popular history entertainment we know from PC games, to highly sophisticated and interactive edu-/infotainment

² The search engine “Google” offers thousands of links to apps that deal with historical content. Magazines and radio stations publish the most popular apps and make a clearer selection, e.g. the BBC in connection with the new History curriculum in schools around the UK: http://www.bbcactive.com/BBCActiveIdeasandResources/10AppsforTeachingHistory.aspx (accessed 22.07.2015). In Germany it is esp. the teacher and educationalist Daniel Bernsen who called for a new understanding of the term “Geschichtskultur” (history culture) in the wake of the invention of the smartphone and new digital approaches to history learning (Bernsen, 2012).
apps designed for primary school pupils to A-level students, museum-goers or tourists. Most of the apps run globally and can be accessed by each and every smartphone; however, some are copied or newly developed for a national or local market.

Apps specifically designed for history lessons are still rare (at least in Germany). Consequently, it is up to the history teacher to take a look at the growing app market and find out about the uses and misuses of history. Didactical research on how to deal with smartphone apps in the history classroom is still scarce.³

In this essay, I would like to look closely at the forms and functions of the apps that are freely available and that deal with history in some way. In a further step, I am going to introduce ways of integrating these results into the history classroom. Finally, we need to discuss the didactical implications as to what exactly “effective twenty-first century history education” (McCall, 2011: 10) means in this context, and how it might differ from history teaching in the pre-Internet and pre-smartphone age.

**Smartphone Apps and Their Use of History: Forms and Functions**

The creators of smartphone apps that refer to historical topics often promise consumers a historical revolution. The apps are said to “bring the past alive”, promising that you will “experience history in a new way”, or that “your iPhone can become a time machine” and you would have “a piece of history always in your pockets”. “If TV made history popular again, your iPad allows it to express it fully”.⁴

The app inventors point out the multifunctional and interactive nature of smartphones that is said to lead to both a new and more authentic experience of history and trigger higher motivation when dealing with history. It is obviously hard to classify and group these apps into clear

³ The magazine „Zeitschrift für digitale Geschichtswissenschaften“ [magazine for digital history sciences] was founded in 2012 and provides access to the current debates on digital history learning in Germany. The didactical magazine “Geschichte lernen” was the first one to publish an edition on “Historisches Lernen mit digitalen Medien” [Historical learning with digital media], 2014. See also Demantowsky, 2014.

categories, since their functions and aims are often many-fold and blurred: entertainment? Information and education? Advertising?

Let us take a look at three big groups of apps that can be classified according to the way in which they use and present history.\(^5\)

*Popular history “in pieces”. The smartphone app user as a consumer. Games, quizzes, factfiles*

This group of apps, one can say, is the most popular category and tends to simply transfer older concepts of the histotainment industry (i.e. board games, wall calendars, radio and TV quiz shows, movies, PC games) into the new medium of smartphone apps. Here, history is mostly presented and understood in its popular and spectacular sense as a vast collection of fixed but disconnected dates, facts, sensations and puzzle pieces, often without any chronological order or deeper context or meaning. Just like the famous twentieth-century board games (e.g. the Canadian game *Trivial Pursuit*, which became highly successful in the 1980s in the Western world) or TV shows (e.g. *Who wants to be a millionaire?*, which was first broadcast in the US and the UK in 1998) in the pre-smartphone-era, this group of apps reduces history to dates and facts that have to be guessed by the users, often in a competitive and thus entertaining way.\(^6\)

Currently, the most famous and most successful app in this category is the Swedish app *Quizkampen*, which was created in 2012 and distributed to other European and American countries.\(^7\) The Polish version is called *Quizwanie*, in the UK and the USA the app is available as *QuizClash*, while in the German-speaking regions it is known as *Quizduell* and is tremendously successful (it achieved more than twenty million downloads in Germany, Austria, Switzerland in the first half of 2015). The German version consists of 19 categories, one of which is solely dedicated to

\(^5\) The separation in three groups has just been made for didactical reasons. Traditional historical simulation games such as Civilization etc. are not considered here. For the didactical use of historical simulation games see McCall, 2011.

\(^6\) For the didactical use of traditional board games and history quizzes in German history lessons see: Bernhardt, 2010. A didactical comparison between the old traditional games and the new digitalised versions has not yet been published.

\(^7\) It is said that the Swedish inventor, the teacher Robert Willstedt, was first looking for new ways to motivate his students and then developed the app “Quizkampen”. In Germany, more than 20 million users have downloaded the app (January 2015). For a short history on “Quizduell” (German) see: http://www.pressebox.de/pressemitteilung/euronetwork-andreas-manoussos/Die-Geschichte-hinter-Quizduell/boxid/667007 (accessed 22.07.2015).
history and called *Zeugen der Zeit* [witnesses of time]. Users are firstly confronted with the logo of this category, a drawing of a German map and its flag colours black/red/gold combined with the face of Bismarck, the first chancellor of the newly-founded German national state and empire in 1871. This is followed by three randomly chosen questions without any common topic or time era. The logo already points to the German version of the app as well as to the often nationally limited pool of questions. Most of the questions come from German history and often focus on detailed facts that reflect the national curriculum at schools in Germany. Many simply deal with specific dates and years and are presented as facts. However, the context or any deeper meaning is missing. The question “When was Hitler born? 1870, 1889, 1894, 1900” is only one example to underline this form. Some questions transport an old-fashioned German or Eurocentric point of view of history, for example: “Who invented the printing press? Johannes Gutenberg, Martin Luther, Jan Hus or Johannes Kepler?”

Looking at other international versions of the app, we can observe the questions have been localised for the specific national market. In the US, for instance, the category is simply called “History”. Here, the three random questions are divided into “American history” (two questions) and “World History” (one question). This goes in line with the traditional structure of the history curriculum in American schools. However, “World History” must not be understood in the sense of the academic field of “global history” but in the more traditional sense of nineteenth-century “World History”, which mainly focuses on questions dealing with international wars and European history (for instance: “Who won the battle of Iwo Jima? USA, Japan, GB, France”). The app is thus a shining

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8 These two national “symbols” (flag, Bismarck), of course, refer to German 19th century history. They give the impression of a national historical point of view. Furthermore, of course, the connection between flag and person is misleading here. For students without any knowledge of the 19th century it is hard to distinguish between these two very different symbols of German national history.

9 Most of the questions more or less fix the traditional Eurocentric point of view. Words like “erfinden” and “entdecken” (invent, discover) are frequently used without questioning the global historical background.

10 The construction of the national history curriculum in the US is clearly presented on the web page of the National Center for History in Schools: http://www.nchs.ucla.edu/ (accessed 22.07.2015).

11 The debate on world and global history in schools has been under way in Germany since the beginning of the 21st century. More and more school textbooks have tried to integrate topics referring to global history. However, the traditional
example of a game firstly created for one national market (Sweden), but which, due to its rapid global popularity, underwent regional changes and has been made suitable for national histotainment markets.

Other app formats that fit into this first group are matching and puzzle games, for example “Guess the Character”. Here, users are confronted with a photograph or drawing of a so-called famous historical person and are then asked to type the name of that person. All of the chosen characters stem from traditional Western history, while the visuals are mostly iconic cuts from famous drawings or photographs.\textsuperscript{12}

One final app format to be mentioned in our first group is called Today in History. This app is the successor of traditional chronicles and wall calendars with history dates which used to be quite popular in nineteenth- and twenty-century Europe.\textsuperscript{13} There are many national variations of this app. In German-speaking countries, for instance, it is called Geschichtskalender. Here, the dates are simply listed in random order and mainly comprise Eurocentric ones.

It is characteristic of these kinds of history apps that any problems with the Eurocentric calendar dates are not dealt with and that transnational or trans-continental events are not listed (Osterhammel, 2009: 89-94). People might get the impression that world history has always been constructed like this and that the given list is complete. In addition, it is obviously not accurate to give dates and exact weekdays for events that happened long before the introduction of our modern Eurocentric calendar, for example, “August 30, Tuesday, Cleopatra killed herself”. More recent and revised versions of “Today in history” apps, however, try to avoid the Eurocentric perspective and tend to integrate a more global approach. Their “facts” are also linked with other Internet research web pages, most often, Wikipedia.

To sum up, this first app group is aimed at a mass market of smartphone users that encounter history in passing and mostly in its understanding of “world history” as a Eurocentric history is still valid among popular magazines and other mass media. For the debate see, e.g., Conrad, 2013.\textsuperscript{12} It is striking that popular History magazines and popular History apps often use identical pictures, drawings and photographs which represent a certain visual code so that people quickly recognize this person/ this situation. However, a critical approach to question visual sources does not take place. See, e.g., Schumann, 2013: 182.

\textsuperscript{13} However, there was still no standard calendar and periodisation all over Europe in the 19th century. Globally speaking, we can find a broad variety of different kinds of periodisation and calendars right up into the 20th century. The standard form of calendars used in today’s smartphone apps is therefore highly problematic. For a quick overview on calendars in the 19th century see Osterhammel, 2009: 89-94.
popular and traditional Eurocentric and “Western” sense. Any closer contextualisation is missing. Traditional views are more or less not put into question. The apps are mostly copies of older histotainment concepts, while the interactive possibilities of smartphone apps are not (fully) exploited. However, it is possible for smartphone users to give feedback of the game in app stores or, like in the case of QuizClash, users can send in their own questions or complain about possible mistakes or questions that seem to be one-sided or debatable.

**Interactive history and mobile learning. The smartphone app user as a “co-constructor of historical meaning”**

In contrast to group one, the apps of group two are focused on one specific historical site or one historical aspect and try to fully exploit the interactive functions of smartphones (“on-site mobile activities”). Here, the target group is more restricted (locals, tourists, students in a specific area). Whereas the first group aims to provide quick entertainment and uses history in passing, the entertainment factor in group two is much more linked to education and the concept of “mobile learning” to bring about new historical insights or identification with the given subject or historical topic of the app. Professional historians, museum educationalists, archivists, history teachers, local/city authorities and tourist managers work together with computer programmers to design these kinds of apps. The key didactical theory is “mobile learning”. Of course, students, for example, can inform themselves about the Berlin Wall on their smartphone (e.g. by using Wikipedia). Designing an app, however, that comprises various pieces of information about the history of the Berlin Wall and connects these pieces with actual sites in today’s Berlin on an interactive map that provides QR-codes at various spots in Berlin to show the former area of the Berlin Wall is a different matter, and constitutes a totally new approach to engage students with authentic historical sites and remains.

In Germany, the *Berliner-Mauer-App* [The Berlin Wall App], designed and created by the “Bundeszentrale für politische Bildung”, is a famous German example of how mobile learning could be put into practice. One key element is the integration of “augmented reality”. In general, augmented reality (AR) has become more and more important for apps

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14 For the principles of mobile learning refer to Demantowsky, 2014.
focusing on GPS maps/tourist maps or those from the aviation/automobile industries. However, in apps dealing with historical subjects, elements of augmented reality are increasingly included to link the past and the present in an apparently more obvious and seemingly authentic way for the user (Craig, 2013). The Berliner-Mauer-App, for instance, has reproduced contemporary photographs so that the users of the app are able to see “themselves” in the background together with the old photograph in the foreground and find out more about the site they are currently seeing and visiting. Many museums are now offering apps with AR functions. In the Krakow Sukiennice Museum, for instance, paintings are brought to life with AR (young visitors are given iPads, and the historical background of the paintings is re-enacted by professional actors).  

Digital storytelling via AR thus seems to have become a must for many museums. The EU-funded Chess project (a shorter name for the much longer Cultural Heritage Experiences through Socio-personal interactions and Storytelling) takes digital storytelling much further and plans to make interactive content such as games and augmented reality available to the entire museum sector. The Chess project is currently being tested, for example, at the Akropolis Museum in Athens (which includes visitor profiling, whereby visitors are sent on individual tours around the museum and construct their own idea/ narrative of the exhibition). The app Architip in Israel instructs users to “simply hold a cell phone in front of a site and the ancient structure will appear in its glory”.  

Obviously, apps including AR are also highly interesting for tourist managers and, indeed, it is this profession that has attracted more historians to do research on special sites and link the past to the present. Many cities worldwide now offer apps with AR functions to present the historical sites of the city in this way and thus present the city in a special perspective to make it appear historical and modern at the same time. Young history students in Germany have developed the app Zeitfenster to specially focus on AR opportunities and design a historical tour around a certain town or city in Germany. So far, they have developed Zeitfenster apps for Stuttgart and Berlin and some other smaller cities. The latest is Weimar.

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16 See the youtube-video on how AR was introduced at the museum: https://www.youtube.com/watch?v=jZ6sXMVz41M (accessed 22.07.2015).
But what can we say about AR’s use of and for history? The monastery Cluny, which was completely destroyed during the French Revolution, is partly re-constructed in 3D via AR. The Museum of London has started the design of the so-called “London’s Streetmuseum app”. On their web page as well as on other web pages that publish the AR examples and the fusion of past and present, visitors left revealing comments such as “Here we can see London/Britain when it was still great!” or “Now we’ve got too many influences by immigrants”. The AR experiment has also shown that it is not always easy to choose a good historical site. It has also shown that viewers actively construct their own meaning of history with or without reflecting on the background information provided by sources like photographs, etc. It is essential to bear this in mind when using apps with AR for history lessons in schools.

**Augmented reality and historical simulation games**

One new group that has emerged from the latest developments in AR technology and smartphone apps is that of simulation games that focus on real historical sites and landmarks imbedded in a fictional story.

A famous and controversial example here is the popular game *Ingress*, in which smartphone users have to defend Planet Earth (represented by famous historical sites and monuments, so-called “portals”) from invading aliens. Since 2013, the game creators have acquired thousands of new “portals” around the world, making these historical landmarks even more famous for the advertising and tourist industries. In Germany, the use of former Nazi concentration camps as “portals” for the game sparked enormous criticism. In July 2015, the “portals” Dachau and Sachsenhausen were removed from the GPS game map. Clearly, *Ingress* is one example of how history can be used in an unreflective way and mainly for economic purposes; in these cases, the historical sites do not play an important role for the users of the game. Despite the fact that AR offers vast opportunities for the historical simulation game market, most games focusing on historical topics still run without elements of AR. However, the case of *Ingress* could be a fruitful point of discussion in the history classroom. Example questions to spark debate could include: how do

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20 For a discussion on AR in museums etc. see the web page http://culture-togo.com/mediathek/augmented-reality-im-museum/ (accessed 22.07.2015).


22 Criticism was sparked after the publication of an article in the German magazine “ZEIT Magazin”, http://www.zeit.de/zeit-magazin/leben/2015-07/ingress-smartphone-spiel-google-niantic-labs-kz-gedenkstaette (accessed 22.07.2015).
smartphone apps and games make use of history? How do we as users engage with it? How do they reflect our current history culture?

**Smartphone Apps and Their Use in the History Classroom**

Only a minority of educationalists demand more awareness of “digital learning” in the history classroom. In general, it is the motivation factor that is most frequently put forward by app designers and programmers when it comes to integrating the smartphone in traditional history lessons. The active use of smartphones and their application technology is said to make lessons more engaging, given the fact that (history) teachers are merely confronted with young “digital natives”. But whereas “natives” thoroughly and strategically know their shortcuts, teenagers often just consume and use their smartphone without knowing or understanding the background of the apps available. In short, it should not be the aim in history lessons for students to play *QuizClash* with each other on their smartphones, but instead we, as teachers, need to make use of the given technology and help students to develop their (digital) historical consciousness further. This could be done in three steps:

*Step 1: Reflect on how popular history is digitally “made” and “created” in the 21st century*

Just as historical documentaries, movies, popular TV shows and PC games have become a part of our “history culture” and have been didactically analysed and integrated in history classrooms, students must be given advice on how to analyse apps with historical content, for instance by use of certain “tool boxes” and guiding questions such as: What is the aim of this app? Who is its designer? How is history used? What is not mentioned/missing? Students could, for example, analyse the randomly chosen historical questions of *QuizClash* in class or in an international project (what kind of historical questions are chosen in Poland, England, the USA etc.?) or they could send in their own questions after finishing a certain topic and having evaluated the questions together (this was done in my class, for instance, after completing the history of the “Roman Republic”). *Today in history* dates could be regularly chosen and presented or even be added by regional or more global ones. This app could also be taken as a starting point to discuss the importance of periodization and calendars in history. Before going to museums or on class trips, the apps should be checked and students must be able to give feedback in a fruitful way to app designers or app stores after their visits.
Social media have made it much easier for students to get in touch with designers of apps and ask questions concerning the background and motivation behind the design of the app.

In general, controversies like the case of Ingress should play a more important role in the classroom. Students should reflect on the connection between history and economy and how the game industry makes use of history. Giving feedback and discussing controversies should be fostered by more productive tasks such as writing letters to the editor or blog entries.

**Step 2: Connect the history classroom with the (regional) history “outside” by use of smartphone apps**

The use of the smartphone can help to encounter original historical sites and sources outside the classroom without travel guides but in a more self-organising and individual way. App designers are convinced that a “feeling of historical authenticity” is triggered in the students, although there is not enough research about this aspect of “authenticity” yet. Take, for instance, the Berliner-Mauer-App. This can be used to organize a trip to Berlin (video, information) and then be used in Berlin to discover the different historical sites of the Berlin Wall via GPS and AR. AR can be used to discover and compare the historical site with the actual site in the present and connect history and student. Here, the use of AR “not only represents the past, but produces a certain relation between the student and the past”. Some history school classes have even developed geocaching tours. This digital treasure hunt should lead to new questions and further project research.

**Step 3: Project work. Create and install apps**

After having reflected on the use of apps with historical content (de-construction), a final step to include smartphone apps in history lessons could be to create and even install apps with the help of professional computer programmers and app designers (re-construction). In Germany, the Kaiserdom App is one example. Students from a Grammar School in the city of Speyer carried out this app project (year 12) and designed a

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23 Take the example of the German state Rheinland Pfalz: http://geschichte.bildung-rp.de/entwicklung/geocaching.html (accessed 22.07.2015).
digital rally around the city and a game. They put QR codes on the Speyer Cathedral and other historical sites in the city and connected this with their app. Students reported that they got to know the restrictions of what to include and leave out and how regional history could be *narrated*, always bearing in mind the funding of the city authorities and the financial restrictions. The *Zeitfenster App* team works closely together with local authorities, local museums, the “Bundeszentrale für politische Bildung” and local schools. There is even currently an exhibition – “Weimar: Krieg der Geister 1904-1934”. The app covers eleven sites and includes historical photographs of Weimar. Students wrote the information texts and read them out in a recording studio.²⁵

To sum up, apps in this way could be used to not only make students aware of how “history” can be made, they also work in an interdisciplinary way and become “co-constructors of historical meaning”.²⁶

**Conclusion and Outlook**

Two facts are important for twenty-first century history teachers: 1. Smartphones have become instrumental in the lives of their students. 2. The interactive medium and the various possibilities of apps have found their way into out-of-school learning facilities (especially museums) that deal with history and that respond to a growing need to connect young human beings of this century with the past more closely (Schumann and Popp, 2014: 220). Obviously, we can assume that it is not only the teacher and the school textbook from which students acquire their historical knowledge and their idea of history (it probably never was the case anyway). Ignoring apps that feature history, be it in a popular sense, for entertainment and/or learning, or refusing to integrate them into the classroom, does not seem to be an option for a history teacher that takes the history culture of her/his students seriously and that allows his/her students to become “co-constructors of historic meaning” (Schumann and Popp, 2014: 220) in a critical and responsible way. In the best sense, students might get a concise and interdisciplinary view into how history is created (finding cooperation partners, use of history, doing research, correcting texts, working with different subjects, create your own narrative, etc.) and used for the commercial market. However, smartphone apps as such are only rarely able to make students ask historical and

²⁶ This quote stems from an article focusing on museum didactics but it also seems to be highly suitable in this context (Schumann and Popp, 2014: 220).
critical questions and put years, dates, facts into a proper historical context (see my Israel example above). But this is, of course, more important and a vital prerequisite to becoming real “digital natives” when working with smartphone apps. And this part, of course, remains the job of the history teacher.

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PLAYING WITH THE PAST: DIGITAL HISTORY AND HISTORICAL CONSCIOUSNESS

EMILIA SALVANOU

Since the study of history became an academic discipline, accurately reconstructing the past has been historians’ most important task. Historicism dictated that such accuracy could be achieved through a painstaking collection of all relevant details and the causal correlation of the events. As a result, all other paths through which individuals and communities related to their personal and collective pasts were looked down upon as non-legitimate and therefore not relevant to history. Nevertheless, these alternative paths of connecting and making sense of the past continued to be practiced in everyday life, becoming the elements through which historical consciousness emerged. Myths, rituals, monuments, novels, psychoanalysis, memory, photographs and trivial objects transferred through generations function in a way that is not only complementary to academic historiography, but often as alternative ways to make sense of collective pasts that were silenced, excluded or simply forgotten as “not relevant” to the mainstream national narrative. The past approached through these complementary paths is emotional, intimate and constantly updated through various kinds of enactments. It is a past that people are allowed to “play” and “experiment” with, projecting on it their fears and hopes and shaping it accordingly. As a result, a critical distance between academic and lay history was created, which resulted in a devaluation, to varying degrees, of non-academic historical practices.

The aim of this paper is to go beyond this dichotomy and examine how academic and lay history meet again in the new space created by edutainment, especially with regard to the opportunities offered by digital technology. The importance of ludic activity in the formation of culture was first underlined by Johan Huizinga, who used the notion of Homo Ludens to refer to the significance of “playing” in mediating experiences. He argued that although when playing the game participants are aware of the spatial and temporal limits as well as the rules by which the game is
played, it nevertheless functions as a magic cycle, within which meanings that emerge during the game are transformed and meditated to the real world (Huizinga, 1961). Games with historical content and ludic historical activities in general, I will argue in this paper, have the same function in relation to efforts to shape the meaning of the past. Historical enactments, for example, or comics or historical board-games, films, rituals and so on represent different kinds of playing with the past, in which people participate while being aware of a game’s temporal and spatial limits, but which at the same time become vehicles for the emergence of a more “intimate” relation to the past and the creation of new spaces where participants can immerse and explore contingencies of the past. Digital history, and especially genres that cultivate edutainment or plain entertainment, is a new genre to be added to the abovementioned list, which brings the possibilities of “playing” and “exploring” the past to new levels of experience and embodied participation. The paper is organized into three sections. In the first part I will provide a short overview of history’s relationship with digital technology and discuss the way computerization has affected historical practice. In the second I will move from the production of historical projects to their consumption, and discuss the way computer games transform the way we understand and relate to the past. In the final, concluding section I will attempt to contextualize these changes within a broader debate on the meaning of history and historical practice.

**Computerization and Historical Practice**

Although there is a widespread impression that history and digital technology did not mix before the relatively recent 1990s, their relationship in fact dates back to the 1950s. At that time, the dominant historiographical method was that promoted by the Annales School, which underlined the importance of quantitative analysis and serial history for understanding aspects of the past that could not be approached otherwise – including investigating the demographic and economic history of communities, often over a time span of centuries. Computers were thus praised for the possibilities they opened for working with data series and conducting quantitative analysis. It was in this context that the social history of the 1960s emerged. “New Social History” was groundbreaking: cultivated in the political context of radicalization, with strong influence from Annales and Marxist historiography, it opened up the field to bottom-up approaches of the past and revolutionized the topics of historical research. This approach was explicitly interdisciplinary and praised the
computer for the possibilities it offered for the study of “common people’s” connections to social structure and aggregate behaviors, instead of focusing on exceptional personalities, which had been the dominant method up to that point (Gallant, 2012 and Hockey, 2004: 10).

A new phase of computerization emerged with the PC revolution and subsequent creation of the World Wide Web during the late 1980s and early 1990s. In the spring of 1993, on the occasion of the publication of the inaugural volume of Wired and its optimistic vision for the digital future, scholars became divided into techno-skeptics and cyber-enthusiasts, the first group fearing the dominance of quantification and the death of the narrative, and the second envisaging endless new possibilities for the field (Cohen and Rosenzweig, 2006). Almost twenty years later, developments have taken us to a kind of middle ground: computerization has established new ways to make and present historical projects, without yet destructing the established discursive and cultural context within which historiography is produced. Although computerization is currently essential for historical practice, it usually concerns the media and not the concept of history making. But “doing history” in a digital environment does not necessarily equal digital history. On the contrary, “to do digital history, then, is to create a framework, an ontology, through the technology for people to experience, read, and follow an argument about a historical problem” (Cohen and Thomas, 2008: 454).

Since the early 1990s, interdisciplinary digital history projects have slowly started to appear, providing a glimpse of the innovations that can occur through the application of digital technology in history making. Historians, archeologists, educators, geographers and 3D developers have begun to work together, producing at the same time the new methodologies such projects require. Thus, educational digital history projects such as Historiana (www.historiana.eu) are finding their place in the conventional education process and 3D-GIS technology is becoming vital in cultural heritage management. Such projects require teamwork between historians and archaeologists, architects and 3D software developers, and are produced and presented according to new methodologies that are developed gradually.

The main difference between conventional historical practice and its practice in digital environments is claimed to be the transition from the narrative to the database. These two forms of organizing knowledge are radically different from each other: while narratives are constructed according to a linear causality sequence of the events, databases are structured according to the multiple potential trajectories between the different objects of the database (Manovich, 2000). Although different,
though, they are not contradictory. On the contrary, although digital programs are based on databases, narratives are not excluded. Narratives appear as parts of digital history projects, but by a different logic: they are not their organizing elements, but part of the interface the user interacts with. This means that narratives are mainly produced through the database being one of the possible trajectories that could occur between its objects (Manovich, 2000). In this sense the narrative changes according to the algorithm generated each time, which in turn depends on the user’s choices and decisions.

The shift from casual-based narratives to narratives based on databases is essential for understanding the transformation that has occurred in the way history is produced. Paul Ricoeur proposed that historical activity consists of three main activities: the archival stage, the explanatory stage and the representational stage. To give a rough overview, in the archival stage research is performed and data are collected, in the explanatory stage a causal understanding of the events is elaborated and at the representational stage the historical narrative is produced. These three activities should not be understood as separate stages in the course of historical production, but rather as intertwined processes, albeit their proportions may vary (Ricoeur, 2004: 138). In traditional historiography, where the historical project was designed as a narrative, the explanatory stage that was rather predominant and influenced the other two. In other words, it was the causality that dictated both the selection of the data and the synthesis of the narrative. In digital projects, the balance seems to shift and the archival and the representational stages seem to be the ones giving shape to the explanatory stage. In this case the archival stage supplies the database with the necessary objects and the representational stage shapes the project’s interface. In this sense, the explanatory stage depends on the available objects and the way they will be presented to the user. Moreover, unlike conventional historical projects that are designed by the historian and “consumed” by the audience, in this case the explanatory stage is co-shaped by the creators (who preset a number of narratives), the user (who asks for a potential trajectory of the database objects) and the machine that generates the algorithm. Such changes, however, not only affected the production of history, but the way it was understood as well.

**Digital History, Computer Games and Historical Consciousness**

“Playing with history” did not first occur with historical computer games – it was practiced much earlier, mainly through historical enactments.
Whether in the form of practices that are part of the “nostalgia industry” (such as dressing up and taking photos in “past scenarios”) or as re-enactments of past events by different groups for a variety of reasons mostly connected to commemorative practices, ludic engagement with the past is not in any way new. Computer games have thus become a new genre within this group of activities, albeit with additional possibilities and potential because of its digital nature.

Before referring to the way engagement with such activities can affect historical consciousness, I would like to make clear from the beginning that I will not be referring to historical knowledge, but solely to historical consciousness. In other words, it is not the accuracy of the facts and events that the games are referring to that interest me. I take it for granted that much of the historical content used in these games is not accurate—sometimes in a very obvious manner and other times in more subtle ways. It is historical consciousness I am interested in. Historical consciousness, as defined by Jörn Rüsen, is about how the past is made relevant for the present and shapes the future—in other words, it is about how historicity is understood (Rüsen, 2004). The narrative of the past might in this case be the same; what differs is the way we make sense of the past and the way we place ourselves in the course of time. In this process, it seems that digital technology is changing the scene drastically, mainly because it allows the user to participate in the shaping of the narrative of the past and offers new possibilities for its understanding. These possibilities are much more obvious not in the academic use of digital history, but in its pop culture genre, namely computer games and various forms of edutainment, such as virtual reality reconstructions of past landscapes. In what follows, I will focus on history computer games and discuss the way they have affected the way their users develop their relation with the past, in ways which are unprecedented. For the purpose of this paper, by “computer games” I mean all digital games, regardless of the platform they are played on.

History computer games are today popular among gamers, closely following the ones referring to dystopian futuristic scenarios. They come in a variety of forms: First-person shoot-’em-ups, MMOGs, MMORPGs, strategy games, etc. Despite their obvious differences, which are related both to their content and to the “grammar” of the game and the way the human interacts with the computer or with fellow human players over the internet, they all affect in very important ways our traditional relationship with time, and question hitherto stable assumptions, such as the way historical development is conceptualized and the irrevocability of the past (de Groot, 2009: 133-145).
First of all, the popularity of history games, especially as it occurs in the dominant cultural context of presentism, itself says much about the importance computer games have in exploring historicity. In other words, why are users so interested in digitally exploring the past and the future, if history is so accelerated that the past is over and the future cannot be imagined? A possible answer lies in the way the users experience time when mediated by the digital environment. History computer games do not claim to be accurate representations of the past – nor do they intend to be. Computer games integrate in their virtual environments historically accurate and fictional elements alike, so as to become more appealing for the user. Their major task is not to provide historical knowledge, but to entertain the user by giving him the opportunity to experience the past. Let us take for example the newly released *Valiant Hearts: The Great War*, a strategic game set in WWI.¹ Until this game, the subject matter had not gained much attention because it was considered unappealing in terms of entertainment (depressing, complex storyline, no breathtaking action) (Crabtree, 2013, Kempshall, 2015). On the other hand, the centenary of the beginning of the event raised interest in the Great War. The game managed to overcome the above-mentioned obstacles by reforming its form and narrative. The game does not claim to be accurate: it resembles an animated comic and the storyline is fictional. Nevertheless, it claims to be authentic, because it was inspired by the “letters from the War”. Its aim is to give the player the chance to “go back through history in this emotional adventure as friendship, love, sacrifice and tragedy befall each one as they help each other to retain their humanity against the horrors of war.”

Even if an accurate reconstruction of the past is not among the computer games’ aims, effective simulation of the past is. In order for the users to be immersed in their reality, the past has to be simulated in such a way that they can draw the connecting lines with existing perceptions of the past. For this to happen historical and fictional elements of the game have to be integrated in a way that make connections with existing historical generalizations evident. In other words, what matters is not historical accuracy but compliance with an established perception of how the past was. Once established, this compliance will allow the user to become immersed in the virtual world and explore alternate possibilities of the narrative. Although interest for exploring such possibilities were present before the digital revolution (through historical novels, for example, or counter-history scenarios), simulation and immersion are the

two nodal points that differentiate computer history games from the previous genres, replacing imagination with experience (Frasca, 2003). When playing “Assassin’s Creed,” for example, the hero seeks his enemies in 16th century Istanbul. The user has no need to imagine how the city looked like, nor its soundscape or people, because all are apparent in the virtual background; they are part of the game. The scenario is fictive, but the user has the feeling that he is part of the scenery and participates in the aura of the past. Likewise, in games that allow the emergence of alternate scenarios of actual historical events, such as the outcome of a battle, the user not only explores aspects of the past that are not part of historiography, but gains insight to the importance of randomness as a factor in the formation of the past.

Furthermore, simulation offers the user the opportunity to temporally become the character he is playing. The past is not represented, but constructed with the user’s active participation and experienced through his avatar. Moreover, the past has different characteristics to in its conventional understanding. It is neither irrevocable nor irreversible. Magical realism is an essential element of virtual game playing (Faris, 2004). The player has numerous lives to sacrifice in trying different routes in the game, is able to turn back time or can overcome technological limitations of his time. Mostly, however, he retains for himself the ultimate power over the route of history, by merely saving, deleting or restarting the game. Therefore, the user gains the feeling that not only can he experience the past, but he can shape it or even reverse it too. This kind of relationship with the past is radically different from previous ones. Computer games therefore constitute the first time that individuals can experience the past by participating in it and control it in such ways that they are not threatened by adversaries. In this sense, the past is perceived as a playground that allows experimenting and experiencing alternate scenarios of history not through imagination, but through our digital bodies.

The duplication of the self from a physical form to a digital one is of the most interesting aspects of this procedure. Computer games are previews of a future within which humans and their avatars, artificial and human intelligence, projections of the self in different spectrums of time and place and alternate scenarios of the past and the future coexist. Although none of these elements was firstly introduced through history computer games, their coexistence in such a constellation affects the ways we think about historicity. Jörn Rüsen, who developed the notion of

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2 http://college.holycross.edu/faculty/ncary/HistSimTips.htm
historical consciousness to refer to the human aptitude to make meaning of time, argued that different representations of the past shape different expectations of the future. Rüsen identifies four types of historical consciousness – traditional, exemplary, critical and genetic – each one of which relates to different stances of making sense of the past, which in turn shape different possibilities for the future (Rüsen, 2004). But what happens to historical consciousness when the community required to form a relation to the past is limited between the digital and the physical self and, moreover, when the past is perceived, through digital mediation, as revocable and reversible, an open field for experimenting? Wulf Kansteiner, who initially set the problem in 2007, convincingly argued that the simultaneous participation of the physical and the digital self in virtual environments advocates for a possible emergence of a genetic type of historical consciousness, which constantly temporalizes time and pluralizes otherness, without the limitations of resistance or reality check that occurred in private worlds and memories of the linear world (Kansteiner, 2007). But what could this mean for historical education, or, in other words, the way computer games affect the role of education in the emergence of historical consciousness?

**Concluding Remarks: Where to Go from Here?**

Historical consciousness has been a key element in historical education since at least the 19th century. Students were trained to have certain perceptions of the past that facilitated their navigation in the present and reflected dominant social norms. It is this concept of stability and a predetermined relation with the past that is questioned through the ludic engagement with the past in digital environments and the possibilities they create for immersion in alternate and replayable pasts. Ultimately, it is not our relation with the past but its singularity that is questioned. However, when discussing the ways digital history has affected historical consciousness, the broader context cannot be overlooked. Popularization of historical issues in pop culture, history computer games and other genres of ludic occupation with the past have emerged in a cultural context that praises presentism. Drawing connecting lines between the past and the future has become highly problematic and complex.

The loss of history’s meaning and the death of the major teleology theoretical schemes leaves only experience, and the longing for experience, as the only avenues to create meaning in history (Liakos, 2011). In this context experience becomes central to the way relations with the past are developed and is present to the way major history projects are
organized. The *Cultural Heritage Experiences through Socio-personal Interactions and Storytelling (CHESS)* project, for example, aims to “integrate interdisciplinary research in personalization and adaptivity, digital storytelling, interaction methodologies, and narrative-oriented mobile and mixed reality technologies, with a sound theoretical basis in museological, cognitive, and learning sciences.” Not only experience, but personalized experience. This does not differ much from the personalized experience of the past developed in computer games. History is no longer a vehicle for approaching the past through cognitive means only, but through emotion as well. It is an object of emotional participation; it invokes pain or produces pleasure. It is aestheticized and related to the sublime, to the breathtaking experience that is detached from its historical context (Ankersmit, 2005). History tends not to be perceived any more as “magistra vitae”, but part of an aestheticized present that reveals our relation to ourselves.

Computer games are part of a broader procedure of change that is currently taking place and which on the one hand affects our relation with time – the link between the past and future – and on the other, most importantly, explores the limits of humanity and post-humanity (cyborgs) that seem to be claiming an active part in our futures. Memories obtained in virtual environments, especially when shared in virtual communities, will possibly become equal in importance for identity formation as memories shaped in the “material reality”. In this sense, among virtual communities of players frames of collective memories are shaped that refer to shared memories of the group related to the simulated historical past of the game. The past in video games is not the issue per se; in these games it is merely a background that could be equally substituted by the future or by fictive scenarios – or a mix of them. What is at stake is the exploration of the limits and the norms of new collectivities that are being formed and that include at the same time human, machines and virtual bodies. In computer games a future takes shape where material and virtual bodies, human and artificial intelligence, self-projections and different temporalities and frameworks, alternative futures and past scenarios coexist. We are already familiar with each one of these elements, but not with their coexistence yet, which will ultimately change our horizon of experiences. In this sense, the quest for historical truth or accuracy when discussing edutainment and historical video games might become more meaningful if transformed to a quest that focused not on the mean, but on the broader passage to a post-human world, where a multifaceted, fluid

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3 The CHESS project: http://www.chessexperience.eu/v2/
and ever changing past is part of an equally fluid and multifaceted environment, where machines, virtual selves and humans seek to shape new “updated” identities.

References


Liakos, Antonis. “Το νέο Μουσείο της Ακρόπολης, στο τρίγωνο ιδεολογίας, ιστορίας και απόλαυσης” [“The new Acropolis Museum, in the triangle Ideology, History and Pleasure”]. Lecture at the symposium


The narratives of adventure games and video games present both a challenge to history education as well as a potential response to recent societal changes. These new narratives can form a bridge between the task-oriented learning practiced in schools and the pleasure-motivated experiences students receive from playing games in everyday life. Therefore didactics of history must use methods and theories which can integrate formal and informal learning and thereby facilitate the integration of students’ history culture and syllabus-based learning used in schools.

Classic adventure and video games have the potential to erase the borders between the classroom and the outside world, and therefore represent a challenge to traditional didactical thinking based on non-electronic communication. These new narratives include elements of edutainment, often a mix of facts and fiction, for which the neologism “faction” has been coined. In order to successfully handle technology as well as develop fruitful combinations of their own experiences and the demands of the syllabus, it is important to develop the students’ digital Bildung, which presupposes their acquisition of digital literacy and competences. (The German concept of “Bildung” is used here as there is no equivalent translation of the concept into English). This article shall later refer briefly to the latest research on digital competences, digital literacy and digital Bildung. First, however, it is necessary to make a conceptual distinction between Bildung and Allgemeinbildung. Bildung is a lifelong commitment, whereas Allgemeinbildung concerns the process and outcome of school activities. Allgemeinbildung therefore represents the overall aim of upper secondary education in Denmark as well as in most German-speaking countries. A case study of a Danish interactive electronic adventure game involving a modern teenager’s visit to a late medieval town in the year 1458 is presented.
The 1458 game is a faction-based construction which contains explicit elements of edutainment. Of course, it is not an open game, but a carefully constructed scaffolding for understanding the past. However, the combination of facts and fiction is designed to enhance students’ identification with people from the past, and that process is often a shortcut to a strange and difficult-to-understand world. It is a question of empathy or dislike, and as such the people in the adventure are presented as caricatures. However, in history classes the question “What is the truth?” will be asked. One method to answer this question could be to use two concepts described by the Dutch historian and philosopher Frank Ankersmit in 2001: “referential statements” and “narrative substance.” The former can be verified as true or false, while the latter will always be open for interpretation and discussion: is it convincing, does it create meaning and is it well-considered? The aim of adventure games is to inspire students to participate in more traditional history education. If the student is to gain genuine insight into how the past developed, it is important that history education makes a clear distinction between what can be judged as true or false on the one hand, and what only can be interpreted on the other. Adventure games are of course fictional and in this respect they are comparable to other “narrative substances” and confronted with source materials, which can be treated as “referential statements.” The didactical aim is to develop a dialogue between the two conceptual areas and thereby contribute to the student’s historical understanding and Allgemeinbildung.

**What is Allgemeinbildung?**

The overall aim of history education in Denmark is to further each student’s Allgemeinbildung. The concept goes back to Wilhelm von Humboldt as the founder of the so-called Bildungs-tradition, also called didaktik-thinking. The concept won predominance in Germany, the German-speaking countries and in Scandinavia. In Norway, Sweden and Denmark, Allgemeinbildung became the overall aim of secondary education in the middle of the 19th century. In my research I have defined Allgemeinbildung as:

*An education which comprises the common parts of the sciences and disciplines that society needs so as to develop the student’s personal authority to reflect over their relationship with their fellow human beings, nature and society* (Haue, 2007: 43; Haue, 2011: 176; Haue, 2008: 19).
This definition is widely used in Denmark and is quoted on the Danish Wikipedia. Allgemeinbildung is comprised of two elements: on the one hand, a selection of materials, and on the other hand, the character of student learning. The concept is broad, but may not contain everything, for example specific vocational training. It is important to note that the word “Allgemeinbildung” is singular, which thereby postulates that upper secondary education has a certain holistic construction, and that the teaching of history would also have a central role to play in bringing about that unity. By contrast, “qualifications” and “competences” are always used in the plural.

As mentioned above, a precondition for the student’s acquisition of Allgemeinbildung in relation to adventure games is digital literacy and a degree of competence. Digital literacy can be comprehended either in an American sense or through a British conception. The former is more restricted to a functionalistic attitude, whereas the British way of understanding the concept is more universal. As the British researcher David Buckingham expressed it in 2005: “I have […] argued for a view of literacy […] in social, cultural and political terms, and not simply as a set of technical or intellectual skills” (Buckingham, 2014; Nyboe, 2014: 91-99). The British definition is more in line with Allgemeinbildung than the American conception.

Of course, it is important to define “digital literacy,” but it is even more important to be aware of the changing context in which it functions. James Paul Gee, professor at State University of Arizona, has put “literacy” into an interesting historical perspective: John Locke (1632-1704) and David Hume (1711-76) understood traditional “literacy” of reading and writing as the mind being like a blank slate on which experience wrote ideas. In the 1970s, cognitive scientists argued that the mind worked like a digital computer, calculating generalizations and deductions via a logic-like rule system. In recent decades, however, a new generation of cognitive scientists have emerged who are convinced that the mind works by storing records of actual experiences and constructing intricate patterns of connections among them. The mind and the machine cooperate in a kind of networking process, which is a technological correspondent to our brain’s capacity (Gee, 2013: 15-16).

The Signet of Power

Let us turn now to the adventure game features in the case study cited by this essay. At Aarhus University, a team of historians represented by Associate Professor Søren Hein Rasmussen have created a game called
The Signet of Power. The year is 1458 and by accident a young girl Bea presses an app on her cell phone and is transported from modern times to a typical medieval town. She cannot escape unless she finds the Signet of Power, and in order to do so she has to find answers to some fundamental questions. Her task is problem-solving, not a reading task connected with a specific assignment or syllabus.

The educational aim of The Signet of Power is didactical, and the aim is to participate in historic and archeological research in a playful, interactive and easily accessible way. The game is a work of faction; however, the fictional part of it is based on solid knowledge of life in the late middle ages: the types of people, economic conditions, images of religious belief and everyday life that were present.

Let us take a look at her situation in a Danish town in 1458: how could one live in the middle ages? To answer that question we must ask a series of related questions, i.e. questions which could be answered by the medieval man. However, this is a hurdle for most students.

The teenage girl is placed on the historical scene and she is able to interact with personalities from the past via the student’s interactive choices. The problems she has to solve in order to escape from the time period are designed to inspire the students to identify themselves with medieval people and thereby reduce their sense of alienation toward this foreign world. If the students successfully identify with Bea, they could view the period in question as interesting and worth exploring.

By participating in dialogues with representatives of the past, students are urged to formulate questions which correspond to the meaning of the remarks made by the medieval people. These exchanges give the students an opportunity to consider and reflect on the positions and conditions of the people in the past, and to develop an understanding of what is reasonable to ask them. A part of the dialogue concerns the different dress code that is followed in this period. Bea is aware that it is necessary for her to wear medieval clothes in order to communicate with the people in town. She therefore persuades a juggler to exchange clothes with her.

Interviews with teachers who have used the 1458 game in classes reveal that the game inspires the students to formulate realistic questions to put to the medieval characters. If this is the case, the students’ understanding of the differences between now and then will be developed and they would be motivated to study some of the source material that is published in connection with the game. The game also has a link to a broader description of Denmark in the late middle ages. In order to create a correspondence between 1458 and now, the authors have made films about old buildings from that time that are still erect today, so they can
follow Bea’s way through the city, which at least the local students know by heart. Therefore, as part of the propagating of the past they can use their cell phones to know more about central buildings in town. This is a tool which students can use in outdoor learning.

**Edutainment’s Contribution to Allgemeinbildung**

The game can inspire the students to ask realistic questions of the past and thereby gain a deeper insight into late medieval life, i.e. 1458 in Aarhus. The town can be compared to many other harbor cities in Europe, and the local picture can be transferred to a broader context, e.g. noblemen traveling to other countries, monks circulating between different convents and soldiers fighting for different kings; these and other scenarios make it possible for the students to relate the game to a broader context. Local observations can be compared to the conditions in other places, and give the student a sense and understanding of universal conditions. They can transfer their identification with Bea to other places at the same time, and through such synchrony gain an understanding of the interaction between people and places. This general understanding would contribute to comparisons between then and now, and in a diachronic perspective give the students a sense of the background that underpins differences in their own world.

Identifying the general character of both the local and the specific should contribute to the development of the student’s Allgemeinbildung. For example, the convent in question was founded in 1227 by the Dominican or black friar’s order, and had a lot in common with hundreds of other convents in Europe, and the crypt is still to be seen. The conversation with the monks should inspire Bea to reflect on the conditions for religious life. The monks are deliberately represented in caricature, as are all the other figures. The reason for this, according to the game’s developers, is that it helps deconstruct the past and makes it open for the student’s imaginations and interpretations. The adventure game also includes a presentation of the cathedral, a big gothic house built like so many other churches in the late middle ages, which can still be seen today. In the harbor Bea finds a ship, the traditional cog, which made long distance transportation possible. The dress of the people was also common for most Europeans, and the identification is indicated by the change of clothing between Bea and the juggler. The understanding of the local can be used in a broader context. The adventure game has hopefully opened a new horizon and created an openness and curiosity towards the past as conditions for the present. A Danish interdisciplinary research team has
begun to evaluate how students learn from adventure games, but this research has not yet ended. One of the researchers is a psychologist who focuses on the student’s learning process\textsuperscript{1}. The provisional results indicate that an individual’s progress can be documented because the student gets an insight into his or her own specific learning process and thereby gains self-confidence.

**Didactical Considerations**

But what can the adventure game do which other learning materials cannot? The main attraction is that the students’ identification with Bea develops a feeling of empathy with her, and by reflecting on her alienation when meeting past people and conditions, students would gain an insight into the differences between the late medieval world and their own time and conditions. This insight would be reflected through the interactive possibilities and the visualization of each move/scene. Such a play-based learning process can also develop the student’s self-conception and thereby change their relationship with their teacher and the other students.

The adventure game is easily accessible for students who are not so keen on reading and therefore are underprepared for classes. In other words, it is a shortcut for the “lazy” student to acquire knowledge.

The teacher can form different groups and thereby modify the experience according to the students’ level of ability and interest. Moreover, this group-centered feature provides an opportunity to develop a kind of collaborative learning among students.

The mixture of entertainment and education should, if it is done correctly, nurture a sense of joy and fantasy in the student, which he or she connects to entertainment when traditional text reading is included. Students today are used to playing games at home as a kind of informal learning, they have at the secondary level developed digital literacy, and do not stop because they fail. They have what in the US is called “freedom fail” and they are required to follow Dewey’s recommendation: “try again.” In addition, as pointed out above, they can observe and experience the conditions of their own learning process.

James Paul Gee has characterized computer-game learning in the following way: “It is that good video games incorporate good learning principles and have a great deal to teach us about learning in and out of

\textsuperscript{1} Interview with students and teacher at Aarhus Katedralskole, www.Danmarkshistorien.dk
schools, whether or not a video game is part of this learning” (Gee, 2013: 15).

**Referential Statements and Narrative Substance**

As mentioned in the introduction to this article, adventure and video games constitute both a challenge to and an enormous potential for history education. The games are contributions to a process which is part of a postmodern or late modern comprehension of life. As a result, history didactics must rethink its methods and conceptual understanding. It is therefore appropriate to introduce two new concepts from the history didactical frontline formulated by Frank Ankersmit.

Referential statements, according to Ankersmit, can be verified or falsified. However, the verified facts should be part of an interpretation, i.e. “narrative substances.” As he explains: “History is a narrative that exceeds the sum of its referential statements.” The interpretations of the traces of the past cannot be judged to be either true or false, but can be comprehended as well-considered, convincing or meaningful (Pareks, 2013).

According to Ankersmit’s article from 2001, he wants to create a fruitful interaction between postmodernism and the science of history (Ankersmit, 2001). His two principal concepts are presented in the following way: “Narrative substances are proposals for how we should understand the past. They stand in distinction from ‘referential statements’ that make empirically verifiable claims about the world.” Robert J. Parkes, in *Nordidactica*, the Nordic journal for social science and humanities, recently commented on Ankersmit’s concepts, and illustrated the difference between the two with this observation: saying “there is a gun on the table” is an observation which can be verified as true or false. Saying “there was a gun on the table” cannot be verified as true or false, but requires an interpretation. In history education it is important to bring both concepts into play, since facts without interpretation give no meaning, whereas interpretation without facts results in useless or dangerous speculations. Adventure games should emphasize the inclusion of narrative substance in history teaching. New Danish research in history teaching, which includes more than 3,000 questions and answers in history classes, reveals a marked tendency for the students to focus on the establishment of facts – referential statements – and to a certain degree neglect the interpretative side of history teaching. The emphasis on facts is often intensified by the student’s references to textbooks as facts instead of interpretations (Knudsen, 2014 and 2015). The use of adventure games
might inspire teachers as well as students to focus on the interpretative content of history education, otherwise the contribution of history education to the formation of the students’ Allgemeinbildung would not be convincing.

**Conclusion – What Did We Learn in School Today?**

How can we relate these statements to the use of games in history education? In this respect *The Signet of Power* is a narrative substance which is open for interpretation; however, it is founded on facts. This is a good starting point for reflecting on facts as well as their interplay with interpretations. History education should function on those two levels and end in a synthesis.

Evaluations of the use of adventure games in history education indicate that learning results are promising. Perhaps the students, by identifying themselves with Bea, develop a kind of empathy with this young girl who is lost in the past. This empathy might enrich their interpretations of the conditions in 1458 and enhance their curiosity and engagement. Of course, this process has to be understood in terms of historical consciousness. The game may give the students a sense of being creators of history, as well as help them to recognize that their living conditions are created by history. If the conditions in 1458 can be comprehended in multifarious ways they would be able to see their own time as “open,” with a future that is contingent on people’s actions, and that their choices have certain impacts. Last, but not least, the use of games in history teaching may help students as they engage in combining the past with the present in order to face the future.

**References**


WHY IS IT IMPERMISSIBLE TO LEARN HISTORY PLEASURABLY?

TAKAHIRO KONDO AND SHUHEI TANAKA

Introduction: The Distance between Edutainment and History Education

Though belated, in recent years interest in public history has begun to increase among the community of Japanese historians. Undoubtedly, this trend is influenced by historiographical trends in Europe and the United States. Also, more fundamentally, such interest is believed to be rising because of the variations in the opportunities people have for encountering history. While school education is shrinking its role in teaching history, television dramas as well as animated programs featuring certain historical events are elevating the popularity of history. However, historical edutainment has rarely been a research subject in the area of educational science including history didactics, in spite of the fact that the objects referred to by public history and historical edutainment overlap each other to some extent.

Conversely, the boundary between education and entertainment is becoming significantly blurred. In particular, mass media has been stressing the necessity for changing our mindset from challenging learning to pleasurable learning ever since KidZania Tokyo (an economic and occupational education complex for children) was opened in 2006. The success of KidZania Tokyo is evidenced by the fact it is visited by a number of elementary and junior high school classes every day. Given this, it is all the more meaningful to discuss why historical edutainment does not attract interest from educators.

In trying to explain why this might be the case, the following two factors would come quickly to mind among those having a certain level of knowledge in history education forming part of Japanese school education.

1 In 2009, the second domestic facility was opened in western Japan.
Why is it Impermissible to Learn History Pleasurably?

Firstly, teachers bear a feeling of distrust towards a number of historical novels apparently written with disregard to conducted historical research. Added to this, we can also observe the modern school education philosophy of spreading academic knowledge by disdaining popular culture.

Secondly, the issue of conflict between the commercialism residing in historical edutainment and the general concept of school education should be pointed out. School education is classified as a public area regardless of whether the schools are public or private, and it is believed to be unacceptable that private companies of the entertainment industry pursue profits in that area.

The factors mentioned above remind us of the criticism proposed by Theodor Adorno against the cultural industry (Adorno and Horkheimer, 2007: 252). However, there are further factors. Even if historical knowledge is often not reflected in edutainment for now, the supply of academic edutainment should increase as long as there is demand. Meanwhile, as far as commercialism is concerned, it is worth mentioning the fact that edutainment is spreading as digital study materials developed by private companies are widely being adopted for mathematics and other subjects.

In this context, this paper aims to pursue and identify other factors inhibiting the adoption of edutainment that are specific to history education in Japanese schools. Before that, however, the scope of edutainment – the focus of this paper – will be defined.

Types of Media That Relate History

Aleida Assmann (2011: 232-238) points out four types of media which relate history, that is, printed texts, videos, exhibited objects and historical places. However, from the viewpoint of education, it would be necessary to add “voices (or audible explanations)”² At least for history education in Japan, not only the printed texts such as textbooks, but also the audible explanations provided by teachers still play a major role.

At the same time, unlike history education, history edutainment is increasingly diverse. Furthermore, a variety of ways to depict history are

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² Frequently, historical interpretations are promoted by using visual and audio senses. However, there are cases where the senses of smell, taste and touch are used. For instance, in Okinawa, where a ground war was waged during World War II, those visiting the ruins of a field hospital are encouraged to smell the rancid odor that is reproduced. See: “Rikugun-byoin-go no Nioi Tsuitaiken (Re-experiencing the smell of the field hospital in a cave at that time),” in The Ryukyu Shimpo, January 23, 2015.
adopted by each media type. Some of them respect the professional knowledge of historians but others disregard such knowledge entirely. In this section, this diversity will be discussed. The following classification is based on the particular conditions found in Japanese society. However, this classification may well apply to any society around the world to varying degrees.

### Printed texts

Printed history texts may be classified into two categories. One category includes those that convey history principally through literary descriptions, while the other category includes those adopting illustrations in addition to written text to facilitate the understanding of the story. Comics are a typical example of this. If we widen our view, board games featuring historical events and figures also could be included in this category. However, games will be discussed later with reference to videos. By taking a look at the two categories mentioned above, we notice that the former is not necessarily more faithful to historical research than the latter.

First of all, the area of historical edutainment based on the use of written language encompasses books and texts written by historians and historical novels written by authors. In Japan today, the number of published copies of professional history books rarely exceeds 1,000 in total. However, the number of copies of a cultural book written using plain words and published as paperback pocket editions sometimes exceeds several tens of thousands. This type of book is intended for the average person including high school and university students. When a specialized subject is discussed using plain words, academically detailed discussions tend to be disregarded. Nevertheless, these do not deviate significantly from the accepted knowledge or views of historians.

In contrast, works of historical literature have kept a certain distance from the historiography. According to historian Ryuichi Narita (2009: 85), historical literature is classified into two categories.

The first category refers to period novels (Jidai Shosetsu). Set in a certain period in the past, this type of novel is not necessarily intended

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3 The paintings of historical events and their replicas may be included. However, currently in Japan, such historical paintings are regarded as art works or historical records, and rarely used as part of historical edutainment.

4 Isoda, M., *Bushi no Kakeibo (The Housekeeping Book of Samurai)*, Shinchoshinsho, 2003, topped the bestseller list by selling more than 200,000 copies after being made into a movie.
accurately to depict historical figures or events; rather, it is characterized by the nature of the story which continues to be relevant today. One good example in Europe can be found in the novel *Notre-Dame de Paris* written by Victor Hugo.

The second category refers to historical novels (Rekishi Shosetsu). In most cases, historical events are vividly narrated by featuring actual historical figures and clearly depicting their characters. *Marie Antoinette* by Stefan Zweig is one example.

The novels of both categories account for certain shares in the fields of hardcover books and magazines, and are frequently made into movies. However, in basic terms, only the latter would have significance in relation to history education. In particular, writers like Ryotaro Shiba (1923–1996) and Saburo Shiroyama (1927–2007) have published their bold interpretation of history by respecting the outcomes of history research as well as independently researching historical documents. The bestselling Japanese historical novel *Saka no Ue no Kumo (Clouds above the Hill)* by Ryotaro Shiba has achieved significant social influence by selling over 20 million copies so far. Its author thought affirmatively about the development process of modern Japan, while expressing his own bold interpretation of history that the corruption of political elites that began soon after the victory in the Russo-Japanese War led to national ruin. This idea has gained broad public sympathy, though a lot of historians regard it as an unfounded argument.

Furthermore, quite a few high school students have decided to study history at university after being affected by such literature. That is, those who find meaning through contact with non-narrative history or, in other words, approaching academic issues demonstratively, themselves will become researchers, whereas those who find no meaning will return to the world of historical novels after graduation. High school history teachers stand at the branch point of these two streams. Therefore, they agonize over whether to recommend their students to read historical novels.

Next, comics will be discussed. The word “comic” sounds more harmonious to the newly coined term edutainment than historical novels. From the viewpoint of history education, comics may be classified into at least three categories.

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5 Period novels are not necessarily considered worthless in education. However, in many cases, only literary values are recognized in them.

6 Those books are often quoted by politicians and business managers as their favorite books. Also, they are read in order not only to know history but also to learn leadership (Tsumagari, 2010).
The first category refers to those that adopt certain historical periods as a story background in a similar way as period novels do, but are not necessarily geared to depict certain historical events or figures accurately. A series of French comics called *Astérix* belongs to this category. Of the three categories, this one is the most widely accepted and enjoyed by many people as a standard of comics that have nothing to do with an accurate depiction of history.

The second category refers to those accepted by school libraries and other facilities, whose educational values are widely recognized. For example, the comics created based on *The Diary of Anne Frank* are good representations. However, this type of work is not used as a history education tool but rather as a tool to teach moral educational values. Strictly speaking, the boundary is blurred between the first category and the second category. By way of example, the comics called *Hadashi no Gen* (*Barefoot Gen*), featuring a young boy growing by fighting discrimination against Hiroshima bomb survivors was initially published as a series of pure comics. Nevertheless, its moral educational value was recognized and accepted by school libraries all across Japan.

However, as the educational value of these comics was publicly approved, they tend to be caught in political conflicts. In 2013, a right-wing political group criticizing the current human-rights-based style of education requested some municipalities to cease access to *Hadashi no Gen* in public facilities, alleging that they contain exaggerated scenes and distort historical facts. The Boards of Education at some municipalities accepted that request. 7 Also, in 2014, more than 300 books based on *The Diary of Anne Frank* were ripped and broken in public libraries in Japan. 8

The third category refers to educational comics. This type of comic is geared toward enabling students to learn school textbook content in a more enjoyable way. Educational comics are available in all subjects. Because history can adopt a narrative characteristic, it may be more easily embodied in the form of a comic. In reality, a wider variety of educational

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7 Ultimately, such measures were criticized by public opinion and withdrawn. “Hadashi no Gen: Tottorishi-chuo-toshokan ga Etsuran-seigen o Tekkai (Hadashi no Gen (Barefoot Gen): Restriction on access withdrawn by the Tottori Municipal Central Library),” *Mainichi Shimbun*, August 23, 2013.

8 According to the prosecutors, the perpetrator has a psychiatric illness and his perpetration is not rooted in certain political thoughts. However, during the interrogation, the perpetrator was found to have been influenced by historical revisionism by claiming that the diary was not written by Anne Frank. “Nikki Anne no Saku dehanai. Sonkai-yogi no Otoko ga Kyoujutsu (The suspect stated. The diary was not written by Anne Frank),” *Asahi Shimbun*, March 15, 2014.
comics have been published in comparison with other subjects. Especially in the field of Japanese history, the major seven publishing companies have published comprehensive history comics, each consisting of ten to twenty volumes, almost all strictly conforming to the content of textbooks for junior high school and high school students. In most cases, these books are written under the supervision of well-known historians and accepted by school libraries. There are innumerable cases where parents collectively buy them for their children.

Until now, history edutainment based on print media has been divided into historical literature and comics, and each of them has been subdivided. The viewpoints of division are not the same because the books consisting of text only and the comics using illustrations occupy different positions in society. Certainly, period novels are almost equal to comics written purely for entertainment, whereas influential books written by historians are distinct from educational comics. Neither of them have a counterpart. If only written text was adopted to overcome the issues involved by learning through comics, we would be obliged to write a simple study-guide. Meanwhile, it is generally supposed that comics are not suitable for disseminating the latest research outcomes. This fact demonstrates that comics have inherently entertaining properties, unlike literary works.

Videos

In recent years, video media adopted for narrating history has diversified by including smartphones and PCs, not to mention movie theaters and television. The characteristics of each media affect their use in an educational setting. Therefore, it is meaningful to classify edutainment depending on the form of media adopted. For example, it is difficult to frequently take an entire class to the movie theater. Also, the possibility that all students may own their own tablet is highly dependent on each student’s financial circumstances.

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9 For instance, one of the representative period novels, *Miyamoto Musashi* written by Eiji Yoshikawa, was made into comics by Takehiko Inoue under the title *Vagabond* and serialized in a comic magazine. This story featuring an actual great swordsman who lived at the beginning of the 17th century consists of a number of fictitious episodes.

10 In Japan, some elementary schools located in Arakawa Ward, Tokyo and high schools located in Saga Prefecture requested all the students to have tablet terminals. But they are in the minority.
However, in this paper, the authors will attempt to classify edutainment as the way that history is expressed, independent of the form of media. Such classification is attempted not only because print media were included in the former section but also because of the fact that certain content is distributed through a variety of media forms. For instance, a movie based on a literary work is broadcast on TV as soon as its screening is over, and subsequently streamed over the internet.

In Japan today, the modes used for spreading the knowledge of history through the use of video media may be classified into the following six categories.

The first category refers to fictitious dramas that unfold using a certain period in the past as the story background. This category corresponds to period novels. In fact, there are quite a few cases where period novels were made into movies.

The second category refers to televised dramas that are based on historical novels. Japan’s public broadcasting network, NHK, started to broadcast historical dramas called *Taiga Dorama* (*Big River Drama*) in 1963. Every year, a 45-minute weekly drama series is produced that features a certain historical figure. In recent years, the average viewing rate hovers at a low level, around 15%. However, every drama series has a significant social impact. For example, the tourist industry at certain locations portrayed in a drama often enjoys an economic uptick thereafter.

The third category refers to historical documentaries. These are slightly dramatized but often reproduce past historical contexts with an aim to spread widely an historical interpretation that is generally considered academically appropriate.

The fourth category refers to programs hosted by historians who narrate and discuss historical events. The public broadcasting network broadcasts these types of programs via its educational channel. In addition, the Open University started to broadcast this type of lecture freely on TV.

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11 The drama series *Dokuganryu Masamune*, featuring a feudal warlord who lived in the 16th to 17th centuries, attained an average viewership of around 40% in 1987.

12 For example, the economic ripple effect brought by the drama series broadcasted in 2008 under the title *Ryomaden*, featuring a real revolutionary who lived around the middle of the 19th century, was estimated at around 180 million euros in Kochi Prefecture, where the main character was born. See: “NHK Taiga Dorama ‘Ryomaden’ no Keizai-hakyu-koka (The economic ripple effect of ‘Ryomaden,’ an NHK Taiga Drama series),” in: Nihon Ginko Kochi Shiten (Kochi Branch of the Bank of Japan) ed., *Kochiken no Kinyu-keizai (Financial economy of Kochi Prefecture)*, 2009: 1.
in 1985. Also, in recent years, a number of universities are broadcasting lectures via the Internet. Moreover, some prep schools are offering equal educational opportunities for their students nationwide by transmitting the classes online. In such cases, not only a lecturer gives explanations using a blackboard but also a variety of sound effects and subtitles are added in order to allow the students to study without feeling bored. It is also notable that students of major universities are increasing efforts to voluntarily create and operate similar websites for students who are not in a financial position to attend a prep school.

With regard to TV programs, we find many cases where a program is based on the third and fourth categories at the same time. Also, animations are frequently used instead of actors when reproducing a certain historical event. As described above, an edutainment work often combines a plurality of elements.

The fifth category of edutainment styles refers to quiz shows on TV. In most cases, an historical event or situation is reproduced in a documentary fashion; thereafter contestants are challenged to answer related questions. After all the contestants give answers, the host announces the correct answer and provides an explanation regarding that particular historical event. Some questions are based on the level of knowledge of primary or secondary school pupils while others require expert knowledge.

The final category refers to historical simulation games played on a PC or other platform. Because of developments in computer technology, board games have evolved into quite real electronic games that are played in a more sophisticated manner. One of the most representative historical simulation games in Japan is Nobunaga no Yabo (Nobunaga’s Ambition), which features the battles over national unification during the age of provincial wars (1467–1590). This game series has been revised multiple times. Additionally, games developed overseas such as Europa Universalis, which features not only wars but also the running of countries, are increasing their presence to some extent. These types of games sometimes depart from historical facts although historical research outcomes are reflected in the characters and the initial game situation to some extent.

Exhibitions and historical sites

Places where important events have occurred in the past, that is, lieux de mémoire, play a significant role in history education. In such places, monuments are erected and in some cases, educational facilities such as museums are constructed. For instance, the Hiroshima Peace Memorial Museum is located adjacent to the epicenter of the atomic bomb blast, and
the Center of the Tokyo Raids and War Damage is located in an old town of Tokyo, where approximately 100,000 people died overnight. It may be inappropriate to describe these sites as an “attraction.” However, a kind of attraction is vital to highly visited (by both the general public and students) exhibitions.

Of course, some places have no special exhibition facilities in spite of their historical importance, whereas other places have exhibition facilities irrelevant to the significance of such places.

One of the examples of the former is the site of Hana no Gosho (Flower Palace) which was located in Kyoto during the Muromachi period. This palace was the central facility of the period of warrior rule from the first half of the 14th century to the middle of the 16th century. Now, however, the site is only indicated by a small, roadside monument. Contrastingly, in the south the premises of the Old Imperial Palace are expansively spread over a large area.

The best examples of the latter would be the virtual exhibitions on websites. Also, the case of the Center for Research and Documentation on Japan’s War Responsibility located in Takadanobaba, Tokyo, well known for its research and education activities concerning the so-called comfort women of the Japanese military during World War II, is interesting. Takadanobaba is not historically related to the contents of such exhibition. As most of the offending activities of organizations related to the Japanese military occurred outside the current territory of Japan, it is difficult for the center to be linked to the locations relevant to such historical events. In addition, the fact that Korean support groups erect statues or monuments as evidence of the presence of victims in North American cities and other overseas places irrelevant to such history is also significant in thinking about the political side of historical issues.

Finally, we must not disregard the significance of tourism from the viewpoint of exhibitions and places. The average Japanese person participates in school trips from elementary, junior-high and senior high schools while taking private trips repeatedly over their lifetimes. Consequently, they learn about religious and art history at temples and shrines, economic and technological history at industrial remains and environmental and natural history at nature parks and other facilities. Also, places relating to characters that appear in of the Taiga Dorama (Big River Drama) series are increasingly becoming tourist destinations. In recent years, the places in which certain novels, comics or movies have been set have been visited by tourists who view them somewhat as “holy sites.” Information on such holy sites is distributed via travel magazines as well as in the form of personal blogs on the Internet, the writers of which are
also readers of the works in question. In this manner, mutual learning opportunities are being offered.

Thus, in this section a variety of history edutainment modes that are currently available in Japan has been categorized by referring to Assmann’s framework. History edutainment varies from works with educational objectives to those simply aimed at commercial activities. Information that is lacking in accuracy and precision, and seen as a problem from the viewpoint of history teaching, is widely being produced and distributed. The increase of edutainment due to the development of new media is giving rise to the issue of how to cope with it in addition to that of how to use it.

Edutainment Adopted in History Classes

As described at the beginning of this paper, the last two issues have not been responded to seriously by history education and history didactics.

At least since 2000, no signs of intensive efforts to solve these issues have been found in monthly journals\(^\text{13}\) published by the History Educationalist Conference of Japan or nationwide academic journals\(^\text{14}\) relating to social science education. Teachers enthusiastically contributing their reviews and comments to such journals are making efforts to learn new interpretations of a variety of historical events and make use of them for their classes. However, they seem to be less interested in creating innovative teaching materials. It is difficult to demonstrate the adequacy of this presumption. However, in July 2014, ninety students taking the social science teacher training course at a university in Tokyo were questioned about the types of edutainment they used in class or at home when they

\(^{13}\) The History Educationalist Conference of Japan mainly consisting of history teachers of junior-high and high schools publishes the monthly journal *Rekishi-Chiri Kyoiku (History & Geography Education)* since 1954.

\(^{14}\) In Japan today, there are two nationwide academic societies specializing in social studies education in succession to the two pre-war Higher Normal Schools. One is the Japanese Educational Research Association for the Social Studies, which was founded under the initiative of Hiroshima University in 1952 and is issuing the official organ *Journal of Educational Research on Social Studies*. The other one is the Japanese Association for the Social Studies which was founded under the initiative of the University of Tsukuba (former Tokyo University of Education) in the same year and is issuing the official organ *The Journal of Social Studies*. There are no significant differences in the activities conducted by both organizations.
were elementary, junior-high or high school students. The results are as shown in Figure 1.

For the questionnaire, the categories presented in the preceding section were re-sorted into the following five categories: “historical novels,” “historical comics,” “historical dramas,” “history educational programs” and “history-simulation games” in order to avoid confusing the respondents. Among them, the category of “history educational programs” includes not only those hosted by historians giving explanations and discussions but also the history documentaries and quiz shows. The questions concerning exhibitions and locations were omitted because all of them were supposed to have experienced them when they were school students.

Figure 1: Use of history edutainment

<table>
<thead>
<tr>
<th></th>
<th>used in elementary / junior high school classes</th>
<th>used in high school classes</th>
<th>used for personal use at home</th>
</tr>
</thead>
<tbody>
<tr>
<td>historical novels</td>
<td>11</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>historical comics</td>
<td>24</td>
<td>16</td>
<td>62</td>
</tr>
<tr>
<td>historical dramas</td>
<td>23</td>
<td>22</td>
<td>73</td>
</tr>
<tr>
<td>history educational programs</td>
<td>41</td>
<td>35</td>
<td>68</td>
</tr>
<tr>
<td>history-simulation games</td>
<td>1</td>
<td>0</td>
<td>35</td>
</tr>
</tbody>
</table>

N=90

The results shown in Figures 2 and 3 are derived from the data shown in Figure 1 by considering the degree of penetration of edutainment into history classes and its entertaining properties (i.e. the tendency to disregard history knowledge).

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15 Period novels were excluded from the questionnaire because they did not seem to be used in classrooms.
16 All the categories of the comics are included.
The significance of this research is not large because there were only ninety respondents. However, at least a couple of trends may be seen from the figures.

First of all, it is obvious that the use of edutainment at elementary, junior-high or high schools is decisively infrequent in comparison to home use. At the same time, it is intriguing that the use of the four categories other than history simulation games almost uniformly takes place at home.
The second obvious trend is that the degree of penetration of edutainment into history classes is in inverse proportion to its entertaining properties. This trend is supported by the fact that simulation games, which are most significantly characterized by entertaining properties and tend to deviate from the interpretations of historiography, are rarely adopted in classes, while the degree of penetration of history educational programs, which are deeply related to the interpretations of history science, is high, and the historical novels and dramas are adopted in the classes to some extent.

It is worth noting that the utilization of history educational programs is relatively high, presumably because a certain scope of contents may be handled within a limited time frame. Also, comics are used rather than novels in classes at elementary and junior-high schools whereas, conversely, novels are used rather than comics in classes at high schools, presumably due to and in expectation of the development of students’ language competence. As described above, we may surmise that the characteristics of a particular medium affect its degree of penetration into classes. Nevertheless, both the Figures demonstrate that history classes are supposed to be incompatible with entertaining properties.

**Conclusion – Disintegration of History Learning?**

It is not necessarily astonishing to see circumstances where old-fashioned history-learning methods coexist with the history learning opportunities that ultimately arise from the entertaining tools accepted at home. The problem resides in the fact that the serious meaning of this disintegrated situation has not been studied sufficiently in the field of history education. Furthermore, it would be necessary to question whether those two types of history learning are really separate from each other.

One typical problem which occurs in the circumstances mentioned above may be observed in the fact that history education is not capable of responding to the spread of history-simulation games. In conducting this survey, it was discovered that approximately 39% of students have enjoyed such type of game at home. If we were to focus on male students only, the proportion would be much higher still. Needless to say, most adolescents should be aware that historical facts are not correctly reflected in the games. As a different story unfolds every time he/she plays the game, it is evident that the historical facts are disregarded. However, the problem is not that the users are likely to take fictional events for historical facts. It is rather that there is a deep concern that by playing games, students may, for example, take for granted the attitude of pursuing the
expansion of national power by achieving victory in war or through other methods. In addition, with a lack of reasonable understanding of the academic interpretations of history, they may lapse into thinking that they have learned history by memorizing the names of a number of characters appearing in the games.

Students can be informed of these kind of risks even if they are not allowed to bring the games into the classes. Of course, there may be cases where playing the game in class would be beneficial; however, such cases would be exceptional. Basically, the same applies to comics, novels and dramas. In some cases, such media are brought into the classroom. Teachers are supposed to examine the appropriateness of such media as educational materials in advance. However, it would be quite unlikely that the significance and meaning of such an examination are adequately conveyed to the students.

The analysis so far suggests that the reasons for studying history have been unclear and remain untouched. What students actually do in history classes is briefly become aware of the backgrounds of historical events and memorize minute data such as geographical names, personal names and years. Aspects which may provoke differences of view such as historical interpretations are rarely addressed in the class. The void of historical interpretations is partially filled by edutainment such as history novels.

In fact, for the past sixty years, the number of items which must be memorized by high-school students from the world history text book has more than doubled. Currently, for 120 to 180 hours of classroom time, they are required to learn around 3,500 personal names and other facts.\footnote{By taking as examples the most representative textbooks for high school students, which have been revised a number of times since they were first published in the 1950s, the number of items to be memorized has increased from 1,308 in 1952 to 3,834 in 2012 in the field of world history, while it was increased from 1,343 in 1951 to 3,408 in 2012 in the field of Japanese history (Koko Rekishi-kyouiku Kenkyukai, 2004: 74).} That is, it is necessary that more than twenty historical terms be described for one hour of class. By necessity, teachers can refer to those terms only briefly and superficially. Under these circumstances, the overload of learning has come under question repeatedly. However, no one has discussed seriously what they should learn instead of memorizing items. Therefore, even if edutainment is adopted into the classroom, it would only be expected to help students to understand and memorize a variety of items. No attention will be focused on the adequacy of historical
interpretations of edutainment but they will be used by students to organize and memorize a lot of items efficiently.

The trend mentioned above reveals how serious the non-double structure of the Japanese history education system is, rather than that the Japanese history education system is double structured.

If we return to the initial question and think why the interest in edutainment for history education does not increase, we are obliged to understand that the concept of learning is the causing factor. Historical interpretations acquired enjoyably through edutainment are beyond the scope of history classes. As one of the causes of this situation of history education, it is easy to imagine the fact that various political conflicts exist over the historical interpretation. Most teachers tend to avoid getting involved in political conflicts.

Further to that, quite a few students are presumed to find joy in learning based on memorization. According to the survey conducted with the participation of 4,464 high school students in 2006, they were found to prefer classes provided by teachers through the use of blackboards and textbooks to learning activities based on computer research, regardless of the subjects (Mimizuka et al., 2006: 37). Presumably, this trend also applies to the history classes.

For example, by attending classes, making notes and organizing the knowledge acquired in separate notes for test preparation, students gain a sense of satisfaction that they produced the maximum possible effort. It is important for them to regret nothing even if they fail to earn good marks. Those finding significance in patiently making an effort like marathon runners desire an education system which rewards those who continuously make an effort rather than those who do not. Most teachers accept their desire and, as a consequence, tests like quiz contests and the classes in anticipation of those tests are provided.

In below-average high schools where many students fail to follow the classes because of insufficient academic abilities, there are cases where edutainment is resorted to as the final means which anchors the mind of students to the learning of history. However, this idea does not form the mainstream in history education.

Finally, the discussion above does not lead to the conclusion that history edutainment should be adopted in school education in a proactive manner. However, by focusing on the low interest in edutainment, we are able to accurately understand the structural issues faced by the Japanese education system. That is, the earnest endeavors made by students surely represent their high motivation for learning. Nevertheless, their quality of learning is never high. To improve the quality of learning, it is necessary
to question why history should be studied. By clarifying the answer to such a question, we will be able to discuss how edutainment may be utilized in a meaningful manner.

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HOW SHOULD STUDENT HISTORY TEACHERS BE TRAINED TO MAKE MOST EFFECTIVE USE OF NEW TECHNOLOGY IN THEIR TEACHING?
LESSONS LEARNED FROM THE ENGLISH EXPERIENCE

TERRY HAYDN

Introduction

Whereas in the 1980s and 90s, history teachers who made extensive use of computers in their teaching were in a minority (Department for Education and Employment, 1998; Haydn, 2004), more recently, the ability to use new technology began to be seen as an essential element of teacher’s skills. In England, evidence that all student teachers could use computers as part of their teaching repertoire was built into the regulations for entry into the teaching profession from the 1990s up to the most recent reform of the competences required to achieve Qualified Teacher Status (QTS) in 2012. Thompson (2012) argued that teachers who do not use technology should be dismissed from the teaching profession, or forbidden entry to the profession, and Ertmer and Ottenbreit-Leftwich (2010) have suggested that technology use is now “essential” to successful learning.

Recent developments in educational technology have if anything raised the profile of ICT as an “issue” in history teacher education. Even apart from the rapid increase in the number of computers in schools, the development of the internet, the widespread use of presentation software such as PowerPoint, the development of a wide range of software applications for the teaching of all school subjects, and the ubiquity of the data projector in English classrooms, the past decade has seen an acceleration of the forms of new technology which might be deployed to teach history. Most schools in England now have learning platforms (or “Virtual Learning Environments”) as a digital repository for learning resources, many classrooms are equipped with interactive whiteboards, and some schools have invested in e-portfolio software and response
systems (voting technology). Web 2.0 applications have also transformed the ways in which young people access and share information, from Facebook, YouTube and Twitter, to blogs, podcasts and wikis. Given recent developments in new technology, it would be surprising if these developments did not have implications for the ways in which history teachers use ICT in their teaching.

In spite of these developments in technology, the enthusiasm of English politicians for the use of ICT in education, and significant financial support for the promotion of computer assisted learning, the outcomes of these investment have not lived up to expectations. An Ofsted (Office for Standards in Education) survey of the use of ICT by history teachers found that overall, lessons where history teachers used new technology were less effective than when no ICT was used (Harrison, 2003). Other research found that in spite of substantial investment in the provision of interactive whiteboards for English classrooms, many teachers made little or no use of them (see, for example, Ofsted, 2011; Wilkinson, 2013). An Ofsted report on the use of ICT in history teaching in English schools found a massive gulf between some history departments who were making extensive and highly effective use of new technology to improve teaching and learning in history, and others where ICT was either rarely used, or not used in an effective way (Ofsted, 2011).

The chapter traces developments in the ways in which history student teachers have been inducted into the use of new technology in history teaching in recent years in England. In addition to the use of case study and action research, there is an element of “historical perspectives” (Aldrich, 2005) in the narrative of the chapter, given the rapid changes in the evolution of educational technology over the past two decades. In the last section, some conclusions are drawn, with a focus on some of the ways forward which seem to have been effective in enabling history student teachers to make good use of new technology in their teaching. Consideration is also given to some of the mistakes and misjudgements which have been made in this area, in the hope that this may enable others to avoid some of these errors. Although the chapter draws on evidence and practice from England, the “lessons learned” may have relevance to the training of history teachers in other countries.

In addition to drawing on research and inspection findings on the use of ICT in history education, and the ways in which students teachers are taught to use new technology in their course of initial training in England, the chapter draws on a case study of the ways in which history teachers have been taught to use new technology in a teacher education course in England, over the past two decades. The longitudinal element of the
narrative is important. Although for twenty years I have had the same job of training history teachers, and as part of that, trying to get them to make best use of new technology, the range and form of new technologies which are available to teachers has changed and expanded considerably. Moreover, ideas about what technology is for in education, and what it means “to be good at ICT” have also changed radically over the past two decades.

An element of “Action Research” is also involved, in the sense of “the study of a social situation with a view to improving the quality of action within it” (Elliott, 1991: 69). In the context of this chapter, this involves reflection on the process of teaching history student teachers to use ICT effectively over a period of time. Action research involves making changes to the ways in which a particular educational challenge is approached, leading to an ongoing cycle of adjustments, additions and deletions, with a view to improving the quality and effectiveness of the process involved. This process often involves dissonance between official recommendations and “accepted wisdom”, and understanding derived from practical experience. Elliott argues that it is this “situational understanding”, which can mediate the two forms of knowledge, in a way that can lead to improved outcomes (Elliott, 2006). Another important element in Elliott’s vision of Action Research is that teachers (and teacher educators) record their work in a form which is readily available to other practitioners, and thus develop a shared theory of teaching by research practice (Elliott, 1991). As with any study which includes autoethnographical elements, appropriate caution must be exercised in terms of evaluating research in which to at least some extent the author has been a participant in the research (Hellawell, 2006, Bennett, 2013).

In terms of biographical context, I write as a history teacher who was working in schools when computers were first introduced into schools in England, and developed an interest in exploring the potential of ICT for improving teaching and learning in history. Since 1992 I have worked in history teacher education, and have been responsible for teaching history student teachers to make effective use of new technology in their teaching. I have also been involved with several research projects exploring the use of new technology in history teaching. What follows is an attempt to provide a succinct overview of developments in the field of history teacher education and new technology, drawing on relevant research and inspection findings in England, and my own experiences of educating student teachers to use ICT effectively in their teaching. The narrative is a complex one, given a rapidly changing environment, in terms of teacher access to ICT, the range of ICT applications available to teachers, and
changes in official government regulations for teacher competence in ICT. The chapter focuses on two main research questions: what training, experiences, and interventions will best equip history students to make best use of ICT in their teaching, and what does it mean, “to be good at ICT” as a history teacher?

The English politician who first championed the use of computers in schools, Kenneth Baker, saw the development of a technologically enabled teaching force as fairly straightforward, explaining to a conference of education officers in 1988 that from henceforth, such skills would be built into initial training courses (Baker, 1988). The subsequent history of educational computing in schools in England would demonstrate that this was a touchingly naïve view.

**The 1990s to Circa 2007: Mistakes Made and Lessons Learned**

This period saw considerable enthusiasm and investment in ICT for schools from politicians and policymakers for the use of computers in schools. The development of a technologically enabled teaching force became a high profile strand of education policy (Haydn, 2004). Cochrane (2005) famously stated that “In future, there will be two types of teacher: the ICT literate and the retired”. The 1998 version of the competences required to gain QTS (DfEE, Teaching, 1998) stipulated over 100 information technology competences (covering over 15 pages of text) which had to be met by student teachers in order to be licensed to teach. In theory at least, if only one of these technological competences was not met, the student teacher was not allowed to enter the profession. Any history departments in secondary schools which did not demonstrate that they used computers in their schemes of work were likely to face criticism in their Office for Standards in Education (Ofsted) inspections (Haydn, 2004). One British survey found that one of the main reasons which teachers gave for using computers in their teaching was because “they felt that they ought to” (Cox et al., 1999).

In the wake of the official enquiries which reviewed the position of ICT in UK schools, and reported poor internet access and concerns about teachers’ readiness to incorporate ICT into their teaching (Stevenson, 1997; McKinsey, 1997), the government announced the development of a “National Grid for Learning” (NGfL). This was a massive education hub on the Internet which, it was hoped, would become a major resource for disseminating resources, information and training in education. The National Grid for Learning was complemented by a wide range of other
online and published materials and “web support” resources to promote the use of computers in teaching.

In spite of political enthusiasm and substantial financial investment in ICT for schools, and massive pressures on teachers and schools to use ICT, the outcomes were disappointing. Ofsted reports and a number of research studies indicated that many teachers made little or no use of computers in their teaching, and that computers were making very little difference to teaching and learning in schools (Cox et al., 1999; Harrison, 2002; Heppell, 2000). Nichol and Watson (2002) argued that “There is relatively little to show for the major investment of time, resources and human endeavour in educational ICT [...]. Rarely in the history of education has so much been spent by so many for so long, with so little to show for the blood, sweat and tears expended.” There appeared to be some truth in Warhaftig’s suggestion that “the computer can be a fabulous tool [...]. But the dirty little secret is that no one really knows what to do with this stuff” (quoted in Banks and Renwick 1997).

Research into history teachers’ and student teachers’ use of new technology in this period suggested a number of mistakes in policy, investment, and regulations for initial training.

One part of the problem was the political rationale for promoting the use of computers in schools. Scrutiny of policymakers’ statements about ICT show a primary concern with the idea of pupils using computers in order to make them employable, epitomised by the then Secretary of State, Charles Clarke’s claim that “familiarity with ICT is the most vital life skill of the generation now going through school” (Clarke, 1999). This was an “industrial” or “instrumental” view of ICT in education; pupils would learn to use Microsoft Office applications so that they could get jobs using these skills. A Department for Education policy document on ICT talked about “helping our businesses to compete” (DfEE, 1997: foreword). It was not uncommon for schools to construct a curriculum grid which required particular departments to ensure that every pupil in the school experienced a specified ICT activity, so that full breadth of exposure to ICT development could be “ticked off” when Ofsted or local education authority inspectors came into the school. Thus in my own department, all children in year 7 (11-12 year olds) had to be “certified” as having undertaking the production of a “historical” newspaper front page through the use of a desktop publishing package. Not only did this put something of a straitjacket on the use of ICT, it was rather like dipping sheep.

Politicians did not appear to grasp the issue of teacher motivation. Teachers of history were not particularly interested or enthused by acting as a form of service industry for the IT department; they were interested in
the ways in which ICT might help them to teach history in a more engaging and effective way, but this concern was not part of either government policy documents or teacher training regulations. It was not until a 2003 policy document, *Fulfilling the potential: transforming teaching and learning through ICT in schools*, that an explicit emphasis was put on teaching and learning issues, with the statement that “ICT can make a significant contribution to teaching and learning across all subjects and ages, inside and outside the curriculum” (DfES, 2003: 2-3).

The development of the internet served to intensify politicians’ inchoate enthusiasm for new technology even further, but again, with an apparently limited understanding of its implications for teaching and learning, based on the idea that learning was simply a matter of the transmission of information. The vision of learning outlined in *Connecting the learning society* (DfEE, 1997) was clear:

> Teachers will be linked to the centres of power; the DfEE will be able to communicate directly with schools and issue its latest instructions: schools will be able to send performance data directly to each other and to the DfEE; and an aspect with increasingly high profile in the media recently, teachers will be able to download worksheets directly into their classroom.


As John Naughton (*Observer*, 22 March 1998) pointed out, “It’s not every day that you encounter a member of the government who appears to understand the Net. Most politicians (Clinton, Blair, Blunkett, to name just three) see it as a kind of pipe for pumping things into schools and schoolchildren.”

The dependence of modern politicians on information from databases, focus groups and opinion polls has perhaps led them to assume that access to information can play an equally powerful role in the educational process, without, as Davis *et al.* (1992: 12) suggested, considering its “authenticity to the classroom, and authenticity to a particular discipline or field of study”. The second major error in education policy relating to exploring the potential of new technology to improve educational outcomes was the failure to understand that what ICT had to offer to teachers differed according to the nature of the subject discipline that was being taught. In the words of Waggoner (1994: 175), “Is there anything inherent in a discipline that might better influence if or how technology may be employed in teaching?” To practising teachers, it is almost self-evident that the usefulness of computers, and the ways in which they will be used will vary according to the nature of the school subject. Data logging, for example, is invaluable for the science teacher, but is of no
interest to history teachers. Similarly, GIS software is an important tool for teachers of geography, Geogebra is helpful for teaching mathematics. Walsh (1998) argued that the word processor, with its facility to help to organise information, can be an invaluable asset for helping pupils to write history essays, but is of little interest to mathematicians. A natural corollary to the “industrial” vision for ICT in education was that a high proportion of the training resources and regulations for inducting teachers into the use of new technology were generic in nature (for example, learning to use Microsoft Office applications, learning to send emails, search the Internet etc.). This was in spite of the fact that both research indicated that most student teachers exhibited a clear preference for activities which had a direct relationship to teaching their subject. Generic training divorced from subject content and centrally run university courses on particular applications were not viewed with enthusiasm. Given the pressures on their time, and the wide range of other teaching competences they were obliged to acquire, the trainees seemed to prefer to “short-cut” to ICT activities that would have a direct “pay-off” in terms of classroom application (Haydn and Barton, 2007: 1032).

The government’s belief in the power of new technology to transmit large amounts of information led to investment in a number of ICT help sites for teachers and student teachers, of which the National Grid for Learning was just one. However, research revealed that the sites were not well used by teachers or student teachers. This period in the history of ICT in education was to demonstrate that information is not the same as knowledge or capability, and “information overload” became part of the problem, rather than the solution. The following comments were representative of history student teachers’ views about the usefulness of the various ICT support websites for teachers:

(laughs and shakes head) Did anyone read right through them? No just too much to take in . . . not much use really.

No, there’s just too much to read ... It needs condensing or summarising more.

Not very ... a bit dense really ... off-putting, too much to take in.
(Haydn and Barton, 2007: 1032).

Experienced history teachers were similarly unimpressed with the mass of online help resources which were designed to move teachers’ practice forward in the use of ICT in subject teaching. Feedback on the resources was similarly negative, as this not unrepresentative example suggests: “Who writes this stuff? I don’t have time to read through it all... they
obviously don’t have a clue about what teachers’ lives are like” (quoted in Haydn and Barton, 2009).

History student teachers’ preference for training in the area of ICT included more time to explore the possibilities of various ICT applications, in the sense of being able to “play with” the application to explore possible practical classroom use of the technology, and reinforce technical skills and expertise with the application (Haydn and Barton 2007; see also Zhao and Frank, 2003).

Much of the government funding for ICT during this period was invested in creating specialist ICT rooms, where pupils would go for “one-off” special occasion ICT lessons where computers would be used by history teachers for a lesson built around the use of ICT. Surveys of what forms of ICT investment was on the wish-list of practising history teachers and student teachers (see for instance, Haydn, 2002, 2004), revealed that most wanted were the projection facilities which would allow for ICT use as a regular component of lessons in day-to-day teaching so that computers could be used “not as a special event, or to impress others, but naturally, when the need arises” (Ogborn, 2000: 26). In the 2002 survey, the three most common suggestions for investment that would be most helpful in moving things forward in terms of history teachers’ use of ICT were the provision of more data projectors and computers in history classrooms, and more time for departmental development of ICT.

Perhaps unsurprisingly, history teachers and teacher educators were quicker than policymakers and administrators to explore and develop ways of using computers in the history classroom to improve student learning and teach the subject more effectively. A number of articles and two special issues of the main professional journal for history teachers in England, Teaching History, detailed how some of the attributes of new technology were useful for teaching particular facets of the subject. Walsh pointed to the many ways in which the word processor, for example, “can search, annotate, organise, classify, draft, reorganise, redraft and save that fundamental of the historian, the printed word… It is not a typewriter, it is an awesome tool for handling information” (Walsh, 1998: 6). Martin constructed, used and made available to other teachers a number of data-handling exercises which enabled students to explore and test historical hypotheses which involved them in the same sort of genuine and high-order historical thinking that historians using databases might be working with (Martin, 2003). Walsh and Martin both made the point that there was no necessary correlation between the sophistication of the technology being used and the extent to which it might improve learning – often quite simple applications could be of considerable benefit for the history
teacher. A key point made by Walsh was that perhaps the biggest benefit of the internet for history teachers was the part it could play in helping history teachers to quickly build up a range of powerful and appropriate resources for the teaching of particular historical topics, and share those resources with other teachers, a process he described as “building learning packages” (Walsh, 2003).

Scrutiny of my own course handbooks, schedules of ICT based teaching sessions, resources used for getting student teachers to use ICT, and student teacher evaluation of the ICT elements of the course reveal some of the same errors and misjudgements that afflicted government policy and the flaws in the competence specifications for initial teacher education courses. A tendency to bombard student teachers with “too much stuff,” leading to information overload, a tendency to show students examples of the use of ICT but not give them time to reinforce and consolidate their understanding and confidence, and the time to experiment with devising activities to use in their own classroom practice. A tendency to have discrete ICT specific teaching sessions, instead of integrating elements of ICT practice into “ordinary” teaching sessions, and a tendency to focus predominantly on technological expertise rather than on pedagogy and technology integration. This last tendency can be discerned in the following extracts from the 2001 version of the personal audit that the students were asked to complete at the start, middle and end of their year of training. For reasons of brevity, I have only included the sections of the audit which focused on the use of word processing and data handling. The aim of the audit was to provide a progression model for students in aspects of ICT, and to get them to think about the ontology of ICT in history teaching. What applications are there to think about in terms of becoming “good at ICT” as a history teacher? Which applications have most potential for enhancing learning in the history classroom?

Figure 1: Extract from history student teacher ICT audit, 2001: word-processing

<table>
<thead>
<tr>
<th>8. Word processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can’t word process 0</td>
</tr>
<tr>
<td>I can do basic word processing. (moving and adjusting text, saving and printing etc.) 5</td>
</tr>
<tr>
<td>I am confident and accomplished in word processing and can do most things. 8</td>
</tr>
<tr>
<td>I can use some of the advanced features of word processors. 10</td>
</tr>
<tr>
<td>I can “find my way” around most word processing packages. 14</td>
</tr>
</tbody>
</table>
In spite of these mistakes and misjudgements, both in my own practice, and at a national level, the picture with regard to the ability of newly qualified teachers to make effective use of ICT in their teaching was not entirely negative. Massive financial investment in improving access to computers and the Internet in schools and teacher education institutions made it easier for history teachers and student teachers to make use of ICT in their practice. The paradigm of the “special occasion” computer room had been largely replaced by classrooms equipped with data projectors and Internet access, so that teachers could make flexible use of ICT as part of a lesson, as and when the need arose. The general discourse about the use of ICT had at last moved beyond using school subjects to get students to be proficient in using ICT, and there were now an increasing number of excellent history education websites which made it easy for history teachers to share good ideas and best practice in the use of ICT in the history classroom. The 2007 survey of Newly Qualified Teachers found...
that 67% of NQTs felt that their preparation to use ICT in subject teaching was either very good or good (Training and Development Agency, NQT).

However, rapid developments in new technology, and continuing debates and changes in ideas about exactly what new technology might offer the history teacher, meant that practice in history teacher education courses needed to adapt to these new challenges.

**2007 to the Present: Mistakes Made and Lessons Learned**

2007 saw the introduction of a new set of standards for initial teacher education. Out of the 33 standards which had to be met before QTS could be awarded, four related to ICT. Student teachers of all subject had to demonstrate that they could use “e-learning”, could design opportunities for learners to develop their ICT skills, could use ICT to support their wider professional activities (i.e. for administration, planning, recording etc.), and all students had to pass on online “professional skills” test in ICT (Training and Development Agency, Standards).

The past decade has also seen significant changes in the landscape of new technology in education, with a plethora of new developments and applications which meant that there were hard choices to be made by initial teacher education tutors in terms of which developments and applications they focused on, given that it was becoming very difficult to induct student teachers into the full range of Web 2.0 applications and other technological innovations. The development of Facebook, YouTube, Wikipedia, and the proliferation of blogs, wikis, podcasts and Twitter radically changed the ways in which young people accessed information. There were also a number of developments in terms of sophisticated and expensive software which attracted the attention of policymakers, and which influenced investment in ICT in teacher education (Hadfield et al., 2009). In addition to the invention of the interactive whiteboard, the development of response technology (sometimes termed “voting technology”), and e-portfolio software provided sophisticated (and expensive) additions to the history teacher’s repertoire of ICT applications. More recently, developments in mobile technology meant that the smartphone and the tablet computer were added to the list of ICT applications which were available to teachers. Some schools in England moved to one-to-one provision of i-Pads for pupils. All these developments had implications for history teachers and teacher educators.

However, in a survey of English teacher educators, several tutors questioned the utility of some of these developments. Not all tutors were convinced of the value for money or pedagogical utility of interactive
whiteboards ("like a very expensive mouse", "just does eye-candy stuff"). Classroom response systems were described as "an expensive toy", and some of the tutors interviewed were sceptical of the value for money and utility of e-portfolio software:

> It’s such a waste [...] I thought, it was far too constraining, you know, you had to tick particular boxes, it would have taken so much effort for the trainees to actually manage it.

> Investment in e-portfolio stuff, god, such a waste of money, awful.

> Personally I’m not convinced that it isn’t just, well let’s jump on another bandwagon, you know [...] the cost of packages, that was an issue [...] so we simply said no. (OECD, 2009: 14).

A list of “characteristics of good practice” in the training of student teachers, continued to place considerable emphasis on technological expertise and access to expensive and sophisticated equipment, such as interactive whiteboards and e-portfolio software (Training and Development Agency, 2009).

Several leading practitioners in the use of new technology in history teaching expressed reservations about the emphasis on complex and expensive equipment, and argued that exploration of a wide range of (free to use) Web 2.0 applications would offer greater benefits to learning in history, at less cost (e.g. Ahrenfelt, 2013; Walsh, 2003; Watkin, 2013).

A 2009 CERI survey on the ways in which teachers were trained to use ICT in their subject teaching in several European countries found that although access to ICT was not as big a problem as it had been in previous years, reliability of equipment was still an issue, and that lack of reliability of ICT equipment remained a significant factor in deterring student teachers from using new technology in their lessons (Centre of Educational Research and Innovation, 2009).

However, perhaps the most obvious misjudgement in attempting to produce teachers able to use ICT effectively in their subject teaching was the online basic skills test in ICT for student teachers, which was a compulsory element of the process of learning to teach from 1999 until 2013. For education policymakers, bureaucrats and administrators, the idea of an online test to measure competence in ICT, to be registered for, taken at a test centre, with time limits imposed, was quite irresistible. It was retained until 2013 in spite of almost universal condemnation by initial teacher education tutors and student teachers, and in spite of the considerable cost involved.
All the tutors interviewed in the 2009 OECD study were critical of the online basic skills test for ICT, as they felt that it was patronising and unhelpful for the vast majority of their students. It was viewed as an unnecessary and time consuming distraction from what they saw as “the real business” of developing ICT capability; being able to use new technology to motivate and engage learners, and to make teaching and learning more effective. It was also felt that it caused an unfortunate and unhelpful degree of anxiety in students, and if anything, gave them negative ideas and feelings about ICT. The following quotes are not unrepresentative of tutors’ feelings about the test:

*It’s just rubbish, complete rubbish, [...] it doesn’t even mimic what they’re supposed to be mimicking, it’s just a complete pointless waste of time. It’s just insane. It is honestly the most useless thing that I think I’ve ever encountered, it doesn’t test anything to do with ICT, and it’s stuck, unless they have a continuing evolving model of what ICT is.*

*They are a complete waste of time, and the students think they’re a waste of time [...] and the things that they ask them to do are so mundane and stupid and they come with such high level ICT skills in terms of being able to manipulate basic packages, that it is utterly condescending to ask them the stupid things they ask them (OECD, 2009: 13).*

In a survey of our own cohort of student teachers, only one out of over 200 respondents felt that the test had been helpful. Although several trainees had reservations about various aspects of their ICT experiences on the course, the online tests were the only facet of ICT which evinced real anger. The following comments are not unrepresentative of their views on the test: “Bloody waste of time.” “Insulting.” “A waste of time.” “Another hoop to jump through.” “Pointless, pathetic and utterly ridiculous.” “Unrelated to subject or to common sense.” (Haydn and Barton, 2007: 1029).

The tests were symptomatic of a tendency to see teachers as “a hurdle to be overcome” (DfE, 1999) with regard to technology integration, or as “Luddites” who were hostile to new technology, or resistant to change (see Convery, 2009 for further development of this point).

In spite of the continuing unhelpfulness of competence specifications for ICT, and a continuing tendency to define progression in terms of personal capability in the use of technology, the community of practice of history teachers and teacher educators continued to find ways forward in terms of using ICT to improve teaching and learning in history. The development of Web 2.0 applications also made it much easier for history educators to share good practice, ideas and resources. Twitter, for
example, has become a highly influential mode of teacher development in history education in England.

In 2008, another influential paper by Walsh pointed out the important role that history education ought to play in the development of students’ information and digital literacy, by getting students to grasp the problematic nature of information about the past (and the present) which was obtained by Google, Wikipedia, or social media platforms (Walsh, 2008). Expert practitioners such as Jones-Nerzic, Lyndon and Ahrenfelt, Chapman (2013) and Tarr (2015) provided examples of how new technology could be used to get students learning history beyond the confines of taught sessions, by using various facets of Web 2.0 applications such as blogs, wikis, podcasts and discussion boards, and documentary film making.

Reflections on my own practice in trying to get history student teachers to use ICT skilfully in their teaching echo the OECD findings about aspects of training to use ICT which evinced positive comments from student teachers. Student teacher feedback stressed the importance of having a tutor who was at least reasonably knowledgeable and “up to date” about the potential of ICT to improve teaching and learning, and who could “model” the use of ICT in a relaxed and assured way. It was also felt to be important that encounters with ICT were interesting and enjoyable, rather than (as in the case of the ICT online test), stressful and unpleasant: a sort of ordeal that had to be endured. Tutors were at pains to stress that it was principally about learning to do stimulating and worthwhile things with ICT applications rather than developing advanced levels of technological expertise:

*If they’re creative people then they will have a go and they will look for ways of making it relevant and exciting and interesting, and try things out, even they don’t always work, it’s about them thinking about what sorts of things you can do with Twitter, or PowerPoint or whatever.*

*It’s certainly not about how much they use ICT – PowerPoint and whiteboards often don’t add value to pupils’ learning [...] it’s about them thinking about how ICT can support teaching and learning and coming up with some good ideas that work to improve lessons. (OECD, 2009: 20).*

One other finding which emerged from the OECD study and my own experience of working with student teachers was a clear preference for working collaboratively to explore the possibilities of integrating ICT into classroom practice.

In terms of my own practice, one of the main changes over time was a move towards focusing on the extent to which student teachers deployed
their developing competence in ICT in their classroom practice, rather than focusing on their personal capability in using the applications. A glance at an extract from a more recent version of the ICT audit which I use with my students should give an indication of this shift of emphasis (the full version of the audit is accessible at https://terryhaydn.wordpress.com/pgce-history-at-uea/ict-in-history-teaching).

Figure 4: Extract from history student teacher ICT audit, 2015: word-processing

5. Word processing
I can’t word process 0
I can do basic word processing. (moving and adjusting text, saving and printing etc.) 3
I am confident and accomplished in word processing and can do most things. 5
I can use some of the advanced features of word processors. 7
I can “find my way” around most word processing packages. 9
I am aware of the ways in which the word processor can be used by history teachers to help to develop pupils’ historical understanding. 12
I’ve done some stuff with pupils using word processing activities that have worked really well 15

Figure 5: Extract from history student teacher ICT audit, 2015: data handling

6. Data-handling
I don’t know what data-handling is. 0
I know what it is but I don’t know how to do it. 2
I know how to use a data handling package or commercially produced datafile. 5
I know how to construct my own datafile using a data-handling package. 7
I know what sort of questions to ask of history datafiles 9
I feel confident that I could teach/demonstrate how to construct a datafile to a group of students. 10
I could do all this using a variety of data-handling packages. 12
I can do all this and am confident that I could teach pupils how to use a datahandling package 15
I’ve had some really good lessons getting the pupils to do interesting and historically “valid” things with datafiles 20
Conclusions

I have attempted to provide a brief history of the ways in which history student teachers have been inducted into the use of ICT in their course of initial training in England, through reflection on my own practice, scrutiny of research in this field, and consideration of the national system and regulations governing initial teacher education in England in this period. What lessons might be learned from the English experience?

The most harmful mistakes have been the imposition of unhelpful and out of touch competence specifications and assessment mechanisms which have been predicated on mistrust of teacher and student teacher professionalism. As the government’s own Performance and Innovation Unit suggested in 2001:

*Excessive directive methods of government that appear to treat front-line deliverers as unable to think for themselves, untrustworthy or incompetent, undermine the very motivation and adaptability on which real world success depends. [...]Driving through policies with an implicit assumption that the main players are the problem rather than the solution is usually a recipe for failure* (Performance and Innovation Unit, UK, 2001).

Far from being “Luddite” in their attitude to new technology, research evidence suggests that most teachers and student teachers are interested and keen to explore the use of new technology in their teaching (e.g., Haydn and Barton, 2007). If they encounter technology which they believe
will be useful in helping them to teach more effectively, and it is reasonably accessible, they will use it (Davis, 1989). There are not many history teachers who do not like to have a data projector in their teaching room; who do not use the internet to build up a collection of “impact” resources to use when teaching particular topics, and who do not possess at least one memory stick to keep and share digital resources. What teachers need in order to explore the potential of other new technologies is easy access to reliable technology and time to explore how to deploy it in their teaching.

Competence specifications need to avoid undue focus on personal technological capability, and to focus instead on the ability of the student teacher to use new technology in a way that improves teaching and learning in their classroom practice. It is also helpful to move away from the “coverage” model of ICT embodied in the 1998 regulations for QTS. It is not necessary, or even desirable, for student teachers to become expert in all aspects of new technology. Even outstandingly accomplished history teachers usually focus on some aspects of ICT and do meaningful and useful things with those strands of technology. It is more important that student teachers explore some key applications in depth and develop high quality learning experiences for pupils in those areas. If they can demonstrate the ability to do this, it is likely that they will in time develop the skills to make adroit use of ICT using other facets of new technology. The emphasis should be on effective technology integration, not the amount that they use ICT in their teaching, or the breadth of applications that they use. The key question should be: to what extent are they able to maximise the potential of new technology for improving teaching and learning in history?

Training needs to keep in mind that there is no necessary correlation between the sophistication and expense of the technology, and its potential for enhancing learning in a subject. Several expert practitioners in the use of ICT in history teaching have suggested that too much investment and time has focused on “expensive kit” applications, and that more time spent exploring the affordances of (free to use) Web 2.0 applications might be more time and cost effective in terms of improving learning in history.

Another useful lesson arising out of recent experience in England is the potential of getting students to work collaboratively to explore ways of using new technologies in their teaching. Scrutiny of student evaluations of ICT related aspects of the course revealed that “high challenge-low stakes” activities which required student teachers to work together to create an ICT based resource or presentation elicited very positive feedback, and enabled students to share expertise in a low-key and
relaxing way. I should stress that the ICT audit detailed above and earlier in the chapter was *not* designed as a high-pressure, target-driven threat or weapon, with dire consequences or punitive extra sessions for those not making sufficient progress. It was just to get student teachers to think about what it means to get better at ICT, and to give them an indication of some of the applications they might explore on the course. The main aim of the teaching sessions in ICT was to model how it might be used, to get students interested in exploring the use of ICT, to make the sessions enjoyable so that they would want to follow things up and develop ideas for use outside the taught sessions.

Another key message arising out of the English experience is the importance of having tutors and mentors in initial teacher education who are up to date and well informed about new technology, and who are able to adroitly model the use of ICT in their teaching sessions. In the words of one tutor,

*The biggest single influence on their ICT practice is seeing teachers modelling the use of ICT [...] when they see the teacher doing something, and the kids enjoying it [...] and they think, I’d like to be able to do that, and they go off and quickly do it themselves before they forget or sort it out with some of the other students who are interested in ICT.* (OECD, 2009: 35).

In terms of the implications for investment in the development of a technologically enabled teaching workforce, this suggests that more money needs to be invested in ensuring that all teachers and tutors who are working with student teachers have high quality and extensive subject specific professional development training in the use of new technology, preferably based around Kohler and Mishra’s “TPACK” Framework, which stresses the importance of disciplinary and pedagogic subject knowledge as well as knowledge and understanding of educational technology (Mishra and Kohler, 2006).

In terms of a progression model for student teachers, it is important to get across the point that personal capability in the use of an ICT application is only the first step in becoming “good at ICT” as a history teacher. It is a necessary but not sufficient condition for being effective in the use of ICT. With many ICT applications, particularly Web 2.0 applications such as Google ngram, Museum Box, Timerime, Padlet, Pinterest, and various forms of discussion boards, it is helpful if the student teachers is sufficiently “fluent” and assured in their grasp of the application that they can get students to use the application autonomously, and can contribute to collaborative historical enquiries using the
application. A model for progression in levels of expertise in particular ICT applications is given below in Figure 7:

Figure 7: A model for progression in student capability in ICT applications which might improve teaching and learning in history

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>The student teacher is aware of the application and the fact that it might be used in some way to develop and improve pupil learning in history.</td>
</tr>
<tr>
<td>Level 2</td>
<td>The student teacher is able to use the application to find out or do something useful in teaching or learning history.</td>
</tr>
<tr>
<td>Level 3</td>
<td>The student teacher is able to use the application to some good learning purpose in the classroom, with students.</td>
</tr>
<tr>
<td>Level 4</td>
<td>The student teacher is able to get students using the application autonomously and usefully so that they can continue to work on historical enquiry questions outside the classroom, and in collaboration with other students.</td>
</tr>
</tbody>
</table>

Perhaps the most important lesson to be learned from the English experience is the complexity of learning to become “good at ICT” as a history teacher. There is so much more to it than just becoming technologically capable in the use of ICT applications. Appendix 1 provides a list of “aspects of being good at ICT” which is given to history student teachers to think about at the start of their course of training.

In spite of an interest in the use of ICT in history teaching, I am not one of the “techno-fundamentalists” who believe that teachers who do not make use of ICT should be forbidden entry or culled from the profession. I know many accomplished history teachers who do not make much use of ICT but who are nonetheless excellent teachers. I do however believe that recent developments in new technology offer significant opportunities to history teachers, and that if history teachers and student teachers do not invest some time and effort in exploring these developments, they will miss out on some opportunities to teach history in a more powerful, effective and engaging way.

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Appendix 1: What does it mean, “to be good at ICT as a history teacher”? (from Haydn, 2013: 7)

You’re pretty good “technically”; you are relaxed and reasonably adept at working out how to use new applications and fix “glitches”/minor or straightforward technical problems.

You are knowledgeable and up to date in your awareness of the range of ICT applications and programs which can be used to enhance teaching and learning in history.

You are accomplished in your use of the interactive whiteboard and PowerPoint: your use of these applications usually engages and motivates pupils.

You are well organised and efficient in terms of using ICT to save time in planning and assessment and to organise your personal “archive” of resources effectively, clear emails etc.

You are good at using ICT to build up really good “collections” of powerful impact resources on a wide range of topics. You are familiar with and make use of many of the “gems” that are available on good history websites.

If you have got access to the internet and a data projector in your teaching sessions, you take full advantage of the wealth of resources on the net to improve the impact of your lessons.
You are able to deploy these resources to construct well designed and intellectually rigorous pupil tasks using ICT – you can think of good ideas for deploying digital resources and structuring good activities for pupils using ICT resources and applications.

You are an “early adaptor”, quick to pick up on new developments and applications in ICT and work out ideas for doing something useful with them in the history classroom.

You make good use of ICT (websites, discussion groups, Blogs, Twitter etc.) to develop your use of ICT in history by being a proactive and diligent part of the “community of practice” of history teachers in the field of ICT.

When you use ICT in your teaching, it usually works well

Your use of ICT improves the quality of your lessons

Your pupils use ICT to learn history outside taught sessions

Your pupils are good at “expressing themselves digitally”
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