From bits to templates: Uncovering digital interventions in everyday history assignments at secondary school

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ABSTRACT: This article explores the way students construct historical narrations in the digital age. The study, which is based on participant observation in two secondary schools in Finland, aligns with previous ethnographic research on how digital media interrupts and integrates in the formation of everyday habits and routines. The focus of the analysis is on short oral presentations of historical phenomena given by students in front of the class. During these short assignments students engage more in digital practices than doing other activities. The findings show that the accumulation of these brief assignments allows students to develop "templates for history", which I argue are elements from which they develop expectations of historical accounts for use in building their own stories. These templates include frequently consulted digital sources such as Wikipedia, and images that students find online that affect the perspective of their presentations. To these can be added other situated factors that derive from the course dynamics, such as the limited time allocated for assignments, teacher instruction in the form of inquiry or a presentation structure, and historical substance that is fragmented and arranged around single assignments. Thus far, studies on digital transformations in school history have focused on how the use of digitized primary sources can teach students to walk in the shoes of historians. The present study, in turn, concerns the ubiquitous digital culture and paraphernalia in schools. The aim is to offer teachers ways of connecting with familiar practices and to shed light on how these practices can support peer-learning, as well as to promote the idea of doing history as a collective and ever-revisiting task: all these are important objectives of school history.

KEYWORDS: School history; digital practices; secondary school; everyday genres; ethnography

Introduction: School history torn between fragmentation and abundance

This article concerns the way students make sense of historical events in the digital age. It is a question that has attracted much attention in the study of history as a school subject – referred to here as school history – in the past decade (Bloom & Stout, 2005; Lévesque, 2006b; Rosenzweig & Bass, 2011; Nygren & Vikström, 2013; Nygren, 2015), partly as a result of ongoing efforts to digitize historical primary sources of great interest to historians (Coyle, 2006; Gooding, 2017). With regard to school history, the main ambition related to these digital collections is to enable students to "walk in the shoes of apprentice historians" while in these spaces (Lévesque, 2006b, p. 68). Such studies are significant in showing that information in the digital age and archival historical sources share the same flaw: they offer access to fragments of the past or present, but not to either in its entirety (Nygren, 2015). Nevertheless, students can develop skills to face both the past and the present if they learn to select and present evidence

and to read sources empathically, i.e. to know the context in which they are produced and preserved (idem). Scholars recognize that sporadic engagement in this practice will fail to deliver such skills, and that teachers need to invest effort in familiarizing themselves and students with such sources (Lévesque, 2006a; Nygren & Vikström, 2013; Rosenzweig & Bass, 2011,). It has been also been recognized that materials depicting ordinary people and local perspectives, which is popular among students and shared by many archival sources, relate to, but do not provide students with the broader political context of the time (Bloom & Stout, 2005; Nygren & Vikström, 2013, p. 65; Nygren, 2015, p. 94,98). Indeed, digital archives containing historical documents, periodicals, artworks and artefacts are used sporadically in the history classroom. For the most part, teacher instruction, textbooks, history websites organized like textbooks, and other hand-picked sources, some of which are designed for teaching purposes whereas others are not, serve as the basis on which students in ordinary history classes make sense of the past. The emphasis in this article is on mundane and ordinary practices that do not reflect those of the historian but are equally new in that they are digital. This article therefore asks whether these ordinary practices could be considered transformative of school history.

As an ethnologist, in my approach to school history I focus on everyday classroom activity and the use of ordinary sources. This is in line with previous ethnographic research highlighting the need to investigate the everyday life of youth to acknowledge the fluidity of their on- and offline activities, as well as the physical and virtual spaces they inhabit in the digital age (Ito et al., 2009; Livingstone & Sefton-Green, 2016). With this in mind, in the following I describe four instances in which students prepare and give short oral presentations about historical events and phenomena. Although these presentations are not new to the digital age, they do involve some digital practices in terms of collecting information, sharing materials and presenting results. In focusing on this I contribute to the literature on transformations in school history in the digital age in broadening the perspective of digital history in school to include not only the materials and practices of the historian, but also those that belong to the everyday history class. By focusing on existing practices such as oral presentations, I agree with Roy Rosenzweig's observation that people do not change their practices from one day to the next, but "selectively appropriate" new technology in what they are already doing (Rosenzweig & Bass, 2011, p. 93). In further contextualizing digital transformations in the context of school history I am guided by two concepts. The first concerns the fragmentation of historical substance in school, which has become a preoccupation for scholars to the point that school history has been compared with pools and sushi bars (Howson, 2009, p. 31). It is claimed that, although history curricula should provide students with "coherent and usable pictures of the past", adolescents leave school with "bits and pieces of historical knowledge" (Shemilt, 2009, p. 142). Consequently, school history comprises a selection of events that, at best, allow students to "orientate themselves and move across the ladder of time" (Howson, 2009, p. 26), as well as to "do something with their knowledge of history" (Lee, 2012, p. 139). In other words, the fragmentation of historical substance is a complex idea[1] that arose well before the digital age, but that resurfaces when teachers describe digital materials, and especially how they connect them to isolated historical events:

> You find things [online], of course, but it is still very fragmentary. You have very small pieces, but not a whole picture. (Vilma, history teacher, secondary school)

> For Absolutism [the students] had to search online information about the palace and the life of Louis XIV. Then they held mini presentations of 2-3 minutes, each had specialised in one thing: the garden, the buildings, the life in palace... Then we all took a virtual tour of Versailles online. (Alma, history teacher, secondary school).

Not far from pools and sushi bars, snapshot narratives is a metaphor Niklas Ammert uses to describe the style used in history textbooks in the last thirty years. He claims that a contributing factor to this style is that textbooks are media products of our time: "[t]he snapshot narratives

embedded in today's media society, are characterized by different stories that are briefly placed under the spotlight" (2010, p. 20). I, too, found that the students' oral presentations put stories briefly under the spotlight, but Ammert does not consider what effect the style of the textbook has on the way students create or recreate the past. This is a relevant question, given that the media used include not (only) the textbook but also excerpts of texts, and hand-picked references collected by the teacher or found online by students. This brings me to the second concept guiding this study: "history as a culture of abundance". Roy Rosenzweig recognized early on that the internet would not only facilitate the access to historical and scholarly sources, it would also broaden what doing history means, who writes it and who constitutes its audience (Rosenzweig, 2003, pp. 738–739). When I visited history classes, I found that not only have the source materials diversified, the practices and the outcomes that students produce also differ from lesson to lesson: from reading material for a Q&A or a team game using Kahoot, to building a timeline, or composing their own object gallery using PowerPoint. In sum, this article addresses old and new challenges of school history (the selective appropriation of technology, fragmentation and abundance) and contributes to the literature on transformations in history as a school subject in the digital age.

The methodological framework for this study is ethnological, in other words the focus is on the ordinary and the everyday. This approach allowed me to observe how, in the history class, digital spaces and practices were used not only for information gathering, but also for collective and individual storage and performative paraphernalia. Reflecting upon ethnology that focuses on everyday life, I aimed to immerse myself in the flow of the history class to identify how digital media "interrupts and integrates into habits and routines" (Pink & Leder Mackley, 2013, p. 689; Pink et al., 2015, p. 162). Moments at which routines and habits are described are considered "the 'stuff' through which sociality and structure are enacted" (Thomson, Berriman, & Bragg, 2018, p. 5). In the context of school history, I consider the oral history presentations that students frequently give as the main vessel that allows them to "familiarize with processes that arise from the act of doing history" (Lévesque, 2008, p. 27). As a teacher participating in this study remarked, these short projects are what students remember best about the history class when they leave school.

This article focuses on everyday classroom activity rather than students' papers, or an activity designed for the purpose of this research, and thus in contrast to the literature that assesses students' historical knowledge, it examines their working processes. One reason for doing this is that few studies focus on digital history (Nygren, 2015; Nygren & Vikström, 2013), and most of those concern the later stages of school, whereas the participants in this study were transitioning from lower to upper-secondary school. Moreover, even if curriculum guidelines provide a scale of what students are supposed to know after each level, digital skills remain unrelated to history (Opetushallitus, 2015b, 2015a). On the other hand, having analyzed how students undertake digital tasks within assignments, Ibrar Bhatt argues that the pedagogical goals of teachers have not necessarily changed even if the way their students work has (Bhatt, 2017). Unlike Bhatt, who focuses on digital literacies, I acknowledge the importance of history as the context of these assignments, concretely by including the teachers' motivations and aims. One teacher participating in this study remarked that having their own digital equipment allowed students to become active researchers, which is an important aspect of history didactics (Ahonen in Castrén, Ahonen, Arola, Elio, & Pilli, 1992; Dawson, 1989). Furthermore, considering digital practice within the framework of school history responds to a call for research on communities adopting ICT and their educational settings (Samuelsson & Olsson, 2014).

Everyday history assignments: data and methodology

The main question addressed in this article concerns the extent to which the digital culture and its paraphernalia, which are increasingly present in school classrooms, intervene in how students make sense of history. In the following I therefore present an ethnographic account of history classes in two Finnish secondary schools. During the first research phase I conducted semi-structured interviews (Davies, 1999) with six history teachers in four secondary schools to learn how digitalization has affected their teaching. The interviews covered their background and their approach to the teaching of history, how digital resources were used in their classes, and their accounts of learner-centered activities from inception to evaluation. Although this paper examines assignments in which students engaged with digital resources, two interviewees did not use them in their classes, one due to a lack of familiarity with them outside school, and the other due to the inadequacy of the school's ICT infrastructure. It should be noted that the four teachers who favored ICT adoption worked in schools in which each student was equipped with a tablet, whereas the other two had to make sure that a computer lab was available for students to use digital resources. This confirms the findings of recent studies on ICT integration in education that identified both infrastructural and social factors in the digital divide (Aliagas Marín & Castellà Lidon, 2014; Samuelsson & Olsson, 2014). In this study, these inequalities are reflected in the way digital practices can be considered exceptional rather than everyday occurrences.

During the second phase, I carried out participant observation in the two schools that were more active in their use of digital resources. Participant observation has become an established method in the study of digital media, in that it facilitates the examination of "interdependencies among artefacts, practices and social arrangements around new media" (Lievrouw & Livingstone, 2006, p. 2). Two of the teachers I interviewed invited me to observe one of their ongoing courses in which students regularly made use of digital resources. In March 2017, I visited the first class, a short optional course entitled "The development of scientific thinking" taught by Sanna, with ten students aged 15-18. From January to May 2019 I visited a ninth-grade general history course taught by Alma, with four students aged 14 and 15. Although there were differences between the schools, one being a state school and the other an international school[2], both teachers completed their pedagogical studies in Finland and classroom activity was organized in a similar manner. Overall, I observed students carrying out eight assignments that culminated in an oral presentation in front of the class, the time spent on these assignments varied from one to three sessions. In addition to taking field notes during the observation, I conducted group interviews with the students to get their immediate impressions of the course and of their own work, as well as follow-up interviews with both teachers. The students' parents were informed via a consent form that students read and signed if they agreed to participate. In line with Finnish research guidelines, to guarantee participant confidentiality (Kohonen, Kuula-Luumi, & Spoof, 2019) the names assigned here to students and teachers are pseudonyms, and the nationality of the international school is given as *Ulkomaa*, which means "foreign country" in Finnish.

In my analysis of these brief periods of intense work I was guided by Mary Soliday's definition of assignments as "everyday genres of academia" through which students perform tasks dictated by a genre in a situated manner (Lave & Wenger, 1991; Soliday, 2011). The point is to practice writing academic texts in a setting in which situated aspects (the peer audience and their trial character) make everyday genres socially informed and enacted moments (Soliday, 2011). Soliday writes about academic assignments, and it is thus necessary to distinguish between college and school students. One teacher in this study characterized her students' historical skills as instinctive rather than intentional, which reflects the position of students between lower- and upper-secondary school as halfway through their journey towards

gaining a "private understanding of the concepts and tools of the historian" (Husbands, 1996, p. 26). Husbands points out that this private understanding does not include putting historical concepts and tools into practice to create new historical knowledge. The situatedness to which Soliday (2011) refers was apparent when the students received instructions, grouped, divided tasks, worked autonomously, consulted the teacher and their devices, and rehearsed their presentations before 'staging' them and giving each other feedback.

The four moments analyzed below focus on the situatedness of everyday genres. As noted earlier with reference to the goal of identifying how digital paraphernalia interrupt and integrate in the formation of habits and structures, and acknowledging the educational context of school history, in each case I also reflect on the teacher's objectives and the students' underlying strategies. I have organized these moments as a sequence outlining this process: the first one introduces the dynamic of everyday assignments; the second focuses on the interplay of social relations, instruction and media use; the third analyzes the structural elements of one presentation; and the last one considers their ephemeral nature.

From the Julian calendar to the Scramble for Africa: Bits and pieces of history

> At 8:15 Sanna informs us that today we will start the next topic of the course: time measurement; and at the end we will listen to the remaining presentations from the previous week. She refers to materials she had uploaded last week to Fronter (a pamphlet, a three-page copy with information about the Clock museum with highlights of the collection, and various typed pages with questions and answers). A Q&A starts, covering prehistoric and ancient methods of time measurement. [...] We watch a YouTube video that explains the origin of the Christian calendar, and spend some time opening the content. [...] Q&A resumes around Islamic, Chinese and Soviet calendars. [...] To close this topic for the day, Sanna invites students to share the objects and stories they remember from the visit to the Clock Museum last Friday. [...] At 9:00 Sanna sits at the back, Pertti and Timo come to the front to present the Scramble for Africa using two maps of the continent, before and after the Berlin Conference in 1884. [...] Later, Elsi and Ville present the "discovery" of the Americas (air quotes done by Elsi), their PowerPoint presentation consists of a well-known Weissmuller map of 1507, and a slide showing the 1803 expedition to Northwest America by Lewis and Clark [...] At 9:30 we applaud both presentations... (Field journal 14.3.2017, school 1).

This excerpt from my field diary best illustrates the earlier mentioned fragmentation of the historical substance into "bits and pieces" (Shemilt, 2009, p. 142) or "pools" (Howson, 2009, p. 31). This section focuses on the disruptive dynamic in which everyday assignments are embedded. This course concerned the development of scientific thinking. The focus during the three lessons each week was on a specific scientific discipline, but as happened here, two presentations from the previous week had to be allocated even though the class had moved on. The goal of the course resonated with the idea of "usable history" rather than offering a linear development of science history. As Sanna explained to me, the school was specialized in science and therefore she had created this optional course. Indeed, most of the students in the class preferred math or physics rather than history. Moreover, although some students attempted to summarize the course for me by enumerating all the topics from memory, as is common for students of this age (Ammert, 2014), two of them saw it in practical terms, as having learned where the things that interested them most originated.

Paying closer attention to how this lesson progressed, I found that the fragmentation was supported by the different activities: first, students were asked questions based on previously read materials that the teacher had collected in Fronter (the school's learning platform), then they watched and opened up the content of a YouTube video, next they shared memories of a visit to a museum the previous week, and finally we heard two oral presentations by students for which they had carried out some research, illustrated with historical maps. Sanna mentioned specific objectives of the course, particularly oral presentations: she wanted the students to practice diverse forms of collaboration and to become familiar with searching for visual sources

online. She also wanted to prepare them for their final exams, in which they usually have to analyze a visual source (for example, a painting, artefact, or map). As a student named Kimo remarked in an interview about these presentations: "It wasn't just the teacher telling the absolute truth. We have to think, is this the right thing or not? Or, we have to choose what we tell the others". These oral presentations stand out from the other activities in that they benefit from the fragmented historical substance: here, a pair presented the Scramble for Africa whereas the other talked about the discovery of the Americas. This allowed students unprecedented moments of agency. In sorting the information and deciding what and how to present, the students were processing written and visual material translating historical concepts into their own words, and they even dared give a personal evaluation of the past (Elsi questioning the concept of "discovery" using air quotes). They also became aware of and felt responsible for their peers' learning. In acknowledging their peers as an audience, oral presentations created a moment of affinity in the sense in which James Gee defined "affinity spaces" such as fan sites or strategy games, where young people are teachers and learners in some degree and depend on each other to develop expertise or to advance (Gee, 2006). In sum, fragmentation, which is traditionally seen in a negative light, could be otherwise in that it allows students to adopt an active research approach to historical subjects, which in turn reflects the objectives of school history (Castrén et al., 1992; Dawson, 1989) and resonates with the idea that, in the digital age, "history as retrospective is being overtaken by the idea of history in the making" (Tredennick in Weller, 2013, p. 57). It may not be able to supply a complete picture of the past, but it is coherent and usable, allowing students to connect history to interests and subjects outside the history class.

Friends, games and anchors back to work: Media ecologies in school

> I follow Anton's team into another classroom. Their task is to represent the opposition of the Church to the Nazi regime. They sit at a table with a boy and a girl who are working on another topic. In 20 minutes they have to upload a handout to the Office group before the presentations. Anton types into and reads his tablet, occasionally adding a bulleted paragraph in his notebook. Meanwhile, the others in his team and the girl play hangman on the whiteboard. At the same time, the boys are discussing LoL, a video game. One of them has tried it and complains that after a week you have to pay for it. Anton joins the conversation, to try to persuade one of them to play the game together over the weekend. Every now and then his groupmates suggest something, reading aloud from their phones: one has found something about Hitler. Anton responds to this dismissingly and gives him a name of a bishop to look up. Alma pops in, reminding them to upload the handouts and asking if there are any difficulties. Anton mentions that the main difficulty is to see the Church as an opposition group. He has found information about bishops who publicly criticized the regime, but he cannot identify common objectives, or consequences for the Church. (Field journal 19.1.2019, school 2).

Moving on from the previous introduction to the dynamics of assignments, the excerpt above illustrates instructional and social elements of the brief moments in which students prepare an oral presentation. Although this is only implicit in the end, the students, grouped in teams, were given a specific task by Alma, their teacher: after selecting a group in opposition to the NS regime, each team was asked to address four issues in their presentation: reasons for rebelling, types of actions, objectives, and the consequences for the group. Alma acknowledged in an interview that students of this age have great difficulties in limiting the scope of an investigation, hence her guidance. Later on, a student confirmed this: "It is a bit difficult for me, when we have long text sources, to know what the most important information for the presentation is". A presentation structure, in the form of research questions, was an aid commonly provided by the teacher when students had to undertake online searches, to help them to limit and focus the scope of their presentations.

A second interesting aspect of this field note requires zooming into the context in which these students undertook the assignment. The work and the game go on simultaneously as they

converse about weekend plans. This assemblage of work and leisure was common among students in unsupervised moments. The protagonist in this case was Anton. He was in charge of his team's assignment and distributed tasks. Unlike his fellow group members, Anton had been present in a previous lesson when opposition to the NS regime was discussed, which could explain why he took the initiative in this assignment. However, during the five months I was observing his class, Anton distinguished himself as a facilitator: while here he distributed tasks, in other sessions he would check on his peers' progress during periods of individual work, and when the school network connection was down, he shared his Wi-Fi access. Talking about how they spent time online outside of school, he explained that he persuaded his school friends to play League of Legends, a team-battle videogame, and he engaged in forums on how to play it more competitively. Learning this about him, I began to understand why he often assumed this mediating role among his peers. The similar way in which he approached team and task-oriented assignments and videogames expose the "media ecologies that youth inhabits" (Sims in Ito et al., 2009, p. 50). The concept of "media ecologies" is defined as the relationship between "the social, technical, cultural and place-based systems in which the everyday practices of youth flows" (Ito et al., 2009, p. 31). Ibrar Bhatt used the term "irruption" to describe when students undertake assignments that require them to use digital paraphernalia and in doing so revert to familiar digital practices that they engage in for non-educative contexts (Bhatt, 2017). All this shows how students' strategies in both school and out-of-school activities are related, and that task-oriented assignments can activate such relationships.

In sum, instruction provided in the form of tasks that are easily distributed among team members is a tool that not only helps students to narrow down materials and subjects but also constitutes an anchor back to work from interludes of socialization and leisure. It also enables them to engage in digital practices with which they are familiar. Next, I examine moments when students developed their own research questions.

'Things that I want for any other topic': Revealing a template for history

> When I start any subject, it is important for me that somebody explains where it fits in general. That is, how other events contributed to it. And so [in our presentation] we said what it was about. Then, details of what happened at that time, we did this with the timeline that Rosa presented. And most times, the consequences or effects of the whole, as a sort of conclusion. Personally, these are things that I want for any other topic. (Sonia, school 2, age 14).

Two students named Sonia and Rosa followed this strategy for their next assignment. Taking a presentation for which the students were free to develop their own inquiry, I focus here on the interplay between big pictures of the past and the little pictures created by students. In addition to having elements in common with a previous presentation in which Sonia used a similar structure, Sonia and Rosa's presentation seemed to reflect the structure of the circumscribing substance of the course. This class dedicated six weeks to the subject of Imperialism. When I interviewed the students, they remembered this topic better than the others. Three of them said it was unique to be able to cover a historical period in such depth. The topic was introduced taking on Ulkomaa's imperial experience, then students gave oral presentations on the British Empire (Sonia's statement refers to this). Later on, there was a discussion about the implications of the territorial and military rivalry among colonial empires at the breakout of WWI (a conflict that had been studied earlier that year), and to conclude the subject the students were briefly lectured about the process of decolonization. These topics remained fragmented in the sense I referred to earlier: each entailed a different activity, some were based on teacher instruction while others involved viewing a DVD, and for this one, students gave oral presentations.

Three presentation topics were distributed among the students: British colonies during Imperialism, the Fashoda Crisis of 1898, and India under British rule. No research questions

were suggested, but there was a short text introducing each subject, which was to be complemented with material acquired online. Sonia and Rosa chose the first topic. After enumerating the motives behind and the characteristics of British imperialism in the late 19th Century, they created a timeline on which they placed the territories colonized by Britain between 1850 and 1914, and a list of repercussions focusing on the enrichment of Britain at the cost of the human and material draining of its colonies. Sonia adopted this structure in several presentations, which was particularly evident in this one in that the slides emphasized this plot.

Later, in an interview, Sonia recognized the inadequacy of the sources regularly consulted in this class for this assignment. She admitted that "there was little information" on the two main history websites they used, and "if there was any, it was how Ulkomaa perceived these events, which is not what I needed". Focusing on Britain for this assignment conforms with the ongoing internationalization of history curriculums across Europe (Elmersjö, 2014; Poulsen, 2013), but this was challenged by the perspective gained from digital sources consulted alongside the textbook. In their search for an appropriate perspective, all the groups consulted two language versions of Wikipedia and listed it as a source on their slides, although this provoked no commentary during the presentations. This calls for additional comment as Rosa complemented her friend's statement, admitting that the structure of this presentation was somewhat inspired by the Wikipedia articles they found on the topic –something that Alma allowed when introducing new topics. Previous research on the use of digital sources of information in school characterize Wikipedia as fluctuating between legitimacy and illegitimacy (Andersson, 2017; Chandler & Gregory, 2010). From Sonia and Rosa's statements, we could consider Wikipedia a legitimate source in terms of structure and internationalization when students create their own historical narratives. One final element that Sonia felt was particularly fitting concerned having used political cartoons that emphasized and illustrated their main message: the dominant and abusive position of Britain towards its colonial territories. Later she explained that another teacher had used cartoons in every lesson; Sonia liked them because they conveyed attitudes towards historical phenomena from the same historical time.

After revealing the ingredients of one presentation, the idea of template for history arises. A "plot" can be recognized in Sonia's statement, a sequence explained in terms of antecedents and consequences[3] to make sense of the open and chaotic past. Causality is frequently taken for granted in historical accounts, but it is the creation of historians (Lévesque, 2008, pp. 66–70). Sonia's strategy shows that students connect their "little pictures" to bigger ones by drawing elements from the circumscribing substance of the course as well as what they find in regularly consulted sources. Digital images, and the slides they freely configure, accentuate both the structure of and the perspective on the subject.

'If you like history, you save it', sites for the collective revisiting of history

> Fronter is more for the teachers, they are the ones who usually put things there (…); the students use different tools, whatever suits them best (Eliel, school 1, age 16)

> We only do these topics once in our lives (…). It depends on the person, if you don't like history then you don't bother to save it, because you don't have to remember it. But if you like history, then you save it, to remember it. (Anton, school 2, age 15).

During my visits to both schools I noticed moments when there was a disconnection between the students and the digital environments that should have supported them in their everyday work. This section concerns the ephemeral nature of everyday assignments and focuses on how students handle their own digitally produced work. A Learning Management System (LMS) enlarged the classroom space in both courses and served as a communication channel between teachers and students. It emerged in moments when teachers referred to "new materials uploaded for today's work", and when students started wrapping up work and uploading their

presentations. These carefully prepared webpages, or temporary storerooms that dissolved at the end of the assignment, had the potential to turn into a tool with which these students could share, document, and preserve their work.

Students in the first school collected information on mortal illnesses, treatments, medical pioneers and achievements. Each team had to research a period between ancient and modern times. An empty table prepared by the teacher on LMS course-site was intended to document this effort. However, as Eliel remarks above, the table had not been filled in at the end of the assignment. Instead, the students had taken notes of each other's presentations, which they used as study material for the final test. As the teacher in the second school remarked, the sheer amount of materials that students produce for each class constitutes their digital heritage. However, Anton's words above refer to how some students kept course materials and their own presentations in their computers or the school cloud for future reference, whereas others did not.

There is an explicit sense of individuality in both statements when it comes to digitally produced work. The fact that spaces intended for students to share and for back-up work were left unused captures the ephemeral nature of everyday assignments and illustrates two untapped potential uses of digital spaces against this. First, they could contribute to the conception of individual or teamwork as part of a collective class effort, and second, they could store this effort to be revisited at later stages. Despite Anton's words: "we only do these topics once", the teacher purposefully introduced two topics that would be reviewed in the upper grades because, in her experience, time is more constrained then. Working collaboratively and reviewing past interpretations are not specific, but they are particularly relevant to history in the digital age. The collective and revisiting tasks of historical reconstruction have become more visible in Wikipedia in particular, where articles are edited by multiple authors and revised over time, and where members of the public can see and participate in this process. These social and fluid aspects of history are not necessarily new to the digital age, but they have been identified as the most relevant, which communities dedicated to the study of the past (or the present as the prospective past) should consider today (Ridge, 2014; Rosenzweig, 2006). Although LMSs are not designed for history teaching, they provide a space for collaboration and documentation, which could be used as a means of becoming familiar with these aspects of history. Even if young people engage digitally in social practices outside of school (one could characterize Anton's gameplay as such), in school their attitudes towards digitally produced work are more individualistic. It is recognized in ethnographic debate that such double articulations emerge when comparisons are made between how technology is designed and how it is used in domestic contexts (Horst & Miller, 2012; Silverstone & Hirsch, 1992). In these cases, too, individualism and collectivism are possible but do not necessarily happen to the same degree, or in beneficial ways.

Discussion of findings

As I state in the introduction, the aim of my ethnographic approach is neither to offer a diagnosis, nor to provide an image that fits every classroom. The purpose of thick descriptions, or rather interpretive inscriptions (Geertz, 1973), of a few moments from classroom activity is to convey a reconciling dialogue between familiar practices of school history and digital interventions in these practices. Taking into account the micro-level scope of this article, I dare in this section to shift from the particularity of these two classes and the four moments presented above and to reconsider the initial concepts, which are new and old challenges for school history: the selective appropriation of technology, fragmentation, and abundance.

The implementation of technology, or rather its selective appropriation into existing practices, has affected oral history presentations more than other class activities. This "everyday genre" of school history therefore constitutes the object of analysis in this article. It is a vehicle that offers students a way of self-appropriating the process of constructing historical narrations. Although digital technology is not essential to this process, accessing sources online and preparing presentation material in many forms (handouts, timelines, slides or image galleries) require students to filter and select content, as well as making them aware of having an audience and sharing the instructive task of the teacher. I have also shown that the media ecologies in which assignments are carried out (task-oriented, teamwork, peer-learning) share a grammar and activate relationships between schoolwork and vernacular practices of youth in the digital age. Even if only one student might have profited from his gameplay in getting his team to complete an assignment on time, for these brief periods all students partake in affinity spaces that so far have been related to strategy games, fan sites and community forums (Gee, 2006; Jenkins, 2008). With regard to less obvious goals of school history, which are nevertheless gaining in importance for historians in the digital age, the school learning platform, or LMS, designed for sharing course materials, facilitates conceiving everyday assignments as part of a collective class effort. Its back-up functionality (sometimes even called "archive") allows students to review this effort when they encounter the same or related historical phenomena in later years. Further research effort should be invested in how these affinity spaces, and spaces for the collective writing and later revisiting of history, could be more constructive for students because in the cases presented above, the organization of teamwork was left to decide to students, their presentation materials were not systematically collected, and some students discarded their own digitally produced work.

The fragmentation of historical substance in school has been compared with reducing history's vast subject matter to sushi bars, implying that students leave school with only bits and pieces of historical knowledge. As I have shown, fragmentation is supported by mundane factors such as time. Indeed, the need for teachers to allocate oral presentations among other activities often leads to the temporal disarrangement of historical substance, and the fact that digital sources can only be connected to isolated historical events is a new factor that strengthens fragmentation. However, having observed multiple assignments as they accumulate over time, I claim that students can overcome fragmentation, or at least connect their little pictures to the bigger picture and create templates for history. The bits and templates referred in the title of this article, aside from being two terms that have been assimilated into computer jargon, in this study they convey the role of assignments in school history. Assignments profit from this fragmentation on the one hand, but on the other hand they offer devices that facilitate bringing something into shape. In other words, templates for history are elements upon which students develop expectations from historical narrations. These elements have surfaced at diverse moments in the course of this article: a list of suggested issues to cover, the substance that circumscribes the assignment or the sources to which students repeatedly fall back. There is, however, a risk that these template elements remain underexplored in class. Although the students' historical accounts may comply with how history often organizes the chaotic past by means of causation and consequence, their statements about how they compose these accounts hint at having mirrored previous assignments or Wikipedia articles rather than choosing this structure intentionally to reflect historical discourse. Establishing connections between these template elements and historical concepts could have sparked discussion about this creative and constructive task of 'doing history'.

Finally, the notion of abundance does not necessarily imply that students make more use of historical sources just because they are available online. Abundance in the sense that Roy Rosenzweig (2003, 2006) predicted of digital history means new agents (writers of history as well as audiences) and new priorities for historians. This has transcended into school history.

With regard to the abundance of sources, teachers set limits through diverse mechanisms: falling back on familiar educational sites, preselecting readings, or narrowing topics in the form of task-related questions. Earlier, I observed that searching for images to illustrate presentations was a task that allowed students more freedom. Even then, options were narrowed by a recommendation from the teacher to use Wikimedia Commons, which is safe in terms of copyright and general in scope fulfilling the need to supply materials on diverse topics such as colonialism and medical advancement. However, student-selected sources were never the center of attention during presentations, and thus students might have not considered this task important. Abundance could also be understood as the diversity of stories facilitated by source materials, such as when students used historical maps to illustrate the Scramble for Africa and the discovery of the Americas (thus emphasizing exploration), while others illustrated their presentation on British imperialism with historical cartoons (emphasizing politics). Finally, abundance could refer to the difficulty of generalizing the purpose of the oral history presentation: as noted, both teachers said they wanted to prepare their students for things they would face in years to come, such as pre-university examinations or time constraints in upper grades. One way of taking advantage of this abundance, in terms of both sources and purpose, could be to dedicate one assignment to exploring and discussing new sources found online that students could add to their list of trusted digital spaces for future work.

Concluding remarks

Returning to Thomas Nygren's idea that digital history can prepare students to confront the past and present in that both archival sources and information in the digital age share traits (2015), I have shown how the digital culture and paraphernalia that is increasingly becoming ubiquitous in school classrooms can broaden the focus of digital history beyond practices that exclusively derive from using digitized primary sources. To educators who are not yet familiar with digital sources created for historians, or have not fully adopted new ways of working, this article offers a new approach to familiar practices, sources and platforms. The originality of this study lies in its ethnographic focus on ordinary and mundane tasks, such as ascribing legitimacy to Wikipedia and finding potential applications of the school LMS to history. This reflects the classes I observed, in which most students were aged fifteen. They were being gradually introduced to (rather than tested on) historical concepts and had recently started using each a school tablet.

The lessons learned from this study could inform future ethnographic research in schools. Observing history classes in its entirety can be time consuming as they can last full terms. Also, even if observing classes was easy once the teachers were on board with the research, it was difficult to plan access to digital spaces and unforeseen technical and privacy obstacles emerged. It should be taken into consideration in future research that assignment materials are not systematically collected or may be kept behind account credentials in the LMS and other software, and that some students might prefer using their private devices instead of the school tablet. I overcame these barriers to some extent by asking the students to demonstrate the LMS to me, or to list their online sources in their presentation material. The teachers did provide some reading materials in hard-copy, but although the students were asked voluntarily to forward the work they kept in their devices, most did not. Nevertheless, combining ethnography with an analytical focus on everyday genres is a particularly fitting approach to history education in school, to show that history is constructed and enacted daily and not only reproduced in examinations or papers. The accumulation of assignments allowed me to collect and report on what I call templates for history, from which students form expectations of historical narrations and use to build their own. This accumulation of assignments was equally effective to show that the digital culture of the classroom activates media ecologies, or

relationships between on-and-off school practice, and that it fosters affinity moments where students require each other's input to advance. Furthermore, the digital spaces that belong to the school-life of students, facilitate practices that can help students consider the collective and the revisiting tasks of history. All these are ways students can self-appropriate concepts and processes that derive from doing history in the digital age.

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Endnotes

[1] The idea of fragmentation is indeed more complex, and the literature cited refers to studies that highlight the negative aspects: 'history' is still widely understood by many students in their early and mid- teens as a huge "timeline" of which not all can be recalled or put into place. However school history in Finland nowadays emphasizes historical thinking, according to which historical substance (seen as events or themes) constitutes the basis on which to develop an understanding of disciplinary concepts such as "time, change, continuity, causality, and historical empathy" (Opetushallitus, 2015a, p. 170). The fact that history in school is characterized as usable refers to the idea of obtaining a sense of temporal orientation (Rüsen, 1994), through which young people should connect their time to the past and hopefully become aware of the present's own historicity, thus providing some guidance for the future. Another usable aspect of school history is that it should allow students "to do history". This idea was introduced by radical advocates of disciplinary history (students should not learn narratives of the past, but should focus on the logic of historical evidence and interpretation) such as Beard, Fling and Jeffries in the early 20th century (discussed in Lévesque, 2008, pp. 9–11). Nowadays scholars are aware of how complex this is, and of the need to introduce a scale according to which students gradually apply and become aware of these disciplinary concepts (VanSledright, 2004).

2 The international school was chosen because the working language there allowed me to speak with students and teachers in their native tongue. Moreover, because it was an international school, the limited availability of publications in that language was often compensated by the use of digital resources.

3 This, again, is a simplification of what can be said about narrative structure and temporality in history. However, in the classroom historical events were often looked at in these terms of causation (Carr, 1970), and consequences (Mink in Lévesque, 2008).

Acknowledgements

About the Author

I have a licentiate degree in audio-visual communication from the Complutense University of Madrid (2006) and a master's degree in European media studies from the University of Potsdam (2010). Working for diverse cultural heritage institutions, I observed that the digital age has had an impact on the how we relate to the past and the relationships between memory institutions and their audiences. This has led me to conduct research on how digitalization has influenced the relationship between cultural heritage institutions and schools and to inquire into how young people relate to the past in the digital age. This article is the second of my doctoral dissertation in European ethnology at the University of Helsinki.