



Equipping the Digital History Student, Teacher and Classroom of Today and Tomorrow

What is a digital history teacher and what does a digital history classroom look like?

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The world is changing at an ever-increasing pace and new technologies are emerging that constantly shift the boundaries of possibilities. This process is evident in education now more than ever. Just think about what is possible in the classrooms of today that was impossible just five years ago. This article discusses some of these possibilities in a context of history teaching and learning. It also explores elements of a digital history classroom, including:

- tools and skills for history teachers and students
- what it means to be a digital history teacher
- equipping the digital history classroom
- how modern video games can be used to engage the digital generation.

Tools for a Digital History Classroom

The tools introduced below by no means represent a comprehensive list – there are almost limitless options out there. However, they are ones that I use on a regular basis and have found to be successful in the past. The following tools are not listed in any particular

order, and many of you may well be actively using them already. If you have any questions about these tools please feel free to contact me.¹

In addition to the tools listed below, I would strongly recommend you look at Richard Byrne's 'Free Technology for Teachers' blog – it is a goldmine of resources.²

GOOGLE'S G-SUITE FOR EDUCATION³

Many schools have started using G-Suite over the last few years – the main reason being that the tools are fantastic. G-Suite allows both teachers and students to collaborate in real time and share and access resources and class materials from anywhere at anytime. Also, G-Suite for Education is 100 per cent free! Google Drive (now called Backup and Sync) is worth it even if you don't use the other tools. You get unlimited cloud storage for your school and the size limit on a single file is 4 TB. This means that students can create media-rich content and there is no longer the issue of file size limits on school servers or emails not coming through due to attachment limitations. Everything can be controlled by the teacher – you can create a Google Doc, assign it

OPPOSITE: Screenshot from the game *Battlefield 1*. (Photograph by Stefanoz. Used under CC BY-SA 2.0)

RIGHT: Digital communication tools. (Used under CCo License)



to a student group for a project and then monitor who has been contributing to it. Google Forms are a great way to carry out quizzes and surveys, and there are lots of great plug-ins that allow teachers to create automatically graded quizzes. I've used a Google Form at the end of each semester to survey students and get feedback on what they liked about the course, what could be improved and what they would change.

KAHOOT QUIZZES⁴

If you're looking for a way to quickly gauge student understanding or previous knowledge, you can't go past Kahoot. It is a powerful yet incredibly simple quizzing web application. You can create your own teacher quizzes, get students to create their own quizzes or employ the millions of user-created quizzes. Just about every topic imaginable has already had a quiz made for it, so you can save lots of time using existing quizzes. Quizzing students is simple: create an account (free), either make up a quiz or select one, and click play. Students can then connect to the quiz using any web-enabled device – they simply need to enter the game code and add a competitor name. Then it is game on – the faster students answer a question, the more points are scored. The top five competitors and their points total are displayed at the end of each question. Not only is Kahoot incredibly fun, there is a powerful diagnostic tool that lets teachers download the results of each quiz. The results are downloaded as a Microsoft Excel spreadsheet that provides data on how students have

fared. It is the perfect tool to determine which students might need help or what concepts might need revisiting.

ONENOTE⁵

While many schools are moving over to Google, the vast majority of them still use the Microsoft Office suite. Out of all the Office tools, OneNote is arguably the most useful for history teachers. It is easy to organise course materials and resources into sections, thus creating a digital folio for the course. The classroom add-on allows the quick creation of student sections, so it is easy to push out notes to everyone in the class. The teacher can also review student work and make suggestions. Files can be added into the notebooks and it is easy to annotate or mark up materials. If your school uses iPads or Microsoft Surfaces, the pen tools are especially useful. If you haven't really used OneNote and the classroom add-on, I would suggest you check it out. While there are excellent tutorials on YouTube, the best way to learn OneNote is by tinkering with it.

FACEBOOK⁶

Who would have thought that Facebook could actually be useful to history teachers? While the social media site has a bad reputation when it comes to wasting time, there are actual educational benefits if Facebook is used correctly. I personally use it to create class 'groups' – please check with your school administration first before you go down the Facebook road. When creating a group, you have total control of it, you

1 My contact details are: email – Simon. Baker973@schools.sa.edu.au; website – <http://www.bakesterhistory.com/>; Twitter – @BakEsteR1984; YouTube – https://www.youtube.com/channel/UCroXsLoOt7CJ_TprHt2ySOA.

2 See <http://www.freetech4teachers.com/>.

3 See <https://edu.google.com/k-12-solutions/g-suite>.

4 See <https://kahoot.com/>.

5 See <https://www.onenote.com/>.

6 See <https://www.facebook.com/gettingstarted/>.

can send out the URL to students, so only class members can join. You don't need to friend-request them at all. I've used groups to share resources, conduct polls, send out reminders and share any interesting links I find. It has been very successful over the last few years. Just remember to remind students that it is an extension of the classroom, so poor behaviour will have consequences. I've not had a single problem in the four or so years I've been using Facebook groups. If you don't want to create a group for students, consider creating a group for teachers. There are lots of fantastic history teacher groups out there – the community is active and always willing to share ideas and resources. In today's connected world, Facebook can be more useful than just sharing a selfie or a picture of your lunch.

TWITTER⁷

Another social media site that often has a negative reputation is Twitter. There is so much more to the site than Donald Trump's 130-character diplomacy. The opportunity to write for *Agora* actually came about because of Twitter and the PLN (Professional Learning Network) I've created over the past few years. There are thousands of great educators on Twitter and they are passionate about education and willing to exchange ideas and share best practice and resources. The history teachers on Twitter are especially active and are always willing to help out. For professional development I would suggest checking out the hashtags #Histedchat and #HistoryTeacher to begin with; also check out Russel Tarr's list of history teachers active on Twitter.⁸

If you're looking for an innovative assessment task, check out my friend and mentor Simon McKenzie's 'Tweeting Pompeii'.⁹ Students re-enacted the event via a Twitter feed – it was very successful and an example of what can be achieved via Twitter.

SCREENCAST-O-MATIC¹⁰

Flipping the classroom is a trend that is slowly catching on in Australia. I have dabbled in 'flipping' for a few years now. In that time, I've tried out lots of tools but I would particularly recommend Screencast-o-Matic as a solid place to start. Screencasting allows digital recording of your computer screen, it has been around for years but only in the last decade has it made the jump into

education. Screencast-o-Matic is a free web app that records your computer screen and audio output (via your microphone) for up to 15 minutes. This means you can record short content lectures in video format and then upload them for students to access.

Flipped learning is a strategy that reverses the traditional learning environment by aiming to deliver course content outside of the classroom while spending class time on projects and applying skills. Screencast-o-Matic is very easy to use and makes recording a PowerPoint presentation simple. If you're considering flipping your history classroom, this is a great place to start. Students can also use Screencast-o-Matic to create presentations that normally take up valuable class time. These can be produced at home or another quiet space and then shared with the teacher and other students.

EDPUZZLE¹¹

If you're looking for a place to host your flipped video lessons, check out EdPuzzle. It allows teachers to intuitively clip longer videos into short snippets and embed questions into the videos to ensure that students actively engage with the content. It's easy to collect analytics on each video as well – this will tell you who watched what, the questions students struggled with, etc. There is also a large library of video lessons that other users have created, which is useful if you are just starting out.

PADLET¹²

This web app has been around for years, and it is still incredibly useful. It provides a digital corkboard that users can pin resources to, ask questions on and share files – and it's very user friendly. It is free to sign up as a user and then all you have to do is create a wall, double-click anywhere on the wall and then insert your media or message. I've used this app for many years with both staff and students. It can be a great way to have a class discussion as you can create a wall with a question and ask students (or staff) to add their own thoughts. It is a basic tool, but one I have often returned to due to its simplicity and usefulness.

PIKTOCHART¹³

This web app allows users to easily create interactive infographics that

7 See <https://twitter.com>.

8 See <https://www.classstools.net/twitter4teachers/subject/history>.

9 See <https://twitter.com/HEATT2016>.

10 See <https://screencast-o-matic.com/>.

11 See <https://edpuzzle.com>.

12 See <https://padlet.com>.

13 See <https://create.piktochart.com>.

look great. There are so many fantastic infographics now available and taking the time to teach students how to create one is well worth the time. For example, as an assessment task for a topic such as the Black Death, students could present information in the form of an infographic. Using the templates from Piktochart, students can create stunning displays that are both creative and informative. Data science is a booming field in the twenty-first century and teaching students how to use data and statistics to present information in an engaging format is a vital skill in the digital age. The Piktochart site offers free access to numerous templates; there is also a 'pro' version which has even more templates and features. However, all I have ever needed the free version.

THINGLINK¹⁴

This web app lets users create annotated images with embedded rich media. It is a fantastic tool to use in the history classroom. For example, using Thinglink is a great way to support the teaching of World War I. Using a map of 1914 Europe, students can add images (such as soldiers in the trenches), video clips, sound, text or any other media available. To view the media, you simply click one of the coloured circles and the media pops up in a separate window. It's a great way to annotate historical sources and teach students the skills required to conduct a source analysis. Best of all, Thinglink is free to use – it is well worth checking out.

GOOGLE EARTH PRO¹⁵

Google Earth is a must-have tool for history classrooms. I've been using it for many years to give students a better understanding of the nature and scale of the terrain being discussed, which is often hard to judge on a 2D map. Google Earth provides a truly orbital overview of an area, and also allows users to zoom right in. There are also many excellent overlays that can be used. For example, when I teach the Mongol Conquests at Year 8, I use an overlay of the Mongol Empire. Students are always amazed at just how large some of the empires were. The overlays are easy to use: just search Google for the topic you're after followed by 'KMZ file.'¹⁶ These Google Earth files can then be used in class. The flyby feature also allows users to recreate a historical journey – Hannibal's crossing of the Alps, Marco Polo's journey to

China or James Cook's voyages can all be recreated in flyby mode. If you pair this with screencasting, it is easy to make a video of an epic journey, which has proved to be a great assessment task for students.

Skills for the Digital History Classroom

The modern skill set for students across all learning areas can often be defined by the 4Cs: Communication, Collaboration, Critical Thinking and Creativity. We have moved on from a time of rote learning facts, figures and dates, and the internet and smartphones mean the entire knowledge of humanity is literally sitting in your pocket. However, the skills of applying that knowledge are incredibly important. History is the perfect subject to develop the 4Cs as students naturally apply most of these skills in the classroom. Communication is occurring all the time through questions, the sharing of ideas, essays, etc. Source work requires deep critical thinking – determining motives or causes helps develop this skill. Group work is a common practice in the history classroom, so collaboration is constantly occurring – the implementation of Google's G-Suite or Microsoft's OneNote can take collaboration to the next level.

Finally, the skill of creativity, arguably the hardest skill to teach or develop in students, can be significantly developed using the apps listed above. Take risks when developing assessment tasks and experiment with the medium which students use to present their work. Remember that technology often lets you do something that was impossible only a few years ago. Leverage the power of technology to redefine what it means to study history in your classrooms. This will naturally lead to the development of student creativity.

The Digital History Teacher

What is a digital history teacher? Simply put, it is a teacher who uses the power of technology to maintain a digital presence beyond the physical boundaries of the classroom. It means using social networks to build a personal learning network (PLN) of other history teachers, collaborate on projects, share resources and maintain a professional presence online. The easiest way to do this is by creating your own website.

14 See <https://www.thinglink.com>.

15 See <https://www.google.com/earth/desktop/>.

16 KMZ is a file extension for a placemark file used by Google Earth.



LEFT: Assembled Google Cardboard mount. (Photograph by othree. Used under CC BY 2.0)

It is now easier than ever to develop, maintain and update your own website. With tools such as Wix and Weebly anyone can build a professional looking website without knowing a single line of HTML code.¹⁷ These sites employ easy-to-use themes and simple drag-and-drop elements to build pages. I was able to build my own website in just a couple of hours by using Weebly. I simply picked a theme I liked, added headings and images, and dragged elements such as buttons onto the page. When I was happy with it, I selected ‘Publish.’

Most teacher registration boards now require teachers to keep a log of their professional development (PD). One of the easiest ways to do this is to run a blog as part of your website. After each PD session, take some time to reflect, write down a few thoughts and you are done. Over time you will have an excellent ongoing log of all your PD.

Creating your own web presence will not only benefit your own classes but, in many cases, you will be helping other history teachers around the nation and even internationally. I’ve spent many hours reading the blogs of history teachers from around the world and looking at their course structures, assessment tasks, resources, etc. This is only possible as they are sharing what they do with the world. It is a fantastic way to give back to the history teacher community. If there are resources you don’t want the world to see, then password-protect the page for ‘members’ only. In addition to maintaining your own site, you should look at creating a presence on Twitter and Facebook. As previously mentioned, there are so many useful groups on Facebook for history teachers. Twitter

also has a fantastic community of active history teachers that are always willing to share ideas and resources and assist you in any way they can. Take the time to build a PLN – you will not be disappointed with the results.

By taking the time to transition into a truly digital history teacher, you will never look back. Students will be able to access all the required course materials at any hour of the day, no matter where they are. They can communicate with you and their peers seamlessly, and resources can be found and shared with the class instantly. For example, I recently read an article and shared the link online, and within ten minutes multiple students were discussing the article in a Facebook group. This wasn’t possible in the past – just think about what will be possible over the next ten years.

Equipping the Digital History Classroom

So, what does a digital history classroom look like? This is a hard question to answer as there are many limitations in schools (i.e. space, cost and ownership). Ideally, students would have access to a web-enabled device and wi-fi, and there would be a space for a projector or large screen. The layout of a classroom is a personal preference, so I won’t even go there; however, I do want to suggest a few tools that can be added to enhance the teaching and learning experience.

GOOGLE CARDBOARD

Virtual reality (VR) has promised to be the next big thing for as long as I can remember. Although there have been major developments in the last few years (e.g. Oculus Rift and HTC Vive headsets), much of this technology is still

¹⁷ See <https://www.wix.com> and <https://www.weebly.com>.

too expensive for the classroom. This is where Google Cardboard comes in – although it is not a true VR headset, it is an augmented reality (AR) headset. Using a smartphone and the viewer, students can experience some amazing locations. For example, if you want to show ancient history students Thermopylae, you can use Google Earth and Google Cardboard to do that. Google also has Expeditions, which allows students to take immersive, virtual journeys.¹⁸ Google Cardboard headsets are cheap, costing between \$5 and \$15 on average. It's well worth having a few in the classroom for students to try out.

MINECRAFT

A PC set up with *Minecraft* is definitely worth having if you can organise it. I've seen students create some incredible designs using *Minecraft* – it is essentially virtual Lego. It has been especially popular during Year 8 medieval history, with groups collaboratively building castles. Microsoft has recently released an educational version called *Minecraft Edu*.¹⁹ It can be purchased at a discounted rate and is well worth a look. The creativity that students display with *Minecraft* is simply incredible. If you have multiple computers in the classroom, you could have a networked build session with several students collaboratively working together on a project.

WACOM INTUOS TABLET

Unless you already use Surface Pros or iPads with a stylus, a Wacom drawing tablet would be a worthwhile investment. This tablet makes drawing or annotating significantly easier, as you don't have to use the mouse. I've found them especially useful when it comes to mapping work. I would suggest talking to your school's art faculty first to see if you can borrow one to try out. It does take some time to get used to the 'feel' of the tablet, but after a few minutes it becomes easy to use. I have used my tablet extensively in my screencasts when annotating images and maps. It is especially useful for writing over PDFs and demonstrating source analysis skills. They come in different sizes and the smallest one is all you need.

VIDEO PRODUCTION EQUIPMENT

I personally do a lot of video production in my classes. Whether it is recording my lectures or getting students to create documentaries, there are so

many uses for video production in the history classroom. The equipment doesn't have to be state of the art, but there are a few things to look out for. You will need a computer to create the video and produce/render it. This could be a class set of laptops or a dedicated desktop machine. A webcam is also useful for creating a screencast. A USB microphone or any type of headset is important as sound is often overlooked – a good microphone such as a Blue Yeti will significantly improve any video. Finally, a camera or iPad to record with is required, even an old smartphone will do. If you want to get fancy, look at grabbing some green or blue cloth for the chroma key effect (green screening) – students get really creative with green screen effects in their videos.

Ideally, when it comes to equipping your history class, you want to have enough devices for all students, but in reality this isn't always possible. Don't be afraid to try something new and innovate. The best advice I can give you is get to know your school's IT technicians – they know their stuff and will save you many headaches. If you're unsure, ask your PLN what they do. I promise that you will find someone out there willing to help you out and make some suggestions.

Video Games in the History Classroom

I have had a love of history for as long as I can remember. This may partially be because I grew up near Chester in the United Kingdom and would often visit the ancient Roman super fortress. Along with my love of history, I've also been a passionate gamer for most of my life. My favourite genres are real-time strategy, turn-based strategy and first-person shooter games. It will come as no surprise then that the games I tend to lean towards are often grounded in historical reality, although I don't mind a bit of *Halo* on the side.

From the moment that I completed my Masters in Teaching and was on my own in the classroom, I've often wondered how I could incorporate video games as an instructional tool. I'm not alone in this endeavour: academics are now researching this very field and the University of Wisconsin-Madison offers a MOOC (Massive Open Online Course) in video games and learning. (I took the

18 See <https://edu.google.com/expeditions/>.

19 See <https://education.minecraft.net/>.



LEFT: Screenshot from the game *Total War: Rome 2*. (Photograph by tlwmdbt. Used under CC BY 2.0)

course and it's great). Why, you may well ask? It is simple: video games promote learning and are engaging.

So how can you use games in class? Actually, it is quite simple. The Year 8 curriculum is a great place to start. The medieval world offers a huge array of options when it comes to video games. You could take a tour of Jerusalem in *Assassin's Creed* and look at the architecture, clothing and even the political situation at the time. Alternatively, you could use *Minecraft* to build a typical medieval village or castle. I've personally used the *Total War* series to demonstrate medieval warfare on a large scale. You are only limited by your imagination and possible hardware.

One of the best lessons I ever gave on the Black Death was using the iOS game *Plague Inc.* The basic premise of the game is that you are a virus or bacteria and your goal is to ultimately infect the world. You do this through various mutations. The discussions generated during these classes were simply incredible. Students clearly demonstrated an understanding of how diseases spread or can be contained. They reached these conclusions not via lectures, but by playing a game!

The most popular YouTube trailer of all time doesn't belong to a movie, it belongs to the game: *Battlefield 1* – a triple-A game set in World War I.²⁰ Video games can demonstrate the chaotic nature of battle, stimulate discussion in class and provide a source for essay topics. I have used the game *Call of Duty: WWII* in my Year 10 history class and asked students to write an essay about the ethics/morality of making a game around such a devastating conflict. Many parents contacted me and said they really liked the topic idea and it led to interesting discussions at home.

I have also used *Total War: Rome 2* in my Stage 1 Ancient Studies (South Australian Certificate of Education) class to demonstrate conflicts in the ancient world. The game includes land and naval warfare; this is particularly useful for allowing students to comprehend ancient tactics. For example, how did a trireme ram? How fast could it turn? What happened if it got boarded? All these questions and more can be answered through a video game. Documentaries are great and incredibly useful, but so are video games.

Even Year 12 students can benefit from video games in history class. There are so many fantastic World War II simulations that I couldn't possibly list them all here. Once students get an understanding of the difference between logistical, tactical and strategic elements of a campaign, everything falls into place. It can also lead to great counterfactual debates, such as 'Could Barbarossa ever have succeeded?'

Video games are designed as a form of entertainment; thus, they are naturally engaging. They also encourage good learning habits by seeking to master a situation, usually via multiple failures. Many of the so-called 'educational' games are often so focused on education that they become boring and don't engage students. If I can get students interested in the past, I know I've done my job.

This is just a small snapshot of how video games can be used in the classroom. Don't be afraid to have a go – you will be amazed at how engaged the students will be. Even if you don't have the right hardware, find a video clip on YouTube and discuss it with the class. Everyone will benefit from using video games. Best of all, more students might leave class with a new-found passion for history!

²⁰ AAA is a classification used for games with the highest development budgets and levels of promotion.