Digital History in the Classroom

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Starting Points for My Encounters with Digital History
- Valley of the Shadow: [http://valley.vcdh.virginia.edu/](http://valley.vcdh.virginia.edu/)
  - Profiles two communities in the Shenandoah Valley before, during and after the Civil War
  - Contains letters, census data, maps, newspaper articles, and much more...
- TIMEA: Travelers in the Middle East Archive [http://timea.rice.edu](http://timea.rice.edu)

Group Activity
- Divide into groups of 4 and answer the following questions:
  - What are historical skills, values, habits and/or approaches that you are trying to teach?
  - How do you teach them?
  - How can information technology support (or undermine) these goals?
  - Be prepared to share at least one example

Initial Links
- Digital History del.icio.us account: [http://del.icio.us/lms4w/digitalhistory](http://del.icio.us/lms4w/digitalhistory)

Goals of Workshop
- To demonstrate digital tools and resources relevant to the history classroom
  - Tips that can be used in the classroom now
  - “Think pieces” to spark the imagination
- To explore how these resources can help to develop historical thinking
- Practical goal: To begin setting up a wiki about digital history in the AP history classroom
- Personal goal: To learn more about the information needs & practices of history students and teachers
- Your goals?....

Web 2.0 Opens Up New Possibilities for the Classroom
- Web 2.0: “a perceived or proposed second generation of Web-based services—such as social networking sites, wikis, communication tools, and folksonomies—that emphasize online collaboration and sharing among users.” (Wikipedia, [http://en.wikipedia.org/wiki/Web_2](http://en.wikipedia.org/wiki/Web_2))
- Coined by Tim O'Reilly in 2004
- Shorter version: “participatory web” (Bart Decrem)
- Web 2.0 became buzzword of the year in 2006
  - Time named “You” person of the year
  - Newsweek had a cover article on “We the Web”
### Web 1.0 vs 2.0

<table>
<thead>
<tr>
<th>Web 1.0</th>
<th>Web 2.0</th>
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<tbody>
<tr>
<td>Britannica Online</td>
<td>Wikipedia</td>
</tr>
<tr>
<td>directories (taxonomy)</td>
<td>tagging (“folksonomy”)</td>
</tr>
<tr>
<td>personal website</td>
<td>blogging</td>
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<td>publishing</td>
<td>participation</td>
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### Key Web 2.0 Concepts

- Social networks: web sites that provide services to enable people to build connections
  - MySpace (http://www.myspace.com/), Linkedin, TeachADE, TappedIn
- Harnessing collective intelligence/wisdom (?) of crowds:
  - Wikipedia
- Decentralization of authority: “Adhocracy”
- Openness:
  - open source software
  - Creative Commons licenses

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### Key Web 2.0 Concepts, II

- Moving from information silos to sharing
- Mashups: bringing data from disparate locations together in unified interface; re-using & remixing information
  - Google Maps, Flickr mashups, etc.
- Permanent beta, continual evolution
- **Web 2.0 ... The Machine Is Using Us video**

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### Workshop Modules

1. Frameworks for Teaching (Digital) History
2. Finding and Evaluating Information
3. Seeing History: Visual Culture in the Classroom
4. Viewing History as It Unfolds: Video
5. Visualizing History: Understanding Dynamic Processes
6. Interpreting Data
7. Space Travel: Maps and Mapping
8. Imagining Space and Time: The Example of Rome
9. Collaboration and Organization
10. Putting It All Together: Making Historical Arguments

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### History Standards

- **1: Chronological Thinking**: timelines and temporal structures
- **2: Historical Comprehension**: understand historical narratives, maps & data
- **3: Historical Analysis and Interpretation**: compare & contrast, evaluate
- **4: Historical Research Capabilities**: formulate questions, question data, support interpretations with evidence
- **5: Historical Issues-Analysis and Decision-Making**: identify problems in past, formulate position, analyze past events & decisions

http://nchs.ucla.edu/standards/toc.html
Habits of Historical Thinking

- Questioning
- Connecting
- Sourcing
- Making inferences
- Considering alternate perspectives
- Recognizing limits to one’s knowledge

(Lendol Calder)

Design of Effective Learning Environments

- Learner-centered: take into account learner’s motivation, prior experience & knowledge, misconceptions, goal orientation, learning style, etc.
- Knowledge-centered: focus on what is taught, why it is taught, and what constitutes mastery
- Assessment-centered: both students & teachers monitor progress & adjust learning strategies (metacognition)
- Community-centered: establish community of learners, connect learning to real-world


Defining Digital History

- Not history on ten fingers…
- History + computing: computer-based archival resources, tools, methods
- “a field of study, research, teaching, and invention concerned with the intersection of computing and history. It involves investigation, analysis, synthesis and presentation of knowledge using computational media.” (adapted from Wikipedia definition of digital humanities)

What does the past look like?

- Drawings & paintings
- Photographs
- Textual descriptions
- Maps
- Video
- 3D (and 4D) simulations
- Dynamic visualizations

Advantages of Digital History

- Access to primary sources
- Facilitates collaboration and community building
- Helps to bring history to life
- Data is manipulable—you can
  - Search
  - Visualize
  - Scrutinize
  - Interactivity
- Technology allows students to enter the archives, but they need training on how to examine artifacts critically

Teaching How Historians Think

- How Historians Work: DoHistory: http://dohistory.org/
- History as Mystery: Great Unsolved Mysteries in Canadian History: http://www.canadianmysteries.ca/indexen.html
Disadvantages/ challenges
- Too much information
- Difficult to discern quality
- Difficult to establish context with searches taking you directly to key words
- Cost of some resources
- Technical requirements of using electronic resources, e.g. special software
- Learning curve

Discussion
- Which framework seems most useful?
- What is missing?
- What is less relevant?
- What role should technology play in all of this?
- What would be your dream tool for teaching history?

2. Finding and Evaluating Information

How to Find Information Online
1. Define what you’re looking for
2. If your topic is broad, use general directories to browse available resources
3. If you’re looking for something specific, determine what search engine or search engine feature would be best for the type of material you’re looking for
4. Use advanced techniques to search Google and other search engines

Power Search Strategies in Google
- To look for an exact phrase, use quotation marks
  - e.g. “World War II” “Neville Chamberlain”
- If your term has multiple meanings, use a – to eliminate one or more meaning from your search
  - E.g. bass –music
- Use the Google Toolbar right in your browser (you can search within sites using the toolbar)
- Order your keywords logically; order affects search
- Try “similar pages” to discover related sites
- Use the Google Search best suited to your needs
  - Google Scholar to look for scholarly articles, books, etc.
  - Use the Google Search best suited to your needs
  - Type org to restrict to organizations, edu to restrict to universities
  - Restrict to certain file types, e.g. pdf or powerpoint

Advanced Search in Google
- Synonym search
  - ~airplane “world war 1” to get aircraft, aviation, etc.
- Numrange search: search for date range
  - Poland 1935…1945
- Fill in the blank search: have Google answer a question by using a * where you want the question filled in
  - world war ii ended in *
- Dictionary search—put define: before the term
  - Define: visualization
- Restrict search to specific domain
  - Type org to restrict to organizations, edu to restrict to universities
  - Restrict to certain file types, e.g. pdf or powerpoint
Search Tools for Specific Purposes

- To narrow down a search:
  - Clusty: http://clusty.com/
  - Ask.com: http://www.ask.com/
- To find information about a specific country:
  - http://lcweb2.loc.gov/frd/cs/cshome.html
- To find books:
  - WorldCat: http://worldcat.org/
- To search using multiple engines:
  - Jux2: http://www.jux2.com/
- To answer a specific historical question (when, who)
  - HBOT: http://chnm.gmu.edu/tools/h-bot/

Directories of History Sites

- World History Matters
  - http://worldhistorymatters.org/
- History Cooperative:
  - http://www.historycooperative.org
- Dennis Boals, History/Social Studies for K-12 Teachers: http://k-12historysocialstudies.com/
- Best of History Web Sites:
  - http://www.besthistorysites.net/about.shtml
- Intute: reviews of educational web sites
  - http://www.intute.ac.uk/
- MERLOT: reviews of educational web sites

Evaluating Internet Resources

- Authority
  - Who is making the claim? What expertise do they have? Who is sponsoring the page?
- Accuracy
  - Where is the information from? Are there supporting citations?
- Objectivity
  - Does the site take a biased perspective? Are both sides presented?

Evaluating Internet Resources II

- Timeliness
  - How recent is the information? How current are the links? Is currency important to your project?
- Relevance
  - How relevant is the source to your research?

Real or Fake?

http://zapatopi.net/treeoctopus/
http://www.malepregnancy.com/

Search Activity

- Break up into teams of two or three
- Define a research question
- Use some of the methods we’ve just discussed to find 2 good resources to (begin to) answer that question
- Evaluate those sources
- Reflect on what worked, what didn’t work, and why
3. Seeing History: Visual Culture in the Classroom

“Draw upon the visual, literary, and musical sources including: (a) photographs, paintings, cartoons, and architectural drawings; (b) novels, poetry, and plays; and, (c) folk, popular and classical music, to clarify, illustrate, or elaborate upon information presented in the historical narrative.” (National History Standards)

MIT's Visualizing Cultures

Scholar-led pedagogical initiative
• John Dower, Pulitzer-prize winning historian at MIT
• Shigeru Miyagawa: Kochi-Manjiro Professor of Japanese Language and Culture
• Focused on images of Japan
• Teaches history & visual literacy together

Understanding Visual Culture

• Features
  • Guided exhibit
  • Curriculum
  • Image database
  • VCTV: experts talking about the images
• UVC as Digital History
  • Linking together different resources
  • Providing access to database
  • Offering streaming video

The Five C’s of Visual Analysis

• Context
• Character
• Color
• Composition
• Construction

Visualizing Culture Activity

• In your group, search the Visualizing Culture site for other postcards of bears in the “War Postcards” collection
• Perform an analysis using the Five Cs
• Share your analysis

4. Viewing History as It Unfolds: Video

“Visual literacy is essential to both liberal education and the study of the recent past, for which the moving image is an important source of information. But in addition to literacy and student motivation, my ultimate objective… is to create an environment so rich in information and so charged with interesting problems that students who are inert in the face of lectures and textbooks will be stirred to ask a few historical questions” (Calder).
Using Digital Video in the Classroom

- Show students how to engage critically with a dominant means of communication
- Bring events to life by showing them as they unfold
- Examine multiple perspectives on events
- Successful class at UVA used video heavily: Viewing America, [http://moderntimes.vcdh.virginia.edu/HIUS316/](http://moderntimes.vcdh.virginia.edu/HIUS316/)
- BECTA report found that bringing digital video into the classroom did:
  - increase pupil engagement with the curriculum
  - promote and develop a range of learning styles
  - motivate and engage a wider range of pupils

Witnessing History: YouTube Videos

- historical videos:
  - The last speech of Ceausescu: [http://youtube.com/watch?v=YEZHZHNByCs&mode=related&search](http://youtube.com/watch?v=YEZHZHNByCs&mode=related&search)
  - Versions of Tiananmen Square: [http://del.icio.us/lms4w/video](http://del.icio.us/lms4w/video)
  - Women in Art: [http://youtube.com/watch?v=nUDIoN-_Hxs](http://youtube.com/watch?v=nUDIoN-_Hxs)

Other web sources for video

- National Archives on Google Video: [http://video.google.com/nara.html](http://video.google.com/nara.html)

Video activity

- Working in teams or 2 or 3, find a video that you could use in a class.
- How would you use the video?
- How would you guide the students in analyzing the video?

5. Visualizing History

“Interrogate historical data”
(National History Standards)

Defining Visualization

- Data into pictures
- “An external representation that makes it easy to see certain patterns in data.” (Palo Alto Research Center)
- “Graphic representation of abstract data usually relayed in text and numbers.” (Cyber Terms)
Visualization tools
- Visualization as a tool for analysis and presentation
- Example: “historical weather maps” illustrating dynamic changes (Ed Ayers at Educuse 2006)
  - Social cold and warm fronts
  - Interplay of different forces
  - Simultaneity: different things happening at different places at the same time
  - Social networks


Dynamic Mapping
- Valley of the Shadow Animated Map:
  - Approach problem of visualizing space and time
  - Watch movement of troops
  - View progress of war by unit
- US Holocaust Memorial Museum’s Mapping the Holocaust:
  - http://www.ushmm.org/museum/exhibits/focus/maps/

Visualization Changes in National Priorities through Tag Clouds
- Presidential speeches tagclouds
  - http://chir.ag/phernalia/preztags/
- Visualize social and political change
- An analytic tool: visualize patterns in text
- A discovery tool: find related information
- Create your own tagcloud:
  - http://www.tagcrowd.com/

Dynamic Timelines
- Examples of Timelines
  - Smithsonian’s HistoryWired:
    - http://historywired.si.edu/
  - Met’s Timeline of Art History:
    - http://www.metmuseum.org/toah/splash.htm
  - Technologies for creating timelines
    - SIMILE Timeline:
      - http://simile.mit.edu/timeline/examples/religions/jewish-history.html
    - Historical Event Markup and Linking
      - http://www.heml.org/heml-cocoon/
    - TimeMap: http://www.timemap.net/

Visualization Activity
Working in your groups, choose one of the following:
1. Use the word cloud visualizer (US Presidential Speeches Tag Cloud)
   - http://chir.ag/phernalia/preztags/
   - What changes in presidential priorities do you observe from 1950-present
   - How useful is this tool to teaching history?
2. Explore a dynamic map (e.g. Valley of Shadow Animated map)
   - What changes do you observe?
   - How is this tool useful?
3. Explore a timeline: http://del.icio.us/lms4w/timeline
   - What changes do you observe?
   - How is this tool useful?

6. Interpreting Data
"Employ quantitative data” (National History Standards)
Using Data in the History Classroom

- Grounded in “fact”
- But process of gathering “facts” can be incomplete, biased, etc
- Helps to open up historical questions

Interpreting Data: A Vision of Britain

- [http://www.gbhgis.org/](http://www.gbhgis.org/)
- View census data for 200 years of British history
- Plot that information on historical maps
- Read travellers’ accounts of places in Great Britain

Data Activity

- Research question: How did infant mortality (perinatal deaths) rates change between 1850 and 2000?
- Using “A Vision of Britain,” search for infant mortality rate for the following places (assigned by group)
  1. Manchester
  2. London
  3. Wrexham
  4. Harlow
  5. Fenland
  6. Fife
  7. Trafford
  8. Bath

Searching “A Vision of Britain”

- Enter the place name in the search engine
- Select “A Vision of [Place]”
- Select “Life and Death”
- Select Perinatal Deaths
- Observe the trends
- What questions does this data raise?
- What other data sources might you explore to explain the trends you see?

Using Data: Resources


7. Space Travel: Maps and Mapping

“Draw upon data in historical maps in order to obtain or clarify information on the geographic setting in which the historical event occurred, its relative and absolute location, the distances and directions involved, the natural and man-made features of the place, and critical relationships in the spatial distributions of those features and the historical event occurring there.”
(National History Standards)
Thinking Geographically

- Historians can use maps to:
  - Record past landscapes
  - Study how the mapmakers thought
  - See historical processes, e.g. spread of the plague
  - Read space as history
  - Thematic mapping: shows cultural, economic, political phenomena in a geographic context, e.g.
    - Crime patterns
    - Demographic shifts

What is GIS?

- Geographic Information Systems
- “A system of mapping software that integrates the collection, management and analysis of geographic data. This can be used to display the results of data queries as maps and analyse spatial distribution of data.”
- Data + maps
- Shows different layers of information on a map, such as geographical and demographic features.
- Example: Rice U Tree Map: http://aries.rice.edu/website/trees/viewer.htm

Comparing Nile excursions in 1847 and 1897

- Nile cruise centerpiece of trip to Egypt: monuments of Thebes,
- In 1847, most travelers took dahabiyas (houseboats)
- By 1897, steamers operated by Cook’s dominated
- Steamers cut Nile tour from 3 months to 3-4 weeks
- Steamers made travel in Egypt much cheaper & made possible mass tourism
- Also, 1847 guide includes details on overland transit to India (obviated by opening of Suez Canal in 1869)
Google Maps

- You can create your own Google Map by:
  - Clicking the "My Maps" tab (Google Account required)
  - To identify a location, type in an address or lat/long in the search box
  - Add a marker by clicking the pin point. You can add HTML, images, etc to the marker
  - Draw a line by clicking the line icon

Individual Activity

- Create a Google Map of some place significant to you

10. Imagining Space and Time: The Example of Rome

Reconstructing Rome in Second Life

- Second Life (SL)
  - "Second Life is a 3-D virtual world entirely built and owned by its residents.
  - Over 7 million residents
  - Lively economy
  - Assume role (avatar) as move about world
  - Recreations of actual places and objects as well as wholly imagined new places & things
  - Now virtual tourist agencies in SL
- Rome in Second Life
  - ROMA: ROMA (215,25,22) (search for spqr)
  - Simulation of Ancient Rome—including Roman Forum, Hippodrome, Gladiator Arena, etc.

Exploring Rome

- Look at classical map of ancient Rome
  - Interactive Nolli Map of Rome
    - [http://nolli.uoregon.edu/](http://nolli.uoregon.edu/)
  - Study panoramic image of Roman Forum
  - View position of Forum on Google Map
  - View Forum in Google Earth

Rome Reborn

- [http://www.romanreborn.virginia.edu/](http://www.romanreborn.virginia.edu/)
- 3D digital model of Rome in late antiquity
- Plans to make virtual world available in Second Life
- Grand vision: 4D Simulation (XYZ + Time)
- "Immerse viewers in the past"
- "For academics and researchers, the Rome Reborn model will be a way to test theories about how the city worked and looked back then. Trajan's Column, for example, a 126-foot high monument to the military victories of Emperor Trajan, dominated the center of Trajan’s Forum, a square near the center of the city north of the Roman Forum… Frischer “walked” a rapt audience through virtual walls to show how the column would have been visible from most of the surrounding squares as well. As the buildings on the screen slide by, a sense of place emerges. The column's height and location was no accident, but a statement of power” (Smithsonian.com, “Rome Reborn”)
Rome Activity

- In your group, sketch out an idea for a lesson that draws on at least 2 of the Rome resources that we explored

9. Collaboration and Organization: Web 2.0

Blogs

- “A frequently updated web site consisting of personal observations, excerpts from other sources, etc., typically run by a single person, and usually with hyperlinks to other sites; an online journal or diary.” (OED)
- Portmaneau of Web log; coined in 1998
- Uses in teaching: student bloggers continue discussion outside of classroom
- Media theorists Henry Jenkins says that blogging helps grad students expose research, build collaborations, refine arguments. Blogs featured on departmental home page: http://cms.mit.edu/
- Examples: Matt Kirschenbaum’s blog: http://www.otal.umd.edu/~mgk/blog/; Karl Kraus’s classroom blog: http://socialcreativity.blogspot.com/; Types of classroom blogging include “cool-hunting,” commenting, curating, continuing conversation

Wikis

- Collaborative, easy-to-use Web based authoring
- Simplicity in editing: don’t need to have extensive HTML background
- Provides successive versions of document
- Useful for brainstorming, notetaking, collaborative work
- Examples:
  - World War Poetry Lesson: http://www.ahistoryteacher.com/wordpress/?p=203
  - Wikipedia + experts = citizendium.org
  - Wiki software
  - SocialText, PBWiki, WetPaint, etc

Collecting & Sharing Information: LibraryThing

- http://www.librarything.com
- “Social cataloging”—users can catalog their book collections & participate in a community of other collectors
- Librarything automatically pulls in data based on ISBN or author/title, but you can add your own tags
- “Social intelligence” displayed as system generates recommendations
- Allows users to ask:
  - How to categorize an intellectual work
  - What do other people think of it
  - What resembles it?
  - What is its opposite?
  - Who likes it? What other stuff do they have in their collection?
Collaboration & Productivity tools
- Google Documents and Spreadsheets: [http://docs.google.com](http://docs.google.com)
- Features:
  - Work on documents & spreadsheets in real-time online
  - Collaborative editing
  - Built in chat
  - Publish docs & spreadsheets as web pages
  - Revert to past versions

Managing Media with Media Matrix
- [http://matrix.msu.edu/~mmatrix/](http://matrix.msu.edu/~mmatrix/)
- "an online application that allows users to isolate, segment, and annotate digital media."
- Set up an account
- Download Media Matrix tool to your browser
- Look for image, audio or video on a web site & add to Media Matrix
- You can then segment audio and video (video’s a bit tricky) or crop an image

Conducting and managing research with Zotero
- Zotero: [http://www.zotero.org](http://www.zotero.org)
  - "a free, easy-to-use Firefox extension to help you collect, manage, and cite your research sources. It lives right where you do your work — in the web browser itself."
- Developed by George Mason’s Center for History & New Media
- Supports tagging, sorting by tags
- Will ultimately support groups and recommendation system, ability to store citations on server, text visualization
- Requires Firefox 2.0
- Need to download a macro to insert references into Word

Community-based digital archives
- Enable people to contribute their own content
- Documents history by collecting & preserving first-hand accounts
- Examples:
  - Hurricane Digital Memory Bank: [http://www.hurricanearchive.org](http://www.hurricanearchive.org)
  - September 11 Digital Archive: [http://www.911digitalarchive.org](http://www.911digitalarchive.org)
  - akaKurdistan: [http://www.akakurdistan.com](http://www.akakurdistan.com)

History is Now: Participatory Journalism
- "Participatory journalism: The act of a citizen, or group of citizens, playing an active role in the process of collecting, reporting, analyzing and disseminating news and information. The intent of this participation is to provide independent, reliable, accurate, wide-ranging and relevant information that a democracy requires." (WeMedia)
- Examples:
  - Citizenxpress: [http://www.citizenxpress.com](http://www.citizenxpress.com)

Group Activity
- In your small group, work on your wiki page exploring the use of a particular technology in the AP History Classroom (see handout)
**10. Pulling It All Together: Making Historical Arguments**

- Ed Ayers and Will Thomas, “The Difference Slavery Made”
- “applied experiment in digital scholarship” published in *American Historical Review*
- Hypertext history
- Sections include:
  - Summary of Argument
  - Points of Analysis
  - Methods: Historical GIS & Statistics
  - Evidence
  - Historiography
  - Tools

**Other Approaches to Digital History**

- Historical gaming:
- Oral history
- Text analysis
- Webquests
- Place based history

**Historical Study in the Future**

- An historian prognosticates: “Increasingly, we will come to think of the work of the historian as the work of drawing live sources from archives, integrating those sources on the fly, interpreting them, and building that interpretation into tools that give the reader an unprecedented power to explore the evidentiary base from which our accounts are constructed. Historians, in other words, will become designers of experiences and interactions.” (Bill Turkel, *Digital History Hacks*).

**History in the Future: MyLifeBits Project**

- [http://research.microsoft.com/barc/mediapres ence/MyLifeBits.aspx](http://research.microsoft.com/barc/mediapres ence/MyLifeBits.aspx)
- Digital files focused on life of computer scientist *Gordon Bell*: articles, books, cards, CDs, letters, memos, papers, photos, pictures, presentations, home movie, lectures, emails, web searches, etc.
- MyLifeBits software: storing and annotating files

**An Invitation**

- Please visit [http://timea.rice.edu](http://timea.rice.edu) to explore the site and take our survey-- you could win a $50 Amazon gift certificate, and you’d help us improve the site
- If you’re willing to participate in a focus group or interview about TIMEA, please let me know: [lspiro@rice.edu](mailto:lspiro@rice.edu)

(TIMEA is supported by the Institute of Museum and Library Services and Rice University’s Computer and Information Technology Institute.)

**Selected Bibliography**


(See [http://del.icio.us/lms4w/digitalhistory](http://del.icio.us/lms4w/digitalhistory) for a complete bibliography)