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Interactive Mapping Technologies, Information Literacy, and the Literature/Composition Course

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9-23-2011

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Interactive Mapping Technologies, Information Literacy,

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Illustrated how-to guides for Historypin and Google Earth bookmapping projects are available at http://ridetheinfowave.wikispaces.com/

What kind of assessment do you assign in your information literacy course?

- Traditional researched essay
- Annotated bibliography
- Essay + bibliography
- Web 2.0 app
- Written project + web 2.0
- Other

When I recently conducted a very small, informal survey through the USC-SLIS listserv and ALA/ili-l, I found:

- traditional researched essays - 5
- combination of essay plus annotated bibliography - 2
- combination of traditional and web 2.0 - 1
- web 2.0-based project - 1
- other - 21

I also accepted responses by email. For "other," I was able to get a little more information. This included:

- Short paper + multimedia (Glogster or Publisher brochure). Their final project was a PR piece for a current injustice in the world (for an injustice unit of an English class).
- research on a company the students might want to work for, including 6 sources, with at least 4 from library databases (incomplete answer)
- annotated bibliography
- quiz questions + students choose topic, find one book, one ebook, one database article, (incomplete answer)
- presentation/ annotated bibliography/ research journal

While traditional writing and research skills are still necessary, some of the new web 2.0 applications allow students to gain or show off new technology skills. Interactive mapping

technologies can be a fun, free resource to support information literacy skills, visual and media literacy skills, literary analysis, composition, and writing in new media. Mapping a story is a kind of digital storytelling. The mapping technologies also support other disciplines which require narrative and analytical writing. Interactive mapping is suitable for middle school through college level, and with scaffolding, upper elementary grades. I will show a few kinds of place-based digital storytelling projects that incorporate interactive mapping technologies and support information literacy skill-building.

The skill levels needed for these applications range from basic to intermediate/advanced. This technology offers these skills and benefits:

- teaching students to **document** a story, **find** and **analyze** relevant information (Robin 2005)
- **solving** problems (Robin 2005)
- **organizing** a project (Robin 2005)
- developing **self-assessment** skills (Robin 2005)
- developing **visual and media literacy**, which draws on digital natives' skills and interests (Fields and Diaz 2008; New Media Consortium, 2007; Oblinger 2003)
- accommodating different **learning preferences** (Fields and Diaz 2008; UHCOE)
- connecting **tradition** and **technology** (Fields and Diaz 2008; Sax 2006)
- using **spatial reasoning** to enhance learning (Lesh and Harel 2003; Lowrie and Logan 2007)
- appealing to millennials with **concrete**, **collaborative**, and **creative** projects (Oblinger 2008)
- accommodating and **showcasing** more kinds and formats of information than traditional essays and bibliographies (Ohler 2008; Fields and Diaz 2008)
- **deepening** students' **relationships** through interviews and helping them **know** their **community** better (Ohler 2008; Fields and Diaz 2008)
- **reducing plagiarism** and increase learning through lack of prototypes
- supporting **social justice**, **preventing domestic violence** and serving **public health** (U. C. Berkeley Social Technologies Group 2007)
- harnessing the power of social media with digital storytelling, making people into **content creators** (Fields and Diaz 2008)
- building **community** (Fields and Diaz 2008)
- **connecting** "social and academic spaces" (Fields and Diaz 2008, p. 76)
- re-casting the library as a place for **fun and innovation** among the student body and faculty, **re-invigorating** the library's traditional missions and projects, supporting traditional literacies (Fields and Diaz 2008)

Fields and Diaz (2008) advocate for telling the stories of the library's collections, and for training staff and faculty to do digital storytelling. It seems logical to extend this concept one step further and include students. After all, libraries are exceptionally well-qualified to support collaborative, active learners who expect to work in new media. Why not do this via the information literacy curriculum? If you have more than one hour with the students, this is an exciting problem-based approach to learning information literacy skills. If you do not have the luxury of time or collaboration, you might put together a model to share with faculty.

Bernard Robin (2005) sums up the process of digital story-telling. It is clear how this process serves the goals of information literacy:

Digital Storytelling (Robin 2005)	Information Literacy (ALA/ACRL 2011)	Information Literacy Standards (AASL & AECT 1998)
define the project, collect content, decide on a purpose	• Determine the extent of information needed • Access the needed information effectively and efficiently • Use information effectively to accomplish a specific purpose • Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally	• . . . accesses information efficiently and effectively • . . . pursues information related to personal interests
select content, choose software and import content, create/shape project	• Evaluate information and its sources critically • Incorporate selected information into one's knowledge base	• . . . evaluates information critically and competently • . . . uses information accurately and creatively
draft, record, revise, polish present, evaluate, share	• Incorporate selected information into one's knowledge base	• . . . strives for excellence in information seeking and knowledge generation

If your information literacy course is part of a collaboration with another academic course, you'll find that these technologies support analysis, composition, and writing in new media. Cavanaugh and Burg (2011), Fields and Diaz (2008) and Ohler (2008) describe ways to incorporate

bookmapping and digital storytelling into math, science, medicine and public health. William Joel (1999) observes that stories are an excellent way to teach math and computer science.

Historypin

This how I have used interactive mapping to teach or reinforce information literacy skills. I have a new MLIS degree. I have also taught college composition and literature for more than twenty years, and of course, I include abundant information literacy instruction. The easiest mapping technology that my students use is Historypin. If you can upload documents, write and send an email, or use simple social media, you can use Historypin.

Historypin is only suitable for projects which date from 1840 to the present, because photography was invented around 1840.

It would be suitable for local history projects and documenting national events.

These are images which students made or found to document the old ways and customs of a place they know well, and the changes that postmodernity has brought.

These images accompany ten paragraphs about the Dillon County Dunbar Memorial Library. The student located or made six images to upload. She conducted two interviews and consulted one website. I did not ask students to locate database articles or books for this project. However, if a student chooses an historic place or does a service-learning history project for an historical society, or an oral history project, certainly database articles and books would be useful and necessary.

Google Maps/My Places

I have not assigned a project yet using Google Maps/My Places, but it's extremely easy to use, and I say this as one who is relatively late coming to the party. This map shows one of my favorite walks to take with my whippets when I used to live in Charleston.

Google Earth

I'll share my process for projects using Google Earth. It requires more steps than Historypin or Google Maps/My places. However, students always say that it's easier than it seems, so don't be concerned about their initial technical skills. I do recommend that you learn the technology so you can offer some technical support, but I believe you'll enjoy creating your own virtual tour.

Most information literacy courses would require the students to formulate their own research questions. We do this in English 101, the basic composition course. In many of the other English courses, however, my colleagues and I give the students a few essential questions to get started. This is to satisfy additional course objectives, prevent plagiarism, and save time. For instance, in American Literature, students spend the term reflecting and writing about these questions to prepare for the class project:

- How does the writer demonstrate his awareness of the commercial potential or the commercialization of the American land?
- How does the writer feel about this process? How can you tell?
- What does the writer believe to be the correct relationship of the people and the land?

- Students begin searching for suitable materials early in the term.
- These students work on the same project. Twice weekly, designated students contributed either a summary of a relevant database article, or some relevant multimedia on the discussion board.

- My students also evaluate two websites using the U.C. Berkeley lesson and inventory on evaluating websites. The second evaluation is performed a few weeks later in the term. It always shows progress. The multimedia that the students find also can reveal how discerning they are in selecting material to share with the class. If a student shares an amateurish image or video clip, I know that she or he needs more guidance and feedback. For instance, they are happy swiping images from blogs, but I insist that they use images from willing museums and archives, and document these fully and correctly.

  - An online discussion board is an ideal way to organize and collect these materials. It makes their learning visible. It can also build a sense of community and collaboration, because the students are working together. It keeps the information handy and organized.

- I teach the students to do image searches, using the advanced setting to find images approved for re-use.

- We use a shared Photobucket account to collect images and generate embeddable codes, but Panoramio might be a good account to try since Panoramio adds photos to Google Earth monthly. There is a review process, so there may be a 10 to 30 day delay.
- An alternative is to do in-line linking. Since this uses the site owner's band-width, it's best to get the site owner's permission. Bear in mind that you have no control if the owner decides to move or remove the image, causing dead links. It also places more

burden on the student to correctly code the html link. Some site owners do prefer this, though, because they don't like their images being copied.

- Early in the term, students learn how to create simple HTML pages using an HTML editor like Seamonkey. They post these on the discussion board.

- Students learn about the ethical use of web content. They learn basics about fair usage, public domain, locating policies, and Creative Commons licenses.
- The rest of the class discusses how the multimedia supports the scheduled lesson. The classmates' feedback is useful to the student who shares the media. If the class doesn't understand how to relate the media to the lesson, the contributor has not chosen appropriately.

I offer these resources for images:

http://memory.loc.gov/ammem/index.html
http://www.digitalhistory.uh.edu/images.cfm
http://www.photolib.noaa.gov/collections.html
http://digitalgallery.nypl.org/nypldigital/index.cfm
http://www.freefoto.com/index.jsp
http://www.pics4learning.com/
http://www.scmemory.org
http://digitalcollections.library.yale.edu/

- Students complete a pre-writing organizer and share on the discussion board. They discuss what they think are their own weakest sections, and why.

    - This is important to show the student's work in progress. Otherwise, the project might just be thrown together in an hour.

- Students post a draft for a traditional essay on the discussion board and do peer reviews.
- Students write a polished, traditional final draft.
- Students consult in small groups about what information to extract from their essays for the virtual tours.

- My students write an outline. We haven't tried storyboarding yet. However, this would be the stage to do a storyboard. If you do not have your students write a traditional essay, the storyboard is a way to make their learning more visible, so you can guide and re-direct, if necessary. Many digital story-telling resources recommend making a storyboard.

- Students transfer content from their html pages (including quotes from primary sources, summaries of primary and secondary sources, images, and video) into Google Earth.

- Students merge the KML files (just simple drag and drop) and post on the discussion board.

GPS and Information Literacy

Two recent Pew reports (Anderson and Rainie, 2008; Lenhart and Fox, 2009) revealed that more young people access the Internet via mobile devices, and Pew's survey reported that most people expect to access the Internet via mobile by 2020 (Anderson and Rainie, 2008). As Bryan Alexander (2011) points out, mobile devices are ubiquitous and incredibly convenient.

What would a mobile virtual tour look like? Could this kind of project be even more meaningful to students, who probably use smartphones more than traditional computers? Lowrie and Logan (2007) and Lesh and Harel (2003) explained that problem-solving lessons that simulate "real-life experiences" are more meaningful to students and "tend to have a strong spatial dimension" (2007). Alexander (2011) believes that mobile devices such as smart phones and tablets are the future of digital storytelling.

I have not adapted these projects for mobile devices, but the possibilities are self-evident when you look at existing apps. The technology skills needed for mobile mapping projects and games seem to range from beginner to expert. I believe even young children would be able to take pictures using a mobile phone for a virtual tour.

Some examples of mobile applications that will support virtual tours for information literacy include:

- SCVNGR
- Every Trail
- Cold Noodle or Instagram (apps for Foursquare)

Examples of virtual tours for mobile devices include:

- Lincoln Highway Heritage Corridor (Foursquare)
- North Carolina State University's Wolf Walk

A few more suggestions for mapping projects:

- Wall Street Walk of Shame for finance, economics majors
- Map an epidemic or the spread of a disease in the community
- Best hospitals for nurses
- Map crime scenes from a cold case. Some crimes have much information on the web, such as the murders attributed to Jack the Ripper.
- Locate and map attractions and activities for a cruise ship or other tourist itinerary
- Map and tell the story of rising design stars

I wouldn't worry about being able to teach your students how to use these mobile apps. If they like that kind of activity, they either already know how, or they're willing to learn (and perhaps teach the rest of the class). Most of the information literacy work is in the planning, anyway. Ohler (2008) agrees that nontechnical faculty can simply manage the students.

Assessment

To assess an information literacy problem-based learning project, I suggest the Digitales website. It can generate a rubric for you. Ohler (2008) devotes a full chapter to assessment. You can also look at models you like, note the qualities you like, and create a rubric from Rubistar.

Summation

Carey (1998) describes learning as a process in which individuals create meaning by "interpret[ing] and act[ing] on the environment." Our students' environments are much larger than classrooms and libraries. A mapping project is one kind of information literacy assessment that can truly encompass today's rich, complex environment. I hope you'll give it a try!

References

Alexander, B. (2011). *The new digital storytelling: Creating narratives with new media*. Santa

   Barbara, CA: Praeger.

Alvar Nunez Cabeza de Vaca (n.d.). *Adventure of the American Mind-Governors State*

   University College of Education. [Image]. Retrieved from

   http://aam.govst.edu/projects/legnatz/additional_resources.htm.

American Association of School Librarians and Association for Educational Communications

   and Technology. (1998). *Information power: Building partnerships for learning*.

   Chicago: ALA.

Anderson, J., & Rainie, L. (2008). The future of the Internet III. *The Pew Internet & American*

   Life Project. Retrieved from http://pewinternet.org/Reports/ 2008/The-Future-of-the-

   Internet-III.aspx .

Association of College & Research Libraries. (2011). Information literacy competency standards

   for higher education. Retrieved from

   http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm#il

   def .

Barry Lopez. (n.d.). Retrieved from http://www.pacificu.edu/as/mfa/writers/index.cfm.

Burg, J. (2011). *The travels of Marco Polo*. [Image]. Retrieved from www.googlelittrips.org.

Carey, J. (1998). Library skills, information skills, and information literacy: Implications for

   teaching and learning. *School library media research*. Retrieved from

   http://www.ala.org/ala/mgrps/divs/aasl/aaslpubsandjournals/slmrb/slmrcontents/volume1

   1998slmqo/carey.cfm.

Cavanaugh, T. and Burg, J. (2011). *Bookmapping: Lit trips and beyond*. Eugene, OR:

International Society for Technology in Education.

Captain John Smith portrait. (1616). *Jamestown Rediscovery*. [Image]. Retrieved from

http://www.preservationvirginia.org/rediscovery/page.php?page_id=25.

Center for Digital Storytelling and The Dawn Project. (2007). Mapping the third ward in

Houston: Story work in the face of redevelopment. [Image]. *StoryMapping Stories: A*

project of the Center for Digital Storytelling. Retrieved from

http://www.storymapping.org/thirdward.html.

Cesarharada.com. (2008). *Sad storyboard/happy storyboard*. [Image]. Retrieved from

http://www.flickr.com/photos/worldworldworld/2828339946/.

Chopadepramod. (2010). *The New*. [Image]. Retrieved from

http://www.historypin.com/photos/#/geo:34.746985,113.624899/zoom:15/date_from:18

40-01-01/date_to:2011-09-22/dialog:4777014/tab:stories_tab_content/.

Chopadepramod. (2010). *Gallery*. [Image]. Retrieved from

http://www.historypin.com/photos/#/geo:34.746985,113.624899/zoom:15/date_from:18

40-01-01/date_to:2011-09-22/dialog:4777014/tab:stories_tab_content/.

Chopadepramod. (2010). *The old*. [Image]. Retrieved from

http://www.historypin.com/photos/#/geo:34.746985,113.624899/zoom:15/date_from:18

40-01-01/date_to:2011-09-22/dialog:4777014/tab:stories_tab_content/.

Digital History (2011). *Digital history: Using new technologies to enhance teaching and*

research. Retrieved from http://www.digitalhistory.uh.edu/images.cfm.

Digitales. (2004). *Digitales media scoring guide*. [Image]. Retrieved from

http://www.digitales.us/evaluating/scoring_guide.php.

Fields, A. and Diaz, K. (2008). *Fostering community through digital storytelling: a guide for academic libraries*. Westport, CN: Libraries Unlimited.

Floyds3. (2011). *1945*. [Image]. Retrieved from http://www.historypin.com/photos/#/geo:33.545567,-82.132718/zoom:15/date_from:1840-01-01/date_to:2011-09-22/dialog:6925327/tab:stories_tab_content/.

Floyds3. (2011). *2011*. [Image]. Retrieved from http://www.historypin.com/photos/#/geo:34.416551,-79.371158/zoom:15/date_from:1840-01-01/date_to:2011-09-22/dialog:6931183/tab:stories_tab_content/.

Floyds3. (2011). *Photos*. [Image]. Retrieved from http://www.historypin.com/profile/view/floyds3/.

Freefoto.com. (2011). *Freefoto.com*. [Image]. Retrieved from www.freefoto.com.

EveryTrail. (2011). *EveryTrail*. [Image]. Retrieved from http://www.everytrail.com/.

Google. (2011). *Google Earth*. [Image]. Retrieved from http://www.google.com/earth/index.html.

Joel, W. (1999). Storytelling techniques in the teaching of mathematics and computer science. In Jack A. Chambers (Ed.), *Selected Papers from the 10th International Conference on College Teaching and Learning*. 67-72. Jacksonville, FL.

Instagram. (2011). *Instagram*. Retrieved from http://instagr.am/.

Kapor, M. (n.d.). Mitchell Kapor quotes. *Thinkexist.com*. Retrieved from http://thinkexist.com/quotation/getting_information_off_the_internet_is_like/216131.html

King, Michael. (2010). *Creative Commons*. [Image]. Retrieved from

   https://techntuit.pbworks.com/w/page/20307622/Creative%20Commons.

Maxham, B. (1856). *Henry David Thoreau*. [Image]. Retrieved from

   https://secure.wikimedia.org/wikipedia/en/wiki/File:Henry_David_Thoreau.jpg.

Lesh, R. and Harel, G. (2003). Problem solving, modeling, and local conceptual development.

   Mathematical Thinking and Learning, 5(2and3), 157–189. Retrieved from

   http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.122.5632andrep=rep1andtype

   =pdf.

Library of Congress. (n.d.). *American Memory*. Retrieved from

   http://memory.loc.gov/ammem/index.html.

lhouse77 (2010). *Little Peedee River*. Retrieved from

   http://www.historypin.com/photos/#/geo:33.90190897,-

   79.29983139/zoom:15/date_from:1840-01-01/date_to:2011-09-

   22/dialog:4756017/tab:stories_tab_content/.

lhouse77 (2010). *Park & Blow, Highway 378, Brittons Neck, SC. 1980-1990*. [Image]. Retrieved

   from http://www.historypin.com/photos/#/geo:33.865798,-

   79.33352/zoom:15/date_from:1840-01-01/date_to:2011-09-

   22/dialog:4864007/tab:stories_tab_content/.

Fireman Creative (2009). *Lincoln Highway Heritage Corridor*. Retrieved from

   http://www.lhhc.org/images/header_left.jpg.

Lion, W. (2008). *Information Hydrant [image]*. Retrieved from

   http://www.flickr.com/photos/will-lion//CC.

Lowrie, T. and Logan, T. (2007). Using spatial skills to interpret maps: Problem solving in

   realistic contexts. *Australian Primary Mathematics Classroom*, *12*(4) 14-19. Retrieved

   from

   http://eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=trueand_andERICExtSea

   rch_SearchValue_0=EJ793988andERICExtSearch_SearchType_0=noandaccno=EJ7939

   88.

Microsoft Clip Art. (2011). Retrieved from http://office.microsoft.com/en-us/images/.

New Media Consortium. (January 23, 2007). Critical Challenges. *2007 Horizon Report*.

New York Public Library. (n.d.). *Digital Gallery*. Retrieved from

http://digitalgallery.nypl.org/nypldigital/index.cfm.

New York Public Library. (2010). *Website terms and conditions*. Retrieved from

   http://www.nypl.org/help/about-nypl/legal-notices/website-terms-and-conditions.

NOAA. (2009). *NOAA Photo Library*. Retrieved from

   http://www.photolib.noaa.gov/collections.html.

Nugent, J. (2011). *Walking Ulysses: Joyce's Dublin today*. Retrieved from http://ulysses.bc.edu/.

Oblinger, D. (July/August 2003). Boomers, Gen-Xers, and Millennials: Understanding the new

   students. *Educause Review*, 37-39. Retrieved from

   http://web.ebscohost.com.pallas2.tcl.sc.edu

Ohler, J. (2008). *Digital storytelling in the classroom: new media pathways to literacy, learning

   and creativity*. Thousand Oaks, CA: Corwin.

OWL Purdue Online Writing Lab. (2011). Screenshot of annotated bibliography example.

   Retrieved from http://owl.english.purdue.edu/owl/resource/614/02/.

Panoramio. (n.d.). *Panoramio.* Retrieved from www.panoramio.com.

Park, C. (2011). *Foursquare app/ Cold noodle*. Retrieved from

https://foursquare.com/app/cold_noodle.

Photobucket. (n.d.). Retrieved from http://photobucket.com/.

Pics4Learning.com. (2011). *Pics4learning.com.* Retrieved from www.pics4learning.com.

Robin, B. (2005). The effective uses of digital storytelling as a teaching and learning tool. In

James Flood, Shirley Brice Heath, and Diane Lapp (Eds.), *Handbook of research on*

teaching literacy through the communicative and visual arts (429-440). New York:

Lawrence Earlbaum.

Rubistar. (2008). *Rubistar: Create rubrics for your project-based learning activities*. Retrieved

from http://rubistar.4teachers.org/.

Sax, B. (2006). Storytelling in a liminal time. *On the Horizon*, 14, 147-151. Retrieved from

http://www.emeraldinsight.com.pallas2.tcl.sc.edu/journals.htm?issn=1074-

8121andvolume=14andissue=4.

SCVNGR. (2011). *SCVNGR.* Retrieved from http://www.scvngr.com/.

Shier, K. (2011). *English 203 I01 Summer 2010 Emily Dickinson discussion*. Retrieved from

https://elearn.midlandstech.edu/d2l/lms/discussions/messageLists/frame.d2l?isShared=F

alse&fid=37634&ou=58575.

Shier, K. (2011). *If you selected "other," would you briefly describe the final project for your*

information literacy course?" Retrieved from

http://www.polleverywhere.com/free_text_polls/LTE0NzkzNTg3NTI.

Shier, K. (2010). Library search. Unpublished document, Dept. of English 205, Midlands

Technical College, Columbia, SC.

Shier, K. (2009). JSTOR. Retrieved from http://www.jstor.org.ezproxy.midlandstech.edu/.

Shier, K. (2011). Old Windermere. *Google Maps/My Places*. Retrieved from

   http://maps.google.com/.

Shier, K. (2011). What kind of final projects do you assign in your information literacy courses?

   Retrieved from

   http://www.polleverywhere.com/multiple_choice_polls/LTgxMjAyMzQ3MQ.

Sierra, T. , Casden, J., Morris, S. et al. (2010). *WolfWalk for iPhone*. Retrieved from

   http://www.lib.ncsu.edu/dli/projects/wolfwalk/screenshots/ios-iphone/.

South Carolina Digital Library. (n.d.). Retrieved from www.scmemory.org.

University of California-Berkeley, Social Technologies Group. (2007). Street stories.

   http://www2.sims.berkeley.edu/research/projects/socialtech/.

University of Houston College of Education. (2011). *The educational uses of digital storytelling*.

   Retrieved from http://digitalstorytelling.coe.uh.edu/.

Unquiet Library. (2011). *Presearching graphic organizer in progress*. Retrieved from

   http://www.flickr.com/photos/theunquietlibrary/5550079521/.

We Are What We Do. (2011). *Historypin*. Retrieved from www.historypin.com.

Yale University Library. (2011). *Yale University library digital collections.* Retrieved from

   http://digitalcollections.library.yale.edu/.