Digital Tools for Research and Teaching in Anthropology

Lisa Spiro
Digital Media Center
October 2009

Image source: http://www.ucl.ac.uk/anthropology/digital-anthropology/
How We Access & Share Information Is Changing

- 133 million blogs
- 210 billion emails sent per day in 2008 (70% spam)
- 9 billion web pages indexed by Google
- 3 million articles in English on Wikipedia
- 70 million videos on YouTube (March 2008)
- 200 million Facebook users
- 10 million books digitized by Google
Amount of Digital Information: 2008 IDC study

![Image of digital information growth chart](http://flickr.com/photos/42182583@N00/2333232442/)
What are the implications of networked information for research?

• What is the significance of digital culture?
• How can we harness digital technologies to be more innovative, collaborative, productive, etc?

http://www.flickr.com/photos/philliecasablanca/2494647968/
Discover Other Useful Tools via the Digital Research Tools (DiRT) Wiki

Digital Research Tools (DiRT)

This wiki collects information about tools and resources that can help scholars (particularly in the humanities and social sciences) conduct research more efficiently or creatively. Whether you need software to help you manage citations, author a multimedia work, or analyze texts, Digital Research Tools will help you find what you're looking for. We provide a directory of tools organized by research activity, as well as reviews of select tools in which we not only describe the tool's features, but also explore how it might be employed most effectively by researchers.

This wiki is just being launched, so expect to see more reviews soon. Check back regularly.

Please provide feedback on DiRT and recommend tools not included here (yet).

If you're interested in contributing to this wiki, please email Lisa Spiro at lspirol@rice.edu.

If you are unfamiliar with some of the jargon, please see our Glossary page.

Types of Tools

I want to...
- Analyze texts
- Analyze statistics
- Author an interactive work
- Blog
- Brainstorm / generate ideas
- Build and share collections
- Collaborate
- Collect data
- Communicate with colleagues
- Compare resources
- Conduct linguistic research
- Convert / manipulate files

http://digitalresearchtools.pbwiki.com/
Outline of Presentation

- Capturing Information
- Organizing Information
- Analyzing & Visualizing Information
- Sharing Knowledge
The Digital Media Center (http://dmc.rice.edu/) provides free access to a number of tools,
The Digital Media Center offers limited support to Rice faculty and instructors in using digital media for teaching or research. These services include:

- Scanning images, including slides and oversized prints (up to 50)
- Digitizing and/or editing simple video projects (up to 30 minutes)
- Digitizing and/or editing simple audio projects (up to 30 minutes)
- Converting printed documents into electronic files, such as Microsoft Word documents and PDF files (up to 50 pages)
- Developing simple animations and simulations using Flash
- Advising on standards and best practices for digital projects
- Creating DVDs or CDs (user must supply their own media)
- Checking out digital camcorders, digital cameras, and digital audio recording equipment for 3 days

The DMC maintains a small staff of 2 full-time employees, 1 half-time employee and several part-time student employees. Depending on the complexity of the project and current demands on staff time, it may take up to two weeks to complete the work. If you need to complete a project more quickly, you or one of your assistants are welcome to use the DMC’s hardware and software and receive training in working with these tools.

To request assistance with a project, please fill out our online form or contact Lisa Spiro, DMC director, at 713.348.2594, or Jane Zhao, at 713.348.3696.

Please note that all projects supported by the DMC must abide by Rice's intellectual property and computer usage policy.

http://library.rice.edu/services/dmc/services/services-for-faculty-and-instructors
Managing Research with Zotero

- “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.”
- The DMC is holding a free Zotero workshop November 4 from 10-12. Register at [http://library.rice.edu/services/dmc/services/short-courses](http://library.rice.edu/services/dmc/services/short-courses)
Collaborating Using Zotero

http://www.zotero.org/groups/digital_history
Seeing the Field at Glance Using NetVibes: Michael Wesch’s “Mediated Cultures”

http://www.netvibes.com/wesch#Digital_Ethnography
What Is Text Analysis?

- Text analysis: using the computer to study patterns in texts
- Examples of text analysis operations:
  - Concordances
  - Keyword in context
  - Word use frequency
  - Sentiment analysis (what is the mood of this passage?)
  - Detecting plagiarism or intertextuality
Example: Presidential Speeches Tag Cloud

1933-03-04: First Inaugural Address

Franklin D. Roosevelt (1933-45)

abandonment administrative advancement agreements agriculture aims appropriations armed army assert associations assurance banking built changers convert cooperation corporation currency curtailment dedicate democratic devotion distress drastically economic education endeavor endure europe evils expenditure fact false families frankly frankness freedom fulfillment fundamental god guides honestly honesty industries insistence interdependence investments july june languishes mandate march minister mobilized monetary necessities opinion opponents permanently pledging prosper railways readjustment realities recognition reconstruction resolutely resorted restore revive risen rounded safeguards securities selfish speculation stimulate strength stricken strife submit taxes temple territory toil treasury treating true uneconomical unemployment unjustified unprecedented utilities values vigor war wealth welfare wisely

http://chir.ag/projects/preztags/
Tools for Text Analysis: Voyeur

- Obama vs. Bush’s (2nd) inaugural addresses
  http://voyeur.hermeneuti.ca/
What Is Data Visualization?

- Data into pictures
- “An external representation that makes it easy to see certain patterns in data.” (Palo Alto Research Center)
- “historical weather maps” illustrating dynamic changes (Ed Ayers at Educause 2006)
  - Social cold and warm fronts
  - Interplay of different forces
  - Simultaneity: different things happening at different places at the same time
  - Social networks
Many Eyes Chart: Survival on the Titanic

http://services.alphaworks.ibm.com/manyeyes/view/SWUK0IsOtha6R4k196G112~
Spatial Visualization: The Emancipation Project

http://www.vcdh.virginia.edu/emancipation/index.html
Network Graphs: Stanford Spatial History Lab

Patterns of Change in Railroad Company Board Membership, 1872-1894
An Interactive Spatiotemporal Network Visualization

http://www.stanford.edu/group/spatialhistory/cgi-bin/site/viz.php?id=129&project_id=997
What Is Digital Storytelling?

- “Digital Storytelling is the modern expression of the ancient art of storytelling. Digital stories derive their power by weaving images, music, narrative and voice together, thereby giving deep dimension and vivid color to characters, situations, experiences, and insights.” --Leslie Rule, Center for Digital Storytelling

- Can also refer to interactive stories– games, hypertext, personal blogging, etc.
The significance of digital stories

- We learn & remember through stories (see research by Roger Schank, for example).
- Digital stories relate ideas and experiences in a compelling, often deeply affecting way.
- Digital stories appeal to multiple senses—vision, hearing, kinesthetic.
- Digital storytelling advances 21st century literacy, which includes visual, technological, & information literacy.
- Knowledge communities are built around stories.
Example Digital Story: Reasons Why We Tube (Seiji Ikeda)

http://www.youtube.com/watch?v=HmnZaSlulZU
Digital Storytelling in the Anthropology Classroom

- Some anthropology programs (Berkeley, Vassar, Alberta, etc) offer classes on digital storytelling
- “students have talked about the importance of being creative and applied in their course work, in the learning that has taken place in working with others outside of the University… and of the transformation of disparate and sometimes abstract elements of anthropological ideas into knowledge that they feel is theirs.” (Christopher Fletcher, Alberta)
Share Your Research via Digital Repositories

Welcome to Rice University's digital scholarship archive

This is Rice's Institutional repository, a web site where the university's intellectual output is shared, managed, searched, and preserved. Most materials come from Rice faculty members' research, electronic theses and dissertations, and digitized collections of rare or unique books, images, musical performances, and manuscripts. The archive runs on DSpace, an open source software package.

Do you have questions about this archive? Read our FAQ.

Search the archive

Enter some text in the box below to search the archive.

Communities in the archive

Select a community to browse its collections.

- Americas Archive
- Ancient Rome
- Baker Institute
- Dean of Undergraduates
- Digital Library Information
- Fondren Library
- George R. Brown School of Engineering
- Indigenous Australian languages
- ICOD Doctoral Consortium

http://scholarship.rice.edu/
Welcome to Open Context!

Use Open Context to explore, obtain, and publish primary data and documentation collected in the field sciences, especially archaeology. While all contributions are evaluated by a credentialed editorial staff prior to publication, most content represents "field notes" and "raw data", and will likely contain typographic and other errors. So please use with discretion.

Open Context is in the process of major upgrades and enhancements to offer new features and capabilities. Please check back often!

Explore Open Context
About New Web Services
Blog Discussion

Image by Jeff Kubina via Flickr (CC-by license)
How Can Fondren & the DMC Support Anthropology?

- More tools? (e.g. qualitative data analysis, statistical packages, mega social sciences workstation, etc.)
- More services? (e.g. digitization, consulting on digital tools, archiving papers & data)
- What else?