

EMERGING TECHNOLOGIES USEFUL FOR WORKING IN DIGITAL HUMANITIES

[Justine Carmer](#), [Bridget Disney](#), [Aubrey Seavey](#), & [Rachel Wallenbeck](#)

School of Information Science & Learning Technology, University of Missouri

ISLT 9410: Emerging Technologies in Libraries - December 2015

Digital Humanities is a rapidly growing field focused upon the relationship between technology and the humanities. This includes tools to research, access, explore, explain, collect data, document, and/or archive content related to human culture including: history, philosophy, ancient & modern languages, literature, classical studies, semiotics, archeology, area studies, linguistics, anthropology, musicology, law, politics, & international relations. Digital humanities work encompasses many fields and a variety of developing technologies. Here are ten technologies of note.

DH PRESS



<http://dhpress.org>

Developed by the University of North Carolina and tagged as a "digital humanities toolkit," DH Press can be easily installed as plugin on the popular WordPress content manager. It has been designed for use by non-technical administrators for digitized humanities-related material. This tool is both easy and flexible for users, supporting several types of content formats for maps, photographs, illustrations, text, video, audio and time-stamped transcripts. The latest version (DH Press 2.7) was recently released in November, 2015. Version 2.5 added timeline capability, while version 2.6 added a built in map functionality, language translation services, and enhanced visualization functionality like facet browsing and tree views.

Projects that use DH Press can be found at <http://digitalinnovation.unc.edu/projects/dhpress/projects/>

BALSAMIQ MOCKUP



<http://balsamiq.com>

Creating an appealing visual presentation is an important part of any digital humanities project. Balsamiq Mockup is a wire framing and mock up tool that can be used early in the development phase, to gain insight and demonstrate to others how things are going to work. Balsamiq has an easy to use interface with drag and drop elements allowing you to place a representation of each component on the screen. It would be useful for creating a mock up from wire frames to include in a grant proposal, and also later for collaboratively explaining ideas to other interested parties or a development team. It facilitates brainstorming and allows you to get instant feedback for the design and functionality of your project. Version control is available to keep track of design revisions.

Balsamiq version 3.3.1 became available December 2, 2015. The cost for this software is less than \$89. A trial version can be downloaded and is good for 30 days. On its web site, Balsamiq also has videos supporting UX (user experience) design.

RAW DENSITY

RAW

<http://densitydesign.org>

This product, developed by the Density Design Research Lab in Milan, Italy, allows you to use your tabular data (delimited or spreadsheet) to create a scalable vector graphic (SVG) or raster (PNG) image and export it for inclusion in your digital humanities web site. The data can be entered by typing, drag and drop, or cut and paste. The size of the data is only restricted by the configuration of your computer. This tool has been used for social, organizational, and urban applications for rearranging numeric data, reinterpreting qualitative information, locating information geographically, and building visual taxonomies. No credit has to be given to the created images. Once the visualizations are created they may be edited through traditional means.

The format of the layouts is limited, purposefully, according the FAQ (<https://github.com/densitydesign/raw/wiki/FAQs>) focusing on formats not available elsewhere. Certain formats, such as JSON or XML, are not supported. This is an open source tool released under the LGPL License (v3) — this only restricts the modification of the code and not its use. An example of Raw Density being used for a digital humanities course is History of Islamic Civilization I: Origins to 1500 (<https://digitalhumanities.wlu.edu/projects/courses/history-171-history-of-islamic-civilization-i-origins-to-1500/>) with an explanation of its use (<http://digitalhumanities.wlu.edu/blog/2014/10/22/raw-density-early-islamic-law-2/>).

ARCHIVE-IT



<https://www.archive-it.org/>

“The leading web archiving service for collecting and accessing cultural heritage on the web built at the Internet Archive”

First deployed in 2006, Archive-It is a subscription web archiving service from the Internet Archive that helps organizations to harvest, build, and preserve collections of digital content. Through the user friendly web application Archive-It partners can collect, catalog, and manage their collection of archived content with 24/7 access and full text search available for their use as well as their patrons. Content is hosted and stored at the Internet Archive data centers. Subscribers choose how frequently their digital collections are archived.

Archive-It works with over 400 partner organizations in 48 U.S. states and 16 countries worldwide. Types of organizations Archive-It works with include:

College and University Libraries, State Archives, Libraries, and Historical Societies, Federal Institutions and NGOs, Museums and Art Libraries, Public Libraries, Cities and Counties

See how the Smithsonian utilizes Archive-It: <http://siarchives.si.edu/blog/web-and-social-media-preservation-capturing-today%E2%80%99s-websites-future-archival-research>

ORBIS

ORBIS

<http://orbis.stanford.edu/>

ORBIS: The Stanford Geospatial Network Model of the Roman World reconstructs the time cost and financial expense associated with a wide range of different types of travel in antiquity. This digital humanities project is a model based on a simplified version of the giant network of cities, roads, rivers, and sea lanes that framed movement across the Roman Empire. It broadly reflects conditions around 200 CE but also covers a few sites and roads created in late antiquity. The model allows for fourteen different modes of road travel (ox cart, porter, fully loaded mules, foot traveler, army on the march, pack animal with moderate loads, mule cart, camel caravan, rapid military march without baggage, horse with rider on routine travel, routine and accelerated private travel, fast carriage, and horse relay) that generate nine discrete outcomes in terms of speed and three in terms of expense for each road segment.



<http://www.myhistroy.com/>

MyHistroy is a tool that allows the user to create timelines while also incorporating maps, text, videos, and images to recreate history for any digital humanities project. There are several collaboration tools, and once the timeline is complete it can be shared in various ways, including being embedded into a website, converted to a PDF, or exported into Google Earth for offline use. MyHistroy is modeled after the history site, [Histroydamus](#). There is even an interactive timeline that a user created on MyHistroy about [Library and Information History](#).



<http://www.oclc.org/en-US/contentdm.html>

CONTENTdm is a digital repository software for online personal and shared collections; it is offered by OCLC. This software offers assistance in cataloging through metadata templates and built-in editing tools; it also allows users to upload their own metadata if they wish. CONTENTdm includes tools for searching and viewing content, has OCR capabilities, and easily manages content of any media type. Also, the materials in your collections are made available in WorldCat through the WorldCat Digital Collection Gateway, “a free, self-service tool integrated with CONTENTdm,” making it easier for students and scholars to find and access your digital collections. There is even a built-in analysis tool that allows users to see how many people access and use the materials within their digital collections. There are several institutions that use CONTENTdm for their digital humanities projects. The Georgia O’Keefe Museum’s collection titled “Drawings, Paintings, & Sculpture” and the Chicago Public Library’s “Millenium Park” collection are just a few examples of those using CONTENTdm. Many institutions--libraries, museums, universities, and more--are using this tool to digitize their resources and make them available anywhere and to anyone.

BIBLIOPEDIA



<http://sul-cidr.github.io/Bibliopedia/>

Bibliopedia is an open-source platform maintained by the Stanford University Libraries' Center for Interdisciplinary Digital Research. It allows scholars to weave data visualization and data content analysis into digital humanities projects without metadata expertise. Bibliopedia includes advanced data-mining and cross-referencing of scholarly literature focused on the needs of researchers, libraries, cultural heritage institutions, and the general public.

Current projects utilizing Bibliopedia include:

Chinese Railroad Workers in North America: <http://web.stanford.edu/group/chineserailroad/cgi-bin/wordpress/about-our-project/>



<http://sourceforge.net/projects/audacity/>

Audacity is a free, open-source audio editor and recorder. Audacity streamlines audio and video editing, recording, and sharing. It’s a multi-lingual platform that allows users to convert physical recordings to digital files and edit WAV, AIFF, FLAC, MP2, MP3 or Ogg Vorbis sound files. Audacity is also a multi-track platform that allows users to cut, copy, splice tracks and alter speed, pitch, tone, noise reduction, and more as needed.

CULTURALANALYTICS

CulturalAnalytics

<http://r-forge.r-project.org/projects/rca/>

CulturalAnalytics is an open-source R package containing functions for “statistical analysis and plotting of image properties, including statistics such as the standard deviation and mean in the RGB and HSV color spaces, image entropy and histograms in greyscale (intensity) and color, and for plotting color clouds and image scatter charts.”

TOOLS FOR FINDING EVEN MORE RESOURCES

DEVDH

<http://devdh.org/>

An online training portal to assist digital humanists in the creation and management of digital humanities projects and advancement of digital humanities as a discipline

DH TOOLCHEST: DIGITAL HUMANITIES TOOLS

<http://dhresourcesforprojectbuilding.pbworks.com>

A list of tech tools to create, manage, and share digital humanities projects

DH TOOLS FOR BEGINNERS

<https://medium.com/dh-tools-for-beginners>

A collection of tutorials on tools for digital humanities projects

DIGITAL HUMANITIES AWARDS

<http://dhawards.org>

An annual, non-monetized award highlighting digital humanities resources

DIRT DIRECTORY

<http://dirtdirectory.org>

A directory of tech tools to create, manage, and share digital humanities projects, searchable by task and need

JOURNAL OF DIGITAL HUMANITIES

<http://journalofdigitalhumanities.org/about>

A peer-reviewed, open-access journal on digital humanities tools and scholarship

TAPOR: TEXT ANALYSIS PORTAL FOR RESEARCH

<http://www.tapor.ca/>

An index of digital humanities tools for text analysis, manipulation, visualization, and retrieval