

Introduction to Digital Maps and Data Visualizations

This guide introduces you to the basics of digital mapping and data visualization. Regardless of your discipline, these tools can enhance your research and provide you with new ways to present that research to the world. Many useful tools are available for free online and require little to no programming knowledge.

DIGITAL MAPS

- Try [Tableau](#) with a free educational account! The Swiss army knife of mapping tools. Create a new workbook, connect your data, modify filters and visual elements to make your map. Programming knowledge not required.
- Make basic maps using Google Maps (take advantage of WordPress widgets and plugins), Google Earth, OpenStreetMaps.
- **Geocoding** allows you to generate coordinates for a large number of locations. Use it to plot locations on a map. Try **batch geocoding** at doogal.co.uk/BatchGeocoding.php.
- For more complex tasks, learn to use **GIS** (Graphic Information System). ArcGIS: expensive but solid. QGIS: free and open source.
- Use SketchUp, SketchFab, and MeshLab to create 3D maps. These tools are all free and online. Rich-information 3D maps can also be made using Javascript.

SHARE YOUR WORK ONLINE!

- Put images on your website!
- You can do this simply by taking a screenshot of the image you want.
- To do additional image editing, use GIMP, Photoshop, Apple Photos, or even MS Paint.
- Export your image as a PDF, PNG, or SVG (Scalable Vector Graphic).
- Post to your website and then use the image to link to your analysis.
- Tableau Online hosts maps and images.

VISUALIZATIONS

Data

- [Tableau](#) (see left) offers many ways to visualize data.
- [Palladio](#) is a free, online tool out of Stanford. It does mapping, as well as network visualizations. Works with tabular data, spreadsheets.
- [Gephi](#) is open-source and free to download. A useful, out-of-the-box software for graphs and networks.
- [D3 Gallery](#) - interactive 3D web features made with Javascript.
- Consider a programming course with the [Computer Science Laboratory](#) - learn to customize your data visualization tools.

Text

- [TAPoR](#) offers an archive of visualization tools for texts.
- [Voyant Tools](#) is a web-based platform that reads and analyzes texts to create word clouds, etc. (Make a word cloud, take a screenshot, put it on your website!)
- [Mallet](#) is open-source and free to download. Great for topic modeling - it can automatically classify and compare groups of text.

WANT TO LEARN MORE?

This handout is adapted from information and [materials](#) presented by Dr. Jeffrey Tharsen (Research Computing Center) as part of the UChicagoGRAD Workshop Series "Digital Literacy for Humanists." Dr. Tharsen welcomes questions related to these and other computing topics. Reach him at tharsen@uchicago.edu.

