CHOOSING DIGITAL

MAPPING

IDAH Introductory Series: #iudh

September 7, 2017
MAPPING FOR ARTS & HUMANITIES

- Where are you in the relationship between exploration & research?
  - Do you have spatial data that needs visualizing?
  - Do you need to explore your research data in order to identify its spatiality?

- How will you transfer this approach to your audiences?
  - Carefully consider learning curves for introducing technology, especially in classroom environments
  - Your research question and goals will be translated into functionalities of GIS tools and platforms.

- At what scale are you working?
MAPPING FOR A&H

- Spatial dimensions of your research data
  - Gaps & Clusters
  - Networks & Movement
  - Distance

- Discover, analyze, & visualize spatial aspects of your research.
  - Mapping point data
  - Georeferencing historic maps
  - Creating Interactive Visualizations
  - Customizing basemaps and iconography
GIS VOCABULARY

- **Vector Data**
  - Points
  - Lines
  - Polygons

- **Attribute Data**
  - Other information joined to vector data.

- **Data Formats**
  - CSV
  - Shapefile
  - KML
PLOTTING POINTS

photogrammar.yale.edu
GEOREFERENCING

http://hotchkiss.neatline.org/neatline-exhibits/show/battle-of-chancellorsville/fullscreen
INTERACTIVE VISUALIZATIONS

http://www.nyu.edu/gsas/dept/fineart/projects/
INTERPRETIVE & AFFECTIVE MAPPING

http://mortuarymapping.matrix.msu.edu/maps.html

http://www.lancaster.ac.uk/mappingthelakes/
LIMITATIONS & ERRORS IN MAPPING

- Like any other database, GIS requires categorizing of people, attributes, and geocoding of space.
- Must be attentive to representational decisions in attribute data.
- Use of spatial analysis tools such as color, opacity, and cluster size must be carefully thought-out.
LIMITATIONS & ERRORS IN MAPPING

http://www-personal.umich.edu/~mejn/election/2016/
END WITH YOUR RESEARCH

What method(s) look useful?
What patterns do you think are there?
What data issues will you run into?
CLASSROOM MAPPING EXERCISE

- Google Maps
  - Low barrier for students
  - Need Google account
  - Some set-up needed
MAPPING EXERCISE

- Workshop Steps:
- Go to: https://iu.box.com/v/mappingdraft
  Redirects to a Google Map
- Make sure you are signed in to Google
- Click “Edit” at top of map
MAPPING EXERCISE

- In your phone or computer, go to Photos → Albums → Places
- Find the photo that makes you happiest.
- Save to your favorites so it’s easy to find again.
FINDING THE COORDINATES

- **Using Google Maps:**
  - Open a new map on maps.google.com
  - Click on the map, where your photo was taken, and look at the information on the pop-up.
  - The coordinates in **decimal degrees** are in gray.
FINDING THE COORDINATES

- **Using Your Phone’s Metadata:**

  If you want **precise coordinates**, go to:  
  [http://exif.regex.info](http://exif.regex.info)

- **Works best from your phone.**

- **Upload your photo and look for the Location data.**

- **We’re looking for the coordinates in decimal degrees.** (Circled in red)
ADDING THE POINT TO GOOGLE MAPS

- Copy the Decimal Degree Coordinates into the Google Map search bar.
  - **Option 2:** type in the location of your photo as if you were looking for directions, e.g. “IU Herman B Wells Library.”

- Add your point to the map.
- Make decisions about the color and iconography of your point.
- Add your photo to your map point, if you’d like.
  - Easiest way for Macs: drag the photo from your Photos application to your desktop and import it from there.
MAPPING EXERCISE

- What spatial information have we discovered by creating this visualization?
  - Unexpected or unexplained gaps or clusters?

- Consider the parameters of the assignment.
  - Photos from Bloomington? IU Campus? Anywhere?
  - How would we map a timeline, narrative or experience?
This series, part of the Scholars’ Commons Workshop Series, features a number of sessions about maps and map-making. Topics include digital cartography tools, web maps, Geographic Information Systems (GIS), Spatial Humanities, and crowdsourced maps.

Core Concepts of GIS and Cartography  
Wednesday, October 4 | 2:00 – 3:00pm  | Hazelbaker Hall (Wells E159)  
This is a great place to get an overview of the field, and is designed for both those totally new to cartography/GIS and those who want to dive a bit deeper into cartographic conventions.

Basics of Satellite Imagery  
Tuesday, October 17 | 2:00 – 3:00pm  | Hazelbaker Hall (Wells E159)  
We’ll learn how imagery is collected, how it is used in various fields, resources for finding imagery, and what we can learn from imagery analysis. We will discuss applications for satellite imagery in monitoring climate change, determining elevation, humanitarian efforts, and for intelligence operations.

Consultation hours with Librarian Theresa Quill  
Tuesdays 2:00 – 4:00pm  | 157R  
Questions? Email Theresa Quill at theward@indiana.edu.
# Digital Methods Skill-Building

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Time</th>
<th>Digital Tools and Visualization Methods for Humanities series</th>
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</thead>
<tbody>
<tr>
<td>Network Analysis</td>
<td>Sept 14</td>
<td>10:30am</td>
<td><a href="http://go.iu.edu/1Gz0">http://go.iu.edu/1Gz0</a></td>
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<td>Making Digital Objects</td>
<td>Sept 21</td>
<td>Noon</td>
<td><a href="http://go.iu.edu/1Gz0">http://go.iu.edu/1Gz0</a></td>
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**Thursdays in August & September**

Wells Library, room E174

**Further Resources:**

**IDAH Consultation Hours:** Tuesdays 10a-12p; Wednesday 2-4p; Fridays 10a-12p

**GIS Librarian** – Theresa Quill, Consultation and workshops for GIS. [theward@indiana.edu](mailto:theward@indiana.edu)

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