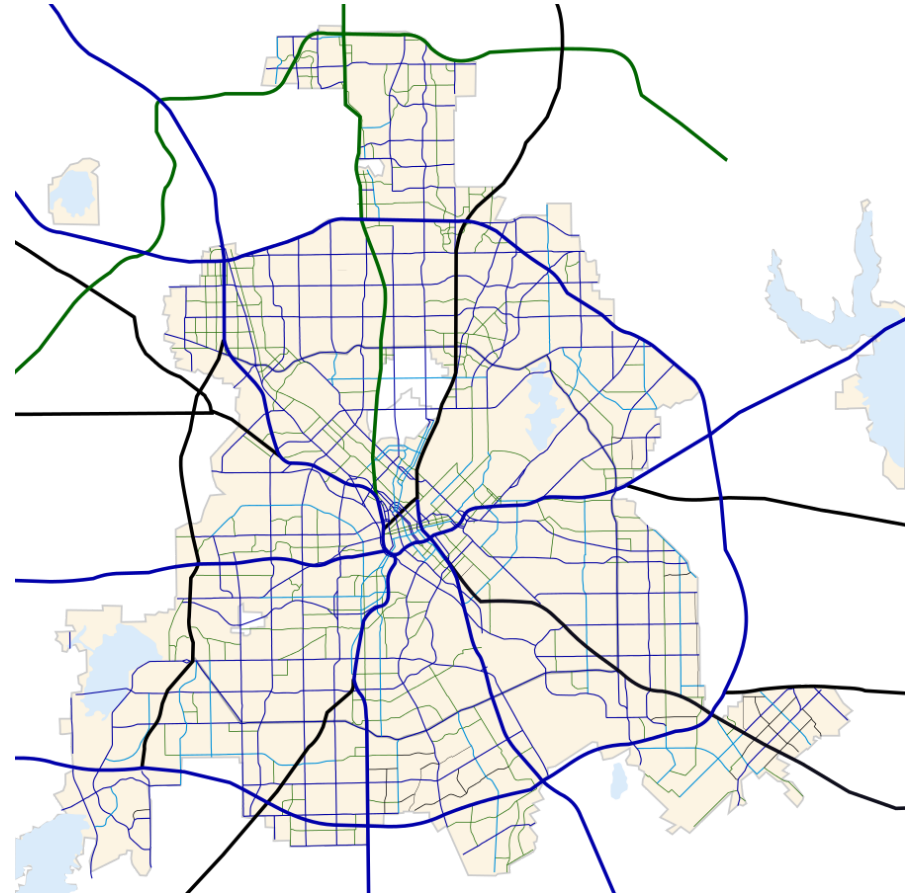


INFO 5970: Reimagining Data with Deep Maps

Ateanna Uriri



PURPOSE: To offer a multifaceted and dynamic alternative to the traditional methods of data curation and analysis via deep mapping.

QUESTIONS:

- Why should there be deep maps?
- What role can deep maps play in curating and analyzing data?

TO BEGIN: What is deep mapping?

"A deep map refers to a map with greater information than a two-dimensional image of places, names, and topography" (Wikipedia).

"Deep maps are finely detailed, multimedia depictions of a place and the people, buildings, objects, flora, and fauna that exist within it and which are inseparable from the activities of everyday life" (Bodenhamer, Corrigan, & Harris).

"Deep mapping is the attempt to map places. A deep map may take several forms, including things that are not a map at all. For instance, in some uses of the term, a 'deep map' may be an essay exploring the meaning of a place" (Mullen).

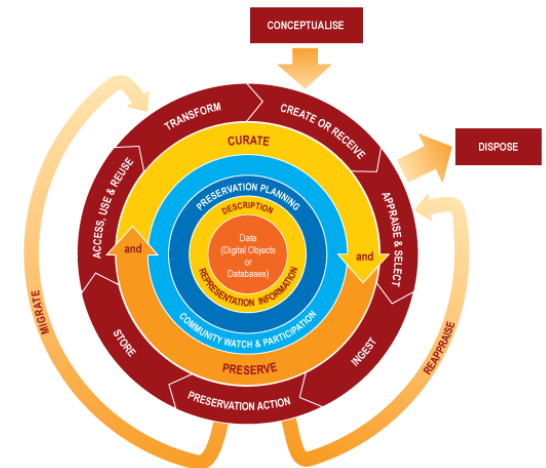
TL;DR version: Deep mapping can be many things that may or may not include an actual map. Essentially, it is a critical exploration of place - historical, emotional meaning, for example, and *not* (just) space - geographical coordinates or traditional geographical data.

Library and information science concept: DATA CURATION and DATA ANALYSIS

Data curation is "the **active and ongoing management** of data [sic] throughout its **entire lifecycle** of **interest and usefulness to scholarship**" (Cragin et al. 2007), from the Digital Humanities/Data Curation guide (Flanders & Muñoz).

Data analysis is a "process of inspecting, cleansing, transforming, and modeling data with the goal of discovering useful information, informing conclusions, and supporting decision-making" (Wikipedia).

Image: Data curation lifecycle model from the Digital Curation Centre



How does deep mapping and data curation/analysis meet?

Using the definition of data curation to guide my research, I wanted to identify how dynamic deep mapping could be for the processes of data analysis and curation.

- **active and ongoing management** - various textual, geographical, and historical data that has been collected and stored for other purposes can be translated, transformed, combined and/or overlaid with maps (especially those in digital map collections) photographs, video and literature/commentary (spoken or written); a connection of possibly disparate data can be created or enriched via this type of study
- **entire lifecycle** - deep mapping can have a lasting effect, in addition to increased evidentiary value for historical analysis and stewardship of our cultural heritage (Flanders & Muñoz).
- **interest and usefulness to scholarship** - whether within academia or outside of it, deep mapping can create a new arena or subset of scholarship that relates to the study, especially in the realm of open access or fair use.

How can these concepts/topics be coupled?

ACTIVITY THEORY

Developed during the early to mid-20th century by Russian psychology researchers, Lev Vygotsky, Alexei Leont'ev, and Sergei Rusinstein, activity theory, also known as cultural historical activity theory (CHAT), is a descriptive and illustrative framework that examines how activity mediates interaction between subjects and objects and how that activity forms and molds the subject's - an individual or group - consciousness.

deyatel'nost (ДЕЯТЕЛЬНОСТЬ)

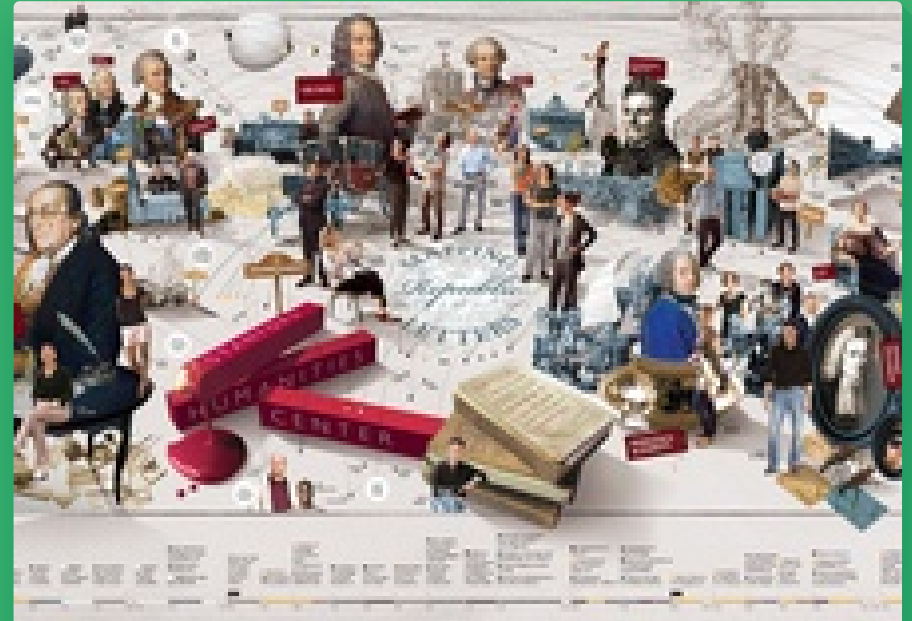
This specific Russian translation for "activity" speaks more to how objects are transformed during the activity than to the simple act of doing or engaging in an activity (as cited by Wilson, 2008, p. 120).

"Activity theory incorporates strong notions of intentionality, history, mediation, collaboration and development in constructing consciousness" (Nardi, 1996, p. 4).

Transformation is key in moving away from simple analysis and ingestion and storage.

Making data active: CASE #1 - *Mapping the Republic of Letters*

Using 55,000 records and 6,400 correspondents from the Electronic Enlightenment Project (EEP) database, which is a product of the Bodleian Library at Oxford University, researchers from **Stanford University** and their partners seek to answer the questions, “[W]hat did these networks actually look like? Were they as extensive as we are led to believe? How did they evolve over time?” (Stanford University, 2013).



Mapping the Republic of Letters

Making data active: CASE #2 - Mapping *Cholera*

Adapted from a chapter of Sonia Shah's book, "Pandemic: Tracking Contagions, from Cholera to Ebola and Beyond," Shah uses digitized materials made freely available by the New York Public Library to visually detail the move of cholera in New York and Haiti.

Mapping Cholera | A Tale of Two Cities

PULITZERCENTER

Making data active: CASE #3 - Urban Scratchoff

Overlaying current and historical aerial images of New York City, users can "scratch" away to take a look at the new and old and how much New York City has changed.

Urban Scratchoff

URBANSCRATTOFF

TAKEAWAY/FINDINGS

Deep mapping is a dynamic discipline that has space to grow to include many possibilities and opportunities in emerging research and scholarship. Understanding the ways in which current and potential researchers of this topic and users identify and

contextualize deep map exploration can result in a varying array of projects. Specifically, in the realm of museums and other cultural centers, deep maps fall in line with the current and emerging technologies being implemented.

No matter how deep mapping is defined, the **transformation** that takes place during its process pushes forward research by finding new questions from old data and gives those in the LIS profession a chance to critically examine traditional methods of metadata and cataloging, for example, and find ways to better describe data.

REFERENCES

Flanders, J., & Muñoz, T. (n.d.). An introduction to humanities data curation. Retrieved from <http://guide.dhcurator.org/contents/intro/>

Mullen, L. Deep maps. Retrieved from <http://lincolnmullen.com/projects/spatial-workshop/deep-maps.html>

Nardi, B. A. (1996). Activity theory and human-computer interaction. *Context and consciousness: Activity theory and human-computer interaction*, 436, 7-16.

REFERENCES (*con't*)

Oxx, K., Brimicombe, A., & Rush, J. (2013).

Envisioning deep maps: Exploring the spatial navigation metaphor in deep mapping.

International Journal of Humanities and Arts Computing, 7(1-2),

201-227. doi:10.3366/ijhac.2013.0090

Ridge, M., Lafreniere, D., & Nesbit, S.

(2013). Creating deep maps and spatial narratives through design.

International Journal of Humanities and Arts Computing, 7(1-2), 176-189.

doi:10.3366/ijhac.2013.0088

Stanford University. (2013). Mapping the republic of letters. Retrieved from

<http://republicofletters.stanford.edu/index.html>

Wilson, T. D. (2008). Activity theory and

information seeking. *Annual Review of Information Science and Technology*, 42(1), 119-161.