

The Anatomy of DH Projects

What:

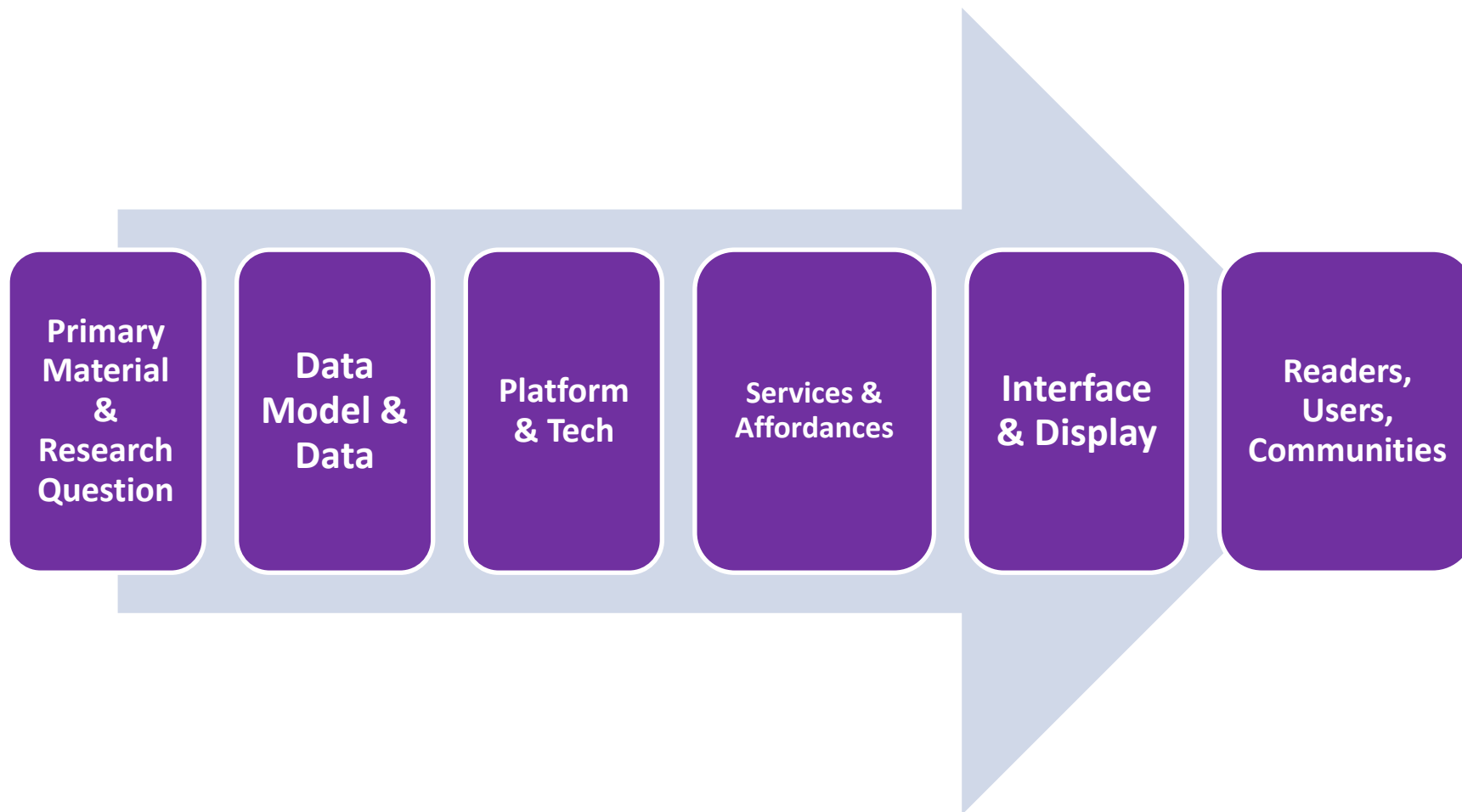
- Anatomy of DH Projects

Why:

- Design & evaluation of DH projects specifically
- Design & evaluation of projects (digital and otherwise) more generally
- Understanding of knowledge production in digital environments

DH Project Anatomy

- Primary Material
- Research Question
- Data Model & Data
- Platform & Technical Infrastructure
- Services: Query, Search, Processing, Analysis
- Interface & Display
- Scholarly Documentation
- Readers, Users, Communities



What are primary materials in the humanities?

ou ne devait pas présenter lui-même sa défense. Si l'état était directement intéressé à une affaire, s'il par exemple il s'agissait d'un procès de haute trahison, il ne fallait pas qu'en un cas aussi grave la défense de l'intérêt public fût abandonnée à l'initiative privée. La république désignait donc des orateurs, chargés de la représenter, et de soutenir l'accusation. Dans tous ces cas, il avait bien fallu déroger à la règle, et admettre que le plaideur se pouvait faire représenter par autrui.

De même, s'il s'agissait d'un laboureur, d'un vigneron, d'un matelot ou d'un soldat, dont la langue indocile se montrait rebelle à la parole, il devenait bien difficile d'appliquer la loi. C'étaient vraiment perdre le temps des juges, et aussi se moquer d'eux que de leur produire un plaideur absolument incapable d'exposer le premier mot de son affaire. N'était-ce pas d'ailleurs une injustice criante que de pauvres vieux soldats blanchis sous le harnais, qui dans maints combats s'étaient bravement distingués, fussent ainsi réduits à l'état de simples témoins, et que de jeunes gens, qui n'avaient encore que des idées vagues sur la guerre, fussent admis à plaider en leur nom?

Text



Images



Sounds & Music



Films



Live Performances

ābēcēdē

→ abecedaria

Noun, f.; 1x m. or n.

Att. sp.: F: abecede.

M. or N.: abecedes.

3 occ. (mainly in ByrM)

a. an ABC, th
'in alphabet

Words, Languages,
Grammars

se abecedes

Research questions?

- Give me some examples based on the DH projects you have surveyed.

Data Models

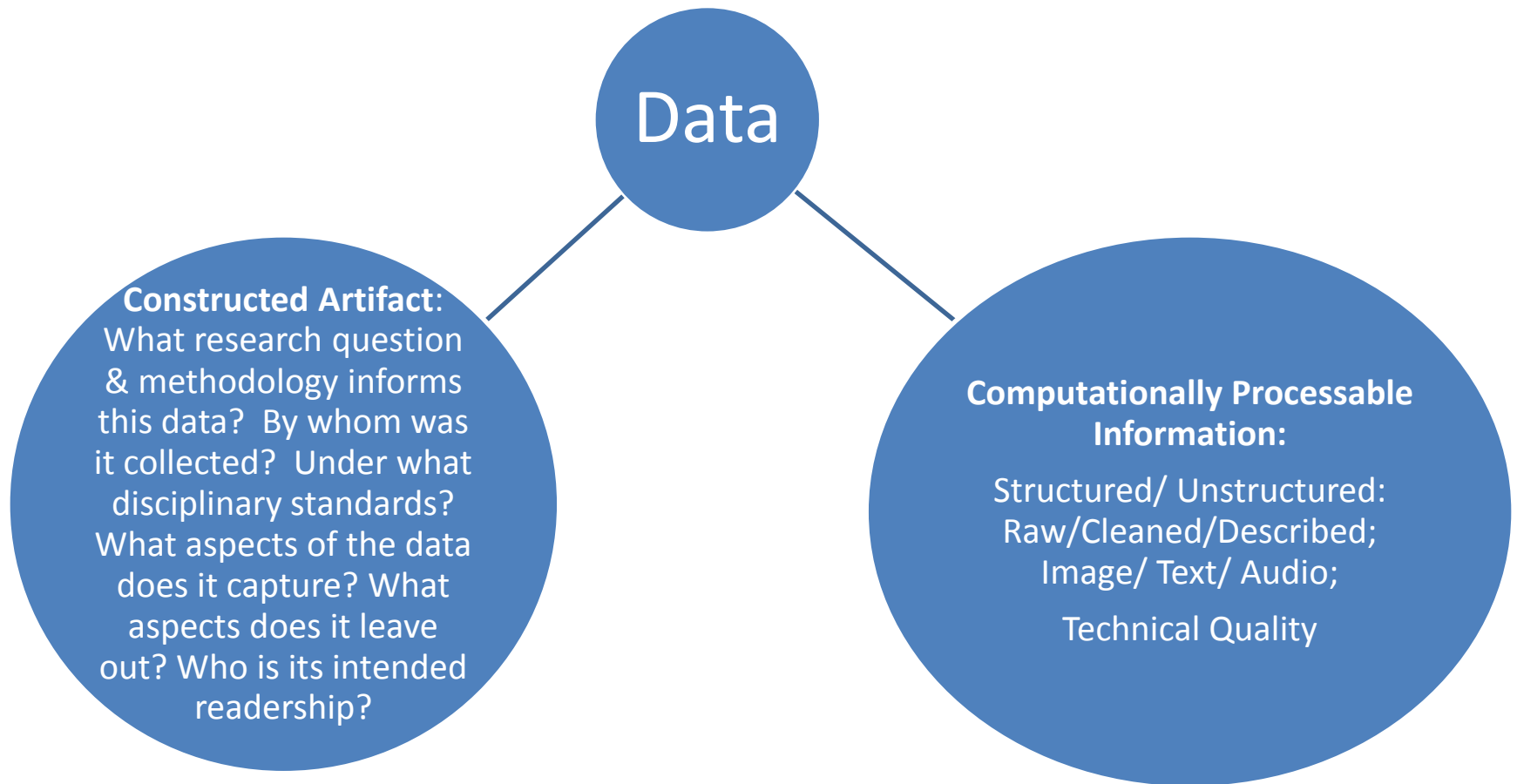
- An abstract description of data: what is your data? What properties or aspects does each piece of data have? What constraints do you place on each aspect—i.e. should one aspect always be a number? A year between 1900 and 2000? A phone number? A piece of text? How many parents should a child be allowed to have? How many husbands, a wife?

“a collection of conceptual tools for describing data, data relationships, data semantics, and consistency constraints”
(Silberschatz et al., 1996:7)

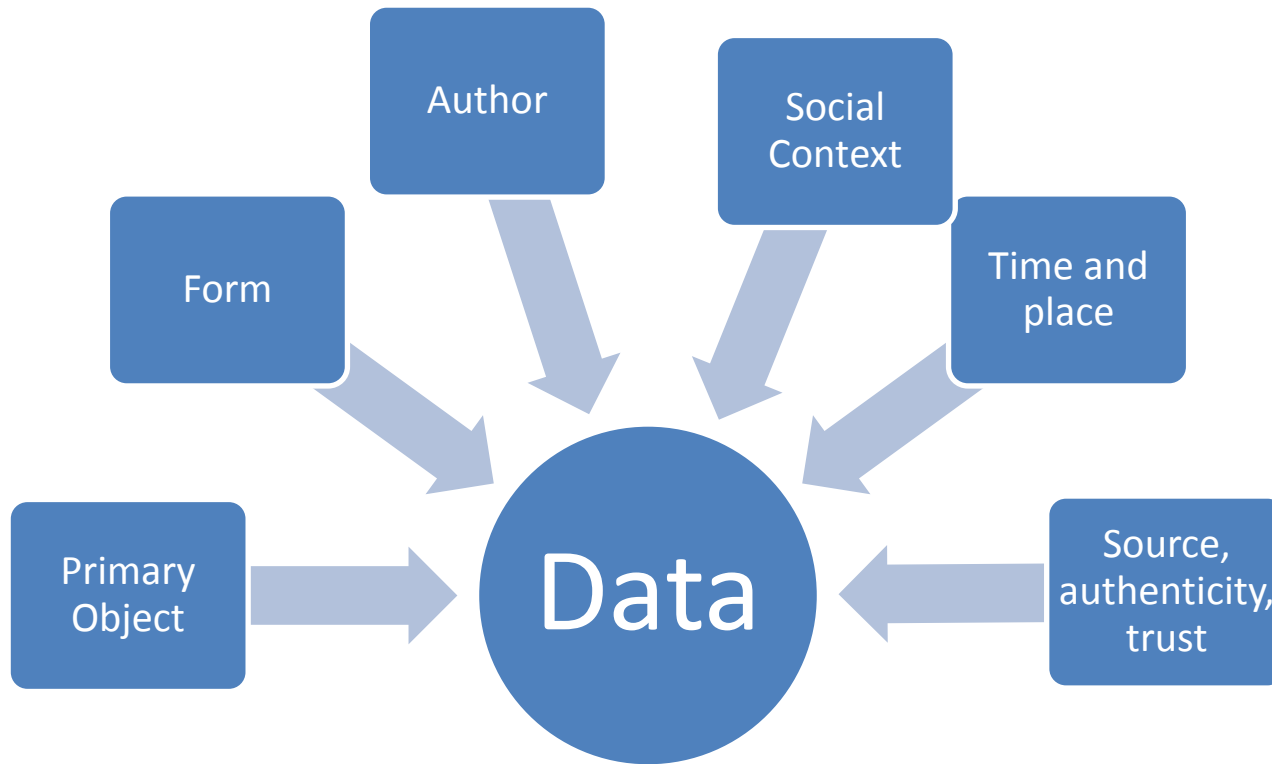
Data Models

- Books in a public library
- Married couples in early modern Florence

Humanities' Data: Use by Scholars



Humanities' Data: Some Aspects



Humanities' Data:

- Data representation = interpretation:
- The process of modelling and collecting our data is an interpretive process that is shaped by our choices re. what aspects of the data we model; by our research question, argument, perspective, discipline, social context, institutional context, tools available etc.

Humanities' Data

- “[DH visualization tools borrowed from the sciences] carry with them assumptions of **knowledge as observer-independent and certain**, rather than **observer co-dependent and interpretative**. [...] To begin, the concept of **data as a given** has to be rethought through a humanistic lens and characterized as **capta, taken and constructed**.” Johanna Drucker, “Humanities Approaches to Graphical Display.”

Humanities' Data

“When you call something data, you imply that it exists in **discrete, fungible units**; that it is **computationally tractable**; that **its meaningful qualities can be enumerated in a finite list**; that **someone else performing the same operations on the same data will come up with the same results**. **This is not how humanists think of the material they work with.**” (Miriam Posner, <http://miriamposner.com/blog/humanities-data-a-necessary-contradiction/>)

Thoughts? Examples?

Humanities' Data

Humanities' data has depth in small universes. Our material has the capacity to unfold inwards, as it were, to disclose layer upon layer of insights and connections, within a comparatively tiny amount of data--almost an inverse matryoshka, as it were, where each inner doll is bigger and more complex than the one encasing it.



Photo: BrokenSphere - Own work, CC BY-SA 3.0,
<https://commons.wikimedia.org/w/index.php?curid=377318>

6



Doll carved by Zvezdochkin, painted by Malyutin - Sergiev
Posad Museum of Toys, Russia, Public Domain,
<https://commons.wikimedia.org/w/index.php?curid=5051554>

Single

Engaged

Divorced



It's Complicated

Separated

In a Relationship

Married

WHEN A USER TAKES A PHOTO,
THE APP SHOULD CHECK WHETHER
THEY'RE IN A NATIONAL PARK...

SURE, EASY GIS LOOKUP.
GIMME A FEW HOURS.

... AND CHECK WHETHER
THE PHOTO IS OF A BIRD.

I'LL NEED A RESEARCH
TEAM AND FIVE YEARS.





IN CS, IT CAN BE HARD TO EXPLAIN
THE DIFFERENCE BETWEEN THE EASY
AND THE VIRTUALLY IMPOSSIBLE.

technology, n.

Text size: A

View as: Outline | [Full entry](#)

Quotations: Show all | [Hide all](#) Keywords: On | [C](#)

Pronunciation: Brit.  /tɛk'nɒlədʒi/, U.S.  /tɛk'nələdʒi/

Forms: 16 *technologie*, 16– *technology*.

Frequency (in current use): ●●●●●●●●

Origin: Of multiple origins. Partly a borrowing from Latin. Partly a borrowing from Greek. **Etymons:** Latin *technologia*; Greek *τεχνολογία*.

Etymology: < post-classical Latin *technologia* treatise on the liberal arts (1607 (in a work title) or earlier), systematic treatment of grammar (1612 or earlier) and its etymon Hellenistic Greek *τεχνολογία* systematic treatment (of grammar, etc.) < ancient Greek *τέχνο-* *TECHNO-* *comb. form* + *-λογία* *-LOGY comb. form*. In sense 2 perhaps after French *technologie* (1656 in this sense; the other senses of the English word are apparently not paralleled in French until later: discourse or treatise on arts (1750), branch of knowledge dealing with the mechanical arts and applied sciences (1803), technical know-how, machinery or equipment collectively (both mid 20th cent. or earlier)). In sense 4a probably after German *Technologie* (second half of the 18th cent. in this sense; earlier in sense 'terminology, also the systematic study of this' (1735); subsequently (probably after English) in senses 'branch of knowledge dealing with the transformation of raw materials into finished products in industry and manufacturing' (19th cent.), 'technological know-how' (20th cent. or earlier)). [\[Show Less\]](#)

†1. A discourse or treatise on an art or arts; *esp.* (in later use) a treatise on a practical art or craft. *Obs.*

[Thesaurus »](#)

In quot. 1612 perh.: academic discussion or disputation generally.

- 1612 tr. I. Casaubon *Answer Epist. Peron* sig. A3v, Men, void of Gods spirit, commonly and promiscuously did dispute of spirituall things, and conuert Theologie into technology, that is, make no other vse of Diuinity but as a matter of learned, or artificiall discourse, as they talke of other arts and sciences out of humane reason.
- 1615 G. BUCK *Third Univ. Eng.* xlviij, in E. Howes *Stow's Annales* (new ed.) 988/2 An apt close of this general *Technologie*.
- 1628 T. VENNER *Baths of Bathe* 9 Heere I cannot but lay open Baths *Technologie*.
- 1706 *Phillips's New World of Words* (new ed.) *Technology*, a Description of Arts, especially the Mechanical.
- 1860 *Vanity Fair* (N.Y.) 7 Apr. 235/1 We have Classical Dictionaries, Dictionaries of Science,..Cyclopædias and *Technologies* without Number.

"technology, n."
OED Online.
Oxford University
Press, December
2016. Web. 6
February 2017.

Technology – cont'd

4.

a. The branch of knowledge dealing with the mechanical arts and applied sciences; the study of this.

1787–1998

b. The application of such knowledge for practical purposes, esp. in industry, manufacturing, etc.; the sphere of activity concerned with this; the mechanical arts and applied sciences collectively.

Freq. with modifying word, as *alternative technology*, *applied technology*, *food technology*, *information technology*, *space technology*: see the first element.

1829–2007

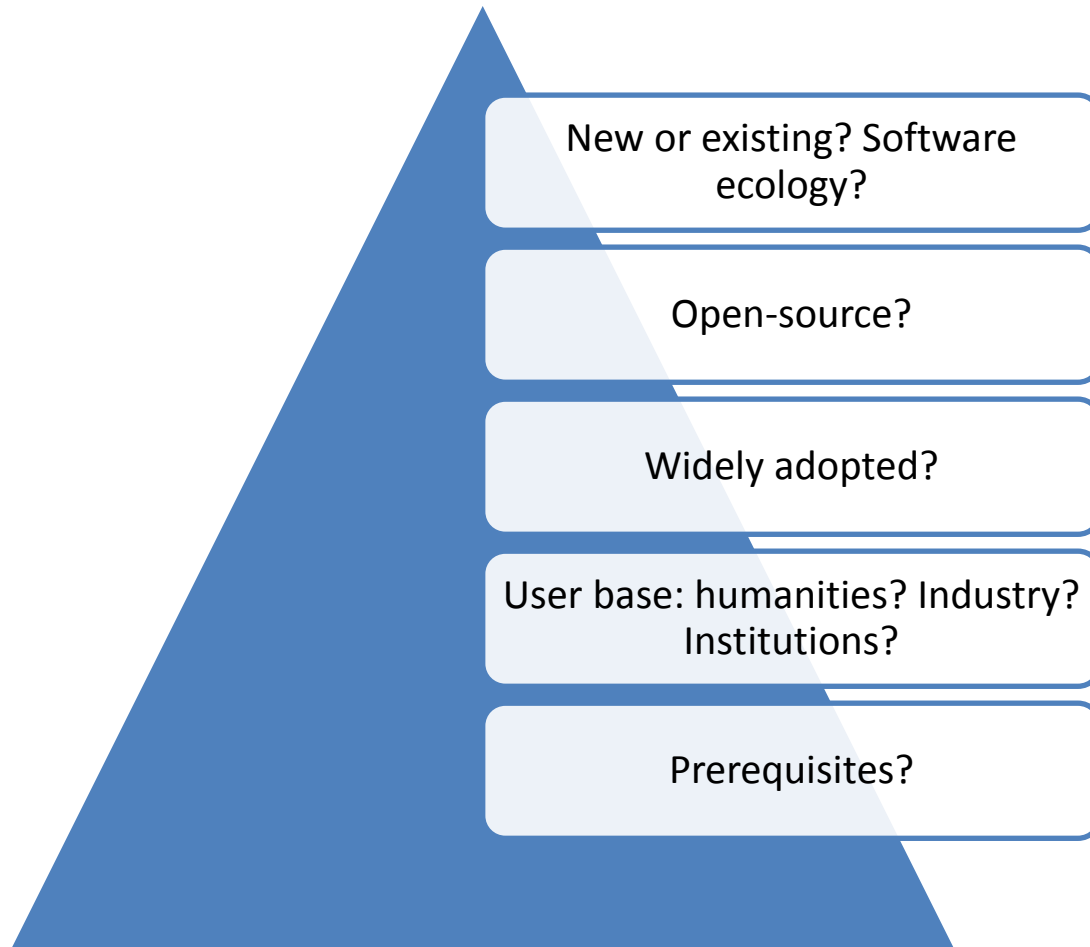
c. The product of such application; technological knowledge or know-how; a technological process, method, or technique. Also: machinery, equipment, etc., developed from the practical application of scientific and technical knowledge; an example of this. Also in extended use.

1898–2003

5. A particular practical or industrial art; a branch of the mechanical arts or applied sciences; a technological discipline.

"technology, n." *OED Online*. Oxford University Press, December 2016. Web. 6 February 2017.

Technology in DH



Affordances

Affordances of a technology =
properties of a technology that
enable certain tasks; tasks that users
can perform with a technology

"affordance, n." *OED Online*. Oxford
University Press, December 2016. Web.
6 February 2017.

2002 *New Yorker* 25 Mar. 93/1 Digital documents..have their own affordances. They can be easily
searched, shared, stored, accessed remotely... But they lack the affordances that really matter to a
group of people working together.

Affordances

- What are some affordances or services of your surveyed DH projects: query, search, processing, analysis?

Interfaces & Display

- Discuss the interfaces & visual displays of your surveyed projects. How do you interact with your project?

Display as Argument: Visual Knowledge Creation

- Data vs. Capta
- Display as argument:

“Graphic artifacts present knowledge through the combination of symbolic codes and structured relations of these elements in a flat field. [...T]he forms that are generally used for the presentation of information can be understood and read as **culturally coded expressions of knowledge with their own epistemological assumptions and historical lineage**” (Drucker, “Graphesis: Visual Knowledge Production and Representation,” 2011).

displays and visualizations =
“culturally coded expressions of
knowledge with their own
epistemological assumptions and
historical lineage”

From Johanna Drucker's “Humanities Approaches to Graphical Display”:

Figure 16. Dr. John Snow's visualization of cholera deaths in London, 1854. Graphic credit Xárene Eskandar.



Figure 17. Snow's chart altered. Graphic credit Xárene Eskandar. Figure 17. Snow's chart altered. Graphic credit Xárene Eskandar.



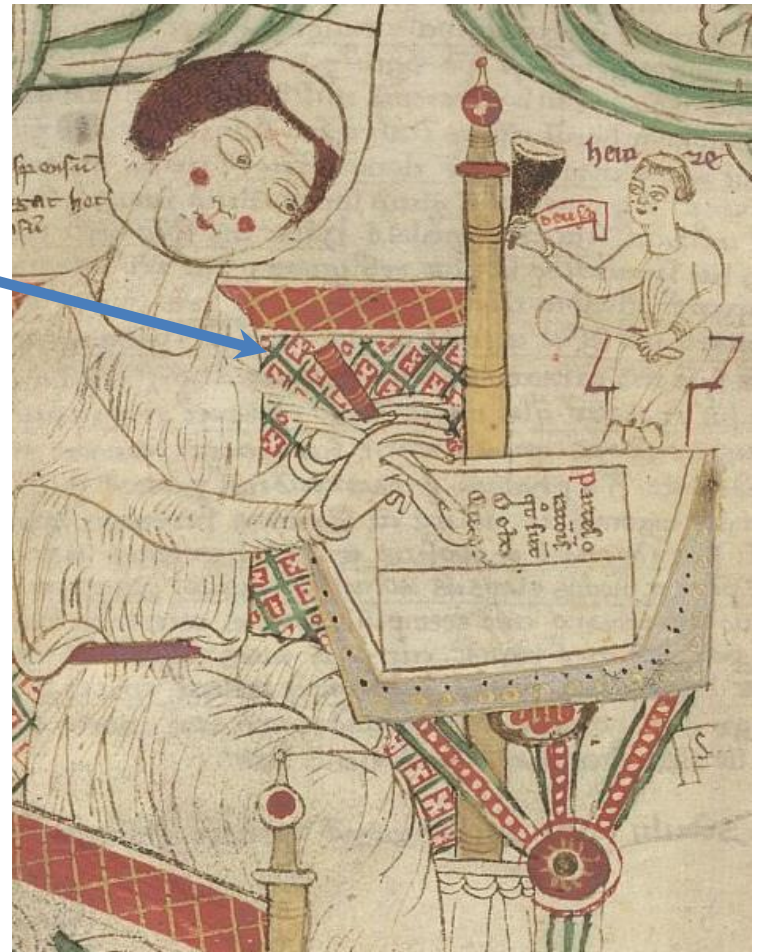
“Who are those dots? Each individual had a profile, age, size, health, economic potential, family and social roles. [...] But what if we take the rate of deaths, their frequency, and chart that on a temporal axis inflected by increasing panic. Then give a graphical expression to the shape of the terrain, that urban streetscape, as it is redrawn to express the emotional landscape. Then imagine drawing this same streetscape from the point of view of a mother of six young children, a recent widow, a small child, or an elderly man whose son has just died” (Drucker, “Humanities Approaches”).

Exercise

Users, Readers, Communities



British Library, MS. Arundel 43, f.
80v . Donatus writing his Grammar.



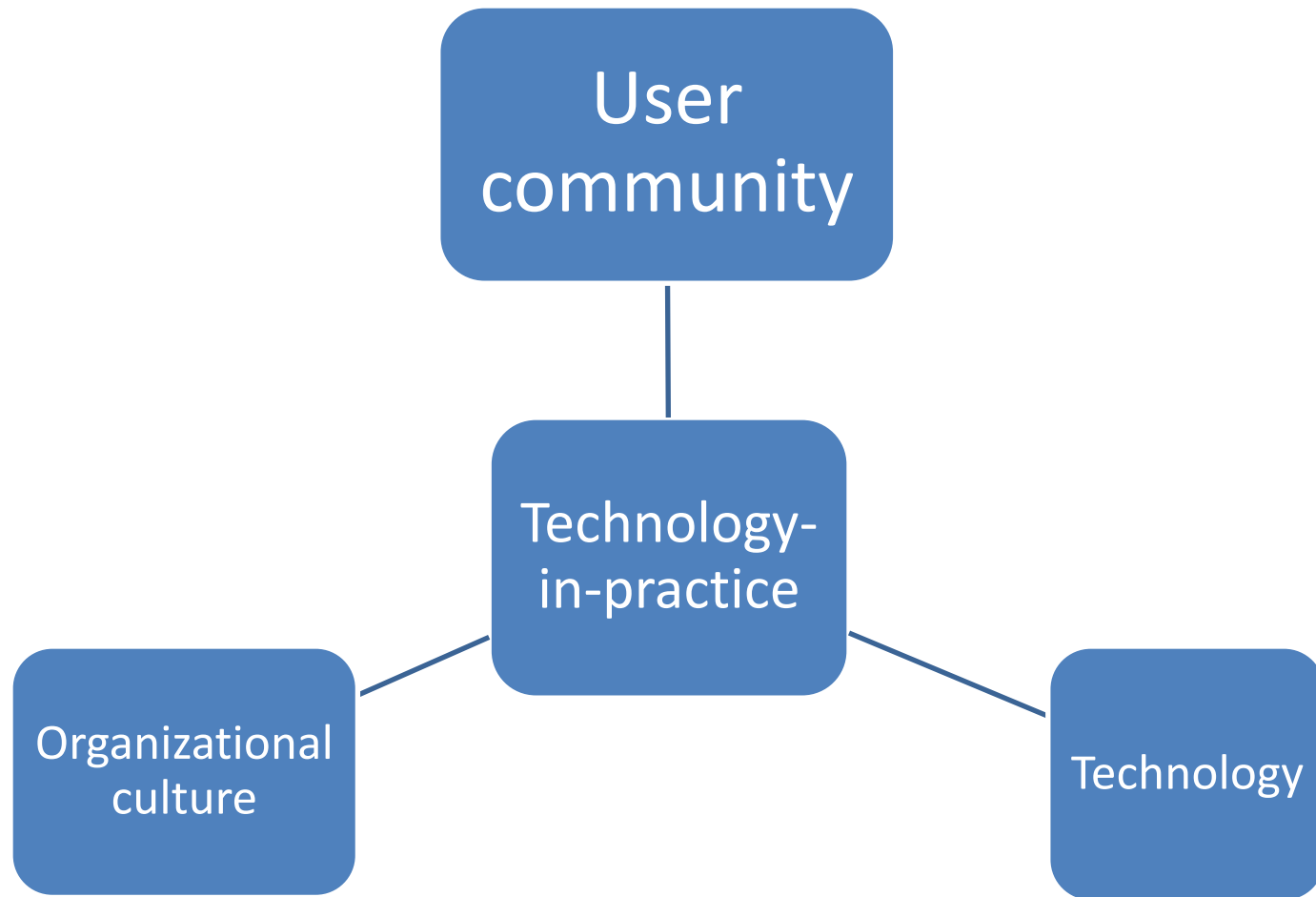
Users, Readers, Communities

When you study the properties or affordances of a project or technology, consider:

- Who is “The User” imagined by the technology?
- In practice, who are users of the technology?

Why?

Technology-in-practice (Wanda Orlikowski)



- The notion of “technology-in-practice” suggests that the technology is not just the machinery, digital or analog, but on the one hand **the organizational or institutional culture around it** and on the other hand, **the needs and practices of its user community**. Organizational culture and user community create a “behavioural and interpretive template” for the use of a technology.
- Thus the term technology-in-practice describes the technology not in itself, but in the ways it is extended, adapted, used, and misused by a specific user community—whether by ignoring an entire set of functions, or by extending its functionality through plugins or customizations, or by using it for purposes never foreseen by its designers. More briefly, technology-in-practice is “**what people actually do with the technological artifact in their recurrent, situated practices**.” (Orlikowski, Wanda J. “Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations.” *Organization Science*, vol. 11, no. 4, 2000, pp. 404–428. www.jstor.org/stable/2640412.)
- In a digital humanities context, technology-in-practice is software and data as used by scholarly communities of practice, within institutional and disciplinary concerns and constraints.

[E]ven doorknobs have politics in that they may be round, requiring a human hand to turn them, or shaped as levers, such that a person with a prosthetic limb or an armload of groceries with one free elbow can still successfully use them. This is more than simply a matter of utility. Both designs are political in that they presume and construct different kinds of worlds, with the round doorknob presuming a world in which everyone's bodies are the same, and in which hands with opposable thumbs and sufficient grip strength are always available (Galey, Alan, and Stan Ruecker. "How a Prototype Argues." *Literary and Linguistic Computing* 25.4 (2010): 405-24. Web. 6 Feb. 2017).

- What groups of users/readers are invited in? What groups of users/readers are shut out?
- Consider:
 - use of e.g. assistive technologies like screen readers, speech recognition, close captioning, etc.
 - scholars vs. laypersons
 - level of technical training (or lack of it)
 - limited access to (powerful) computers
 - limited internet bandwidth
 - race, gender, social class, financial status, age.
- What tradeoffs and compromises does the technology perform in order to invite wider access?

- Minimal Computing: what do you need to happen? What is the *bare minimum* of resources for making it happen?

(Alex Gil)

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