## DIGITAL HUMANITIES IN PRACTICE: PRINCIPLES, TOOLS and PROCESSES

Vizualization & Digital Mapping



Rayane Fayed & Hossein Hamam Instructional Designers American University of Beirut

#### Digital Humanities

- Encompasses the practice of humanities research in and through information technology.
- ✓ Explores how the humanities may evolve through their engagement with technology, media, and computational methods.

fppt.com

#### Among the things they provide

Collections of dispersed research materials

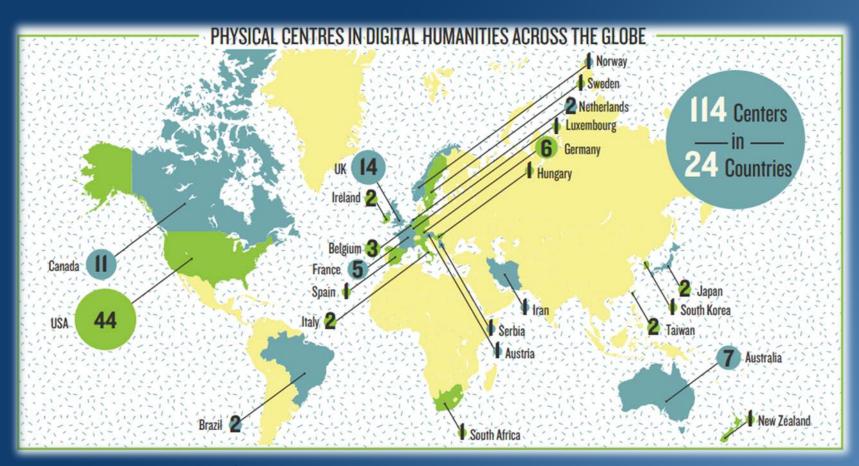
New ways of processing & representing data

New connections between different types of data

Support for collaboration, networking and community building

New forms of output and dissemination

#### Some info and statistics



**Quantifying Digital Humanities - 2011** 



#### A GLIMPSE INTO DH PROJECTS

## A Gallery of Primary Sources: Making the History of 1989

# MAKING THE HISTORY OF 1989

Search

Advanced Search

#### The Fall of Communism in Eastern Europe



Introductory Essay

Sets the scene for the events of 1989 and explains their significance in world history.



Primary Sources

Over 300 primary sources, including government documents, images, videos, and artifacts with introductory notes.



Scholar Interviews

Four scholars focus on the history & events surrounding 1989 through primary sources.



Teaching Modules

Modules provide historical context, strategies, and resources for teaching the history of 1989 with primary sources.



Case Studies

Teaching case studies provide historical context and strategies for teaching the history of 1989 with primary sources.

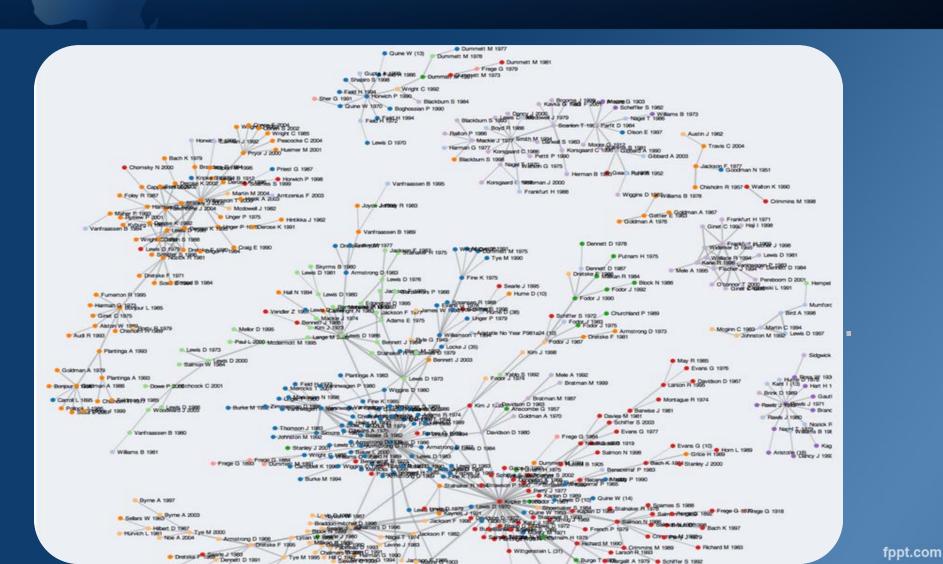
#### A Digital Scholarly Edition: The Willa Cather Archive



### A Mapping Project: The Negro Travelers' Green Book



#### A Network Visualization: A Co-Citation Network for Philosophy





http://pelagios-project.blogspot.com/p/about-pelagios.html

http://dhcommons.org/projects

#### So what are we looking at?

Text
Analysis &
Encoding

Data Capturing

Visualization

Digital Mapping

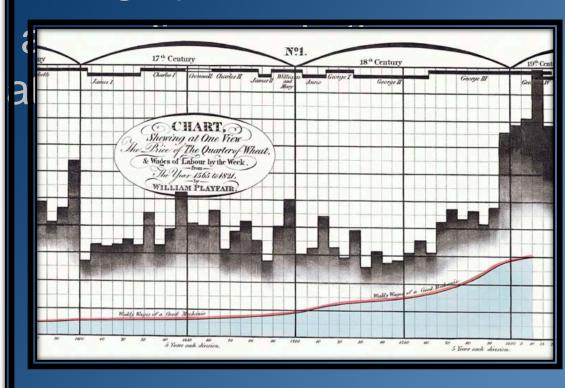
& More...

#### Visualizations

Table 4.1 Comparison of Wages and Expenses, 1570–1820

Year	Price of wheat (Shillings/quarter)	Weekly wages of a "good Mechanic" (Shillings)	Reigning Monarch
1570	45	5.1	Elizabeth
1580	49	5.4	Elizabeth
1590	47	5.6	Elizabeth
1600	27	5.9	Elizabeth
1610	33	6.1	James I
1620	35	6.4	James I
1630	45	6.6	Charles I
1640	39	6.9	Charles I
1650	41	7.0	Charles I
1660	46	7.4	Cromwell
1670	38	7.8	Charles II
1680	35	8.2	Charles II
1690	40	8.6	James II
1700	30	9.0	William & Mary
1710	44	10.6	Anne
1720	29	11.7	Anne
1730	25	12.8	George I
1740	27	13.9	George II
1750	31	15.0	George II
1760	31	17.0	George II
1770	48	19.0	George III
1780	46	22.0	George III
1790	48	26.0	George III
1800	79	29.0	George III
1810	99	30.0	George III
1820	54	30.0	George IV

#### ed as graphics.



#### Digital mapping

"Mapping is not a one-time thing, and maps are not stable objects that reference, reflect or correspond to external reality. Mapping is a verb and bespeaks an on-going process of picturing, narrating, symbolizing, contesting, re-picturing, re-narrating, re-symbolizing, erasing, and re-inscribing a set of relations."

Presner/Shepard/Kawano HyperCities: Thick Mapping in the Digital Humanities

#### Spatial data for humanists

There are usually several units of analysis in humanities research that can be associated with a place on the earth.

Place of publication

Place of birth or death

Stops on a pilgrimage route

Location of tweets etc...

The map you make reflects your research question and the data collected.

## Spatial datasets can be as simple as....

medieval name	real place	coordinates	source geodata
Turquie	Turkey	39, 35	http://www.geonames.org/298795/republic-of-turkey.html
Tir	Tyre, Lebanon	33.27333, 35.19389	http://www.geonames.org/267008/tyre.html
Walinforde	Wallingford, England	51.59982, -1.1248	http://www.geonames.org/2634869/wallingford.html
Warrewik	Warwick, England	52.28333, -1.58333	http://www.geonames.org/2634725/warwick.html
North	Winchester, England	51.06513, -1.3187	http://www.geonames.org/2633858/winchester.html
Wincestre	Winchester, England	51.06513, -1.3187	http://www.geonames.org/2633858/winchester.html
Everwik	York, England	53.96396, -1.09142	http://www.geonames.org/2633351/city-of-york.html
Acre	Akko, Israel	32.927778, 35.081667	http://www.geonames.org/295721/-akko.html
Alemaigne	Germany	51.5, 10.5	http://www.geonames.org/2921044/federal-republic-of-germany
Alos	Aalst, Belgium	50.93604, 4.0355	http://www.geonames.org/2803448/aalst.html
Amand	Saint-Amand-les-Eaux, France	50.44718, 3.43076	http://www.geonames.org/2981839/saint-amand-les-eaux.html
Andelousie	Andalusia, Spain	37.6, -4.5	http://www.geonames.org/2521750/andalusia.html
Artois	Artois, France	50.5, 2.5	http://www.geonames.org/3036644/artois.html
Anserre	Auxerre, France	47.8, 3.56667	http://www.geonames.org/3035843/auxerre.html

#### Geographical dictionaries

- ✓ Personal gazetteers (lists of places and any metadata)
- ✓ National/Regional gazetteers
  - ✓ National land and property gazetteer nlpg.org.uk/nlpg/welcome.htm
  - ✓ Geographic names information system geonames.usgs.gov/...
  - ✓ Arabic named entity gazetteer <u>sourceforge.net/projects/arabic named-entity-gazetteer/</u>
- ✓ Global Gazetteers
  - ✓ Geonames geonames.org/
  - ✓ Wikipedia GEOHACK
- ✓ Historical Gazetteers
  - ✓ Pleiades
- ✓ API-s Google maps, Yahoo maps, or geonames

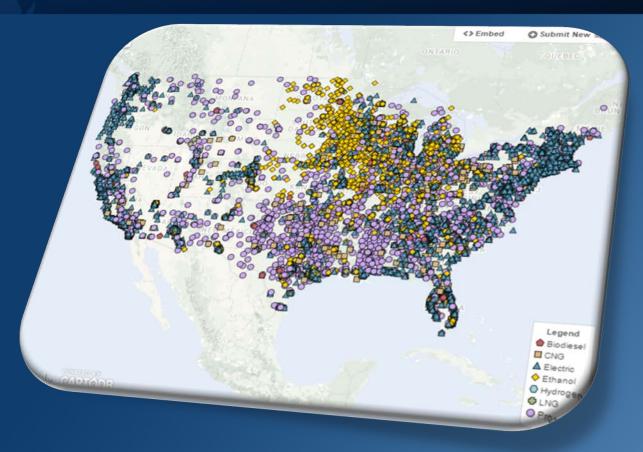
#### Other sources

- ✓ Tweets
- ✓ Wikipedia entries & edit histories
- ✓ Moves app
- ✓ Other apps (click2map)
- ✓ Other social media
- ✓ Public records

#### Example

ww.g													
mes Home   Postal Codes   Download / Webservice   About													
		caesarea   all countries   v   search   show on map   (advanced search)											
N			22668 records found for "caesarea"										
		Name	Country	Feature class	Latitude	Longitude							
	1 P	Zaragoza   Caesaraugusta,Caesarea Augusta,Caragoca,Salduba,Salduie,Saragoca,Saragosa,Saragosae,Saragoso,Saragos	<u>Spain</u> , Aragon Saragossa > Zaragoza	seat of a first-order administrative division population 674,317	N 41º 39' 21"	W 0° 52' 38''							
	2 P	Kayseri ASR,Caesarea,Caesarea in Cappadocia,Casarea,Cearee,Cesarea,Cesarea de Capadocia,Cesarea in Cappadoci	Turkey, Kayseri	seat of a first-order administrative division population 592,840	N 38° 43' 56"	E 35° 29' 7"							
	3 🧐	Caesarea Maritima Caesarea Palaestina, Cesarea Maritima, Cesarea Maritima, Cesarea in Palestin	<u>Israel</u> , Haifa	ancient site	N 32º 30' 2"	E 34º 53' 32"							
	4 P	<u>Caesarea</u>	<u>Israel</u> , Haifa	populated place population 4,500	N 32° 31' 8"	E 34º 54' 16"							
	5 (P)	Kahramanmaras   Caesarea Germanicia,Germanicea Marqasi,Gorad Kakhramanmarash,Gurgum,Kachramanmaras,Kachramanmarasas,	Turkey, Kahramanmaraş	seat of a first-order administrative division population 376,045	N 37º 35' 4"	E 36º 55' 35"							
	6 🥊	Kayseri Daga daga Kajsareias, Kajsaria, Kajseri, Kajseri, Kajseri, Kayseri, Kayseri Province, Kay	Turkey, Kayseri	first-order administrative division population 1,295,355	N 38° 44' 13"	E 35º 29' 48"							
	7 P	Cherchell Cherchel, Cherchel, Cherchel, Cherchel, Cherchez, Gorad Shehrshehl', Sersell, Sharshal, Shershel, Shershel	Algeria, Tipaza	populated place	N 36° 36′ 18″	E 2º 11' 27"							
	8 💔	<u>Jersey</u> Caesarea Maritima,Dzersi,Dzersija,Dzhersi,Džersija,Gersei,Insula Jersey,Isle of Jersey,Jerri,Jersey,	JE,GB	island	N 49° 13' 0"	W 2° 8' 15"							
	9 P	Trenton  Gorad Trehntan,TTN,Trehnton,Trenton,Trentona,Trentonas,Trentonia,Trentun,itrentan,te lun dun,teulent	<u>United States</u> , New Jersey Mercer County	seat of a first-order administrative division population 84,913, elevation 17m	N 40° 13' 1"	W 74° 44' 34"							
	10 🛡	Mount Erciyes Dagi, Erciyas Dagi, Erciyas Dagi, Erciyas Dagi, Mount Erciyas, Mount Erciyas	Turkey, Kayseri	mountain elevation 3917m	N 38° 32' 1"	E 35° 27' 2"							
	11 P	Turgutlu   Caesarea Trocetta,Cassaba,Kasaba,Turgutlu	<u>Turkey</u> , Manisa	seat of a second-order administrative division population 103,292	N 38° 29' 43"	E 27º 41' 58"							
	12 🛡	Cappadocia (Roman province)  Capadocia (provincia romana),Cappadoce (province romaine),Cappadocia (Roman province),Cappadocia (pr	<u>Turkey</u> , Kayseri	historical first-order administrative division	N 38° 43' 55"	E 35° 28' 43"							
	13 P	<mark>Clifton. </mark>	<u>United States</u> , New Jersey Passaic County	populated place population 84,136, elevation 57m	N 40° 51' 30"	W 74° 9' 49''							
	14 <sup>®</sup> ) <u>Edison</u> Edison,Ehdison,Gmina Edison,ai di sheng,Эдисон,爱迪生		<u>United States</u> , New Jersey Middlesex County	populated place population 102,548, elevation 27m	N 40° 31' 7"	W 74° 24' 43"							
	15 P	Elizabeth  Ehlizabeth, Ehlizabet, Elizabetas, Elizabeth, alyzabt nywjrsy, alyzabyth nyw jyrsy, ellijabeseu	<u>United States</u> , New Jersey Union County	seat of a second-order administrative division population 124,969, elevation 6m	N 40° 39' 50"	W 74° 12' 38"							

#### DH in action! Hands-on



www.cartodb.com



- Teaching Google Earth & Maps
- Google My Maps
- Creating GIS Maps1
- Creating GIS Maps 2
- Google Earth Basics
- Google Earth Timespan
- HTML for Google Earth
- Georeferencing

#### How to get started with DH

- Determine what goals or questions motivate you
- Get acquainted with digital humanities
- ✓ Participate in the digital humanities community
- ✓ Stay informed
- ✓ Explore examples for inspiration and models
- ✓ Pursue training
- ✓ Learn standards and best practices
- √ Find collaborators
- ✓ Plan a pilot project



- √ <a href="http://www.quickmeme.com/img/72/721c2fb2ca8458be200dab93eab00a6f42fdb6d2e9842aea3d08af91ab2cb5b6.jpg">http://www.quickmeme.com/img/72/721c2fb2ca8458be200dab93eab00a6f42fdb6d2e9842aea3d08af91ab2cb5b6.jpg</a>
- √ <a href="http://ryancordell.org/the-stuff/uploads/2015/01/i-do-digital-humanities-300x300.jpg">http://ryancordell.org/the-stuff/uploads/2015/01/i-do-digital-humanities-300x300.jpg</a>
- ✓ <a href="http://images.clipartpanda.com/humanities-clipart-digital-humanities-puzzle-pieces-hi.png">http://images.clipartpanda.com/humanities-clipart-digital-humanities-puzzle-pieces-hi.png</a>
- ✓ <a href="https://digitalscholarship.files.wordpress.com/2013/03/gettysburgdhc">https://digitalscholarship.files.wordpress.com/2013/03/gettysburgdhc</a>
  <a href="mailto:asestudiesfinal.pdf">asestudiesfinal.pdf</a>
- ✓ <a href="http://libguides.library.cofc.edu/content.php?pid=462293&sid=37915">http://libguides.library.cofc.edu/content.php?pid=462293&sid=37915</a>
   36
- ✓ <a href="http://dh101.humanities.ucla.edu/">http://dh101.humanities.ucla.edu/</a>
- ✓ <a href="http://digital.humanities.ox.ac.uk/Support/whatarethedh.aspx">http://digital.humanities.ox.ac.uk/Support/whatarethedh.aspx</a>
- ✓ <a href="http://journalofdigitalhumanities.org/1-1/getting-started-in-digital-humanities-by-lisa-spiro/">http://journalofdigitalhumanities.org/1-1/getting-started-in-digital-humanities-by-lisa-spiro/</a>