

The Tools of DH

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Workshop slides adapted from Mary Catherine Kinniburgh
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What is GCDI?

Graduate Center Digital Initiatives offers different types of *support for digital scholarship* such as [workshops](#), [consultations](#) and [working groups](#) based around common tools or data sources, special [events](#) such as our annual Digital Showcase, and [online resources](#).

Tool

A device or implement, especially one held in the hand, used to carry out a particular function.

[in computing]

A piece of software that carries out a particular function, typically creating or modifying another program. (Oxford English Dictionary)

Digital Humanities

An area of scholarly activity at the intersection of computing or digital technologies and the disciplines of the humanities...

DH brings digital tools and methods to the study of the humanities with the recognition that the printed word is no longer the main medium for knowledge production and distribution.

Provides new ways of doing computationally engaged research, teaching, and publishing (Wikipedia).

Workshop Goals

We will:

- **consider** what types of project, research, and work are included in the digital humanities,
- **create** a working resource for our own tools of digital humanities,
- **explore** a wide range of methods for research (and project) development.

Digital Humanities projects use...

digital methods of research that engage **humanities topics** in their materials *and/or* interpret the results of digital tools from a **humanities** lens

Things to do with DH

- Create community
- Theorize, critique, comment
- Utilize existing platforms
- Develop platforms
- Produce data
- Process data
- Communicate your research in a digital environment
- Collect, curate, and display digital materials

and more...

Collaborative Research

Community is fundamental to DH.

So... let's do a quick round of introductions!

Name

Pronouns

Interested in what digital projects or research topics?

FIRST THINGS FIRST:

ZOTERO



FIRST THINGS FIRST:

We're covering a lot, and this will make it easy to save URLs, citations, and get your research going.

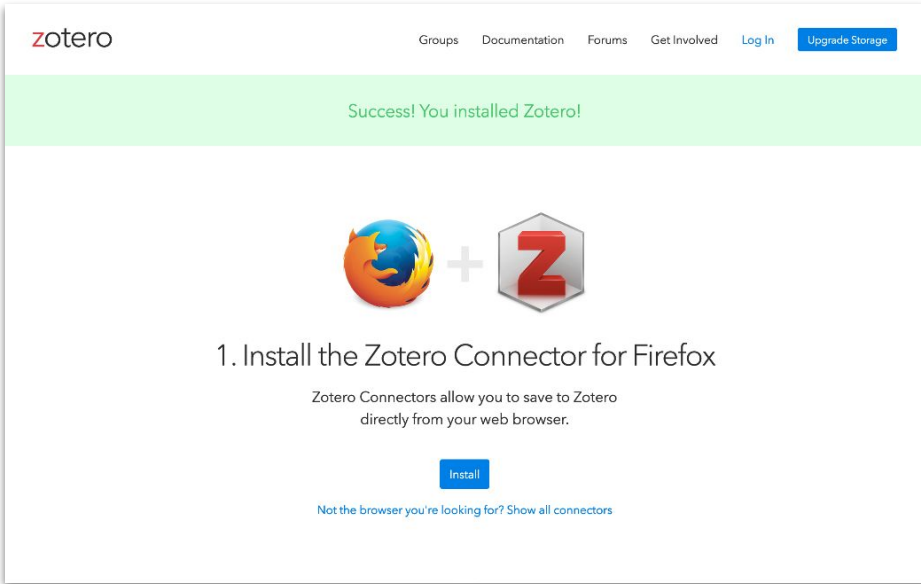
All these steps work on your own laptop, too.

Desktop application and Connector (browser extension)

1. Go to: <https://www.zotero.org/> and click: **Download**
2. Then click: **Download** for Zotero 6 (Mac OS/Windows/Linux)
3. Install Zotero on your computer
4. Then click: **Install Firefox/Google Chrome/Edge Connector**
5. Install Zotero as a browser plug-in





Make Your Account



zotero

Groups Documentation Forums Get Involved Log In Upgrade Storage

Success! You installed Zotero!

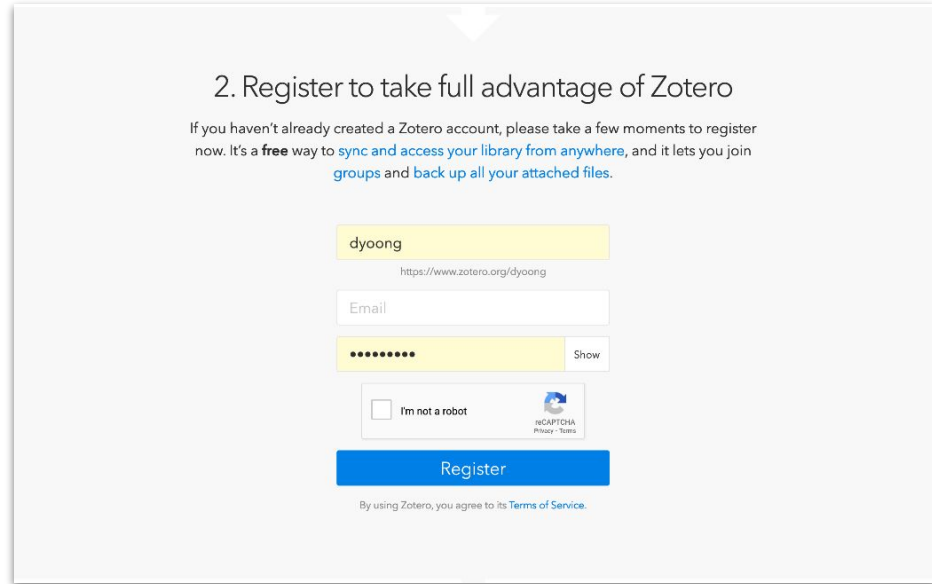
 + 

1. Install the Zotero Connector for Firefox

Zotero Connectors allow you to save to Zotero directly from your web browser.

[Install](#)

[Not the browser you're looking for? Show all connectors](#)




2. Register to take full advantage of Zotero

If you haven't already created a Zotero account, please take a few moments to register now. It's a **free** way to [sync and access your library from anywhere](#), and it lets you join [groups](#) and [back up all your attached files](#).

https://www.zotero.org/dyoong

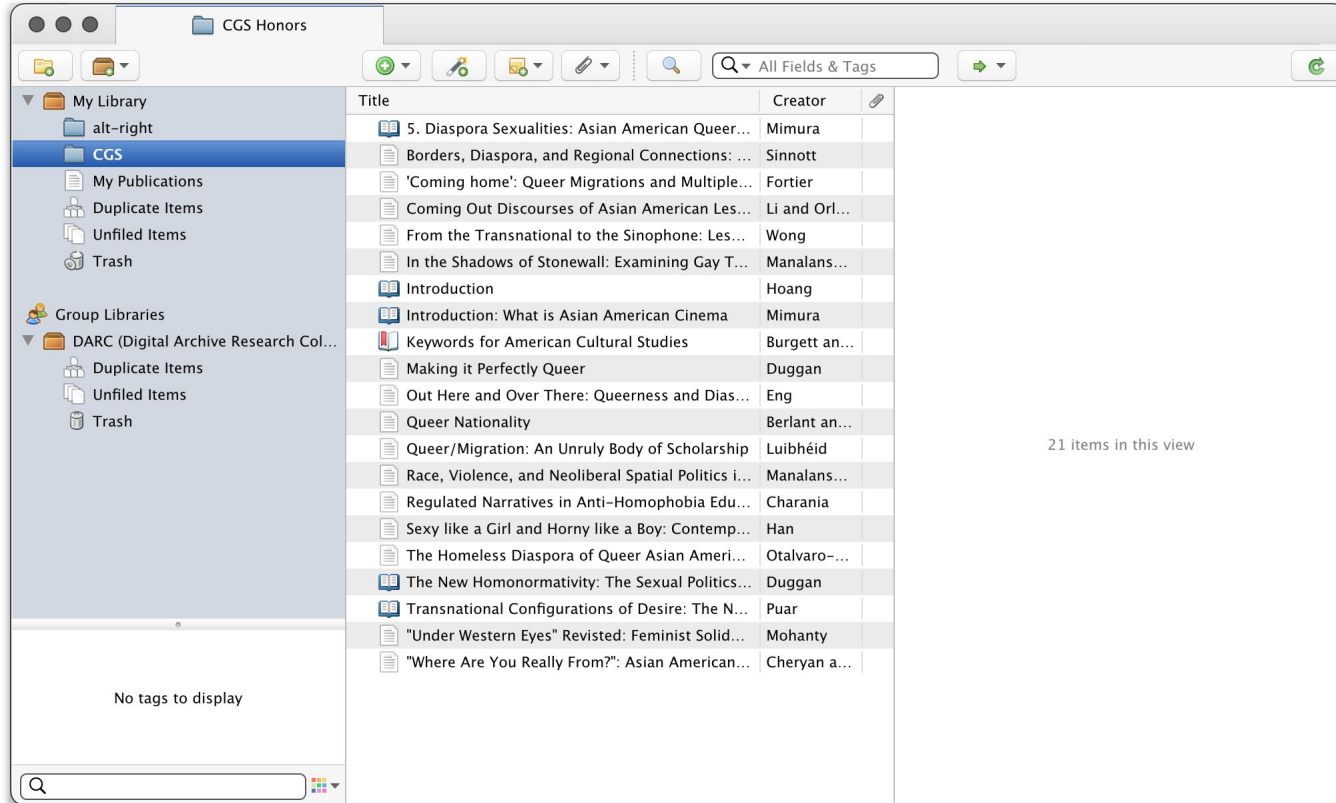
[Show](#)

I'm not a robot 
reCAPTCHA
Privacy Terms

[Register](#)

By using Zotero, you agree to its [Terms of Service](#).

Open Zotero



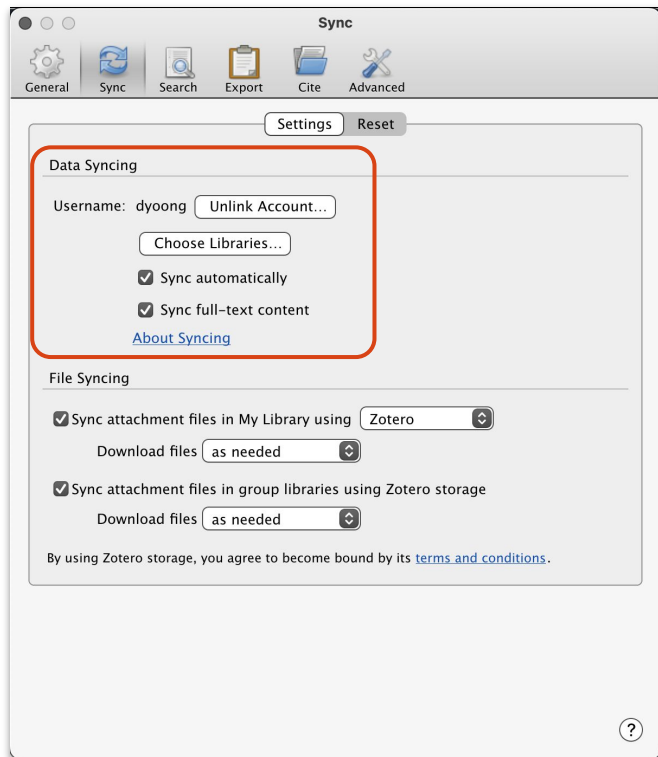
The screenshot shows the Zotero application window titled "CGS Honors". The interface includes a sidebar on the left with a tree view of libraries, a top toolbar with icons for adding, deleting, and editing items, and a main pane displaying a list of items. The search bar at the top right contains the text "All Fields & Tags". The item list has columns for "Title" and "Creator".

Title	Creator
5. Diaspora Sexualities: Asian American Queer...	Mimura
Borders, Diaspora, and Regional Connections: ...	Sinnott
'Coming home': Queer Migrations and Multiple...	Fortier
Coming Out Discourses of Asian American Les...	Li and Orl...
From the Transnational to the Sinophone: Les...	Wong
In the Shadows of Stonewall: Examining Gay T...	Manalans...
Introduction	Hoang
Introduction: What is Asian American Cinema	Mimura
Keywords for American Cultural Studies	Burgett an...
Making it Perfectly Queer	Duggan
Out Here and Over There: Queerness and Dias...	Eng
Queer Nationality	Berlant an...
Queer/Migration: An Unruly Body of Scholarship	Luibhéid
Race, Violence, and Neoliberal Spatial Politi...	Manalans...
Regulated Narratives in Anti-Homophobia Edu...	Charania
Sexy like a Girl and Horny like a Boy: Contemp...	Han
The Homeless Diaspora of Queer Asian Ameri...	Otalvaro-...
The New Homonormativity: The Sexual Politics...	Duggan
Transnational Configurations of Desire: The N...	Puar
"Under Western Eyes" Revisited: Feminist Solid...	Mohanty
"Where Are You Really From?": Asian American...	Cheryan a...

21 items in this view

No tags to display

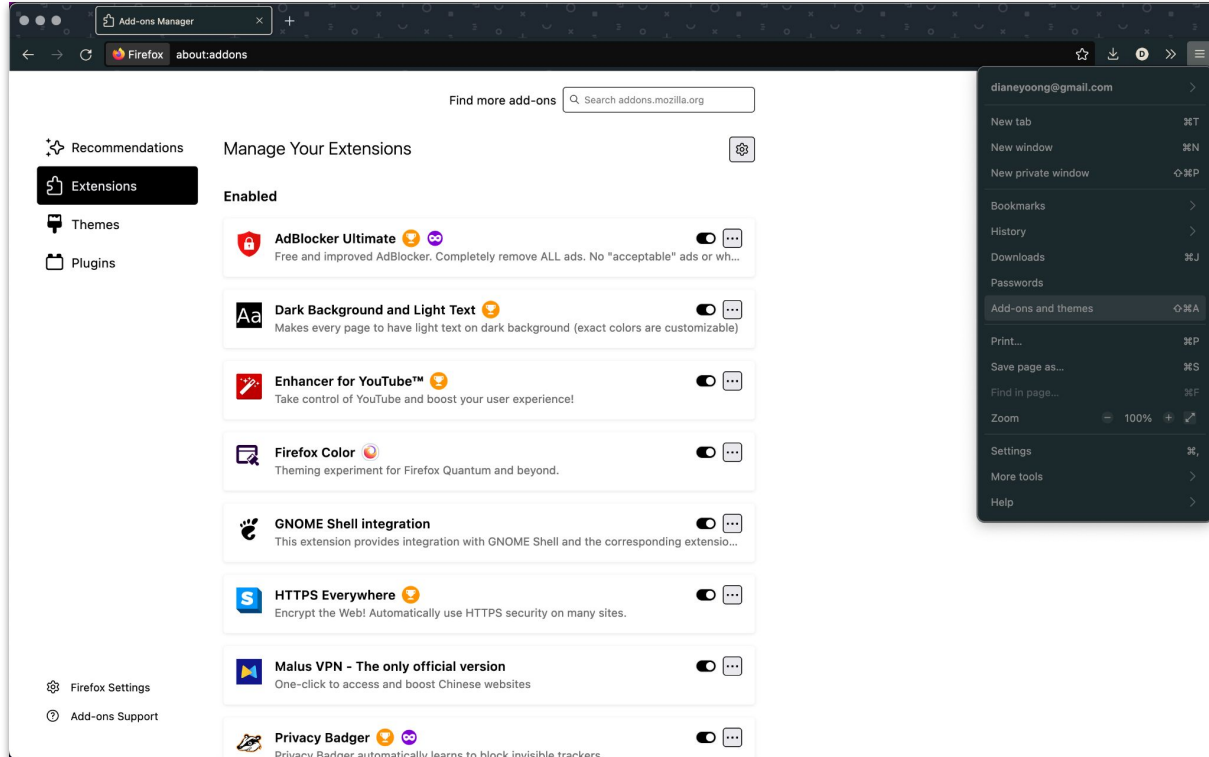
Sync Your Account



1. Click on “Preferences” under File when Zotero is open.
2. Go to the “Sync” tab.
3. Fill in the info for the account you just made on Zotero, and close window.

Now you're ready to cite! Icons will appear in browser, click to add them to your library.

Turn on Zotero extension



Okay, ready?

How are you going to get your data?

What kind of data?

- Audio / Visual
- Web Scraping
- Text Analysis
- Text Encoding
- Geocoding

Where to find it?

- online databases
 - [NYC Open Data](#)
 - [DPLA \(Digital Public Library of America\)](#)
 - [HathiTrust Digital Datasets](#)
 - [Awesome Public Datasets](#)
- repositories/collections
 - [NYPL Digital Collections](#)
- other suggestions?

Capturing it with: Audio / Visual

uses hardware, software, or even programming language to produce audio or visual content, **OR** to parse audio or visual content into data.

- [Getting Good \(Enough\) Audio Recording](#)
- [Basic Audio Editing with Audacity](#)

Capturing it with: Audio / Visual

Tools and Methods:

- **Downloading/Scanning Photographs**
 - [GIMP](#): Open-source image editing tool
 - [Tropy](#): Free open-source software to organize and describe photographs of research material

Capturing it with: Audio / Visual

Tools and Methods:

- **Sound Recording and Analysis**
 - [Audacity](#): Open-source GUI audio recorder and editor
 - [SoX](#): Open-source CLI audio editor
 - [Oral History Metadata Synchronizer](#): Syncs interviews to transcripts and metadata
 - **Example:** [AIDS/Brooklyn Oral History Project collection](#)

Capturing it with: Web Scraping

uses programming language to gather specific content from static websites or social media, including image and text.

- [Beginner's Guide to web scraping](#)
- [Michelle Johnson-McSweeney's online tutorial](#)

Capturing it with: Web Scraping

Tools and Methods:

- **API (Application Program Interface):**
 - Functions or procedures that allow you to request data from apps
 - Examples include Twitter, Google Maps
- **TAGS**: scraping Twitter to Google Sheets
- **Scrapy**: open source framework for data extraction from websites
- **Example: No Homophobes** (uses scraping to capture homophobic speech on Twitter)

Capturing it with: Text Analysis

Also: **Topic Modeling // Text Mining // Sentiment Analysis**

uses programming languages or software to extract the data, using parameters that you set, from a textual corpus.

- [Ted Underwood's Seven Ways Humanists use Text Analysis](#)
- Tutorial on [using MALLET for Topic Modeling](#)
- Book on [Textmining with R](#)
- Tutorial on [using NLTK for text analysis](#)

Capturing it with: Text Analysis

Tools and Methods:

- **MALLET**: Java-based package (cluster of code)
 - statistical natural language processing, document classification, clustering, topic modeling, information extraction, etc
- **Python/R**: multi-use programming languages
 - **NLTK (Natural Language Toolkit)** collection of **python** libraries
 - **textmining** collection of **r** functions to prepare corpus
- **Voyant Tools**: web-based text application, copy and paste your text for immediate analysis

Capturing it with: Text Encoding

Also: Markup

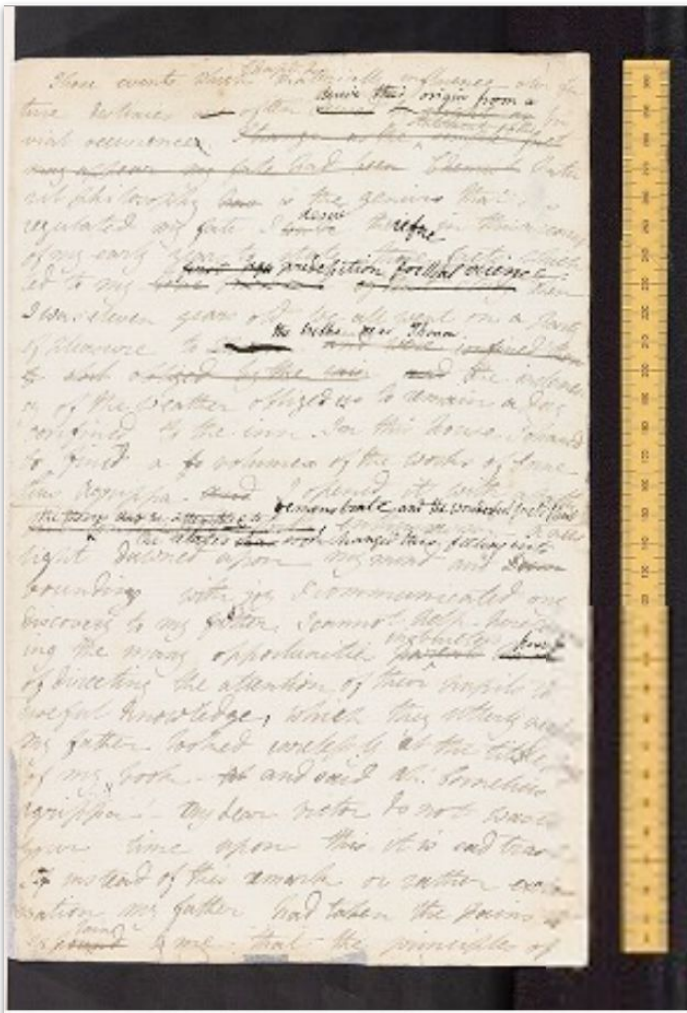
uses markup language (usually XML) to encode a text for specific details which often have an interpretive element, or for display in online environments.

- [“What is XML and Why Should Humanists Care?”](#)
- [Zotero library for TEI tutorials, examples, models, publications](#)
- Filipa’s [TEI workshop!](#)

Capturing it with: Text Encoding

Tools and Methods:

- **XML**: eXtensible Markup Language
 - HTML's more flexible cousin, which allows you to write your own tags
- **TEI**: Text Encoding Initiative, a standardized system of markup in XML for encoding texts.
 - archival/museum standard for digital texts
- **Example: Shelley-Godwin Archive**



Chapt. 2

Those events which materially influence our future destinies are often caused by slight or trivial occurrences.

Strange as the simple fact may appear my fate had been regulated by the genius that regulated my father's.

I wish to state those facts which led to my love pursuit of that study. When I was eleven years old we all went on a party of pleasure to the baths near Thonon.

Obliged by the rain and the inclemency of the weather obliged us to remain a day confined to the inn. In this house I chanced to find a few volumes of the Works of Cornelius Agrippa. And I opened it with apathy.

The theory that he attempted to demonstrate and the wonderful facts that he related soon changed this feeling into

light dawned upon my mind and I bounding with joy I communicated my discovery to my father. I cannot help here remarking the many opportunities

of directing the attention of their pupils to useful knowledge, which they utterly neglect.

My father looked carelessly at the title page of my book — Ah and said Ah! Cornelius Agrippa! — My dear Victor do not waste your time upon this — it is sad trash.

If instead of this remark or rather exclamation my father had taken the pains to

These events which ^{materially influence} our fu-
 ture destinies are often caused by slight or tri-
 vial occurrences. ~~Strange as the simple fact~~
~~may appear my fate had been~~ Chemist Natu-
 ral philosophy has is the genius that has
 regulated my fate I wish ^{therefore} in this account
 of my early years to state those facts which
 led to my ~~love~~ ^{first predilection for that science.}
 I was eleven years old we all went on a party
 of pleasure to ~~the baths near Thonon~~ ^{the baths near Thonon.}
 and were confined there
 by the inclemency of the weather obliged us to remain a day
 confined to the inn. In this house I chanced
 to find a few volumes of the Works of Corne-
 lius Agrippa. And I opened it with apathy
~~the theory that he attempted to demonstrate and the wonderful facts that~~
~~but continued to read with enthusiasm. A new~~
~~light dawned upon my mind and I~~ ^{he relates how soon changed this feeling into}
 bounding with joy I communicated my
 discovery to my father. I cannot help here remark
 ing the many opportunities ^{parents have}
 of directing the attention of their pupils to
 useful knowledge, which they strictly refuse
 my father looked carefully at the title page
 of my book - he and said Mr. Cornelius
 Agrippa's My dear Peter do not waste
 your time upon this it is old trash.
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Capturing it with: Geocoding/tagging

Geocoding uses software to transform non-coordinate identifiers (such as landmarks) into geospatial coordinates

[**Geotagging** adds GIS metadata to text, image, or other digital content.]

- [Finding the Right Tools for Mapping](#)
- [Quick and Easy mapping with R](#)
- [Javascripting English Major](#): Using leaflet

Capturing it with: Geocoding/tagging

Tools and Methods:

- **QGIS**
 - free, open-source version of ArcGIS with many of the same features.
Create, edit, visualise, analyse and publish geospatial information
- **Leaflet**
 - open source Javascript library for adding interactive maps to a webpage,
works with mobile
- **Example: Mapping Arts, NYC by Data for the Public Good**



Mapping Arts, NYC

Data for Public Good, GC Digital Initiatives

About Project & Gratitude

Elementor #68

Methodology & Data

Resources

Sample 1

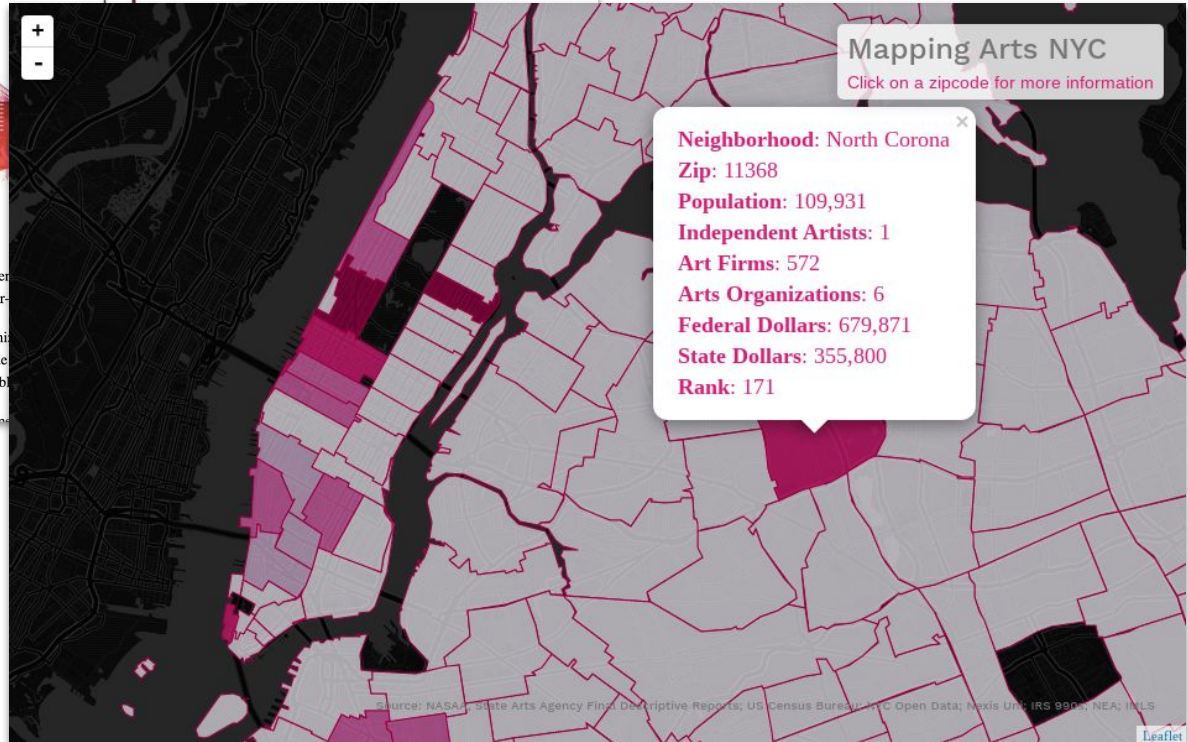
Team



Mapping Arts NYC is a project that explores the geography and represents the data on a zip code level, with associated neighborhood names. The website represents a work in progress and the culmination of a semester-long project.

The team worked with open data, city agencies, and not for profit organizations around the changing cultural landscape of New York City. Maps include data on arts funding, donations, capital spending on arts, and other forms of public investment.

Data is provided on a zip code level, with associated neighborhood names.





Analyzing / Displaying Data

Is this a necessary step? Perhaps not always?

Should we draw a distinction between “analyze” and “display?”

Why or why not?

How might graphs and data visualizations represent arguments, demonstrations, or images that must be explicated?

Display / Analyze it: Visually

Also: **Data Visualization, Mapping**

Maps dataset as a network, graph, or chart.

Drucker, Johanna. “[Humanities Approaches to Graphical Display.](#)”

DHQ. 5:1 (2011)

- “Tools carry with them assumptions of knowledge as observer-independent and certain, rather than observer co-dependent and interpretative... we need a humanities approach to the graphical expression of interpretation.”

Display / Analyze it: Visually

Tools and Methods:

- **Excel or Google Sheets**
 - can generate most basic graphs and charts
- **Gephi**
 - open-source visualization platform
 - use **Sigma**, a Javascript library, to render results interactively in a web browser.
- **Example: Quantifying Kissinger**
 - computational analysis of the National Security Archive's Kissinger collection of correspondence

Display / Analyze it: Narratively

Also: **Digital Collection, Digital Exhibit, Digital Edition, Web Site, or even essay / article!**

Bring disparate digital (or digitized) materials into a cohesive digital resource.

Enable digital communication of ideas between communities for teaching, collaborating, and learning.

Narrative is one of the most powerful and complex tools we have!

Display / Analyze it: Narratively

Tools and Methods:

- Digital Exhibits
 - [StoryMaps](#)
 - Example: [The Lung Block](#)
- CMS (Content Management System)
 - [CUNY Academic Commons](#)
 - [Omeka](#)
 - Example: [Preserve the Baltimore Uprising](#)
- [Manifold](#): open source platform for scholarly publishing. Good for sharing research, teaching, writing in a collaborative environment



Reflect + Assess

Take five minutes and consider a

- method of displaying or analyzing
- specific tool
- example of a visualization project
- or any hyperlink

from the previous slides or your own
web browsing

What does the method of display/
analysis **argue**?

How does it **argue**?

What does the method / tool / project
make **invisible**?

Is the method / tool **effective**? Why or
why not?

Reflect + Assess

Consider how data visualizations can mislead or make interpretation more challenging or how context shapes interpretation and perpetuate or undermine existing narratives

More example: [WTF Visualizations](#)

Debrief

- **developed** a basic context for DH
- **explored** and **critiqued** methods, tools, and resources
- **created** a “toolbox”, a working resource in Zotero

Additional resources

**Please take a moment to share your
feedback:**

cuny.is/GCDI-webevals

GCDI Hybrid Open House!

Join us this Thursday (09/22) either *in-person* or *online* for our fall open house. If you're new, this is a great opportunity to learn about our upcoming workshops, user groups, events, and other resources! For returning participants, come drop-by and say hi!

[Check out the details and register for our open house!](#)

How can I get involved with GCDI?



The screenshot shows the website for GC Digital Initiatives. At the top left is the logo "GC Digital Initiatives". To the right is a navigation menu with links for "About", "People", "Calendar", "Participate", "Resources", "News", and a search icon. Below the navigation is a large hero image of a person's hands typing on a laptop keyboard, with a water bottle and papers on the desk. Overlaid on the image is the text "Interdisciplinary Events, Workshops, & Speaker Series". Below the image is a row of five dots, with the first one filled. Underneath the image is a paragraph of text: "Graduate Center Digital Initiatives (GCDI) brings together the work of leading scholars and technologists at the CUNY Graduate Center to pioneer new modes of inquiry that integrate digital tools and methods into the research, teaching, and service missions of the university." At the bottom of the page are five grey buttons with icons and text: "Projects" (lightbulb icon), "Degrees & Certificates" (graduation cap icon), "Workshops" (group of people icon), "Guides & Tutorials" (document icon), and "Join us for an event" (calendar icon with checkmark).

GC Digital Initiatives

About People Calendar Participate Resources News

Interdisciplinary Events, Workshops, & Speaker Series

Graduate Center Digital Initiatives (GCDI) brings together the work of leading scholars and technologists at the CUNY Graduate Center to pioneer new modes of inquiry that integrate digital tools and methods into the research, teaching, and service missions of the university.

Projects

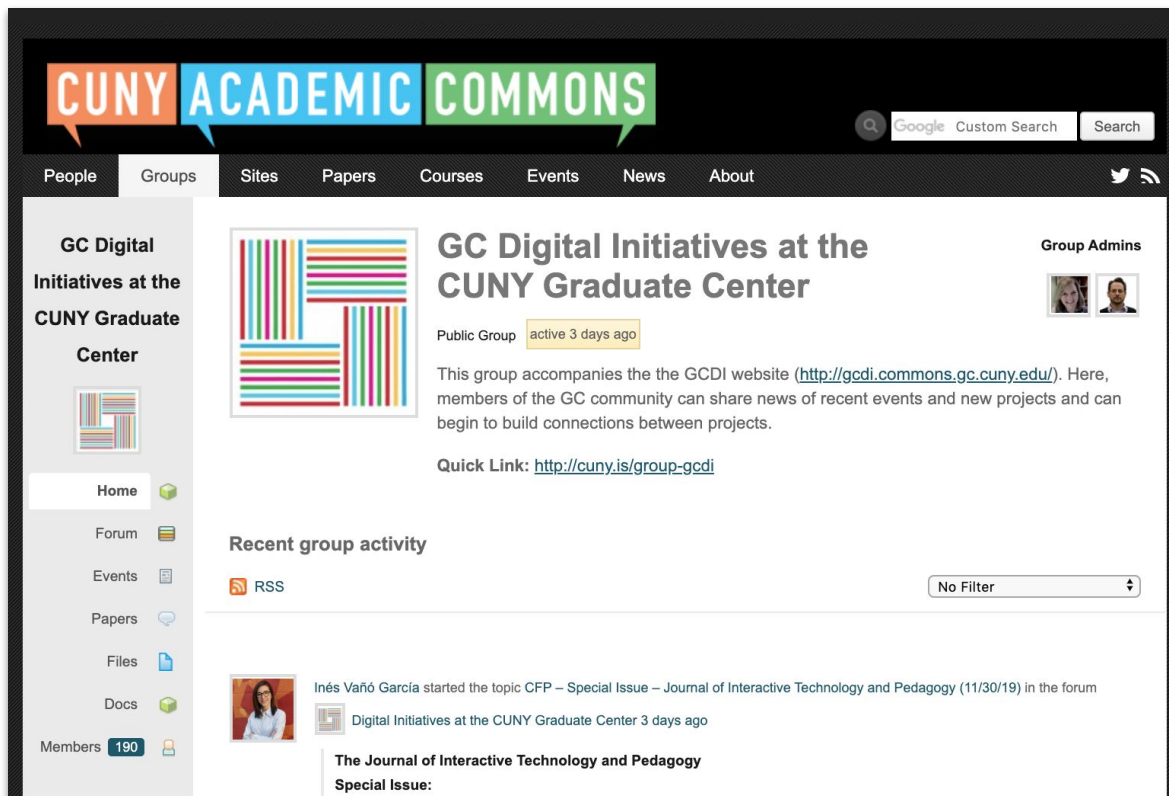
Degrees & Certificates

Workshops

Guides & Tutorials

Join us for an event

How can I get involved with GCDI?



CUNY ACADEMIC COMMONS

People Groups Sites Papers Courses Events News About

GC Digital Initiatives at the CUNY Graduate Center

Public Group active 3 days ago

This group accompanies the the GCDI website (<http://gcdi.commons.gc.cuny.edu/>). Here, members of the GC community can share news of recent events and new projects and can begin to build connections between projects.

Quick Link: <http://cuny.is/group-gcdi>

Recent group activity

RSS No Filter

Inés Vañó García started the topic CFP – Special Issue – Journal of Interactive Technology and Pedagogy (11/30/19) in the forum

Digital Initiatives at the CUNY Graduate Center 3 days ago

The Journal of Interactive Technology and Pedagogy
Special Issue:

Resources at the GC

[GC Digital Fellows Consultations](#), [Upcoming workshops](#)

Workshops offered by the [GC Library](#), and the [Teaching and Learning Center](#)

**Please take a moment to share your
feedback:**

cuny.is/GCDI-webevls