

Course Instructor: Qiuzi Guo Lecturer, Division of Humanities

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Office Hours: Mondays: Mondays: 14:00-16:00 (by appointment)

Office: Room 2378 / Media Discussion Room 2, Library, LG1

Course Description:

The course introduces methods and tools of the Digital Humanities as they can be used in literary, historical, art historical, and cultural studies. Students will learn how to acquire humanities data, and apply data analysis, text mining, and visualization tools to explore a variety of research questions pertinent to the use, sharing, and presentation of humanities data.

Intended Learning Outcomes:

- Critically discuss digital humanities projects and digital humanities tools and methods being used.
- Know how to use multiple methods to acquire humanities data, conduct basic text analysis, make data visualization and present data in publishing platform.
- Design, develop and present a dynamic digital humanities project

Assignments:

- **Attendance and Participation 20%**

You are required to attend classes. One point will be deducted for each absence, up to 10 points.

You are encouraged to join the discussion and demonstrate your learning experience in class and canvas. 2 points will be awarded in the following situations, up to 10 points. 1) Make a response in the lecture part; 2) Reply or create a discussion in Canvas, sharing a code snippet (code recipe, not necessarily to be original) that analyzes the data/text/image and offers insights from your own.

- **Digital Humanities Project Critique 15%**

Select any DH project you wish to evaluate and make a 7-minute presentation. A presentation file needs to be submitted after the presentation. A presentation file needs to be submitted after the presentation.

Please choose one of the following options for your presentation time:

Option 1: Choose a timeslot between 24 March to 21 April (8 weeks, each week 2 presenters)

Option 2: Make your presentation on 28 April.

Please sign up with your name starting from February 10th (email, office hour)

A presentation file needs to be submitted after the presentation.

- **Humanities Data Analysis Report 25%**

Select an open cultural dataset, analyze the data, and write a data analysis report (500 words). Code example will be given. Example datasets: M+ Museum, MoMA, HKUST Library Collection, etc.

Due: **March 25**

- **Final Group Project 40%**

1. Teamwork: Students are encouraged to form a project team with 4-5 classmates. Building on the skills developed in the class, students will develop research questions, find or create a dataset, and interpret the data in digital humanities methods.
2. Potential projects:

The project could be:

1.
 - A. A website or blog post that presents personal research results from the group member(s), but with digital elements.
 - B. A data visualization project showing a basic analysis of the humanities dataset
 - C. A StoryMap that visually presents historical events.
 - D. Text analysis of a specific literary narrative.

Considering the limited time, in the final presentation and submission, **the project can be created as a basic framework.** The team needs to elucidate the future enhancement plans.

3. Presentation

May 5: Final Project Presentation

A presentation template will be provided on Canvas.

4. Submission

The final results of the group project are to be presented orally in the class, with a presentation file (ppt/pdf) and a written report (500-800 words) handed in afterward. If the project is created in a basic framework, the enhancement plan needs to be described in the report.

The format of project submission will vary depending on the specific projects.

Submission due: **May 28**

5. Technical support

If the project is presented in a website format, the website can be hosted by HKUST Library, and relevant technical support will be provided by the system team of the Library.

6. Evaluation

The specific evaluation criteria will be explained in class.

Notes:

- Recommended: BYOC (Bring your own computer). The class will take place in the Computer Barn. PCs will be provided as a back-up choice, but files cannot be saved after shutting down the computer according to the policy of ITSC.
- No prior knowledge of Python or digital tools is required.
- The information about software, tools, and web-based applications in the syllabus may change based on the specific learning objectives. All technical details will be announced on Canvas before each class.
- AI tools such as ChatGPT can be used to assist in writing code. It is important to indicate where and how they are used, and to specify the AI-generated content and prompts.

Weekly Topics:

Week 1 Friday 3 Feb Welcome and Introduction

Review the syllabus, introduce the goal, assignments of the class, timeline for designing the project, and discuss the key concepts and sample projects in the field of digital humanities.

- Readings

Kirschenbaum, Matthew.

["What Is Digital Humanities and What's It Doing in English Departments?"](#)

Friday 10 Feb Engaging Humanities Data I: What is Humanist Data

Identify the relationship between data and humanities research, introduce the multiple ways of digitalizing the texts and objects, and explore some project examples of digitization.

Tutorial: Python for beginners (basic 1&2)

Using Tesseract-OCR to extract text from image

- Readings

Pomerantz, J. (2015). Introduction. in *Metadata* (pp. 1-18). MIT Press,

Christof Schoech: [Big? Smart? Clean? Messy? Data in the Humanities](#)

- Project to explore

[The Mellon International Dunhuang Archive](#)

Week 2 Friday 17 Feb Engaging Humanities Data II: Acquiring Humanist Data

Discuss the role of humanities in the age of big data; what's the relationship between big data and digital humanities, and introduce the ways of acquiring humanist data for research.

Tutorial: Scrape social media data; acquire data from museums via public API

- Readings

Milligan, I., & Warren, R. (2018). Big Data and the Coming Historical Revolution: From Black Boxes to Models. In *Big Data in the arts and humanities: Theory and practice* (pp. 65–75).

Abigail Walker: [Getting Data for Digital Humanities With APIs](#)

Week 3 Friday 24 Feb From Data to Research Question: Exploring Humanities Data

Introduce how to analyze the structured dataset and develop humanities research questions based on data analysis.

Tutorial: A beginner's guide to humanities data with Python;

Analyzing museums' open data with Python

- Readings

Karsdorp, F., Kestemont, M., & Riddell, A. (2021). [Quantitative Data Analysis and the Humanities](#) in *Humanities Data Analysis: Case Studies with Python*. Princeton University Press.

- Videos

Python for beginners (basic 3 & 4)

Assignment:

With the help of code examples in the tutorial, students are required to analyze open humanities datasets and write a data analysis report (no less than 500 words).

Example analysis: [The Metropolitan Museum of Art Data Analysis and Visualization](#)

Due 25 March

Week 4 Friday 3 March Introduction to Text Analysis

Discuss the “quantitative turn” in humanities research, and introduce text analysis project examples. We will experiment with the text analysis tool Voyant and discover the word frequency and collocation in the given text.

Tutorial: Text analysis tools

- Readings

Drucker, J. (2021). Data Mining and Analysis. In *The Digital Humanities Coursebook: An introduction to digital methods for research and scholarship* (pp. 110–129). Routledge, Taylor & Francis Group.

Ted Underwood: [Seven ways humanists are using computers to understand text.](#)

- Project to explore:

[Women Writers Online](#)

Week 5 Friday 10 March Data Visualization for Digital Humanities

Introduce the methods of data visualization, analyze the data visualization project examples, and discuss how to visualize the research outcomes.

Tutorial: Data Visualization tools

- Readings

Manovich, Lev. “[What Is Visualization?](#)” Manovich.Net, 2012.

Week 6 Friday 17 March Digital Publishing: Making Your Own Exhibition

Introduce the multiple ways of online publishing (website, blog, social media platform), and basic rules of using content management system (CMS). Compare two platforms: WordPress and Omeka-S.

Tutorial: Get Started with CMS

- Readings

[To Open, or Not to Open Publish: How Digital Humanities has Exposed and Changed the Publish World](#)

- Project to explore

[Black Quotidian: Everyday History in African-American Newspaper](#)

Week 7 Friday 24 March The Design of Digital Humanities Project

Introduce the digital project lifecycle, discuss the workflow of designing a new project, and the principles for collecting and protecting data. Show students the basic workflow for presenting a data visualization project on a web-publishing platform.

Q & A

Provide advice to students on how to select the topic, develop the research question, acquire the data and design their final project.

Week 8 Friday 31 March Mapping Space and Time: Story Maps and Timeline

Introduce the way of using StoryMaps to create a spatial narrative, and develop a timeline on web publishing platform.

Tutorial: Creating StoryMaps using Esri Story Maps

- Readings

[Gaps in the Map: Why We're Mapping Everything, and Why Not Everything Can, or Should, be Mapped, Shannon Mattern, September 18, 2015](#)

[StoryMaps and the Digital Humanities](#)

- Project to explore

[Monroe Work Today](#)

Week 9 Friday 14 April Digital Cultural Heritage

Introduce the digital technology used by GLAM (galleries, libraries, archives, and museums) to manage and curate digital collection.

Short Presentation: Final Project Proposal

Students will make a 15-minute presentation on the final project proposal. The short presentation includes: 1) Source of data; 2) Research question; 3) Target users/audience; 4) Basic workflow; 5) Work division. *No Need to Show Results!*

- Readings

Rühse, V. (2017). The Digital Collection of the Rijksmuseum. In *Museum and archive on the move: Changing Cultural Institutions in the Digital Era* (pp. 37–56). De Gruyter.

- Project to explore

[Harvard FAS CAMLab Digital Luoyang](#)

Week 10 Friday 21 April IIF and Linked Open Data

Introduce how to use International Image Interoperability Framework (IIF) resources and image viewers, how to make annotations on IIF; brief history and concepts of linked open data.

Tutorial: Creating an IIF manifest

- Readings

Emanuel, J.P. (2018) Stitching Together Technology for the Digital Humanities with the International Image Interoperability Framework (IIF). In *Digital Humanities, Libraries, and Partnerships: A Critical Examination of Labor, Networks, and Community*. Cambridge, pp.125–135.

Week 11 Friday 28 April Critical Perspective on Digital Humanities

Discuss the impact and challenges of digital humanities on previous humanities research. Is it data or research question is the core of the digital humanities project? As humanities scholars, how do you critically view the bias shown in the data collection, analysis, and presentation?

Tutorial on final project design.

Week 12 Friday 5 May Final Project Presentation

Presentations and discussion of each project.