

DH-412

**History and the digital**

Baudry Jérôme

Cursus	Sem.	Type
Digital Humanities	MA2, MA4	Obl.
Digital Humanities		Opt.
UNIL - Autres facultés	E	Opt.

Language of teaching	English
Credits	5
Session	Summer
Semester	Spring
Exam	During the semester
Workload	150h
Weeks	14
<b>Hours</b>	<b>5 weekly</b>
Lecture	2 weekly
Project	3 weekly
<b>Number of positions</b>	

**Summary**

The course presents a number of computational approaches & tools that can be used to study history. Drawing on case studies from the history of science & technology, the course also offers students the opportunity to critically reflect on their own practices as digital humanists and data scientists.

**Content**

The development of information technologies and the rise of the digital humanities have opened new, exciting avenues for historical research and for the engagement of historians with the public. History and the digital have intersected in ways that, first, reconfigure historical research through the extensive digitization of sources and the creation of computational tools to process historical data ("digital history"); second, offer a wealth of new objects for historical research ("historicizing the digital"). Accordingly, the course proposes not only to survey the main computational approaches and methods that can be used to study history, but also, drawing on a series of case studies from the history of science and technology, to critically reflect on what it means to think digitally. Students will develop individual or small-group projects in digital history and will document their research in a final paper.

**INTRODUCTION**

Week 1. History, Science, History of Science

**PART I: TEXTS**

Week 2. Towards Big Data? Digitized and Born-Digital Sources in History

Week 3. History of Information Overload

Week 4. Text Analysis

**PART II: NUMBERS**

Week 5. Multiple Component Analysis & Regressions

Week 6. Trust in Numbers: Quantifying the World

Week 7. Network Analysis

**PART III: IMAGES**

Week 8. Data Visualization

Week 9. Image Analysis & Computer Vision

Week 10. Picturing Science: Drawings, Graphs, Diagrams

**PART IV: THE PUBLIC**

Week 11. Virtual Museums

Week 12. Science, the Public, and Invisible Technicians

**CONCLUSION(S)**

Week 13. A Critique of Digital Humanities

## Week 14. Final Presentation of Projects

**Keywords**

history, social sciences, digital, history of science, big data, text analysis, data visualization, citizen science, history of technology, digital humanities, computational thinking, ethics, science and society

**Learning Prerequisites****Required courses**

None

**Recommended courses**

nice to have:

- CS-401 (Applied data analysis) or equivalent
- a SHS course in history (for example: HUM-221, HUM-276, HUM-385 etc.)

**Learning Outcomes**

By the end of the course, the student must be able to:

- Identify and formulate important research questions in history
- Explore historical data using a variety of computational approaches
- Analyze the differences and similarities between the natural and the human/social sciences
- Contextualise her/his data science practice through historical examples

**Transversal skills**

- Make an oral presentation.
- Write a scientific or technical report.
- Use a work methodology appropriate to the task.
- Demonstrate the capacity for critical thinking

**Teaching methods**

Lectures + discussion of readings (2 hours per week)

Student projects (3 hours per week)

**Expected student activities**

Students are expected to attend lectures, read the assigned articles, participate actively to class discussions, design and conduct projects in small groups.

**Assessment methods**

Project (80%): two intermediary reports (each 15%) and one final report (50%)

Class discussion (20%)

**Supervision**

Office hours	Yes
Assistants	Yes
Forum	Yes

**Resources****Bibliography**

Lisa Gitelman (ed.), *"Raw Data" is an Oxymoron*, Cambridge, Mass.: MIT Press, 2013.  
Shawn Graham, Ian Milligan and Scott Weingart, *Exploring Big Historical Data, The Historian's Macroscope*, London: Imperial College Press, 2015.  
Jo Guldi and David Armitage, *The History Manifesto*, Cambridge: Cambridge University Press, 2014.  
Ian Milligan, "Mining the 'Internet Graveyard': Rethinking the Historian's Toolkit," *Journal of the Canadian Historical Association*, 23(2), 2015: 21-64.

### Ressources en bibliothèque

- [Lisa Gitelman \(ed.\), "Raw Data" is an Oxymoron](#)
- [Shawn Graham, Ian Milligan and Scott Weingart, Exploring Big Historical Data, The Historian's Macroscope](#)
- [Ian Milligan, "Mining the 'Internet Graveyard': Rethinking the Historian's Toolkit,"](#)
- [Jo Guldi and David Armitage, The History Manifesto](#)

### Moodle Link

- <https://go.epfl.ch/DH-412>