EPFL

DH-412 **History and the digital**

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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
Hours	**5 weekly**
Courses	2 weekly
Project	3 weekly
Number of positions	

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. Picturing Science: Drawings, Graphs, Diagrams

PART IV: THE PUBLIC
Week 10. Virtual Museums
Week 11. Science, the Public, and Invisible Technicians
Week 12. Crowsourcing & Citizen Science

CONCLUSION(S)
Week 13. Human vs. Natural Sciences
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

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 (70%)
Final paper (15%)
Class discussion (15%)

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

- Exploring big historical data : the historian's macroscope / Shawn Graham (Carleton University, Canada), Ian Milligan (University of Waterloo, Canada), Scott Weingart (Indiana University, USA)

- The history manifesto / Jo Guldi and David Armitage

- "Raw data" is an oxymoron / ed. by Lisa Gitelman

- â##Mining the â##Internet Graveyardâ##: Rethinking the Historianâ##s Toolkit,â##