

"Methodological Intersections"

Trier Digital Humanities Autumn School 2015

co-hosted by Trier University and the University of Luxembourg

Monday, September 28th, Trier University, Campus I, A9/10

Welcome Keynote Address (9am-9:30am)

Claudine Moulin (Trier University)

Best Practices in the Digital Humanities (9.30am – 10.30am)

Manfred Thaller (University of Cologne)

The Digital Humanities, like happiness, mean different things to different people. While probably a sufficiently Humanistic opener for an introduction, digitally we tend to say the same thing more drily: The projects in the field of the Digital Humanities can be described by (at least) three dimensions. What all of them have in common, however, is that they apply information technology to Humanities content.

- (1) Shall this be done at the level of tools, which makes the drudgery involved by many stages of research more easy to handle? Shall this be done at the methodological level, to change the epistemology of Humanistic research?
- (2) Are the digital tools or methods specific mainly to one discipline, and is there one discipline for which digital tools are so appropriate, that this discipline itself becomes constitutive for the "Digital Humanities"? Are there tools and methods, which are applicable to a multitude – or all? – of the Humanistic disciplines?
- (3) Is the Digital Humanist a Humanist user of information technology? Is the Digital Humanist able to develop technology further?

This introductory lecture will try to describe briefly a number of projects which represent significant coordinates in this conceptual space.

Recommended readings

The lecture will be more palatable, if participants read beforehand my view on some of these matters available at <http://www.cceh.uni-koeln.de/files/ThallerIntroWahn.pdf> (M. Thaller: "Controversies around the Digital Humanities: An Agenda.", in: *Historical Social Research* 37:3 (2012) 7-23.) An example of a philological project which it would be useful to visit beforehand can be found at <http://www.blakearchive.org/blake/>; a very different one at <http://vpcp.chass.ncsu.edu/>. The type of methodological considerations are easier to understand, if you have read <http://digitalhumanities.org/dhq/vol/8/1/000172/000172.html> before listening to me.

Bibliography for further study

While the space described by the dimensions given above is so large, that there is no single publication which describes it completely, *Defining Digital Humanities*, ed. by Melissa Terras, Julianne Nyhan and Edward Vanhoutte, Ashgate, 2013, gives a broader picture than most. Willard McCarty, *Humanities Computing*, Palgrave, 2005, is the more or less acknowledged base line methodological text of the field, with a bias for philology. Having a close look at <http://www.digital-archaeology.com/> may help you to fend off this bias. Warning! The following is very much a minority opinion – but I always have been, and still am, intrigued by Juan A. Barcelo: *Computational Intelligence in Archaeology*, IGI Global, 2008.

Curation in the Digital Humanities (11am – 12.30pm)

Susan Schreibman (National University of Ireland Maynooth)

Legal Aspects of the Digital Humanities (2pm – 3.30pm)

Harald Müller, (Max Planck Institute for Comparative Public Law and International Law – Heidelberg)

Access to information is a human right. It is laid down in international human rights treaties as well as in the Basic Law (Grundgesetz) of Germany. Libraries provide access to information, ideas and works of imagination. They serve as gateways to knowledge, thought and culture. But in the times of media change from analogue to digital, libraries are confronted with new obstacles not existing in the good old days.

Digital technology offers unprecedented means to transmit and store information. Documents and data in digital form are important for science, education, culture and economic and social development, but the law in force does not reflect the change in technology. This lecture will demonstrate some of the problems libraries are facing today, i.e. when they send out digital copies over national borders, when they cannot get a license for an e-Book, when they meet a cartel of fixed prices by publishers, or whether they should respect the right to be forgotten.

Recommended readings

IFLA [The Lyon Declaration](http://www.lyondeclaration.org/) - On Access to Information and Development
<http://www.lyondeclaration.org/>

Bibliography for further study

United Nations Human Rights Council - Report of the Special Rapporteur in the field of cultural rights, Farida Shaheed

http://www.ohchr.org/EN/HRBodies/HRC/RegularSessions/Session28/Documents/A_HRC_28_57_ENG.doc

Rainer Kuhlen: Copyright and Information Ethics – an insight. In: *Ethical Dilemmas in the Information Society*, p. 193

http://www.globethics.net/documents/4289936/13403236/GE_Global_11_web_final.pdf/0b8e3552-62e4-4495-a576-2f341326891b

Harald Müller: Kopienversand & Urheberrecht. Vom globalen Versagen aller Gesetzgeber in der grenzenlosen Informationsgesellschaft. In: *Bibliotheken für die Zukunft - Zukunft für die Bibliotheken: 100. Deutscher Bibliothekartag in Berlin 2011 / Hrsg. Ulrich Hohoff und Daniela Lülfig. – Hildesheim: Olms, 2012. S. 44-56. ISBN 978-3-487-14745-1*

Josef Drexler: Copyright, Competition and Development

http://www.wipo.int/export/sites/www/ip-competition/en/studies/copyright_competition_development.pdf

Julia Reda: EU copyright evaluation report

<https://juliareda.eu/copyright-evaluation-report/>

Aurelia Tamò and Damian George: Oblivion, Erasure and Forgetting in the Digital Age, 5 (2014) JIPITEC 71, para. 1. <http://www.iipitec.eu/issues/iipitec-5-2-2014/3997>

Roundtable: Critical Perspectives on DH (4.00pm – 5.30pm)

Moderator: Andreas Fickers.

Participants: Tara Andrews; Fabio Ciotti; Richard Coyne; Claudine Moulin; Susan Schreibman; Manfred Thaller;

Welcome Reception (6.00pm – 7.30pm)

“Methods and Platforms”: Poster presentations of current projects at the Trier Center for Digital Humanities, the University of Luxembourg, the CVCE.

Tuesday, September 29th, Trier University, Campus I, A9/10

Beyond Quantification: digital models for philology (9am – 10.30am)

Tara Andrews (University of Bern)

The discipline of philology, much like its cousin linguistics, occupies a murky ground between 'art' and 'science' (in the Anglophone understanding of the term.) Digital methods have both attracted and repelled philologists throughout the history of their development.

Quantitative methods are on the one hand welcomed for their regularity and reproducibility; on the other hand they are regarded with suspicion because they supposedly remove the space for human judgment and interpretation of a text. However, we will see that digital philology cannot come into its own until scholars move beyond this dichotomy. A few different models and methods for understanding the transmission and fluidity of a text will be presented, each with greater or lesser emphasis on quantification. We will discuss how these models are used and interpreted, their benefits and their dangers, and we will see how different quantitative results might be incorporated into a more qualitative model of a text.

Recommended readings

Andrews, Tara L. “The Third Way: Philology and Critical Edition in the Digital Age.” *Variants* 10 (2012): 1–16.

Howe, Christopher J., Ruth Connolly, and Heather F. Windram. “Responding to Criticisms of Phylogenetic Methods in Stemmatology.” *Studies in English Literature 1500-1900* 52, no. 1 (2012): 51–67. doi:10.1353/sel.2012.0008.

Bibliography for further study

Andrews, Tara L., and Caroline Macé. “Beyond the Tree of Texts: Building an Empirical Model of Scribal Variation through Graph Analysis of Texts and Stemmata.” *Literary and Linguistic Computing* 28, no. 4 (December 1, 2013): 504–21. doi:10.1093/lc/fqt032.

Bausi, Alessandro, Pier Giorgio Borbone, Françoise Briquel-Chatonnet, Paola Buzi, Jost Gippert, Caroline Macé, Marilena Maniaci, Zisis Melissakis, Laura E. Parodi, and Witold Witakowski, eds. *Comparative Oriental Manuscript Studies - An Introduction*. Hamburg: Tredition, 2015. Chapter 3: Textual criticism and text editing. <http://www1.uni-hamburg.de/www/COMST/comsthandbook/321-466%20Chapter%203.pdf>

Robinson, Peter. "Making Electronic Editions and the Fascination of What Is Difficult." *Linguistica Computazionale* 20–21 (2004): 415–38.

Schmidt, Desmond, and R. Colomb. "A Data Structure for Representing Multi-Version Texts Online." *International Journal of Human-Computer Studies* 67 (2009): 497–514.

Spencer, Matthew, Elizabeth A. Davidson, Adrian C. Barbrook, and Christopher J. Howe. "Phylogenetics of Artificial Manuscripts." *Journal of Theoretical Biology* 227 (2004): 503–11.

Digital Methods for Literary Criticism (11am – 12.30pm)

Fabio Ciotti (University of Rome Tor Vergata)

This lecture aims at presenting a critical overview of the principal methods adopted in Computational Literary analysis. We will start with a brief summary of the main methodological issues in computational literary criticism: textual data representation and encoding; the role of modeling and the interpretative hypothetic approaches to text analysis; the exploratory approach and distant reading; quantitative and qualitative stance in text analysis. Then we will focus on some specific issues and methods, examining their pros and cons with the help of some case studies. In particular, we will examine:

1. Traditional quantitative text analysis: concordances and word frequency
2. Distant reading and macro-analysis: topic modelling and sentiment analysis
3. Annotation and ontological modeling in literary analysis: from free form annotation to ontology driven analysis of narrative texts.

We will close with some critical and methodological reflections on the strengths and weaknesses of the methods we have considered and on the general significance of computational methods for literary criticism.

Recommended readings

Hoover, David L. "Textual Analysis". In *Literary Studies in the Digital Age: An Evolving Anthology* (MLA 2013). doi:10.1632/lstda.2013.3.

<https://dlsanthology.commons.mla.org/textual-analysis/>

Moretti, Franco. "Operationalizing: Or, the Function of Measurement in Literary Theory." *New Left Review* 84 (Nov/Dec 2013): 103-119.

<http://litlab.stanford.edu/LiteraryLabPamphlet6.pdf>.

Digital Methods for Art History (2pm – 3.30pm)

Georg Schelbert (Humboldt University of Berlin)

The target of my lecture is to emphasize the paradigm of virtualization in digital Art History – as I would like to call it – as a completion of the typical corpus analysis paradigm in the Digital Humanities in general. A specific procedure in Art history (Archaeology, and partly

also Ethnology and similar disciplines) is to produce virtual representations of their objects in order to compare and to study them. This started not just in digital formats, but also in classical media, like etchings, photographs, and plaster models. It is important to see the use of the digital format in Art History in this tradition. And as formats like raster images or 3D vector models came almost late to our disposal, digital technologies first became important for cataloguing, enriching research operations by retrieval, filtering and sorting of information. Until today, the complex and barely standardized data of object and image-representations remained too "bulky" for applying classical corpus analysis, as we know it for decades from text based research fields (art history can also be such, when focusing on written sources or literature on art). Hence, data processing still plays a relatively subordinate role in research practices, although its importance is growing. In particular, algorithms for pattern recognition might allow us to process thousands or millions of images, which – even if images are more directly perceivable than text – we never could overlook any more. The proposed methodological considerations will be illustrated by significant project examples.

Recommended readings

Johanna Drucker (2013) Is There a "Digital" Art History?, *Visual Resources: An International Journal of Documentation*, 29:1-2, 5-13, DOI: 10.1080/01973762.2013.761106 To link to this article: <http://www.tandfonline.com/doi/abs/10.1080/01973762.2013.761106>

Benjamin Zweig: Forgotten Genealogies: Brief Reflections on the History of Digital Art History, *International Journal for Digital Art History* 1 (2015), pp. 37-49 (<http://journals.ub.uni-heidelberg.de/index.php/dah/article/download/21633/15405>)

Lev Manovich: Data Science and Digital Art History, *International Journal for Digital Art History* 1 (2015), pp. 13-35 (<http://journals.ub.uni-heidelberg.de/index.php/dah/article/download/21631/15404>)

Bibliography for further study

The chosen examples are not "studies" in the classical sense, but rather catalogs, virtualizations of smaller or larger objects or collections, ontologies, etc.

Census of Antique Works of Art and Architecture (research project with a customized database) <http://census.bbaw.de/>

Mapping Gothic France (working platform, time and space based data collection on gothic France) <http://mappinggothic.org/>

The Ghent Altarpiece (high resolution, multimedia representation and documentation of a single work of art)

http://www.getty.edu/foundation/initiatives/current/panelpaintings/panel_paintings_ghent.html

Zuccaro – Database for Italian art and architecture (data concept, working platform, data collection focused Rome) <http://zuccaro.biblhertz.it/>

RKD*explore* and Iconclass (catalogue of works of art, artists, documents, photographs on a national level) <http://website.rkd.nl/Databases/rkd-explore>

CidocCRM (conceptual reference model, ontology) <http://www.cidoc-crm.org/>

Tineye (reverse image search engine) <https://www.tineye.com/> and other frameworks, engines, projects based on image recognition technologies.

Visit of Stadtbibliothek: Virtuelles Skriptorium St. Matthias & eCodicology (4pm – 5.30pm)

Michael Embach (Trier University), Hannah Busch (Trier University), Philip Vanscheidt (Darmstadt University of Technology)

The City Library and Archive of Trier is one of the custodians of the rich heritage of manuscripts produced in the city's monasteries in medieval times. A collection of them can be admired at the treasury, among which the UNESCO world heritage "Codex Egberti", the "Ada-Evangeliar" and the "Trierer Apokalypse".

The City Library and the Trier Center for Digital Humanities have reconstructed the stock of medieval texts in the library of the benedictine abbey of St. Matthias. About 450 manuscripts have been digitized and published in a database of the "Virtual Scriptorium St. Matthias". Currently the joint research project "eCodicology" is developing and testing algorithms for the automatic tagging of macro- and microstructural layout features of medieval manuscripts, such as the measuring of pictorial and written spaces in order to embed them into the images' metadata. During the presentation we will give an inside view into both projects and discuss the opportunities and challenges in digital codicological research. The visit to the City Library will be completed by a short guided visit to the treasury.

Bibliography for further study

Embach, Michael; Krause, Celia; Moulin, Claudine; Rapp, Andrea; Rindone, Francesca; Tonne, Danah; Vanscheidt, Philipp: "eCodicology – Algorithms for the Automatic Tagging of Medieval Manuscripts", in: The Linked TEI: Text Encoding in the Web. TEI Conference and Members Meeting 2013. Book of Abstracts, ed. Fabio Ciotti; Arianna Ciula: Rome 2013, pp. 172-178.

Embach, Michael; /Moulin, Claudine; Rapp, Andrea: "Die mittelalterliche Bibliothek als digitaler Wissensraum. Zur virtuellen Rekonstruktion der Abteibibliothek von Trier-St. Matthias", in: *Mittelhochdeutsch. Beiträge zur Überlieferung, Sprache und Literatur. Festschrift für Kurt Gärtner zum 75. Geburtstag*, ed. Ralf Plate und Martin Schubert, Berlin/Boston 2011, pp. 486-497.

Optional Social Event (6pm – 9pm)

Wednesday, September 30th, Trier University, Campus I, A9/10

Digital History (9am – 10.30am)

Prof. Andreas Fickers (University of Luxembourg)

Doing history in the digital age is boundary work at its best. Hybridity - understood as a mixture of traditional practices of historical research and writing and the use of new tools and technologies of digital humanities - seems to be the "new normal". Yet there seems to be a growing gap between the pace of new technologies and tools being developed and their reflexive incorporation into the heuristic tradition of history as an academic discipline. This lecture aims at reflecting upon some of the methodological and epistemological challenges that the discipline of history is facing at the moment, such as a new heuristic of

search, the problem of digital source critique or the invention of new forms of digital narratives. In addition, the lecture will present some ideas of how to use the "Digital History Lab" of Luxemburg University as a "trading zone" for the playful experimentation with and the creative production of new tools and technologies in the field of digital history.

Digital Moods: The Place of Emotion in Digital Networks

(11am – 12.30pm)

Richard Coyne (University of Edinburgh)

In this lecture I argue that designers need to pay attention to the moods created around smartphones, tablets, laptops, and the spaces in which they are deployed. Devices and technologies affect people's moods, although not always directly. Mood effects are transitional; different moods suit different occasions, and derive character from emotional shifts. Furthermore, moods are active; we enlist all the resources of human sociability to create moods. In this presentation I draw on several disciplines and review critically some of the digital methods deployed to detect people's emotional engagement in places, notably the uses of EEG (electroencephalography) and other sensing technologies.

Recommended readings

Russell, James A., and Geraldine Pratt. 1980. A Description of the Affective Quality Attributed to Environments. *Journal of Personality and Social Psychology*, (38) 2, 311-322.

Blog posts

<http://richardcoyne.com/2013/10/05/absence-of-melancholy/>

<http://richardcoyne.com/2014/08/02/emotional-contagion/>

<http://richardcoyne.com/2014/08/17/emotional-words/>

<http://richardcoyne.com/2014/07/05/moods-and-movies/>

Bibliography for further study

- Aspinall, Peter, Panagiotis Mavros, Richard Coyne, and Jenny Roe. 2013. The urban brain: Analysing outdoor physical activity with mobile EEG. *British Journal of Sports Medicine*, (doi:10.1136/bjsports-2012-091877).
- Coyne, Richard. 2015. *Mood and Mobility: Navigating the Emotional Spaces of Digital Social Networks*. Cambridge, MA: MIT Press (due December 2015)
- Flatley, Jonathan. 2008. *Affective Mapping: Melancholia and the Politics of Modernism*. Cambridge, MA: Harvard University Press
- James, F. William. 1884. What is an emotion? *Mind*, (9)188-205.
- Juslin, Patrik N., and Daniel Västfjäll. 2008. Emotional responses to music: The need to consider underlying mechanisms. *Behavioural and Brain Sciences*, (31)559-621.
- Lutz, Catherine. 1988. Emotion, thought, and estrangement: Emotion as a cultural category. *Cultural Anthropology*, (1) 3, 287-309.
- Lutz, Catherine. 1998. *Unnatural Emotions: Everyday Sentiments on a Micronesian Atoll and their Challenge to Western Theory*. Chicago, IL: University of Chicago Press
- Norman, Donald A. 2004. *Emotional Design: Why We Love (Or Hate) Everyday Things*. New York: Basic Books
- Picard, Rosalind W. 1998. *Affective Computing*. Cambridge, MA: MIT Press

Urry, John. 2005. The place of emotions within place. In Joyce Davidson, Liz Bondi, and Mick Smith (eds.), *Emotional Geographies*: 77-83. Aldershot, England: Ashgate.
Wigley, Mark. 1998. The architecture of atmosphere. *Daidalos*, (68)18-27.

The Multidimensional Scholarly Archive (2pm-3.30pm)

Dr. Silvia Stoyanova (Trier University); Dr. Janneke Adema (Coventry University)

This lecture will survey the history of conceptualizing the digital scholarly archive from the vision of the hypertext pioneers (Ted Nelson; Douglas Engelbart) and later theorists of scholarly hypertext (McGann; Landow; Kolb) to contemporary media theories of the agency (Foucault; Kirschenbaum; Ernst) and the ethics and politics of the scholarly archive (from open access self-archiving to pirate archivists). The lecturers will discuss examples of digital archives projects to illustrate the multi-purposiveness of their frameworks – from DH archives intended to bring together the material relevant to a particular author or theme, to the digital remediation of the archives of prominent scholars, whose concept of the archive challenged the codex form of their times. They will also explore how the materialities of our current digital scholarly archiving and publishing practices are integrally entangled with the way research is produced, disseminated and consumed.

Recommended readings

Barnet, B. and Tofts, D. "Too Dimensional: Literary and Technical Images of Potentiality in the History of Hypertext". *A Companion to Digital Literary Studies*, ed. Susan Schreibman and Ray Siemens. Oxford: Blackwell, 2008.

http://digitalhumanities.org/companion/view?docId=blackwell/9781405148641/9781405148641.xml&chunk.id=ss1-5-9&toc.id=0&brand=9781405148641_brand

Kirschenbaum, M. (2013) "The .txtual Condition: Digital Humanities, Born-Digital Archives, and the Future Literary". *DHQ: Digital Humanities Quarterly* [online] 7 (1).

<http://www.digitalhumanities.org/dhq/vol/7/1/000151/000151.html>

Bibliography for further study

Barnet, B. (2013) *Memory Machines: the Evolution of Hypertext*. London and New York: Anthem Press

Derrida, J. (1996) *Archive Fever: A Freudian Impression*. University of Chicago Press

Ernst, W. (2012) *Digital Memory and the Archive*. ed. by Parikka, J. Minneapolis: University of Minnesota Press

Foucault, M. (1969) *Archaeology of Knowledge*. Routledge

Price, K. (2009) "Edition, Project, Database, Archive, Thematic Research Collection: What's in a Name?" *DHQ* vol. 3, no. 3.

<http://www.digitalhumanities.org/dhq/vol/3/3/000053/000053.html>

Theimer, Kate. (2014) "The Future of Archives is Participatory: Archives as Platform, or A New Mission for Archives". <http://www.archivesnext.com/?p=3700>

Student Poster Presentations / Brainstorming sessions (4pm-5.30pm)

Optional Social Event (6pm – 9pm)

Thursday, October 1st, Trier University, Campus I, A9/10

Luhmann's *Zettelkasten*-thinking and its Technical Implementation (9am-10.30am)

Daniel Lüdecke (Institute for Medical Sociology, Hamburg)

This lecture gives an introduction into a specific scholarly technique of reading and excerpting texts and organizing personal knowledge: the fundamental principle of building a "Zettelkasten" (slip box), as practiced by Niklas Luhmann. The aim of this lecture is, first, to illustrate the theoretical background and working principle of Niklas Luhmann's *Zettelkasten*; second, a computer based implementation of this technique is demonstrated, which – in contrast to many other available software solutions – aims at reproducing the working principle of Niklas Luhmann's *Zettelkasten*.

Bibliography for further study

Krajewski, Markus, 2003. Elektronische Literaturverwaltungen. Kleiner Katalog von Merkmalen und Möglichkeiten, in: Norbert Franck and Joachim Stary (Eds.), Technik wissenschaftlichen Arbeitens (= UTB), 11., completely revised Ed., Ferdinand Schöningh Verlag, Paderborn, p. 97—115 (<http://www.verzetteln.de/LiteraturVerwaltung.pdf>)

Lüdecke, Daniel, 2015. Zettelkasten. Nach Niklas Luhmann.
<http://zettelkasten.danielluedecke.de/>

Luhmann, Niklas, 1993. Kommunikation mit Zettelkästen. Ein Erfahrungsbericht. In: André Kieserling (Ed.), Universität als Milieu, p. 53-61. Haux, Bielefeld.

Tietze, Christian, 2015. Zettelkasten. <http://zettelkasten.de/posts/>

Cultural Text Mining (11am-12.30pm)

Pim Huijnen (Utrecht University)

In recent years, mass digitization of (historical) cultural data has provided scholars with the opportunity to approach their fields of study in new, quantitative, ways. In the wake of the Google Ngram Viewer, an ever-growing number of tools and techniques are becoming available for researchers interested in "distant reading" or searching for cultural or textual patterns. In this workshop, we will study and discuss the suitability of a number of these tools for humanities research in general and historical scholarship in particular. Under what conditions can textual patterns be used to trace cultural change? What does a critical usage of digital techniques presupposes? How do quantitative and qualitative types of analyses relate to one another? These and other questions are central to this workshop.

Recommended readings

Frederick W. Gibbs and Trevor J. Owens, 'The Hermeneutics of Data and Historical Writing', in: Kristen Nawrotzki and Jack Dougherty (eds.), Writing History in the Digital Age (Ann Arbor 2013): <http://writinghistory.trincoll.edu/data/gibbs-owens-2012-spring/>

Michel, Jean-Baptiste, Yuan Kui Shen, Aviva Presser Aiden, Adrian Veres, Matthew K. Gray, The Google Books Team, Joseph P. Pickett, et al. "Quantitative Analysis of Culture Using

Millions of Digitized Books.” Science 331, no. 6014 (January 14, 2011): 176 -182:

<http://www.sciencemag.org/content/331/6014/176>

Bibliography for further study

D. Scully en B.M. Pasanek, 'Meaning and mining. The impact of implicit assumptions in data mining in the humanities', Literary and Linguistic Computing (2008) 409-424

S. Klingenstein, T. Hitchcock and S. DeDeo, 'The civilizing process in London's Old Baily', Proceedings of the National Academy of Sciences, published ahead of print 06/16/2014:

<http://www.pnas.org/citmgr?gca=pnas%3B1405984111v1>

Franco Moretti and Dominique Pestre, 'Bankspeak. The Language of World Bank Reports', New Left Review 92 (2015) 75-99 <http://newleftreview.org/II/92/franco-moretti-dominique-pestre-bankspeak>

S. Graham, I. Milligan en S. Weingart, The Historian's Macroscope: Big Digital History:

<http://www.themacroscope.org>

The Programming Historian: <http://www.theprogramminghistorian.org>

Exploring Geodata in the Humanities (2pm-3.30pm)

Catherine Jones (CVCE, Luxembourg)

The application of geographical data and analysis for solving real world problems and for exploring historical constructs related to space, place, society and individuals, cannot be refuted. In fact, Geographical Information Science (GIS) and their associated systems are increasingly pervasive and are more widespread across all sectors of society, which in turn has led to a multitude of cross-disciplinary research. This session will introduce basic spatial awareness and an understanding of the notion of why spatial data are special. It will provide an overview of the fundamental principles of geographical information science and how they can be used to model the real world both now and in the past.

We will explore the various geodata structures and data models that are used to represent events, phenomena and objects. The session will draw from a range of examples both from European Integration Studies and beyond, to explore the strengths and weakness of such a method for historical research.

On completion of the this session the participant will be able to

- Understand and explain the basic principles of GIS and its uses for historical research
- Describe different ways of representing historical data
- Critically explore the strengths and weaknesses of such an approach

Bibliography for further study

Longley, P. A., Goodchild, M. F., Maguire, D. J., and Rhind, D. W. (2011) *Geographic Information Systems and Science*, Chichester/New York: John Wiley, ISBN 0-471-892-750

de Smith, M., Goodchild, M., Longley, P., 2013. Geospatial Analysis: A Comprehensive Guide (www.spatialanalysisonline.com)

Data Visualization as Research Method for the Humanities (4pm-5.30pm)

Fredrik Palm (Umeå University)

Fredrik Palm will share practical experiences of designing methods with researchers to support the research process. These have created diversified experiences of the roles of visualization. A starting point has been the use of digital and dynamic maps, particularly the time-spatial dynamics. Other areas has been the use of network and graph visualization to do research on how individuals and groups are connected. Additionally, network representation has been implemented as a part of text-analysis approach. The ambition is to share these practical experiences and give guidance how to reflect upon the design of methods for digitally supported visualization. A set of guiding and questions for method assessment will be presented. This question are strongly related the NEDIMAH-activities. This knowledge is useful either in your design of knowledge making or when critically assessing other's methods.

Recommended readings

Lauren F. Klein: The Image of Absence: Archival Silence, Data Visualization, and James Hemings <http://americanliterature.dukejournals.org/content/85/4/661.abstract>

Simon Lindgren: Introducing Connected Concept Analysis
https://www.academia.edu/6582142/Introducing_Connected_Concept_Analysis_Confronting_the_challenge_of_large_online_texts_through_a_qualitative_approach_to_quantity_The_challenge_of_large_online_texts

Bibliography for further study

Drucker, Johanna: Humanities Approaches to Graphical Display, Digital Humanities Quarterly 2011 volume 5, Number 1. Online at <http://athanasius.stanford.edu/Readings/Drucker.pdf>

Nedimah workshop reports:

Reading and Thinking with visual Tool and Methods in Digital Humanities
<http://nedimah.eu/reports/reading-and-thinking-visual-tools-and-methods-digital-humanities-7-8-december-2011>

2nd NeDiMAH InfoViz Workshop <http://nedimah.eu/reports/2nd-nedimah-foviz-workshop-21-july-2012-university-hamburg>

3rd NeDiMAH InfoViz Workshop <http://nedimah.eu/reports/why-and-how-do-we-use-visualisation-our-work-3rd-nedimah-foviz-workshop>

NeDIMAH digital Cultural Empowerment Workshop <http://nedimah.eu/reports/digital-cultural-empowerment>

Optional Social Event (6pm – 9pm)

Friday, October 2nd, University of Luxembourg, Digital History Lab

Digitization (9am-10.30am)

Hans-Ulrich Seifert (Trier University)

The Digitization Workshop will focus on elementary principles and techniques of digitization as well as European standards that should be known when using or planning Digitization Projects for international audiences. Topics that will be discussed and tested are: how to choose the right scanner for a particular project; possibilities and limits of OCR-techniques;

the rationale for and use of bibliographical and further metadata in digitization projects; problems occurring with older material (acid paper, gothic characters, etc.) and how to resolve them.

Recommended readings

UNESCO Fundamental principles of digitization of documentary heritage

http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/mow/digitization_guide_lines_for_web.pdf

Bibliography for further study

Digitization for Beginners Resource List <http://de.slideshare.net/ALATechSource/digitization-for-beginners-resource-list>

Document Analysis and Text Encoding (11am-12.30pm & 2pm-3.30pm)

Arianna Ciula (University of Roehampton)

This training on Document Analysis and Text Encoding will focus on TEI XML with theory and hands on sessions. It will include an introduction to document analysis principles and practices to reflect, for example, on how we elicit the structure of extant material documents and on how we create the model of a born-digital text. We will see how notions of text model and representation are impinged by our plural understanding of what text is. Mixing theory and practice, the introduction to text annotation (or markup) based on a hierarchical model of text will aim at familiarising students with the history, concepts and encoding practices around the eXtensible Markup Language (XML). Experimenting with the XML editor oXygen, students will get a practical understanding of the structural components of markup and the grammar or schema regulating their mutual relations. The Text Encoding Initiative (TEI) project and its guidelines will be introduced with accompanying exercises to experiment with oXygen suite and functionalities, but also to grasp the modular structure of TEI and hopefully motivate curiosity and further explorations after the course.

Recommended readings

Burnard, L. What is the Text Encoding Initiative? How to add intelligent markup to digital resources. New edition [online]. Marseille: OpenEdition Press. 2014.

<http://books.openedition.org/oep/426> (sections: Introduction; The TEI and XML; The structural organization of a TEI document; Varieties of textual structure; Conclusion: what is the TEI?)

Durusau, P. "How and Why to Formalize your Markup." In Burnard, O'Brien O'Keefe, Unsworth eds. Electronic textual editing. New York: Modern Language Association of America. 2006; Preprint version available at:

<http://www.teic.org/Activities/ETE/Preview/durusau.xml>

TEI Consortium, eds. "v. A Gentle Introduction to XML." TEI P5: Guidelines for Electronic Text Encoding and Interchange. 2.8.0. Last updated on 6th April 2015.

<http://www.teic.org/release/doc/tei-p5-doc/en/html/SG.html>

Bibliography for further study

TEI, XML and Textual Editing

Burnard, L., K. O'Brien O'Keefe, and J. Unsworth. "Principles." In Burnard, O'Brien O'Keefe, Unsworth eds. Electronic textual editing. New York: Modern Language Association of

America. 2006; Preprint version available at:

<http://www.tei-c.org/Activities/ETE/Preview/principles.xml>

Burnard, L. What is the Text Encoding Initiative? How to add intelligent markup to digital resources. New edition [online]. Marseille: OpenEdition Press. 2014.

<http://books.openedition.org/oep/426> (other sections)

Van Hulle, Dirk. "Electronic Textual Editing: Annotated Bibliography: Key Works in the Theory of Textual Editing" In Burnard, L., K. O'Brien O'Keefe and J. Unsworth eds. Electronic textual editing. New York: Modern Language Association of America. 2006; Preprint version

Texts, markup and history of TEI

Burnard, Lou. "The Evolution of the Text Encoding Initiative: From Research Project to Research Infrastructure". Journal of the Text Encoding Initiative 5 (2013).

<http://jtei.revues.org/811>

Coombs James H., Renear Allen, DeRose Steven J. "Markup Systems and The Future of Scholarly Text Processing". Communications of the ACM, 30.11 (1987): 933–947.

<http://doi.acm.org/10.1145/32206.32209>

DeRose Steven J., Durand David G., Mylonas Elli, Renear Allen H. "What is Text, Really?" Journal of Computer Documentation 21.3 (1997): 1–24.

<http://doi.acm.org/10.1145/264842.264843>

Renear, Allen H. "Text Encoding" In Schreibman, Siemens, Unsworth eds. A Companion to Digital Humanities. 2004. <http://www.digitalhumanities.org/companion/>

TEI and Manuscript Description

Driscoll, M. J. "P5-MS: A general purpose tagset for manuscript description". Digital Medievalist 2.1 (2006). <http://www.digitalmedievalist.org/journal/2.1/driscoll/> (note that the module has been updated since 2006)

TEI Consortium, eds. "10 Manuscript Description" TEI P5: Guidelines for Electronic Text Encoding and Interchange. 2.8.0. Last updated on 6th April 2015. <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/MS.html>

TEI Consortium. 2013. "TEI Manuscripts Special Interest Group." <http://www.tei-c.org/Activities/SIG/Manuscript/>

TEI Facsimile Module and Image-based editions

Kiernan, K. "Digital Facsimiles in Editing". In Burnard, O'Brien O'Keefe, Unsworth eds. Electronic Textual Editing (2006). <http://www.tei-c.org/Activities/ETE/Preview/kiernan.xml>

Rosselli Del Turco, Roberto, Giancarlo Buomprisco, Chiara Di Pietro, Julia Kenny, Raffaele Masotti, and Jacopo Pugliese. "Edition Visualization Technology: A Simple Tool to Visualize TEI-based Digital Editions". Journal of the Text Encoding Initiative 8 (2014-2015)

<http://jtei.revues.org/1077>

TEI Consortium, eds. "11 Representation of Primary Sources." TEI P5: Guidelines for Electronic Text Encoding and Interchange. 2.8.0. Last updated on 6th April 2015.

<http://www.tei-c.org/release/doc/tei-p5-doc/en/html/PH.html>

Wittern, Christian, Arianna Ciula, and Conal Tuohy. "The making of TEI P5." Literary and Linguistic Computing 24.3: 281-296.

TEI, Transcription and Critical Apparatus

TEI Consortium, eds. "11 Representation of Primary Sources." TEI P5: Guidelines for Electronic Text Encoding and Interchange. 2.8.0. Last updated on 6th April 2015. TEI Consortium. <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/PH.html>
TEI Consortium, eds. "12 Critical Apparatus." TEI P5: Guidelines for Electronic Text Encoding and Interchange. 2.8.0. Last updated on 6th April 2015. TEI Consortium. <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/TC.html>

TEI and Linguistic Annotation

TEI and Linguistics, Journal of the Text Encoding Initiative 3 (2012). <http://jtei.revues.org/475>
TEI Consortium, eds. "3 Elements Available in All TEI Documents." TEI P5: Guidelines for Electronic Text Encoding and Interchange. 2.8.0. Last updated on 6th April 2015. TEI Consortium. <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/CO.html>
----. "16 Linking, Segmentation, and Alignment." Guidelines for Electronic Text Encoding and Interchange. 2.8.0. Last updated on 6th April 2015. TEI Consortium. <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/SA.html>
----. "17 Simple Analytic Mechanisms." TEI P5: Guidelines for Electronic Text Encoding and Interchange. 2.8.0. Last updated on 6th April 2015. TEI Consortium. <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/AI.html>

TEI and data (names, dates, people, places) - TEI and ontologies

Ciula, Arianna, Paul Spence, and Jose Miguel Vieira. "Expressing Complex Associations in Medieval Historical Documents: The Henry III Fine Rolls Project." *Literary and Linguistic Computing* 23.3 (2008): 311–325.
Ciula, Arianna, and Øyvind Eide. Reflections on cultural heritage and digital humanities: modelling in practice and theory. In *Proceedings of the First International Conference on Digital Access to Textual Cultural Heritage (DATECH '14)*. ACM, New York, NY, USA, 35–41.
Eide, Øyvind. "Ontologies, Data Modeling, and TEI". *Journal of the Text Encoding Initiative* 8 (2014-2015). <http://jtei.revues.org/1191>
TEI Consortium, eds. "13 Names, Dates, People, and Places." TEI P5: Guidelines for Electronic Text Encoding and Interchange. 2.5.0. Last updated on 26th July 2013. <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/ND.html>
Wittern, Christian, Ciula, Arianna, and Tuohy, Conal. "The making of TEI P5." *Literary and Linguistic Computing* 24.3: 281-296.

Character Encoding

TEI Consortium, eds. "vi Languages and Character Sets." TEI P5: Guidelines for Electronic Text Encoding and Interchange. 2.8.0. Last updated on 6th April 2015. <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/CH.html>
----. "5 Characters, Glyphs, and Writing Modes." TEI P5: Guidelines for Electronic Text Encoding and Interchange. 2.8.0. Last updated on 6th April 2015. <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/WD.html>
The Unicode Consortium <http://www.unicode.org/>
Wittern, Christian, Ciula, Arianna, and Tuohy, Conal. "The making of TEI P5." *Literary and Linguistic Computing* 24.3: 281-296.

Tools and other resources

- oXygen XML Editor <http://www.oxygenxml.com/>

- RIDE A review journal for digital editions and resources; published by the IDE <http://ride.i-d-e.de/>
- TEI Boilerplate < <http://dcl.ils.indiana.edu/teibp/>>
- The UVic Image Markup Tool Project http://www.tapor.uvic.ca/~mholmes/image_markup/

Corpus Query with Query Languages: XQuery and specialized corpus languages (4pm-5.30pm)

Andreas Witt (Institute for the German Language, Mannheim)

Linguists and digital humanists nowadays have to deal with huge amounts of available data. The workshop is going to present different methods in querying textual data, with a focus on regular expressions, XQuery (the general query language for XML-annotated data) and on some query languages used in linguistics. A new Corpus Query Engine developed in the Institute for the German Language will also be presented.

Recommended readings

Text Encoding Initiative: A Gentle Introduction to XML (In: TEI Guidelines (P5)). (see <http://www.tei-c.org/Vault/P5/1.0.1/doc/tei-p4-doc/html/SG.html>)

Bibliography for further study

Lüngen, Harald/Sperberg-McQueen, C. M. (2012): A TEI P5 Document Grammar for the IDS Text Model. In: Bański, Piotr/Modignani Picozzi, Eleonora Litta/Witt, Andreas (Eds.): TEI and Linguistics. Journal of the Text Encoding Initiative (see <https://jtei.revues.org/508>)

Optional Social Event (6pm – 9pm)

Saturday, October 3rd, University of Luxembourg, Digital History Lab

Network Visualization with Gephi: from basics to advanced features (9am-10.30am & 11am-12.30pm)

Martin Grandjean (Laboratory of Digital Humanities and Cultures of the University of Lausanne)

Gephi is a powerful, free and open-source, graph-drawing tool, used by many researchers around the world. Particularly easy to tame, it's a fundamental tool for researchers who need to analyze and visualize networks without being familiar with mathematical methods and code. This workshop will guide participants from the most basic features to some more advanced elements, like geographical layout, bipartite and projected graphs, communities detection, and interactive online publishing. However, through the use of a suitable dataset and thanks to a step by step accompaniment, this workshop requires no prior knowledge and is intended for a wide audience.

From Text Interpretation to Data (2pm-3.30pm)

Marten Düring (CVCE, Luxembourg)

Many network analysis projects rely on somewhat ready-made sources for data; for example, email logs, questionnaires, church registers, letter exchanges and trade relations make it relatively easy to identify who is connected to whom and how. It is, however, considerably more difficult to extract quantifiable data from text. Some issues to consider are: how can we bridge the gap between the depth of hermeneutics and data analysis? How can we systematize text interpretation? This workshop will address the above questions and provide hands-on experience with the extraction of network data from a narrative through the use of methods developed in qualitative data analysis. Participants will work with a first-person narrative of a Jewish survivor of the Holocaust and extract data using an existing coding scheme.

Recommended readings

Düring, Marten. n.d. "Should I Do Social Network Analysis?" Retrieved June 29, 2015 (<http://cvcedhlab.hypotheses.org/125>).

Weingart, Scott. 2011. "Demystifying Networks." *the scottbot irregular*. Retrieved February 15, 2014 (<http://www.scottbot.net/HIAL/?p=6279>).

Düring, Marten. n.d. "From Hermeneutics to Data to Networks: Data Extraction and Network Visualization of Historical Sources." Retrieved March 6, 2015 (<http://programminghistorian.org/lessons/creating-network-diagrams-from-historical-sources>).

Bibliography for further study

Claire Lemerrier, Paul-Andre Rosental, *The Structure and Dynamics of Migration Patterns in 19th-century Northern France*

Osa, Maryjane. 2003. *Solidarity and Contention: Networks of Polish Opposition*. Minneapolis: University of Minnesota Press.

Stark, Martin. 2012. *Soziale Einbettung Eines Ländlichen Kreditmarktes Im 19. Jahrhundert: Dissertation*. Trier: Universität Trier. Retrieved (<http://ubt.opus.hbz-nrw.de/volltexte/2014/839/>).

Düring, Marten. *Illegal support networks for persecuted Jews during the 'Third Reich' – Data gathering and the visual representation of activities, relational patterns and network structures*. <http://martenduering.com/projects/covert-networks-during-the-holocaust/>
<http://historicalnetworkresearch.org/resources/>

Enhanced Publications (4pm-5.30pm)

Lars Wieneke (CVCE, Luxembourg)

Enhanced publications allow the combination of different types of sources, such as text, audio, video, pure data or interactive material, in one coherent, self-contained, re-useable and persistent publication. Even though this approach has the potential to transcend the limitations of paper based articles as well as their digital surrogates, and could thereby significantly stimulate scientific discourse, its implementation does not come without particular challenges. In this session, we will map the field by analyzing these practical challenges in relation to copyright management, the integration of new authoring tools, access to resources for computational analysis, persistent identifiers and long-term access to resources and enhanced publications based on the experience of building and maintaining

cvce.eu. The session will conclude with a discussion about the wider scale acceptance of enhanced publications in the scientific community, its use in the humanities domain, and raise the question why the traditional journal article has not disappeared (yet).

Recommended readings

Kircz, Joost G. 'New Practices for Electronic Publishing 2: New Forms of the Scientific Paper'. *Learned Publishing* 15, no. 1 (1 January 2002): 27–32. doi: 10.1087/095315102753303652.

<http://www.kra.nl/Website/Artikelen/Learnedpubl2.pdf>

Brammer, Grant R., Ralph W. Crosby, Suzanne J. Matthews, and Tiffani L. Williams. 'Paper Mâché: Creating Dynamic Reproducible Science'. *Procedia Computer Science* no. 4 (2011): 658–67. <http://www.sciencedirect.com/science/article/pii/S187705091100127X>

Bibliography for further study

Heuvel, H. van den, R. van Horik, S. I. Scagliola, E. P. Sanders, and P. Witkamp. 'The VeteranTapes: Research Corpus, Fragment Processing Tool, and Enhanced Publications for the E-Humanities'. 2692, 2010. <http://repository.ubn.ru.nl/handle/2066/85921>.

Nowakowski, Piotr, Eryk Ciepiela, Daniel Harężlak, Joanna Kocot, Marek Kasztelnik, Tomasz Bartyński, Jan Meizner, Grzegorz Dyk, and Maciej Malawski. 'The Collage Authoring Environment'. *Procedia Computer Science, Proceedings of the International Conference on Computational Science, ICCS 2011*, 4 (2011): 608–17. doi: 10.1016/j.procs.2011.04.064.

Woutersen-Windhouwer, Saskia, Renze Brandsma, Arjan Hogenaar, Maarten Hoogerwerf, Paul Doorenbosch, Eugène Dürr, Jens Ludwig, Birgit Schmidt, and Barbara Sierman. 'Enhanced Publications : Linking Publications and Research Data in Digital Repositories'. Amsterdam: Amsterdam University Press, 2009. <http://dare.uva.nl/document/150723>.

<https://www.openaire.eu>

<http://www.executablepapers.com/index.html>

Conferral of certificates and closing of the Autumn School (5:45pm-6.30pm)