Foundations of Network Analysis
Course Syllabus

Digital Humanities Summer Institute
University of Victoria – June 10th to 14th, 2019

The class outline is not finalized and will most likely change before Day 1. The most up-to-date version of the course outline can be found on the course website at https://github.com/jmotis/DHSI-networks-2019

Instructor:

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Course Description:

This course offers a basic introduction to the construction and analysis of networks. Participants will become familiar with the mathematical concepts that are foundational to networks as they learn to format network data, analyze and interpret networks structures, visualize network graphs, and integrate network analysis into their existing research workflows. They will also be introduced to popular cross-platform digital humanities tools for the visualization and analysis of networks. This course will be relevant to all humanities researchers who are interested in learning more about the potential of network analysis to support humanist research goals. Having completed this course, participants will have a better understanding of how to employ network analysis in their future research and pedagogy. No previous mathematical or programming experience is required.

Course Website -- https://github.com/jmotis/DHSI-networks-2019

Learning Outcomes:

You should walk away from this course with the following knowledge:
- What the underlying mathematical concepts in a network are
- How to format humanities data for network analysis
- How to visualize networks in order to convey a narrative argument
- How to quantitatively analyze and interpret network structures
- What the currently popular network software and libraries are

Preparation for the Course:

Please bring your own laptop ("own" as in you have administrator rights to install software on it in addition to however else "own" is usually understood) so that you can leave the course with the appropriate software installed and an environment that you are ready to begin working in.

If possible, please install Gephi before this course begins. You can find the free download at -> https://gephi.org. Gephi can be a bit finicky so if you have trouble with the install then I will help you complete the install before we need to use it in class.

Optional Readings:

Journal:
Journal of Historical Network Research, https://jhnr.uni.lu/index.php/jhnr/issue/archive

Book:
Joad Raymond and Noah Moaxham, eds, *News Networks in Early Modern Europe* (Brill: 2016), https://brill.com/abstract/title/26263

Articles:
Ruth Ahnert and Sebastian E. Ahnert, "Metadata, Surveillance and the Tudor State," *History Workshop Journal* (2019), https://doi.org/10.1093/hwk/dby033

Ruth Ahnert and Sebastian E. Ahnert, "Protestant Letter Networks in the Reign of Mary I: A Quantitative Approach," *ELH* 82, no. 1 (2015): 1-33, https://qmro.qmul.ac.uk/xmlui/handle/123456789/10170

Florian Krautli and Matteo Valleriani, "CorpusTracer: A CIDOC Database for Tracing Knowledge Networks," *Digital Scholarship in the Humanities* 33, no. 2 (2018): 336-346, https://doi.org/10.1093/llc/fqx047

James Lee and Jason Lee, "Shakespeare's Tragic Social Network; or Why All the World's a Stage," *Digital Humanities Quarterly* 11, no. 2 (2017), http://digitalhumanities.org:8081/dhq/vol/11/2/000289/000289.html

Matteo Romanello, "Exploring Citation Networks to Study Intertextuality in Classics," *Digital Humanities Quarterly* 10, no. 2 (2016), http://digitalhumanities.org:8081/dhq/vol/10/2/000255/000255.html

Claire Ruegg and James Jaehoon Lee, "Epic Social Networks and Eve's Centrality in Milton's *Paradise Lost*," *Digital Scholarship in the Humanities* (2019), https://doi.org/10.1093/llc/fqz001

Digital Projects:
Cristina Pattuelli, "Linked Jazz," https://linkedjazz.org/network/

Walter Scheidel, Elijah Meeks, et al, "ORBIS: The Stanford Geospatial Network Model fo the Roman World," http://orbis.stanford.edu

Christopher Warren, Daniel Shore, et al., "Six Degrees of Francis Bacon," http://sixdegreesoffrancisbacon.com

Schedule:

Day 1 – June 10th:

7:45am to 8:15am – Last minute registration for DHSI (MacLaurin Building)
8:30am to 10:00am – Welcome, Orientation, and Instructor Overview (MacLaurin A144)
10:15am to 12:00pm – Class – ***Welcome;*** (1 hour, 45 mins)
12:15pm to 1:15pm – Lunch break / Unconference Coordination Session (MacLaurin A144); Mystery Lunches
1:30pm to 4:00pm – Class – ***Graphs, Trees, and Networks*** (2 hours, 30 mins)
4:10pm to 5:00pm – Institute Lecture: Angel David Nieves (San Diefo State U): "3D Mapping and Forensic Traces of Testimony: Documenaty Apartheid-Era Crimes Through the Digital Humanities." (MacLaurin A144)
5:00pm to 6:00pm – Opening Reception (University Club)

Day 2 – June 11th:

9:00am to 12:00pm – Class – ***Varieties of Networks; Structuring Data for Networks*** (3 hours)
12:15pm to 1:15pm – Lunch break / Unconference; "Mystery" Lunches
1:30pm to 4:00pm – Class – ***Visualizing Networks*** (2 hours, 30 mins)
4:15pm to 5:15pm – DHSI Colloquium Session 4 (MacLaurin A144)
6:00pm to 8:00pm – DHSI Newcomer's Gathering (Grad House Restaurant)

Day 3 – June 12th:

9:00am to 12:00pm – Class – ***Network Metrics; How to Use Network Analysis*** (3 hours)
12:15pm to 1:15pm – Lunch break / Unconference; "Mystery" Lunches (MacLaurin A144)
1:30pm to 4:00pm – Class – ***How to Use Network Analysis, cont.; Networks Over Space and Time*** (2 hours, 30 mins)
4:15pm to 5:15pm – DHSI Colloquium Session 5 (MacLaurin A144)
6:00pm to 7:00pm – "Half Way There (yet again)!" Birds of a Feather Get-Together (Felicitas, SUB)

Day 4 – June 13th:

9:00am to 12:00pm – Class – ***Additional Network Tools*** (3 hours)
12:15pm to 1:15pm – Lunch break / Unconference; "Mystery" Lunches
1:30pm to 4:00pm – Class – ***Individual Project Work*** (2 hours, 30 mins)
4:15pm to 5:15pm – Institute Lecture: Karina van Dalen-Oskam (Huygens Institute and U Amsterdam; Alliance of Digital Humanities Organizations): "The Riddle of Literary Quality: Some Answers" (A144)

Day 5 – June 14th:

9:00am to 12:00pm – Class – ***Individual Project Work and Class Debrief*** (3 hours)
12:15pm to 1:15pm – Lunch Reception & Course Exhibits (MacLaurin A100)
1:30pm to 2:00pm – Closing, DHSI in Review (MacLaurin A144)