

Analysis and Visualisation with NetworkX and Altair

Pre-work

Python: <https://programminghistorian.org/en/lessons/introduction-and-installation>

Jupyter Notebooks: <https://glam-workbench.github.io/getting-started/>

Week 1: Network Analysis with NetworkX

Helpful Resources

- *Demystifying Networks* by Scott Weingart
<http://www.scottbot.net/HIAL/index.html@p=6279.html>
- The Programming Historian's *From Hermeneutics to Data to Networks*:
<https://programminghistorian.org/en/lessons/creating-network-diagrams-from-historical-sources>

Assignment

1. Watch the videos in *Use Case 3: Discovering Collaboration* in section 3 of the LinkedIn Learning course *Applied AI for Human Resources*:
<https://www.linkedin.com/learning/applied-ai-for-human-resources/organization-design?u=50251009>
2. Complete the section on *Metrics available in NetworkX* (subsections *The Shape of the Network* and *Centrality*) in the tutorial we began together in class:
<https://programminghistorian.org/en/lessons/exploring-and-analyzing-network-data-with-python#fn:pipinstall>
 - A. If you would prefer not to/are having trouble downloading the software needed for the assignment (see slide 9 from class), you can use [this Notebook](#) on MyBinder. **Be sure to export or download your work** (I recommend as .html and as .ipynb files), as MyBinder won't save it for you!

Optional

Code *Community detection with modularity*, the section after #2 of the Assignment from The Programming Historian tutorial:

<https://programminghistorian.org/en/lessons/exploring-and-analyzing-network-data-with-python#metrics-available-in-networkx>

Read Six Degrees of Pennsylvania: William Penn and Quaker Brokerage:

<https://6dfb.tumblr.com/post/164795439991/six-degrees-of-pennsylvania-william-penn-and>

Explore Six Degrees of Francis Bacon, an interactive social network visualisation:

<https://6dfb.tumblr.com/network>

For guidance, checkout *A Newbie's Guide to Six Degrees of Francis Bacon*:

<https://6dfb.tumblr.com/post/131414499486/a-newbies-guide-to-six-degrees-of-francis-bacon>

