Visualization

Network Science Bootcamp 2021
Hong Qu

Mathplotlib

- [Networkx drawing](#)
- [Python Graph Gallery](#)
  - [Matplotlib](#)
  - [Network Charts](#)
- [Cheat sheet](#)

https://matplotlib.org

write_gexf

`write_gexf` (*G, path, encoding='utf-8', prettyprint=True, version='1.1draft'*)   [source]

Write G in GEXF format to path.

"GEXF (Graph Exchange XML Format) is a language for describing complex networks structures, their associated data and dynamics" [1].

Parameters:
- **G** (*graph*) – A NetworkX graph
- **path** (*file or string*) – File or file name to write. File names ending in .gz or .bz2 will be compressed.
- **encoding** (*string (optional)*) – Encoding for text data.
- **prettyprint** (*bool (optional)*) – If True use line breaks and indenting in output XML.

Examples

```
>>> G=nx.path_graph(4)
>>> nx.write_gexf(G, "test.gexf")
```

Gephi

- [Simple Gephi Project from A to Z](#)
- [Network visualization with Gephi](#)
- [Animate Dynamic Graphs with Gephi](#)

https://gephi.org/users/tutorial-visualization/

Kumu

- [Celebrity Ice Bucket Challenge](#)
- [AI Ethics & Governance Map](#)
- [A Network of Game of Thrones](#)

https://kumu.io/

Flourish Studio

- Seinfeld graph - example of triadic closure
- Network Diagram of Scientists and Journalists
- Research collaboration between countries, Sankey

https://flourish.studio/visualisations/network-charts/

R and ggplot

- Static and dynamic network visualization with R
- From Data to Viz Network Diagram
- R graph gallery
- ggnet2: network visualization with ggplot2
- Network Analysis in R
- RPubs Intro to networks in R

https://ggplot2.tidyverse.org/index.html

CS 7295: Special Topics in Data Visualization - Visualizing Layered Network
Instructor: Prof. Cody Dunne a.k.a. Cody Scott
Time: M/W 2:50–4:30 pm
CRN:15742
Description:
Students will explore algorithms, techniques, and tools for visualizing layered networks as part of a project- and discussion-based course.