Roman Comedy: Social Network Relationships

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[UPDATED] Anthology Submission (Summer)	
Column	

CESTA Summer 2021 Event Documentation

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Social Networks in Roman Comedy Anthology materials

Work Board

Name	Assign	Status
Read Introductory Resources provided by Hans		Completed
attend gephi workshop		Completed
scope out territory for network maps; tools, resources		Completed
attend palladio workshop		Completed
play around with current dataset		Completed

Name	Assign	Status
set up github pages site		Completed
explore avenues of setting up the data		Completed
dan's workshop		Completed
learn d3.js environment setup		Completed
add colored nodes to prototype		To Do
add directional arrows to prototype		To Do
research building a sustainable model		To Do
add repo to local computer + set up jekyll		Completed

june 29, 2021

explored some graphing tools. gephi good for large datasets and has a lot of resources for debugging and mentors etc.

july 1st, 2021

possible tools

option	pros	cons	links/notes
d3 js	interactive & web-based, very customizable	steep initial learning curve, w/o prior experience in JS will be difficult to adjust	
gephi	great tool for large datasets, offers structural statistics, lots of documentation/tutorials/resources	meh in webbased format, need to install plugin sigmajs-exporter, tutorial here	
palladio	beginner friendly, great for setting up tabular data, exploring networks and different visualizations	exports as .svg file. mostly for **exploratory** purposes, doesnt have eigenvalue/structural stats	
flourish	browser-based, no installation, easy use, primary objective: storytelling w data, geared towards websites, free for public/educational use	requires a firm understanding of data visualization design principles	
socnetv	flexible, user-friendly, cross-platform, offers structural statistics	website integration unclear - interactivity seems minimal if anything	
tableau	easy use, high performance, large community/lots of resources, "unparalleled capabilities of visualizing information"	high cost (i think stanford has tableau tho), poor versioning, embedment issues (not accessible to non-tableau users), requires SQL knowledge	

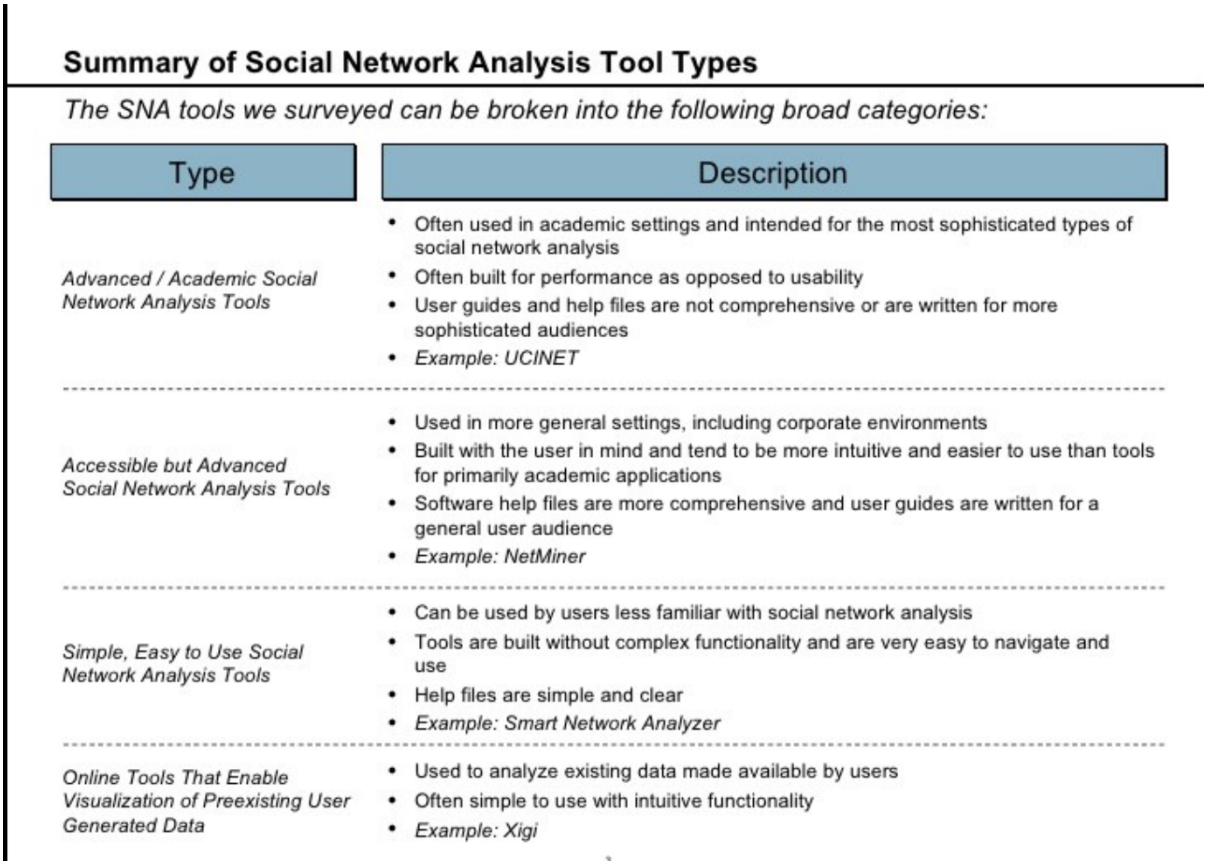
Aa option	pros	cons	links/notes
graphviz	several packages and libraries, interactive graphical interface that is also web-based	unorganized learning documentation, not a lot of commuunity support, not that geared towards network analysis	https://graphviz.org/
vis.js	web based	learning curve, would rather learn d3.js than vis.js	https://visjs.org/

other tools, pros & cons

more tools

moving forward: questions & comments

- should probably keep the data in a csv format, most tools use it
- keep in mind the programs that have structural statistics embedded within the software (i think gephi, socnetv ?)
- how big will the dataset be, an estimate? approx how many actors and how many interactions? ← will effect what programs to use
- whats our next step? do you think we can start building the dataset?
    - i think this would be a good step because even if other factors of the project change (what tool we want to use, how we want to present the data, etc, a file of the data would only be beneficial)



Summary of Social Network Analysis Tool Types

The SNA tools we surveyed can be broken into the following broad categories:

Type	Description
Advanced / Academic Social Network Analysis Tools	• Often used in academic settings and intended for the most sophisticated types of social network analysis • Often built for performance as opposed to usability • User guides and help files are not comprehensive or are written for more sophisticated audiences • *Example: UCINET*
Accessible but Advanced Social Network Analysis Tools	• Used in more general settings, including corporate environments • Built with the user in mind and tend to be more intuitive and easier to use than tools for primarily academic applications • Software help files are more comprehensive and user guides are written for a general user audience • *Example: NetMiner*
Simple, Easy to Use Social Network Analysis Tools	• Can be used by users less familiar with social network analysis • Tools are built without complex functionality and are very easy to navigate and use • Help files are simple and clear • *Example: Smart Network Analyzer*
Online Tools That Enable Visualization of Preexisting User Generated Data	• Used to analyze existing data made available by users • Often simple to use with intuitive functionality • *Example: Xigi*

- which type does our future work fall under? ^

july 9th 2021

meeting comments:

- discussed list of possible tools/pros&cons
- ultimately decided on d3 for long term project; the most interactive, longevity, useful for me to learn as well!
- ultimately, tableau and d3 are the most interesting
- next week: discussing data formatting
- would be useful too find a smaller dataset similar to what the RC one would look like so I can play around with it

july 12th 2021 - getting started with d3

resources

- written introduction - tutorials teacher - mini tutorial
- setup/concepts - setting up environment + mini intro

- d3 js first steps - barebones of just getting d3 set up
- practical video introduction
- medium "getting started with d3js"
- documentation on network graph
- intro to making network graphs
- example simple d3 network graph

july 13, 2021 - call with hans about building dataset

file type

- json

setting up data brainstorming

- interaction between actors
- length of interaction
- basic character types
- relationship between actors (e.g. slave to priest, slave to slave)
- "levels of engagement" is the ultimate bottom line
- prescence in the play (bigger node = bigger prescence)
- metadata: setting, book edition, etc

resources/exploration

- found excel to json converter, link ✔️
- intro to network datasets link
- introduction to d3.js link from the book *d3.js in action*

july 18, 2021 - learning d3 and json

resources used:

- learn json in 10 min ✔️
- d3.js set up - bare bones set up of the environment ✔️
- chapter 1 of *d3.js in action* ✔️
- tutorialsteacher - to get comfortable

redirecting/goals:

- reformat our current data set ← put this on the backburner for now

- build the environment to work with d3

> *"You don’t invest your time learning D3 so that you can deploy Excel-style charts on the web. For that, easier, more convenient libraries exist. You learn D3 because it gives you the ability to implement almost every major data visualization technique."*

what i learned:

- how to set up the barebones d3 environment (done on vscode)
- learned about the json file structure (will keep this information in mind for future purposes once we start ttweaking the current data set)
- read 1 chapter of d3.js in action to get an overview of d3
- worked on a few tutorials to play around with the actual library

july 29, 2021

establishing features of our data - using this resource to learn what SNA are comprised of

- **bounded network**; network with
  a set number of network members (actors)
- collecting **relational data**
  - social roles (supervisor, teacher,
    friend, acquaintance, etc.)
  - kinship (e.g., sister, brother, cousin, etc.)
  - affective (like, dislike, respect, etc.)
  - Resource (knowledge, facility
    access, resource access, etc.)
  - Actions (talk with, meet with,
    collaborate with, eat with, etc.)
  - Distance (number of miles between, etc.)
  - Co-occurrence (same organization,
    same school, etc.)
- relationship data can be in form of binary data
  - yes or no
    (connected vs. not connected; like or dislike)
  - Categorical data or categories/
    ranks (e.g., like, dislike, like the

most, dislike the most, etc.)

- Interval data or simply numbers (e.g., number of times you communicated, number of events you attended together, number of projects you have worked on together, etc.).

was wondering if we could use this call to talk about different attributes of the data

august 10, 2021

data i came up with (sheet 2) to be edited/tweaked by hans

> https://s3-us-west-2.amazonaws.com/secure.notion-static.com/1ac7e5ce-7e1d-4113-8a1f-9236fb389028/Captivi.xls

discussion points:

- the audience as a node
- ethnicity and its applicability
- POW & origin - interesting points

played around with current data set

- just node to node interaction, nothing else
- https://codepen.io/salmakamni/pen/QWvzXQW

> https://codepen.io/salmakamni/pen/QWvzXQW

august 18, 2021 - check up call discussing prototype

future adjustments:

- arrows instead of edges
- color coding nodes - POW status, audience, grex, etc
- node size based off of # of interactions

to think abt:

- how character types can be represented

to do:

- set up prototype on github pages
  - repo here

future:

- thinking abt checkbox feature (highightes nodes that are of a certain attribute, who is aetolian, who is POW, who is etc etc)
  - this is advanced

august 23, 2021 - salma's set up day

- set up jekyll (this was painstaking ruby was very annoying to work with)
- cloned the github repo that hans made

august 25, 2021 - data representation

representing POW in graph:

- added data
- used interactive box here https://codepen.io/segg/pen/MBxNbq

creating arrows resources:

- https://stackoverflow.com/questions/36965610/how-to-add-an-arrow-links-in-d3-js
- https://jsfiddle.net/4xt5v51m/3/

setting node color based on condition

- https://jsfiddle.net/mdml/vm56cgz1/
- https://www.reddit.com/r/learnjavascript/comments/ahz0ee/conditional_node_color_in_d3_or_calling_a/
- https://www.titanwolf.org/Network/q/aad76811-4ad4-4816-b1e7-5a0124e54770/y

august 26, 2021 - more reseearch

since im stuck on a bug waiting for dan's help LOL!

- d3&vue for data viz https://alligator.io/vuejs/visualization-vue-d3/
- site made with jekyll

august 27, 2021 - call with dan & hans

details from dan's call

proposed todo:

- have jekyll site running

details

- jekyll → site generator
- github pages → hosting
- vue framework → JS interactivity
- d3 → library to create data vis

sept 1, 2021

- got jekyll site running locally
- moved codepen to local machine
  - used this
- published github pages site

future:

- graph viz stuff

Winter Quarter

feb 2, 2022

Goals for this quarter:

- building a sustainable model
- adding more queries (origin, POW, etc)

feb 11, 2021

Long story short, I won't be working on the initial prototype and instead will be developing a new one. Reasons for this:

- The source code is out of my domain and it's been difficult for me to figure out how to make adjustments to it
- I want to make sure we have enough flexibility to add as many future queries as possible, even non-binary ones for the future. So, a new model would be good to start with.
- The old prototype broke and I have no idea why😬Seemed like a sign that it was a good decision to work on a new model

Besides that, the old model was great to get an idea of how the data could look and it was a great stepping stone! Now onto bigger and better things.

Annie sent me a few examples of data visualizations that could be helpful as starters. Here are some:

http://dhs.stanford.edu/dh/networks/

https://annieklamar.github.io/Digression_Architecture/

https://mimno.infosci.cornell.edu/community/

http://mathcs.pugetsound.edu/projects/augustine/

I believe that the first one has a breadth of capabilities and allows for a lot of flexibility. Surely, it's not as visually appealing *but* I think has a lot of room to visualize the most amount of data as possible as well as being a great foundation for potential future queries!