

Social Networks

Copied in part and modified in part
from the

[Programming Historian Network
Visualization Tutorial](#)

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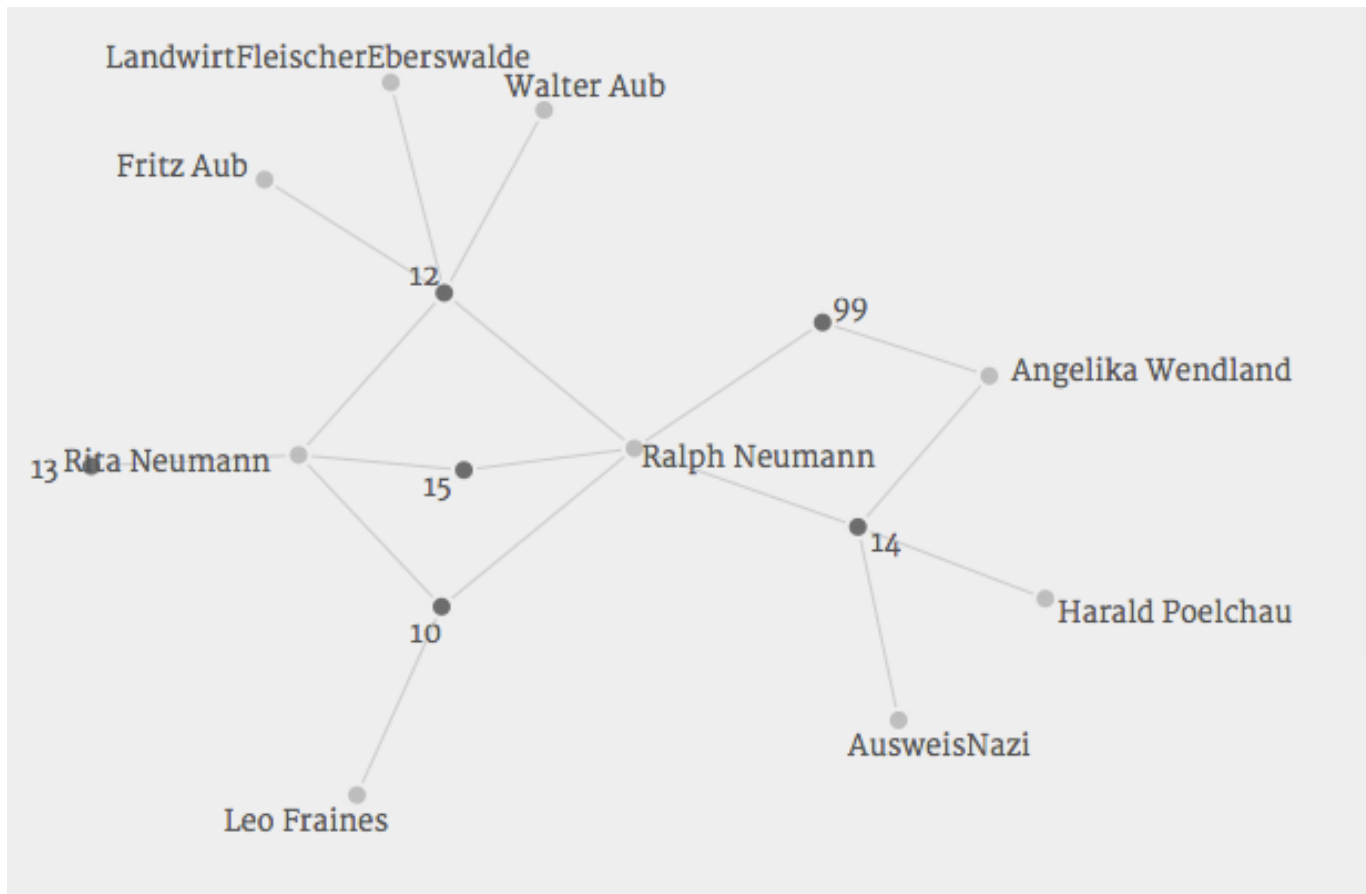
Network visualizations depict relationships between people or objects

- degree of relationships
- attributes of the people or objects
- directionality of relationships
- other aspects of relationships

Nodes: people/objects

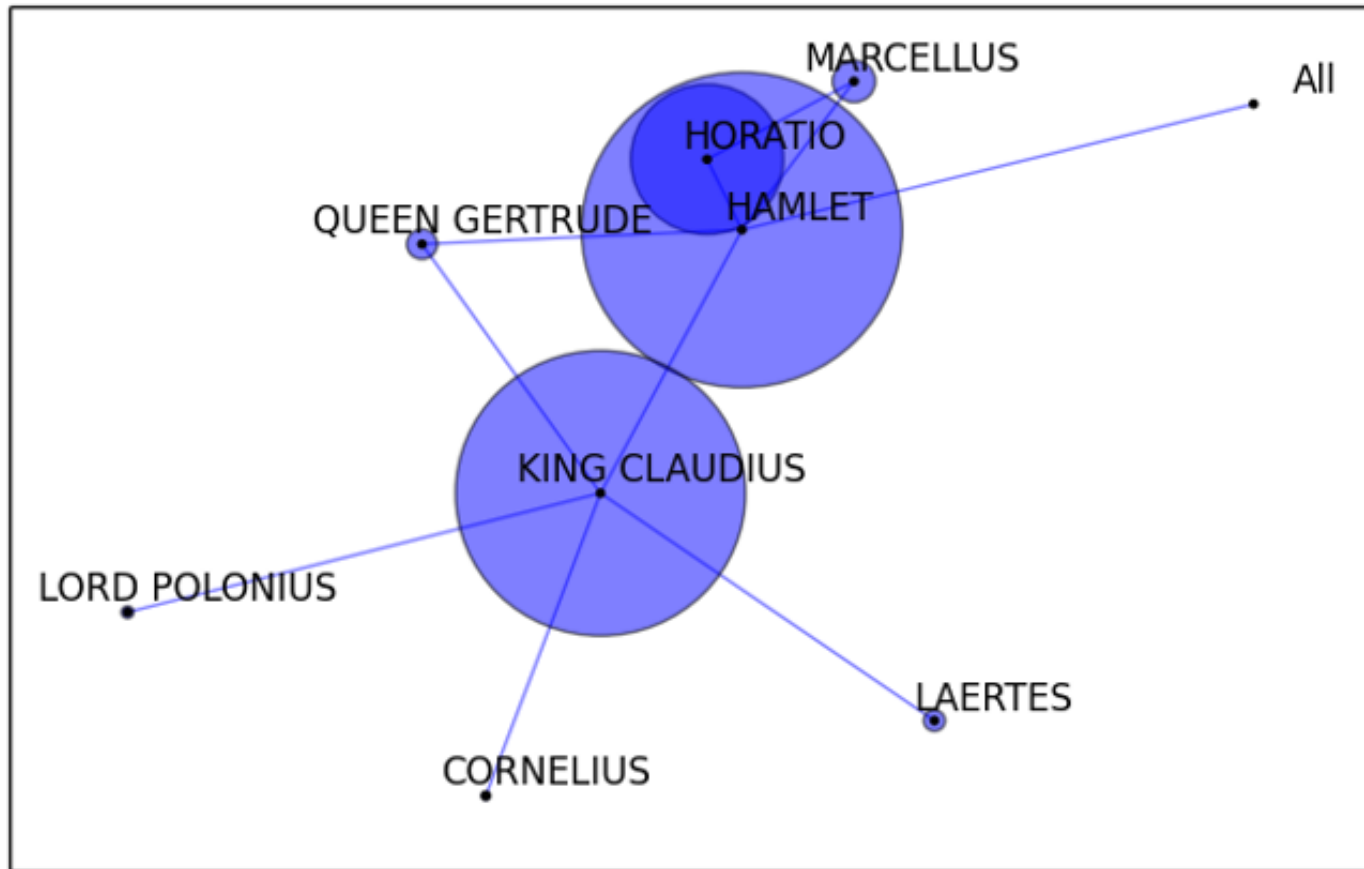
Edges (ties): connections or relationships

One network graph of relationships in Ralph Neumann's account of his life in Berlin 1943-45



<http://dasil.grinnell.edu/2014/11/a-network-analysis-of-shakespeares-plays/>

ACT 1, SC 2. A room of state in the castle.



A. Palladio: Palladio's sample dataset

<http://palladio.designhumanities.org>

B. Dataset: first person narrative of Jewish survivor of the holocaust, 1942-45, encoded by Martin Düring



Ralph Neuman

**Memories from My
Early Life in Germany
1926 – 1946**

Düring took this narrative account, read it, and made a spreadsheet about the people in it.

“Which aspects of relationships between two actors are relevant? Who is part of the network? Who is not? Which attributes matter? What do you aim to find?”

What defines a relationship between two actors?

- Any action which directly contributed to the survival of persecuted persons in hiding....
Actors were coded as either providers or recipients of an act of help independently of their status as refugees.

Who is part of the network? Who is not?

- Anyone who is mentioned as a helper...

Which types of relationships do you observe?

- Rough categorizations of: Form of help, intensity of relationships, duration of help, time of help, time of first meeting (both coded in 6-months steps).

Which attributes are relevant?

- Mainly racial status according to National Socialist legislation.

What do you aim to find?

- A deeper understanding of who helps whom how, and discovery of patterns in the data that correspond to network theory. A highly productive interaction between my sources and the visualized data made me stick with this.

Data model: Alice gives food/ commodities to Paul

Giver	Recipient	Form of Help
		1. Other help
		2. Brokerage
		3. Accommodation
		4. Food, Commodities
		5. Forged documents
		7. Emotional support
Alice	Paul	4

Directional network. (Not all are directional.)

Giver	Recipient	Form of Help
		1. Other help
		2. Brokerage
		3. Accommodation
		4. Food, Commodities
		5. Forged documents
		7. Emotional support
Alice	Paul	4

“In September 1944 Paul stayed at his friend Alice’s place; they had met around Easter the year before.”

Giver	Recipient	Form of Help	Relation	Duration	Date of Activity	Date of first Meeting
		1. Other help	1. false premises	1. one-off contact	(1.) Pre 9Nov.1938	(1.) Pre 9Nov.1938
		2. Brokerage	2. no prior contact	2. a week or less	(2.) 2/1938	(2.) 2/1938
		3. Accommodation	3. young-weak	3. a month or less	(3.) 1/1939	(3.) 1/1939
		4. Food, Commodities	4. old-weak	4. less than six months	(4.) 2/1939	(4.) 2/1939
		5. Forged documents	5. young-strong	5. more than six months	(5.) 1/1940	(5.) 1/1940
		6. old-strong	6. irrgeluar	(6.) 2/1940	(6.) 2/1940	
		7. Emotional support			(7.) 1/1941	(7.) 1/1941
					(8.) 2/1941	(8.) 2/1941
					(9.) 1/1942	(9.) 1/1942
					(10.) 2/1942	(10.) 2/1942
					(11.) 1/1943	(11.) 1/1943
					(12.) 2/1943	(12.) 2/1943
					(13.) 1/1944	(13.) 1/1944
					(14.) 2/1944	(14.) 2/1944
					(15.) 1/1945	(15.) 1/1945
Alice	Paul	4	99	99	14	11

“In September 1944 Paul stayed at his friend Alice’s place; they had met around Easter the year before.”

99 = unknown/unverifiable

“In September 1944 Paul stayed at his friend Alice’s place; they had met around Easter the year before.”

99 = unknown/unverifiable

Attributes for the people in a second table (attributes depend on your **dataset** and your **research questions**)

Person	NS Race Status	Sex
	1. Not persecuted	1. male
	2. Persecuted as Jewish	2. female
	3. "Half-Jew"/"privileged marriage"	
	4. Persecuted other	
Alice	1	2
Paul	2	1

Encoding your source data takes time and gives you a deeper knowledge of your data:

“...coding data in this way, will raise many questions and will force you to study your sources more deeply and more rigorously than if you had worked through them the “traditional” way.”

You may have to **rework your data model** and therefore **reread and re-encode your data** multiple times.

- Create your spreadsheet
- attributes or fields as columns, entries as rows
- every cell with a field and an entry must have some data in it. (e.g., “99” as unknown if blank)
- usually: save as csv (comma delimited) file

Students: open the sample data on the syllabus; it should look like the screenshot below:

[https://docs.google.com/spreadsheets/d/](https://docs.google.com/spreadsheets/d/1LzbWsG73m74t3p6xE7lutfVWuOdzOIfN55FbhCCRZvk/edit#gid=77820913)

[1LzbWsG73m74t3p6xE7lutfVWuOdzOIfN55FbhCCRZvk/edit#gid=77820913](https://docs.google.com/spreadsheets/d/1LzbWsG73m74t3p6xE7lutfVWuOdzOIfN55FbhCCRZvk/edit#gid=77820913)

B	C	D	E	F	G
Recipient	Form of Help	Relation	Duration	Date of Activity	Date of first Meeting
Paul	4	99	99	14	11
Ralph_Neumann	3	99	2	11	99
Rita_Neumann	3	99	2	11	99
Mother_Neumann	3	99	2	11	99
Ralph_Neumann	3	99	2	11	99

demo on Palladio

Students: DIY with the handout