



AGENTUR FÜR FORSCHUNG

StakeX – Organizational Networks from Web Research

Content Meets Structure

September 30th, 2020

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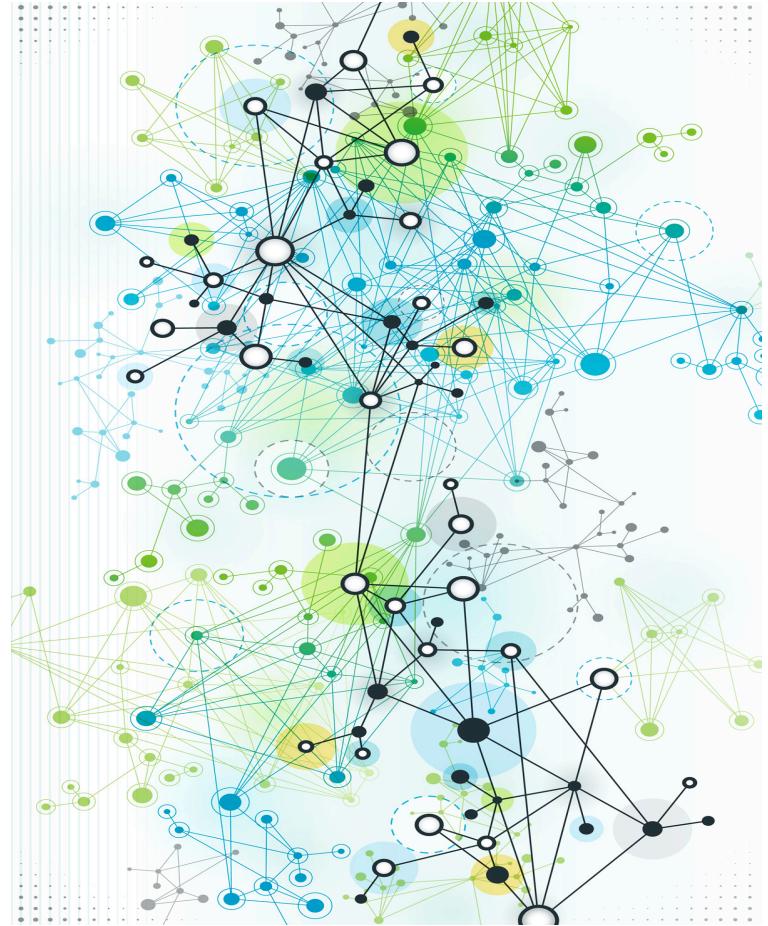


From Web Networks to Personal Networks

- **What we do:** Research on people in markets and societies
- **Recurring topic:** Acceptance of projects, issues, ideas among relevant stakeholders of particular importance
 - Question 1: Who are they?
 - Question 2: What can we know about them?
- **Solution:** Network analysis
 - Identify unknown stakeholders by identifying the networks of known stakeholders.
 - Learn about interests and relevance by analyzing the networks

Network of Formal Relationships

- All stakeholders within the network are connected - directly or through others.
 - Find any actor by following relationships within the network!
- Relationships will be formal and/or informal.
- Informal relationships cannot be detected, but formal can! We focus on the latter.
 - Formal relationships indicate contact (not necessarily sympathy)
 - Focus on functions executed with others, that can be researched (e.g. boards, certain memberships, co-working/authoring, etc.)



Manual Research in Public Sources Only and in Full Accordance with GDPR



Sources we use:

- ✓ Company websites
- ✓ Personal websites
- ✓ Club and society websites
- ✓ Literature databases (Google Scholar)
- ✓ Bundesanzeiger
- ✓ Other databases

Sources we do not use:

- 🚫 LinkedIn and other social media
- 🚫 Anything that requires logging in

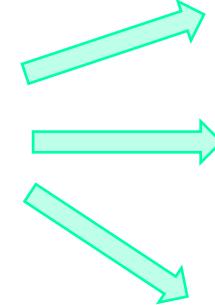
Starting with a Few to Find out About Many Using the Character of Networks

Seed Stakeholders
- Named by experts
- Web search

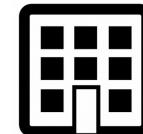
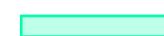
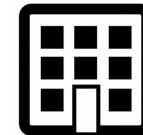
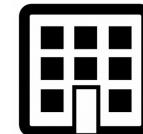


for each

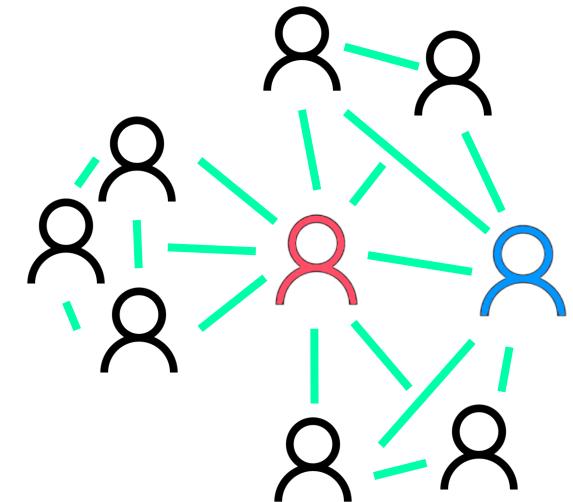
Research affiliations



Research affiliation contacts



Add edges

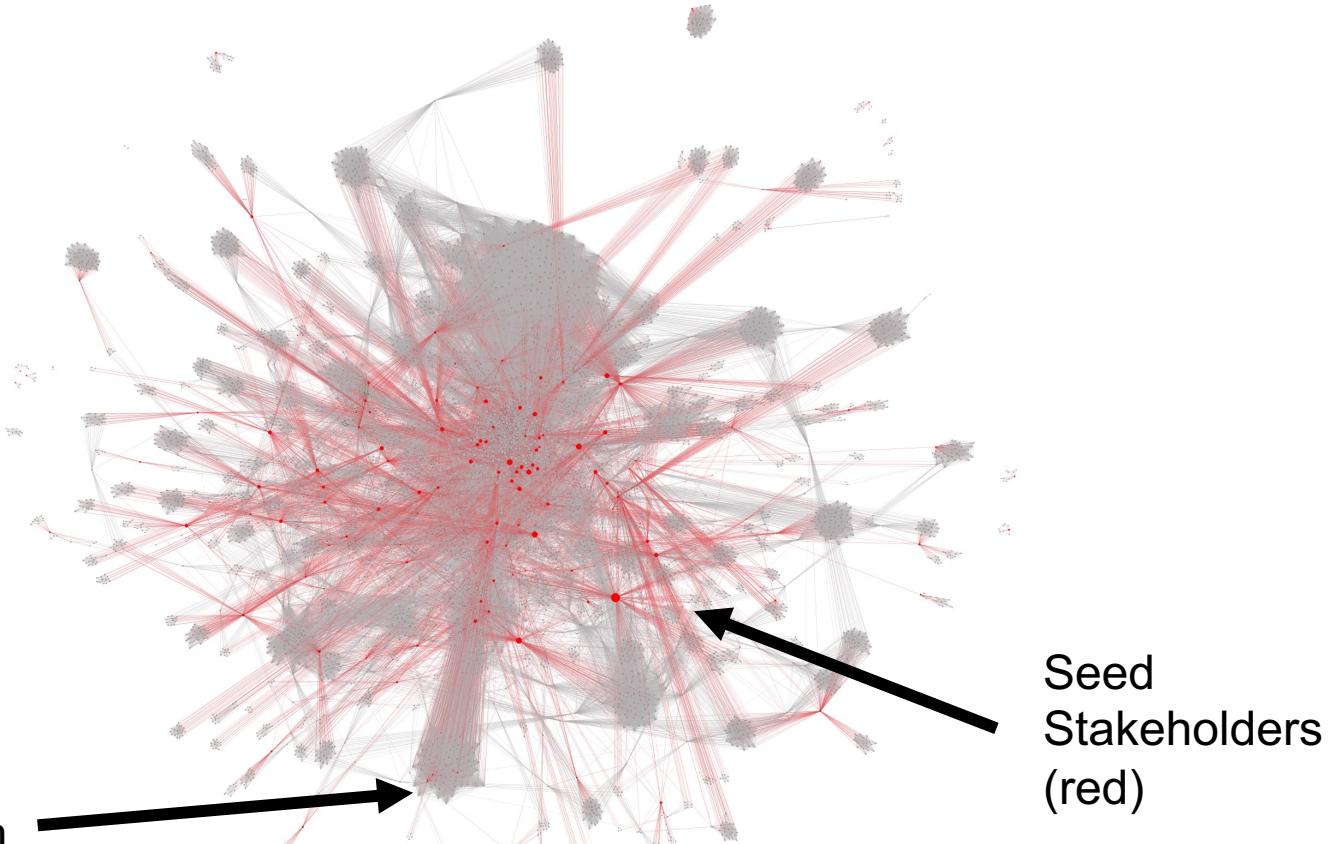


Some newly added people have multiple affiliations and become hubs (blue)

Project Example: Regional Stakeholder Network

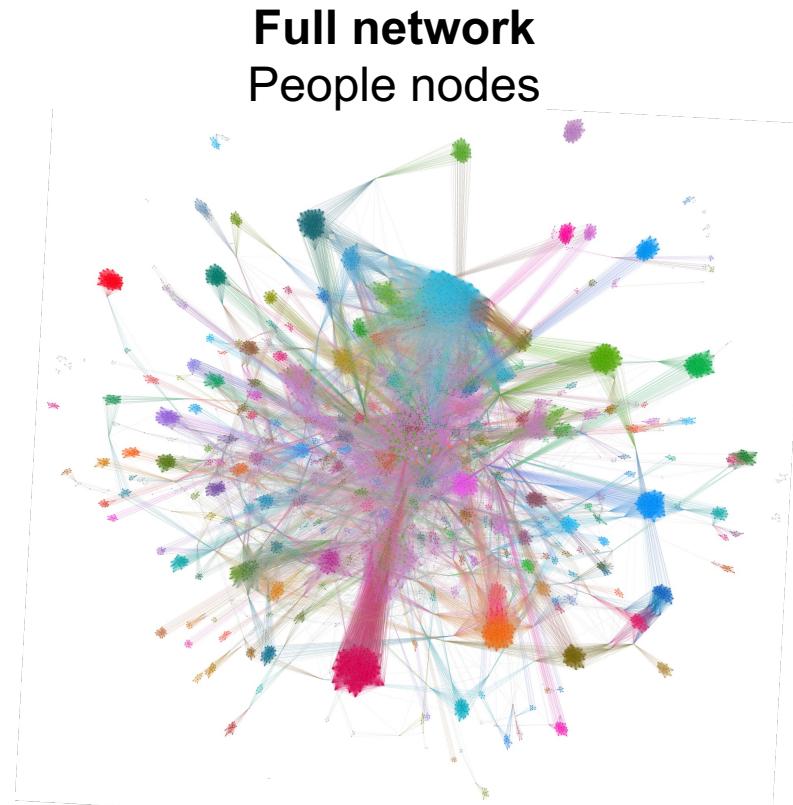
- Researched for an infrastructure project
- 140 seed stakeholders
- 606 organizations
- 6.378 persons
- 9.088 memberships
- 139.545 relationships between persons

Organizations form node clusters

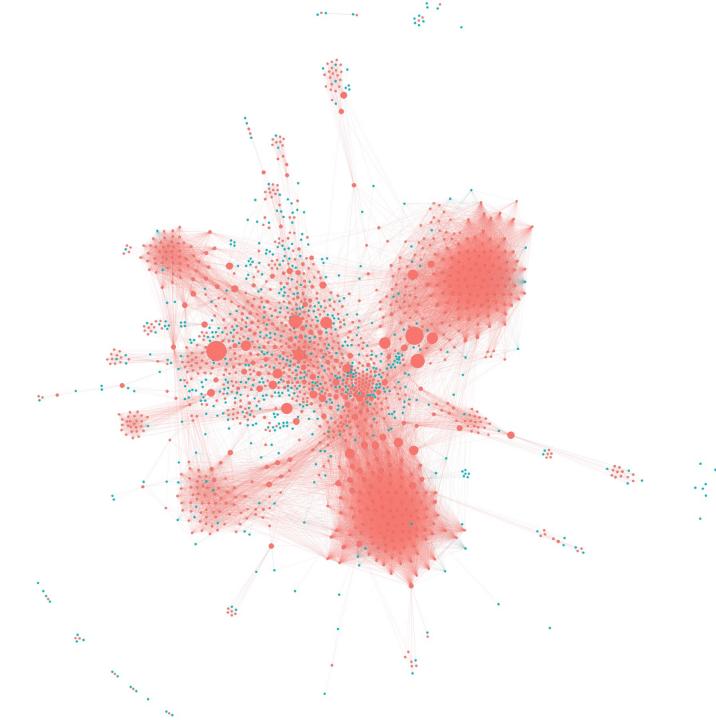


Reducing Visual Clutter by Merging People Nodes

Nodes Associated with Only One Organization Are Merged



Compact network
People & organization nodes



Web Apps for Data Collection and Presentation

Data collection

Organisationen

Name	Kategorie	Str. und Hausnummer	PLZ	Ort	Land	Bearbeiter	Geändert
Börner	Wirtschaft	Kummelstraße 7	20249	Hamburg	Deutschland	paul simmering@teamq.de	2020-09-01T16:36:45Z
Kitzmann G&R	Wirtschaft	Moorcamp 26	20357	Hamburg	Deutschland	paul simmering@teamq.de	2020-09-01T16:36:45Z
Heintze KG	Wirtschaft	Rathausmarkt 1	20095	Hamburg	Deutschland	paul simmering@teamq.de	2020-09-01T16:36:45Z
Junken Junken GmbH	Wirtschaft	Barkhovenallee 1	45239	Essen	Deutschland	paul simmering@teamq.de	2020-09-01T16:36:45Z
Schenk	Wirtschaft	Sophienstraße 2829	10178	Berlin	Deutschland	paul simmering@teamq.de	2020-09-01T16:36:45Z

1 bis 5 von 607 Einträgen

Personen

Vorname	Nachname	Titel	Namen ID	Seed	P	Auswahl löschen
Hansjoachim	Pöhl	1	Ja	paul simmering@teamq.de	2020-09-01T16:36:44Z	
Hennner	Weiß	1	Ja	paul simmering@teamq.de	2020-09-01T16:36:44Z	
Dieter	Krebs	1	Ja	paul simmering@teamq.de	2020-09-01T16:36:44Z	
Jerzy	Dietz	1	Ja	paul simmering@teamq.de	2020-09-01T16:36:44Z	
Donald	Kreusel	1	Prof. Dr.	Ja	paul simmering@teamq.de	2020-09-01T16:36:44Z

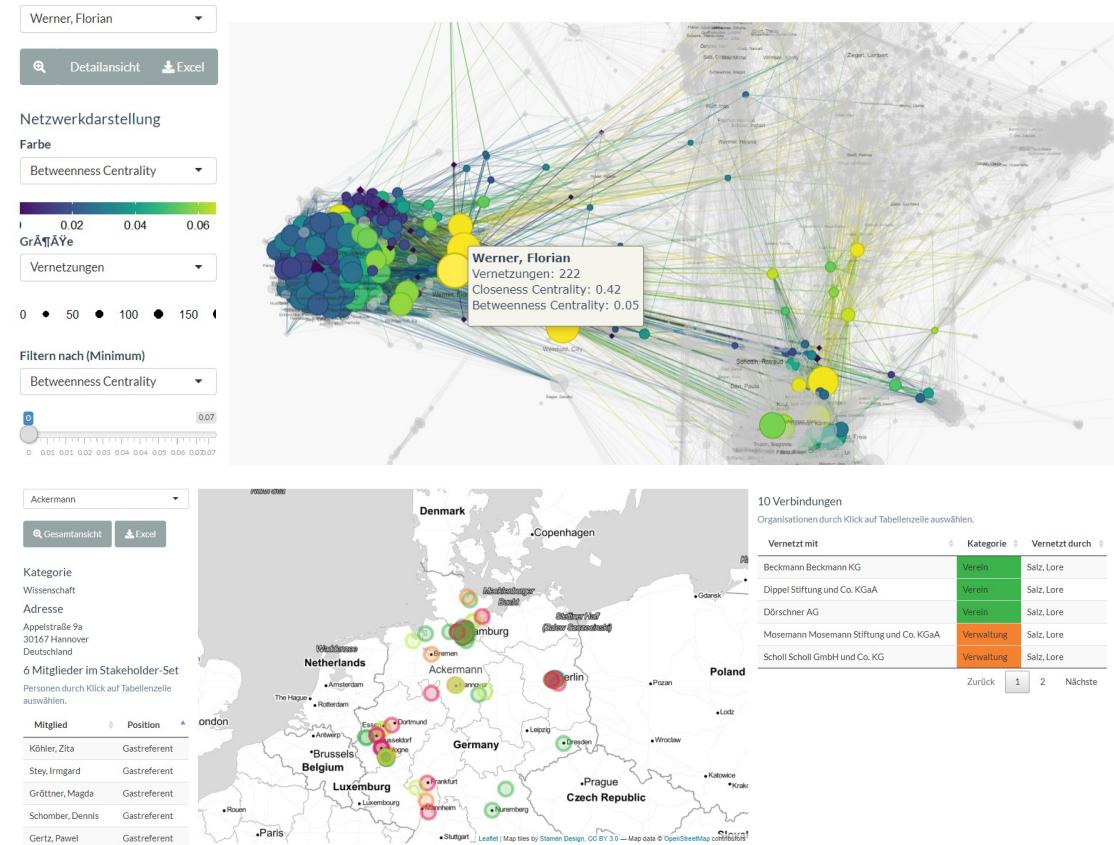
1 bis 5 von 6.378 Einträgen

Mitgliedschaften

Person	Organisation	Position	Anmerkung	Quelle (Link)	Mitgliedschaft aufnehmen	Auswahl löschen
Dippel, Cord (1)	Binner GmbH	Mitglied				

1 bis 5 von 9.197 Einträgen

Analysis platform



Both apps are built with R Shiny + PostgreSQL database

Client Use Cases

Improve stakeholder understanding and communication



Identify stakeholder groups

Visual clusters through force layouts

Modularity class

Association by category
(e.g. companies, political parties, societies, universities)



Assess stakeholder interests

Understand different perspectives

Follow up with more desk research or interview projects to learn more about each stakeholder group



Identify key multipliers

In every relationship network we have seen, a small number of key people have outsized influence

Also important: hubs

Centrality measures:
betweenness & closeness centrality, influencers



Target communication and content

Draft messages for each stakeholder group

Speak with fewer, but more influential stakeholders

Monitor groups to identify communication problems early



Some Learnings, Assumptions and Limitations



Formal contacts create interaction
and indicate relationships



Basic assumption, used to define „relationship“
and to research the network. Need to define limits.

Quality of analytical output depends on breadth
of selected seed stakeholders



Strategic imperative for research design: include
stakeholder from different fields of interests

Manual research is expensive and takes time



Set priorities to limit costs.
Build and extend network step by step

Affiliations change over time



Networks need to be refreshed from time to time

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