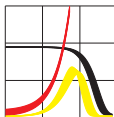


Toxic chemicals as a creeping catastrophe

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15 December 2007



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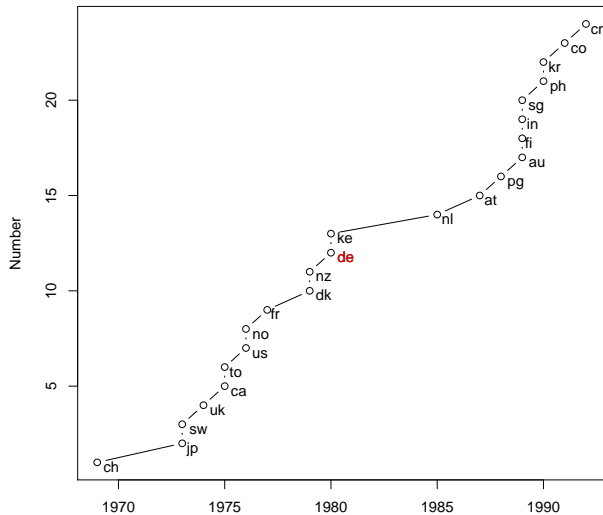
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Creeping Catastrophes

What is a creeping catastrophe?

- The term was coined by Jared Diamond
- Long-term perspective
- Slowly increasing problem pressure
- Actors face uncertainty about
 - problem dimensions
 - scope
 - solutions
- Scientific consulting and the communication of knowledge play a crucial role
- The toxic chemicals problem is such a creeping risk

The diffusion process of chemical regulation



Toxic chemicals regulation in Germany in the 1980s

The data set

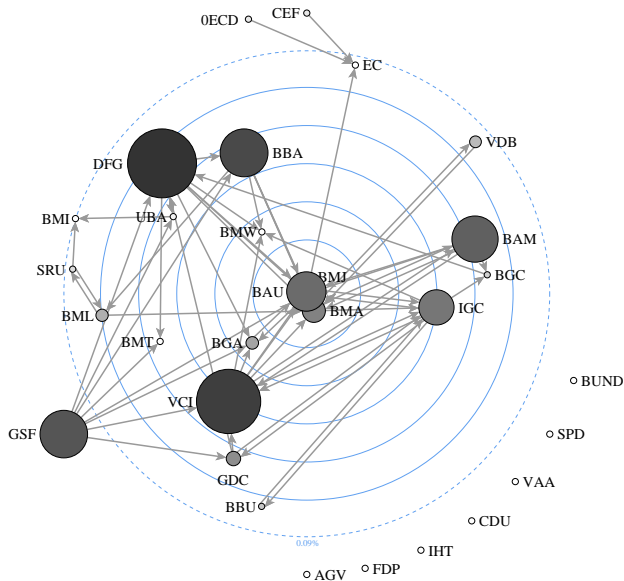
- Actor-centered analysis
- Data set of the 30 most influential organisations
- Selection criterion: mutual relevance
- Subdivided into blocks:
 - Organised interests
 - State actors
 - Scientific organisations
 - International organisations
 - Parties

Key questions of this analysis

We want to know more about...

- the communication of scientific/technical information
- the use of political/strategic communication in the policy process
- how actors can influence the policy outcome

Node-level analysis: Scientific information

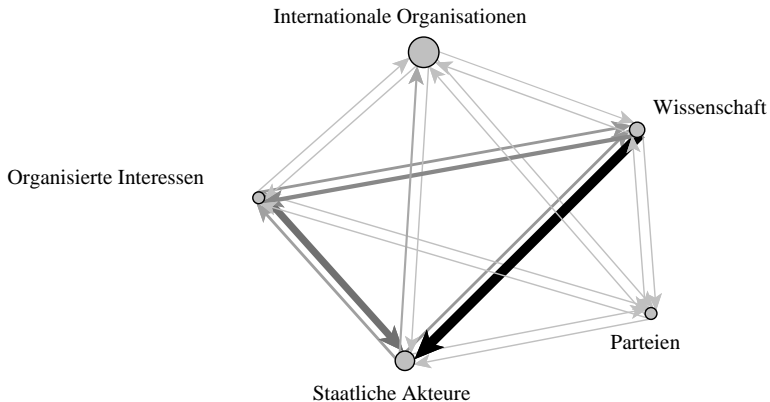


Node-level analysis

Sender and receiver of scientific information

- Position: Authorities
 - Q: Who receives information from important hubs?
 - A: BAU, BMJ and BMA (ministries) are important receivers
- Color/size: Hubs
 - Q: Who sends information to important authorities?
 - A: DFG and GSF (scientific organisations) are important senders
- VCI (organised interests) also sends lots of information

Aggregated level



Conjecture: Industry interests influence state actors by forwarding manipulated information

Scientific and political information: a two-pronged strategy

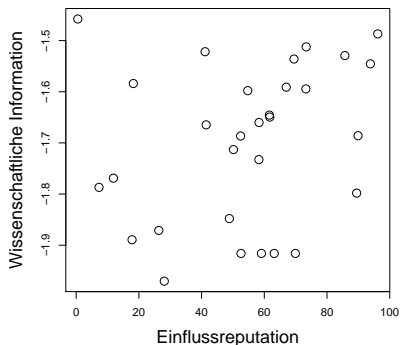
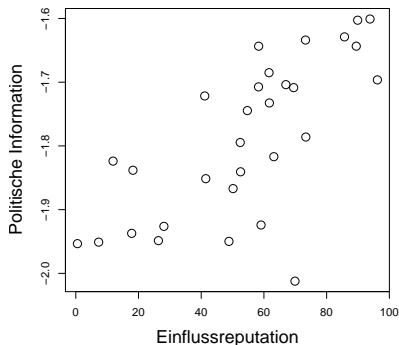
Hypotheses

- ① Scientific/technical information – subtle influence by belief manipulation
- ② Political/strategic information – capacity of direct and visible political pressure

Implications

- ① Politically well-informed actors are perceived as influential while technically well-informed actors are not
- ② Political information are exchanged with influential actors
- ③ Existing opportunity structures are inductive to both kinds of communication
- ④ Political/strategic information will be sent to actors who have similar goals

Political and scientific information: a two-pronged strategy



OLS regression: $R^2 = .53$

Political .83***

Scientific -.23

Implication 1 is corroborated!

Dyadic level

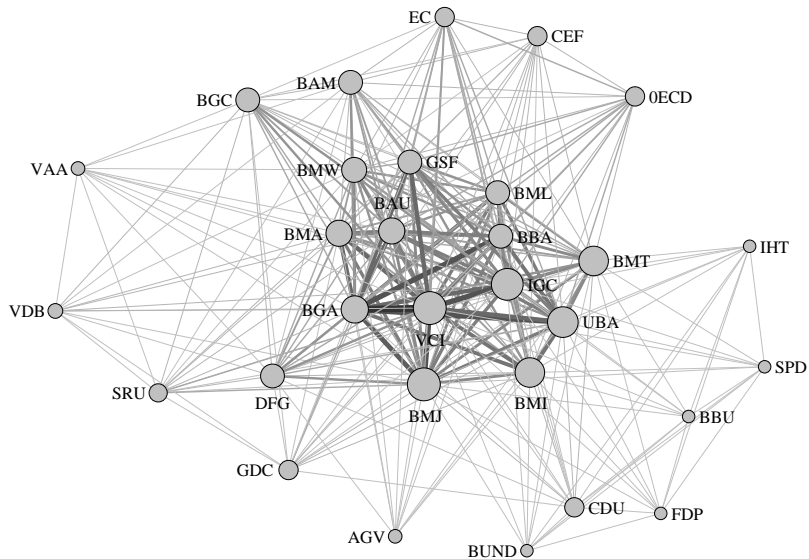
QAP regression

	Political	Scientific
Political information		.12***
Scientific information	.35***	
Influence reputation	.19***	.01
Preference similarity	.02*	-.01
Common committees	.07***	.02***
R^2	.28	.14

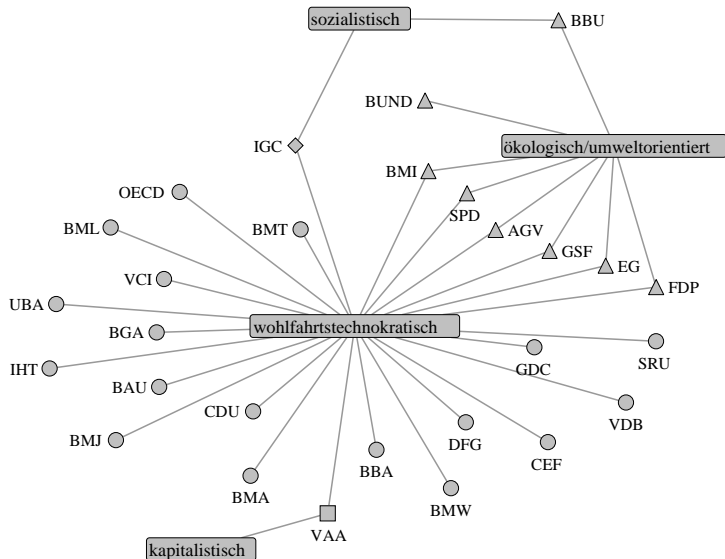
Interpretation

- Preferential attachment holds (implication 2)
- Opportunity structures matter in both relations (implication 3)
- Homophily can be confirmed (implication 4) (?)

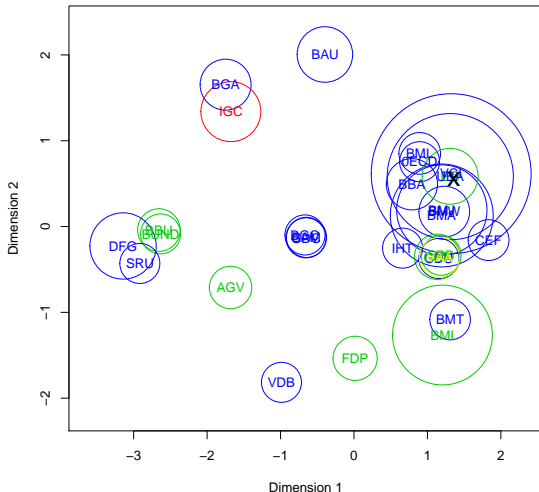
The committee co-membership network



An additional conjecture: Ideology matters!



Preferences, political communication, policy outcome



Explanation

MDS with interest positions

Size of bubbles:
political
communication
centrality

X: Realised policy
outcome

Color: Ideology

Discussion

Discussion

- How can we incorporate the ideology of actors?
- Can/should we make use of content analysis?
- What does the creeping risk imply for the communication network?
- Can/should we add a temporal perspective in future research?
- Other questions?