

Digital Public Discourses on Antibiotic Resistance in Switzerland

Antibiotic resistance is one of the greatest threats to public health in the world, including Switzerland. Various measures have already been launched with the National Strategy on Antibiotic Resistance (StAR). On behalf of the Federal Office of Public Health (FOPH), a research group of the School of Applied Linguistics conducted a discourse analysis on the StAR in the period 2013–2018.

Project Goals

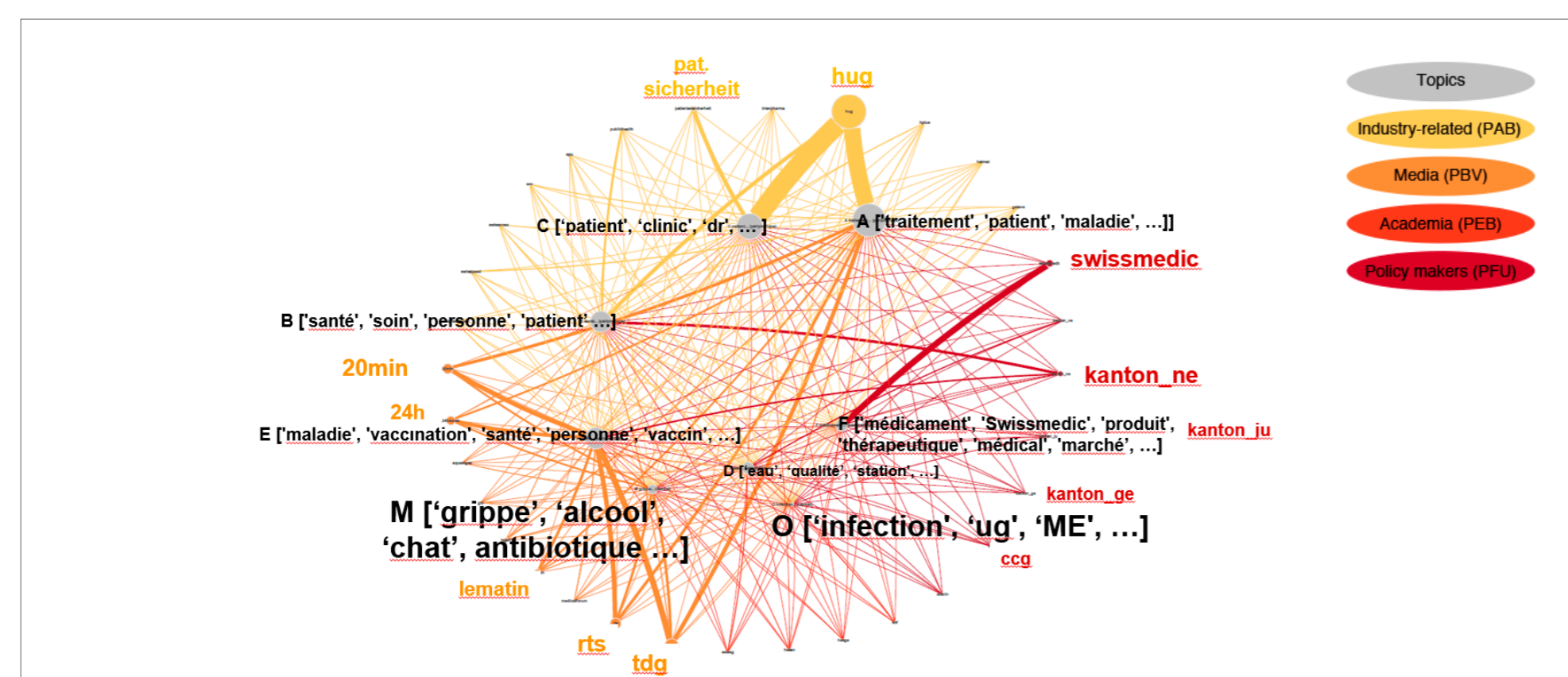
The aim of the project is to identify German and French patterns of language use in digital public discourses on antibiotic resistance across the boundaries of institutions, media and society. The patterns can be understood as indices of a “common sense” and important benchmark for broad communication and discourse strategies of public governance actors, whose strategies have to be accepted and connectable to public discourses.

Analysis Procedure

- Analysis and comparison of digital public discourses in two Swiss languages (German and French)
- Two project-specific text corpora (German: 133 web sources, 839 million tokens, approx. 1.9 million texts // French: 149 web sources, 21.9 million tokens, 16'000 texts)
- Transdisciplinary “mixed methods” design (triangulation of various quantitative and qualitative methods of corpus and discourse linguistics)

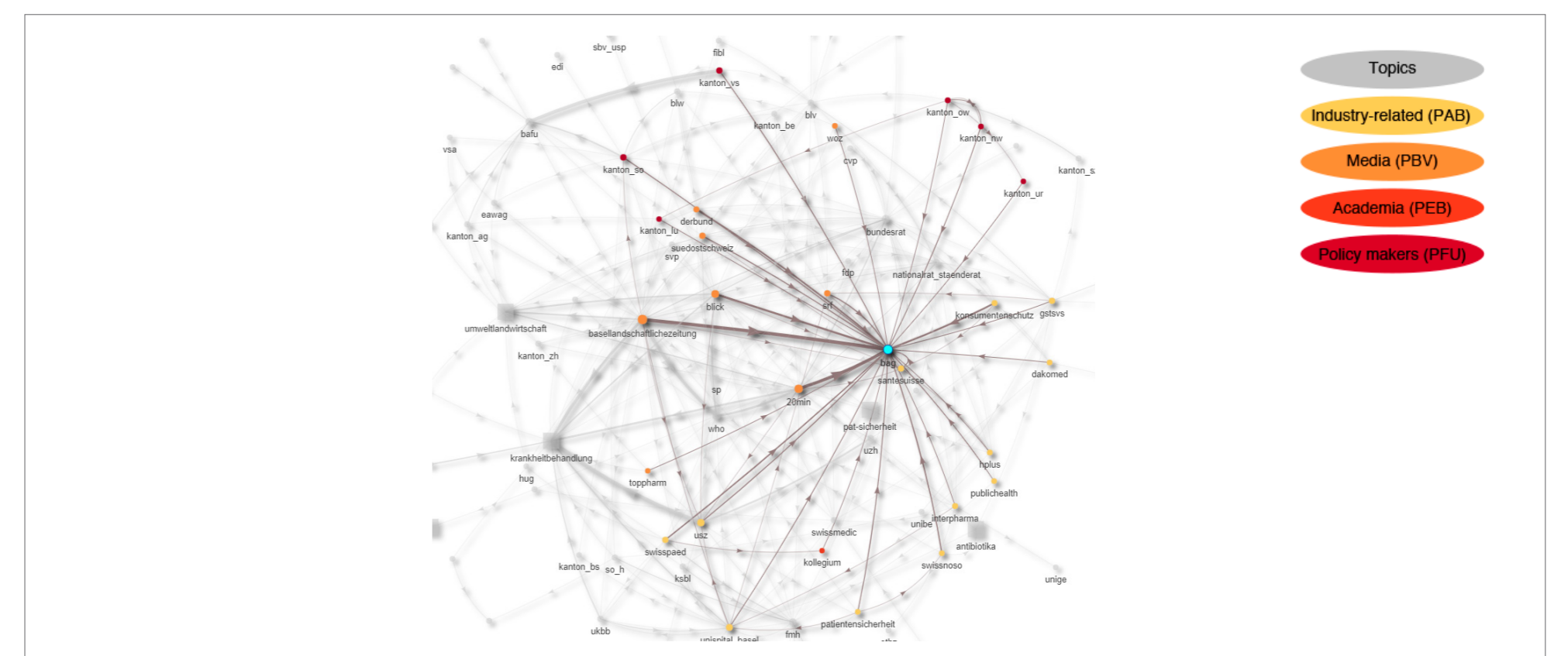
Analysis Examples

Example 1: French-speaking discourse network (actors, categories of actors, hubs)



The question of thematic structures in discourses can be dealt with by using “topic modelling”. This method calculates the statistic probability of the common occurrence of words in the texts. The quantitatively calculated topics were also qualitatively selected and prioritized as central or peripheral topics. Given a particular frequency of topics in connection with a large number of investigated actors serving these topics, we speak of strategic topic areas or “hubs”. The two central strategic hubs in the French-speaking corpus are **M** [‘grippe’...] and **O** [‘infection’...]. While the first hub is mainly addressed by the media actors Le Matin, Tribune de Genève (tdg) and Radio Télévision Suisse (rts), political actors such as the Canton of Geneva (kanton_ge) and the Communauté de communes du genevois (ccg) talk about the hub O [‘infection’...].

Example 2: German-speaking discourse network (naming and mentioned actors; topics)



Individual actors play different roles in the networking of discourses on antibiotic resistance. They can be analysed on the basis of reciprocal mentions of actors (quotation, referencing, enumeration) of “named entities” (i. e. names of organizational or personal actors). The namings in the German-speaking corpus show so-called “stars”, i. e. actors who are mentioned comparatively frequently by others. These include the **FOPH and further federal actors (Federal Council, parliaments, WHO and others)**.

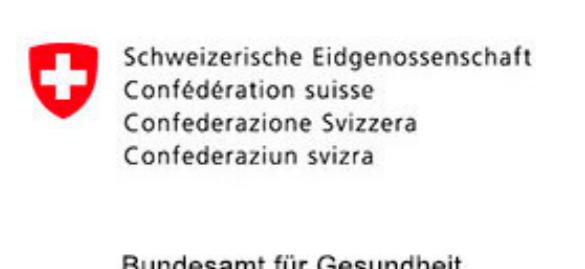
Example 3: Actors and profiles of co-occurrences in the German-speaking corpus

Individual search words in the discourse have been examined as to the extent to which they occur together with the core terms (“antibiotic/s” and/or “antibiotic resistance/s”), and their interpretation by this common occurrence (“co-occurrence”). The meaning that results from the common use of the words can be reconstructed as a narrative “statement”. If these statements are aggregated from different texts, a narratological profile of a “co-occurrence” emerges, which we call “public story”. The profiles about the search word “patient” in the German-speaking corpus show that it is predominantly used by industry-related actors. The University Hospital of Basel, e. g., apparently attaches great importance to protecting patients from antibiotic resistance (**Patienten vor AR schützen**) and knows that antibiotics work differently in different patients (**AB wirken bei Patienten unterschiedlich**). Likewise, antibiotics (AB) should be used carefully and not without checking alternatives (**AB sorgfältig und nicht alternativlos bei Patienten einsetzen**). Other (university) hospitals in Lucerne, Winterthur, Baselland, Zurich and Solothurn take up this story.



Publication

Stücheli-Herlach, P., Borghoff, B., Schwarz, N., Bilal, L. (2019). Antibiotikaresistenzen auf die Agenda! L’antibiorésistance à l’agenda. Schlussbericht zur situativen Analyse öffentlicher Diskurse über Antibiotikaresistenzen mittels digitaler Daten. Winterthur: ZHAW, <https://doi.org/10.21256/zhaw-5555>



Bundesamt für Gesundheit



Contact: birgitta.borghoff@zhaw.ch

ZHAW Zurich University of Applied Sciences, School of Applied Linguistics
IAM Institute of Applied Media Studies, Research Group “Organizational Communication and Public Spheres”
Theaterstrasse 15c, PO Box, 8401 Winterthur, Switzerland, Tel. +41 58 934 61 32
www.zhaw.ch/en/linguistics/research/organisational-communication-and-public-spheres
www.zhaw.ch/en/=borg

Zurich Universities of Applied Sciences and Arts