Common Grounds of the Energy Transition

How Public Discourses Shape Our Democratic Future

Swiss-US Energy Innovation Days, 6-9 October 2019

Prof. Dr. Peter Stücheli-Herlach, Zurich University of Applied Sciences (ZHAW), Member of the Zurich Energy Research Board (ZERB), on behalf of the interdisciplinary research team

School of Applied Linguistics
Interdisciplinary Energy Research Board ZERB

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Output

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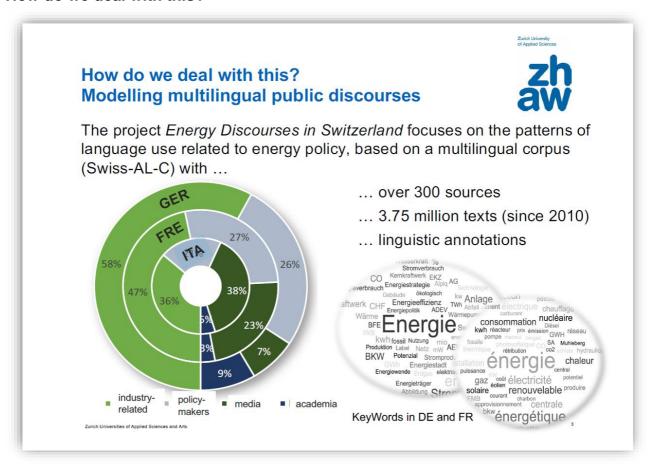
With this short presentation, we would like to provide some insights into our interdisciplinary project about public discourses about energy in Switzerland. The current project has been running since 2016 and will reach its official conclusion at the end of this year. However, follow-up projects are already planned.

What are we talking about?



Public discourses about energy policies play a key role in the successful implementation of the energy transition. Remember the major challenges that stakeholders have to overcome on the road to a sustainable energy supply. You have to perform in *decentralized markets*, where "prosumers" of energy constantly and quickly choose between competition and cooperation. You have to evolve sufficient acceptance of new rules and technologies in *systems of federalist and multi-level democracies*, where citizens form their opinions through increasingly individualized channels of digitalized media. And you have to promote and implement *technological and economic innovations* within the framework of *interdisciplinary teams and organizations*.

We are dealing with all of this in Switzerland, where we are in the process of implementing the government's Energy Strategy 2050. The experience we have gained might also be valuable for others with comparable political transformation projects.

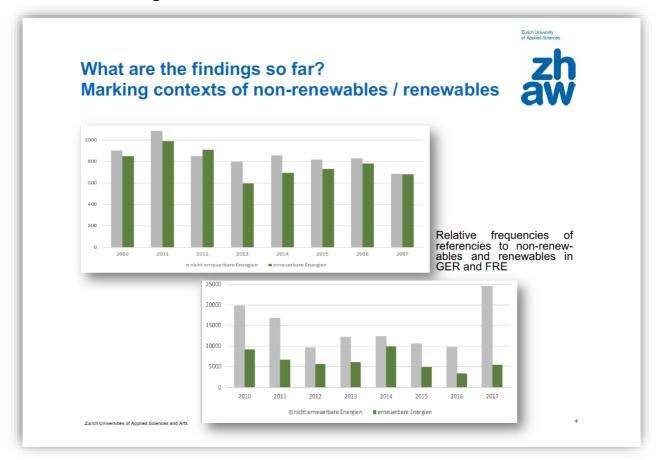


Our approach is *to model public discourses*. This is because no one can face these challenges without observing how the public understanding of the future of energy is changing. Because the public or common understanding of energy future forms the *common ground* that is needed for negotiating successfully in dynamic markets, for making sustainable decisions in pluralistic democracies, and for fostering innovations and interdisciplinary implementation.

It is impossible to observe these public discourses without the help of self-learning software and robust scientific analysis methods. Without this help, no single individual or team can update and understand the huge amounts of data these discourses are constantly generating.

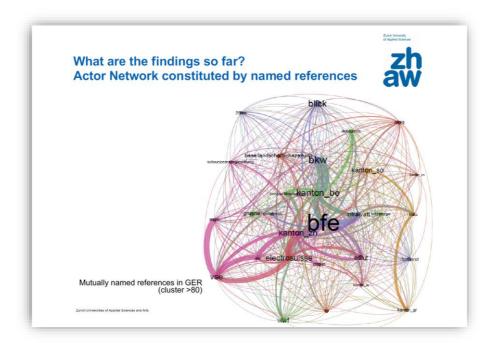
That is why we have developed the *Swiss AL (Applied Linguistics) Energy Discourses Corpus* with the support of the Swiss Federal Office of Energy. It contains over three and a half million texts from the worldwide web from over 300 sources (i.e. Swiss websites) in the three main national languages of Switzerland (German, French and Italian). The sources have been categorized into media, industry-related organizations, policy-makers, and academia. An analysis of the corpus shows that the focus is on topics related to the production, transportation, and consumption of physical energy mainly in the form of electricity. Corresponding *keywords* can be seen in the two clouds for the German and French language.

What are our findings so far?

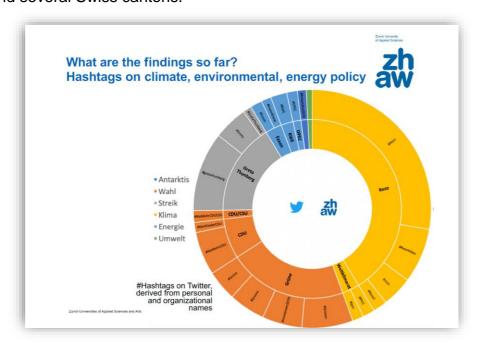


We would just like to give you a few examples of our analyses and findings.

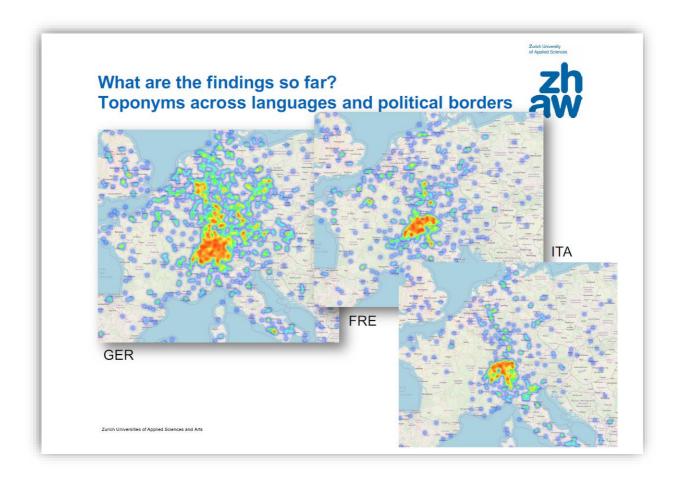
We can see that the discourses evident in our German-language corpus have become increasingly balanced with respect to *non-renewable and renewable forms of energy* over the course of the past decade. However, in the French-language corpus, we observe that predominance of mentions of non-renewable energies, especially nuclear power, has actually increased recently.



By reconstructing *networks*, we can show to what extent which actors refer to each other in energy discourses. What you see here are the "stars" of public discourses like the federal authority "BFE" (the German designation for the Swiss Federation Office of Energy) as well as main communicative "relay stations" such as the tabloid newspaper "Blick" and several Swiss cantons.



We have also examined the *social media discourse on Twitter*, and especially how it developed in the year of the Swiss parliamentary elections on climate, environmental, and energy issues. And what we have seen is that topics and organizations concerned with the Swiss energy system transition play hardly any role in it. But the new "stars" of the digital discourse include Greta Thunberg, the Green Party in Germany, and the German YouTuber Rezo. These are tough competition for the communications departments of energy authorities and energy companies!



As another example of the types of analyses we are doing, we have examined which places (towns, cities and countries) play a role in public discourses in the three languages in Switzerland. In the corresponding "heat maps" you can clearly see that the German-language discourses in Switzerland refer heavily to their own country, but also to Germany and Austria. French-language discourses do not have this strong reference to Germany but rather refer more frequently to France, Paris, and the Benelux countries. Discourses in Italian, on the other hand, do this less frequently and seem more focused on northern Italy.

These findings are not really surprising. However, they make it clear to us that the frames of reference for the actors in a federalist democracy are strongly dependent on the respective geographical region and linguistic-cultural character. This represents a great challenge for the promoters of a national, federalist, and democratic transformation of the energy system!

What conclusions can we draw?

What conclusions can we draw? Tasks and strategies to manage the transition



- ✓ The dependence on the common ground of public discourses has increased by leaps and bounds.
- ✓ Adequate practical tasks of observation and analysis of the environment have become core tasks for the energy industry and policy-makers.
- ✓ Strategies for the acceptance of innovations and for discursive positions and coalitions play a key role in the governance and strategic management of the energy transition.

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In short, we have become more aware of *the importance that public communication* and *language patterns have* in successfully shaping market mechanisms, democratic decisions, and interdisciplinary innovation for the energy future. This has several crucial consequences for the strategies to manage the transition:

- The dependence on the common ground of public discourses has increased by leaps and bounds, especially *in the course of digitalization*.
- Adequate practical tasks of *observation and analysis of the communicative environment* have become core tasks for the energy industry as well as for policymakers.
- Strategies for the acceptance of innovations and for discursive positions and coalitions play a key role in the democratic governance and strategic organizational management of the energy transition.

Thank you for your interest and attention!