A network analysis of the Swiss National Council

Group 44: Silvan Stettler, Yann Morize, Diego Debruyn, Nikolai Orgland

Purpose

The project we propose is the analysis of the network formed by voting similarity in the Swiss Federal Council over the last legislatures.

Dataset

The relatively new dataset consists of the public votes of all 200 members of the Swiss National Council since the of the 48th, 49th and 50th legislature. The dataset thus covers all political activity of Switzerland's biggest parliament chamber since the 3rd December 2007. The data can be downloaded directly as a csv-file from the website of the parliament and can be filtered according to party membership, parliament member, yes/no/abstention and many other factors:

https://www.parlament.ch/en/ratsbetrieb/abstimmungen/abstimmungs-datenbank-nr

Network

Each member of the Federal Council represents a node in the network. Members, that vote in a similar way for a certain item are linked together. By including votes over a period of several years, a network with weighted links can be formed. The weight of a link between two members is a measure of the similarity of the votes during that period.

Goals

A number of interesting questions that we hope to answer emerge:

- 1) Are there clusters and do they correspond to the political parties present in the Federal council?
- 2) How loyal are members to their respective party? Which members of the same party vote in accordance with each other? Are there people who are notorious for voting against their own party?
- 3) How do the different parties position themselves? Are centrist parties really in the "center"? A measure of polarization and how that has changed over time could also be possible, similar to the analysis done for the US senate (http://www.unc.edu/~mucha/Reprints/NSportrait.pdf)
- 4) Are there any noticeable changes in that network after an impactful event (e.g. a terror attack, accident in nuclear power plant, refugee crisis)?