Analyzing the evolution of the European Parliament Social Network

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Introduction

The European Parliament

We are analyzing a dataset of European Parliament members.

Our dataset is a list of ammendments.

Our analysis

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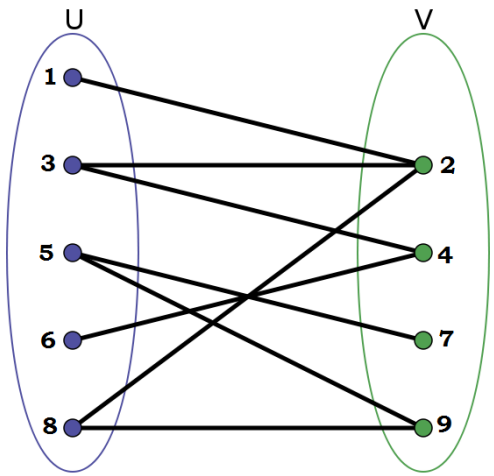
A bipartite graph:



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- Nodes: the nodes of MEPs
- Edges: 2 MEPs are connected if they amended the same document

Committees

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We will also analyze the changes in the network based on the committees

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- **How events and occurrences shape the form and topology of the network.**
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All of these are helpful in understanding the processes regarding proposals and how they evolve into enacted laws.

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- Centrality of groups/MEPs
- Cohesion of the network

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- Betweenness centrality

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$$\text{cohesion} = \frac{\#\text{edges}}{\binom{n}{2}}$$

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- Biggest component vs the whole graph

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- The more a party is willing to cooperate with outside MEPs the more its centralities will be.
- If one party has an interest in a particular topic, pushing its agenda will make it more central and cohesive
- If a topic deeply divides the European Parliament then one would expect the centrality indexes of groups to dwindle

Our results: centrality

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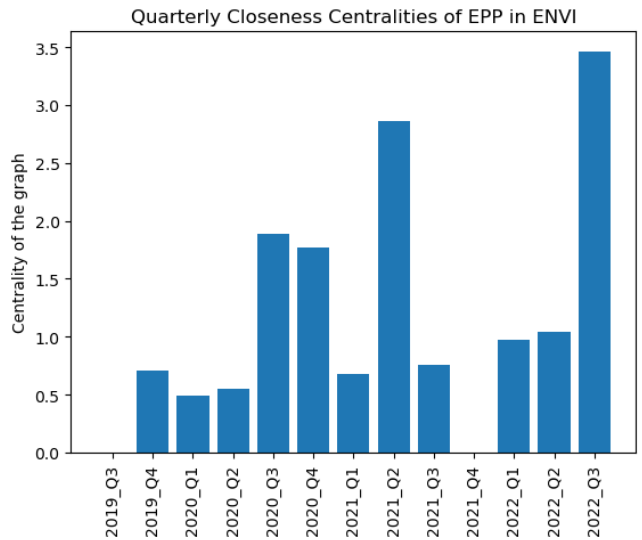
Closeness of EPP party in ENVI:



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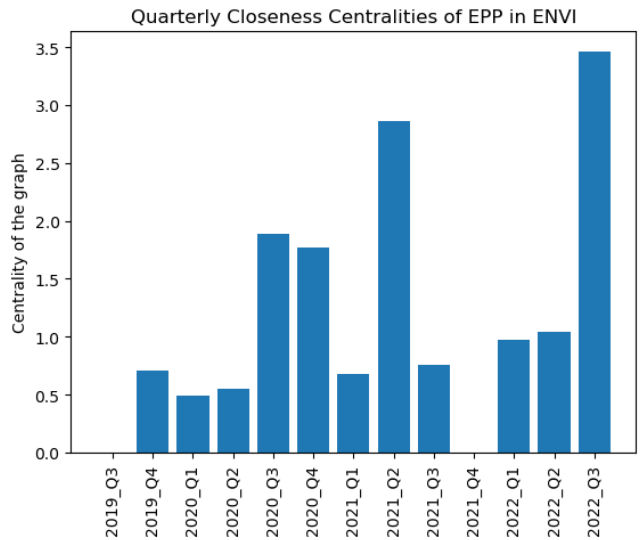

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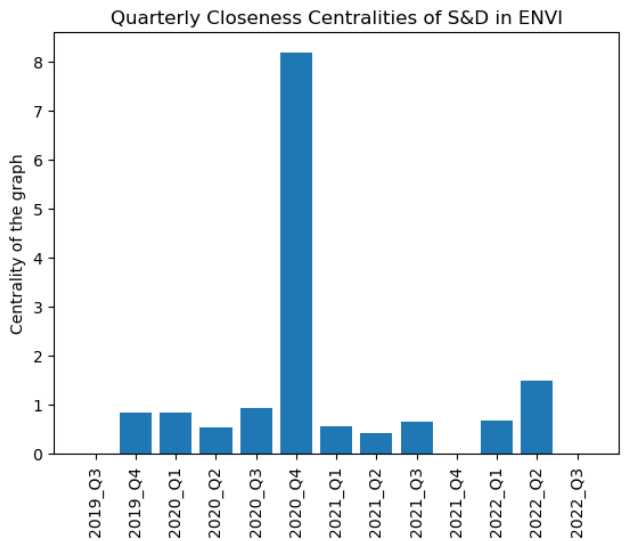

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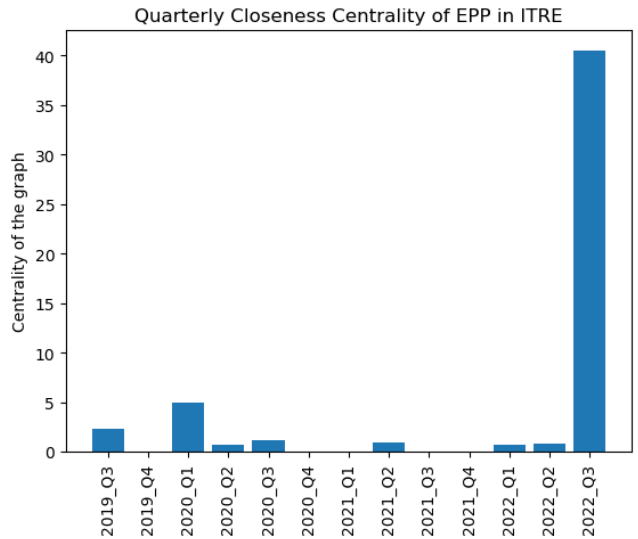

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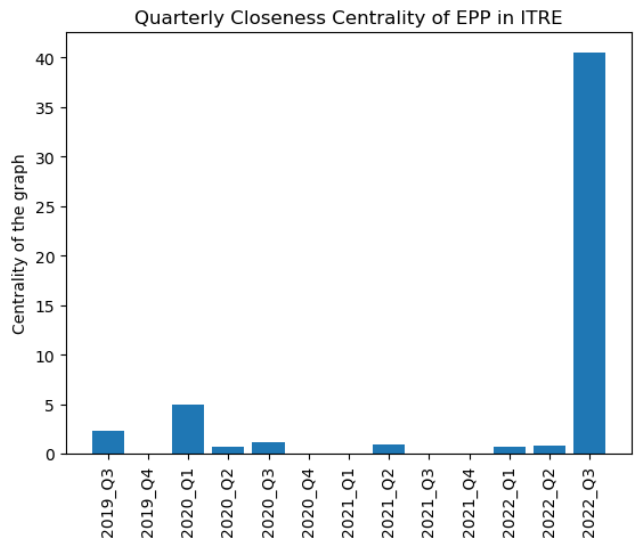

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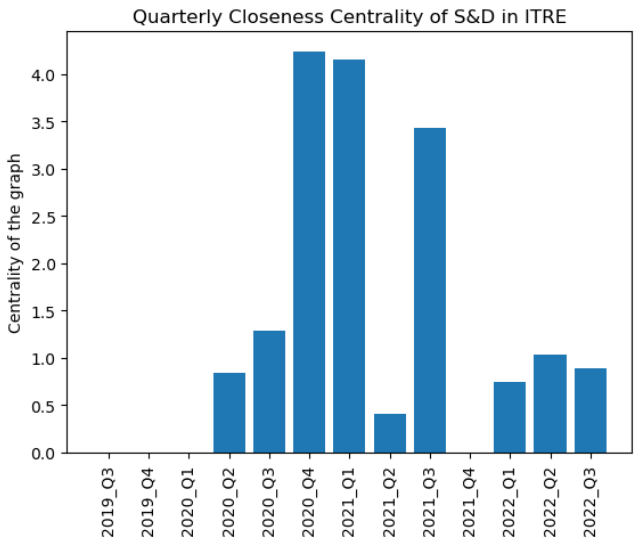

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thx for watching