Analyzing the evolution of the European Parliament Social Network

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Introduction

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We transformed this into a 'social network' graph, where MEPs are nodes and co-sponsorship of amendments is represented by edges

Analysis topic

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- Centrality of groups/MEPs
- Cohesion of the network

Analyzing centrality in the network

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Closeness centrality, Betweenness centrality

e.g: $S \subset V$ is a set of nodes

$$\text{closeness(S)} = \frac{|V - S|}{\sum_{u \in |V-S|} d_{S,u}}$$

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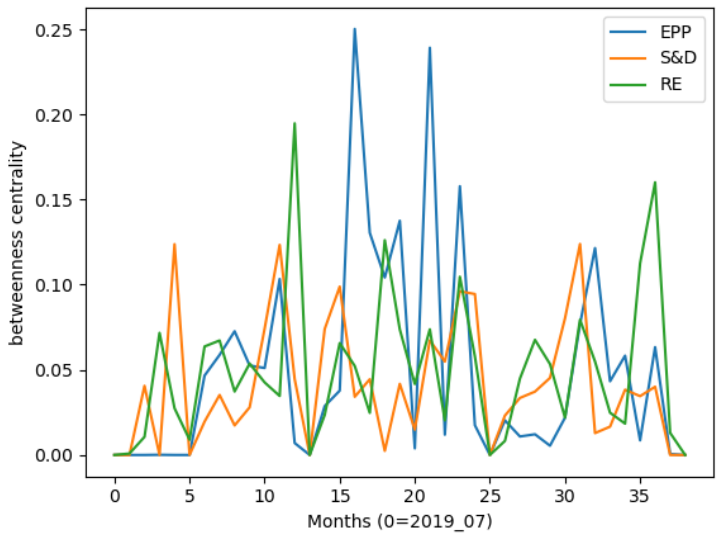
Betwenness centrality of parties:



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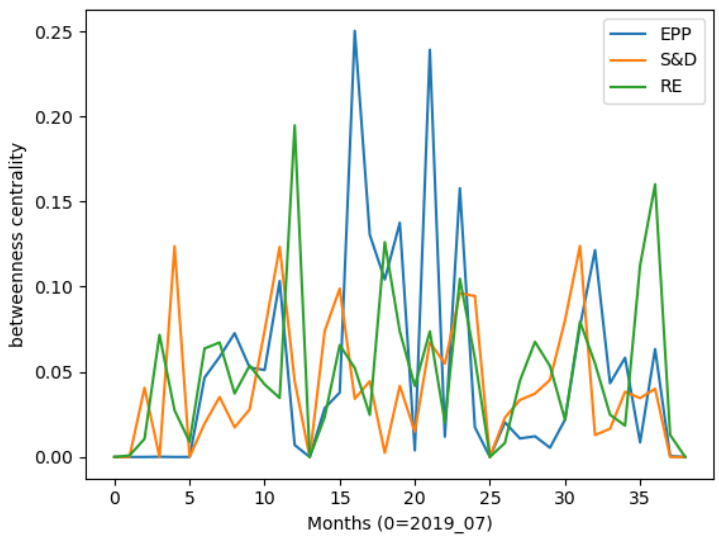
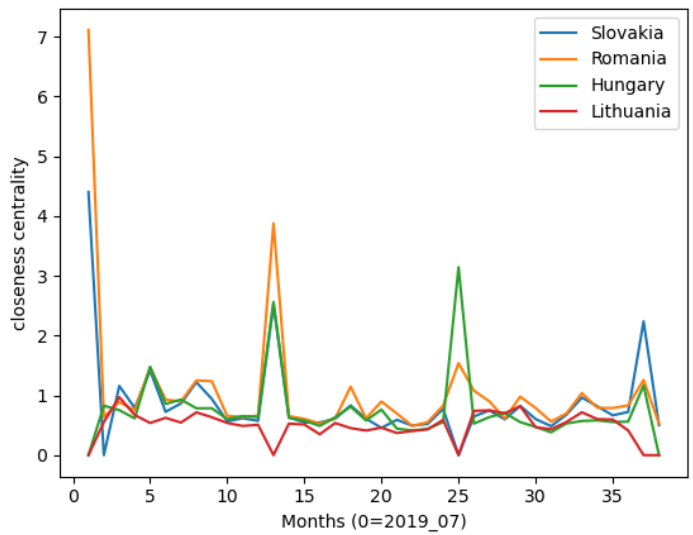


Closeness centrality of countries:



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

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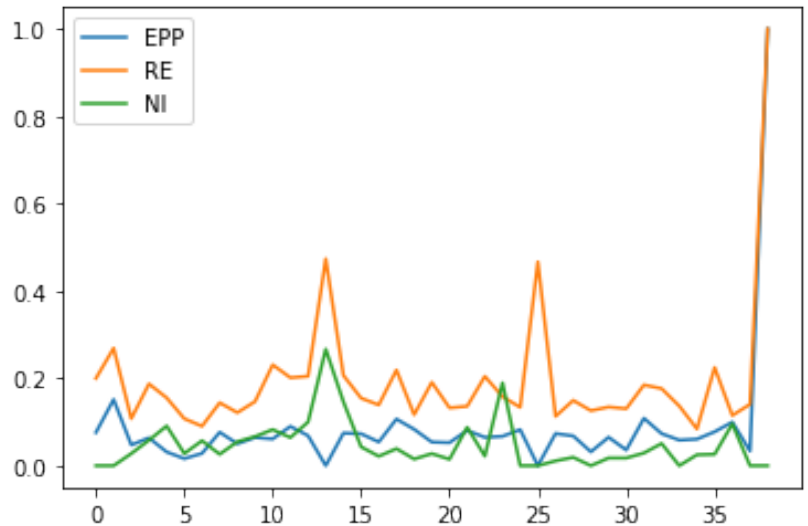

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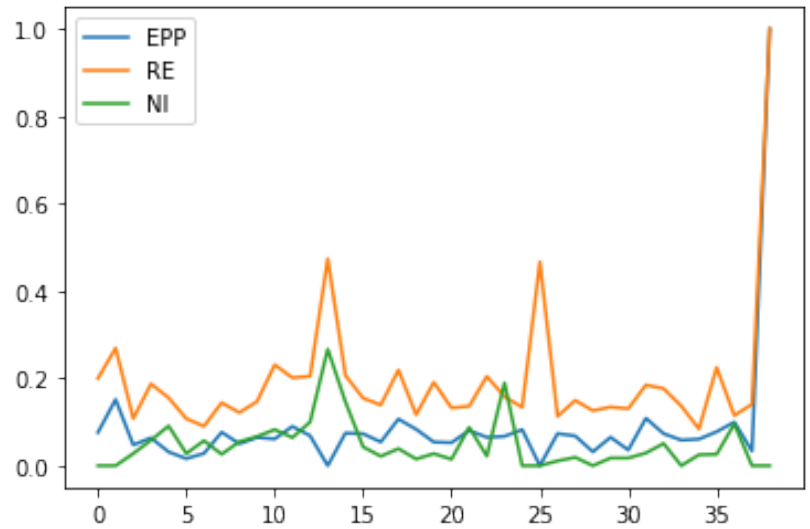

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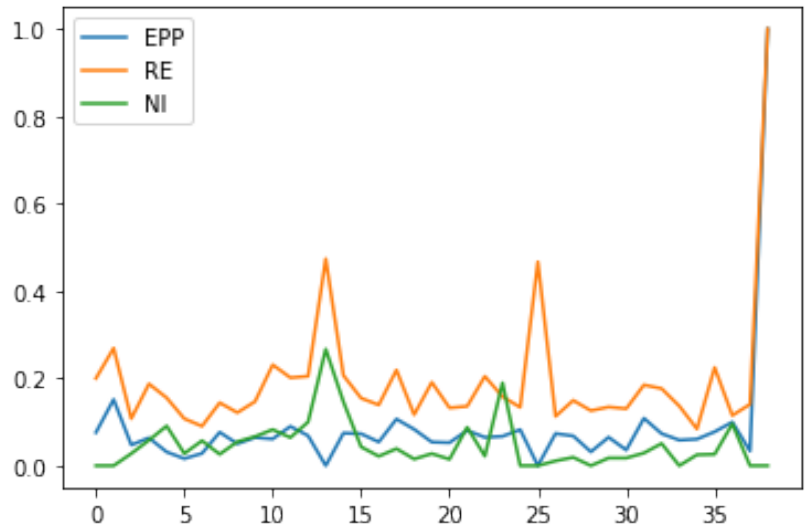

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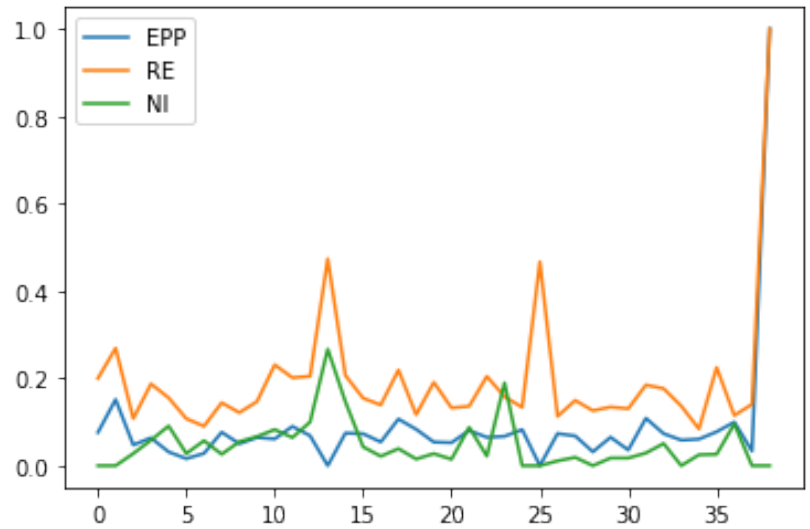

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We will analyze the changes in cohesion based on the committees

Thanks for watching