Visualize and analyze the centrality measures in longitudinal networks

| Research Question: | How can we improve the visual and statistical analysis of centrality measures in longitudinal networks? |
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| Background: | By employing a generic definition of temporal networks, it is possible to monitor the evolution of centrality measures, such as degree and betweenness centrality [1]. However, further research is needed to elucidate how they generalize and how visual analysis can be improved. Additionally, it would be advantageous to develop a generic Python library to facilitate the generation of plots. Currently, there is a prototype based on NetworkX and Matplotlib, but a more comprehensive solution is necessary. |
| Data: | Several inhouse/external knowledge graphs. |
| Literature: | [1] J. Dörpinghaus, V. Weil, M. W. Sommer. Modeling and analysis of longitudinal social networks. <i>Applied Network Science</i> , 9 , 52 (2024) |
| Requirements: | Coding (Python), descriptive statistics, network/ graph theory |
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