DEPARTMENT OF POLITICAL AND SOCIAL SCIENCES

SPS 3rd term workshop 2024 – 2025

Introduction to Social Network Analysis

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Dates and schedule:

Tuesday	06 May @ Badia Fiesolana, Seminar Room 2
Wednesday	07 May @ Badia Fiesolana, Seminar Room 2
Thursday	08 May @ Badia Fiesolana, Seminar Room 2
Friday	09 May @ Badia Fiesolana, Seminar Room 2

Credits: 20

Course overview

Social networks are an integral part of our lives. We are embedded in networks of social relationships at work, in school, in our family, and in our leisure activities. The social sciences have long established that these networks directly and indirectly determine people's attitudes and behaviors. Many of the phenomena we are interested in, be it polarization, prejudice, social norms, education or employment outcomes, political attitudes, identities, bullying, and even depression or obesity, are affected by the social networks in which individuals are embedded. Furthermore, the structure of these networks – how we are connected to others and how our contacts are connected – is shaped by individuals' attitudes and behaviors. Social network analysis (SNA) provides tools to detect these processes and unravel the often bidirectional relation between networks and attitudes/behavior.

This workshop provides a general introduction to social network analysis, covering topics from network visualization and description to advanced statistical methods for analyzing cross-sectional and longitudinal network data. In the first part, participants will learn key theoretical concepts for describing networks and network positions. In hands-on lab sessions, participants will calculate network statistics and learn how to visualize the often complex data in R. In this part, we mainly consider networks as independent variables that can be used to predict attitudes and behavior. We also introduce different types of network data (e.g., ego-centric and complete networks), and we will practice with tools developed to collect qualitative and quantitative social network data. The second part of the workshop focuses on widely used statistical methods for analyzing social networks as dependent variables: stochastic actor-oriented models for longitudinal analyses and exponential random graph models for cross-sectional analyses. Participants will perform these analyses on their own computer using R, and learn how to interpret the coefficients and evaluate the quality of their results.