

Introduction to Social Network Analysis (SNA) – understanding relationships, interactions and emergence of novelty

Content

Social network analysis (SNA) is the process of investigating social structures using network and graph theory. The aim of the present workshop is to give the participants a grasp of SNA in their field by introducing SNA theories, concepts, methods and possible applications, initiating network data collection, visualising and analysing network data. Possible applications are manifold, here are some examples to inspire those who are not familiar with the method. The world and our daily lives are tied together with countless formal, social or virtual interactions. In fields such as biology, medicine, epidemiology and neurology, understanding complex network structures have an important role in preventing or curing diseases. In social sciences, social network analysis can provide tools to understand political alliances, governance systems, social protests, emergence of markets, innovation/technology adoption and peer learning and the evolution of a given population and its cultural and historical assimilation. In economics and international relations, countries are connected through trade flows and regulations. On the internet, the flows of information encompassed in different social media or websites for job searches are multiplying. These flows make us increasingly part of a complex virtual network whose structures play a considerable great role in our future prospects and employment.

Learning Objectives

At the end of the course, participants should be able to apply SNA theories and methods in their own discipline:

- familiarize with SNA framework
- formulate research questions in a SNA framework
- design data collection strategies for network analysis
- familiarize with SNA softwares (Ucinet, Gephi and R)
- import and describe network data
- explore network data and produce SNA graphs
- analyze network graph

Individual Feedback

On demand, meetings with the lecturers are possible within 14 days after the workshop. You will get the unique opportunity to discuss your research data analysis, be advised on the methodology and suitable ways to apply SNA.

Trainers	<u>Carla Inguaggiato, PhD; Ravaka Andriamihaja, M. Sc., Myriam Pham-Truffert, M. Sc.,</u> University of Bern
Target Group	(Post-)Docs of all fields interested in network and structural analysis
Language	English
Nr of Participants	15
Requirements	No prior knowledge in Ucinet, Gephi and R is assumed.
Dates	Sept 25 th , Oct 9 th and 23 rd , 2020 (Fridays), 8.30 a.m.-12 a.m.
Location	University of Bern, Main Building, Hochschulstr. 4, room 117
ECTS	1 (ca. 20-25h workload)

Further Information

Please bring a laptop with a running version of your chosen software: Ucinet, Gephi, or R and R-studio.

If you do not have Ucinet, Gephi, or R and R-studio installed, please proceed with the installation prior to the workshop.

Install Ucinet: <http://www.analytictech.com/archive/ucinet.htm>

Install Gephi: <https://gephi.org/>

Install R: <https://www.r-project.org/>

Install R-studio: <https://www.rstudio.com/products/rstudio/download/>