COURSE DETAIL

SOCIAL NETWORK ANALYSIS IN THE DIGITAL AGE
Country France
Host Institution Institut d'Etudes Politiques (Sciences Po)
Program(s) Sciences Po Paris
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Sociology
UCEAP Course Number 148
UCEAP Course Suffix
UCEAP Official Title SOCIAL NETWORK ANALYSIS IN THE DIGITAL AGE
UCEAP Transcript Title SOC NETWORK ANLYS
UCEAP Quarter Units 4.50
UCEAP Semester Units 3.00

Course Description

This course introduces the field of social network analysis (SNA). Social networks are ubiquitous nowadays; SNA emerged in the 1960s as a vibrant social science specialty trying to give substance to individuals, not through their inner psychological and demographic, or professional characteristics but through the relationships they entertain with their social environment. The first objective of this class is to introduce the concepts and metrics designed and theorized by this specific stream of sociology and test how operative they still are in our connected environment. How useful are centrality or cohesion measures today? What can we learn about our current online world with concepts forged in the 1960s and the 1970s like homophily, transitivity, cohesion, diffusion processes? To do so, this course examines the seminal papers in SNA. However, this intellectual journey is complemented by a more hands-on approach, as half of the course is devoted to teaching the students basic operations in Python such that they can collect data from digital social media platforms before modeling, measuring, and visualizing this data using recent network analysis libraries. The course puts the ancient concepts of SNA to the test and assesses how fruitful they are in understanding online interaction data. No prior coding experience is required as the course extensively uses AI capacities (such as Gemini, directly available in Google Colab notebooks) to assist with coding. The class alternates readings of historical sociology papers and more contemporaneous articles typical of the digital age mixing concepts from SNA in the larger realm of computational social sciences. Most classes are split into three parts: the discussion around a scientific paper, a lecture about a new SNA-related concept, and a third part where students are invited to experiment on their own laptops with the newly introduced concepts, metrics, or algorithms with empirical data.

Language(s) of Instruction
English

Host Institution Course Number
DSOC 25A21

Host Institution Course Title SNA2: SOCIAL NETWORK ANALYSIS IN THE DIGITAL AGE
Host Institution Course Details https://syllabus.sciencespo.fr/fr/?202420/269302
Host Institution Campus
Host Institution Faculty
Host Institution Degree Seminar
Host Institution Department Sociology
Course Last Reviewed 2024-2025

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