

Social Networks - Graduate Seminar

University of Notre Dame · Instructors: Omar Lizardo, David Hachen

Discussion

Description

Course info is visible to the public.

Calendar

This seminar will examine both classical and more recent research on and methods for studying social networks. The focus will be on both: (a) Important substantive, theoretical and sociological issues that network analysis can address. (b) The methods, techniques and statistical models for analyzing social networks. The specific topics that we will explore include: graph theory, ego networks, centrality, cliques, clustering, affiliation networks, structural equivalence and block modeling, local structure (dyads and triads), balance theory, homophily, reciprocity, tie strength, tie persistence, triadic configurations, longitudinal modeling, statistical models, small world networks, clustering, scale-free networks, diffusion, network science, and network effects.

People

Library

Syllabus

Settings

Syllabus

Syllabus is visible to the public.

Objectives

This seminar will examine both classical and more recent theory and research on and methods for studying social networks. The focus will be on both (a) the important substantive, theoretical and sociological issues that network analysis can address and (b) the methods, techniques and statistical models for analyzing social networks. Among the topics we will explore are the structure and dynamics of personal and community networks, conceptual and empirical definitions of role and position in social networks, theories of relationship formation and interpersonal attraction and repulsion, dynamics of diffusion of objects and ideas through social networks as well as more recent theory and research on the structure and properties of large-scale networks and attempts to analyze the micro-structure of social networks through statistical modeling techniques. The specific topics that we will explore include: graph theory, ego networks, centrality and nodal degree, dyads, homophily, triads and transitivity, balance theory, cliques, clustering, affiliation networks, equivalence, reciprocity, tie strength, tie persistence, network properties, network evolution, small world networks, scale-free networks, diffusion and influence, and network effects.

Readings

We have created a extensive reading list of both required and recommended readings (see Reading Schedule).

We recommend that seminar participants have the following books (they should be available through the ND bookstore):

- 1) Stanley Wasserman and Katherine Faust. 1997. *Social Network Analysis: Methods and Applications*. Cambridge: Cambridge University Press.
- 2) Martin, John Levi. 2009. *Social Structures*. Princeton: Princeton University Press.
- 3) Barabasi, Albert-Laszlo. 2003. *Linked*. New York, Plum (Penguin).
- 4) Hansen, Schneiderman & Smith. 2011. *Analyzing Social Media Networks with NodeXL*. Elsevier
- 5) Christina Prell. 2012. *Social Network Analysis: History, Theory & Methodology*. Sage.

All other readings are available online through RefWorks, a web-based bibliographical database management system that all ND students can use. The citations for all required and recommended readings (and even some other stuff) have been placed in this database. For all required readings a pdf of the article is attached. For all other readings that are available through an electronic journal, the "Find Text" button the corresponds to the citation will take you to pdf of the reading (as long as ND has an electronic subscription). You can also link to this database and use a cite-while-you-write tool to insert references in MS word documents.

To access the reading list database go to RefWorks and enter the following:

Log-in Name: socnet
Password: links

This will give you read only access to the database. Though you can not edit and add citations, you can download pdfs and use the citation tools.

The readings are organized by topics. Use the Folders pull-down menu to select a specific folder.

Instructors



Omar Lizardo



David Hachen

Details

University of Notre Dame
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Citations with a paper click icon have an attached pdf (these are usually required readings). Click on the "View" link for a specific citation to see the whole citation and a link to the pdf. Click on the "Find Text" button to find a pdf through NDs electronic journal subscriptions.

Requirements

This seminar will be a combination of lectures about and discussions of the course readings. There are three basic requirements:

1) Research Paper: A 15-20 publishable-like paper containing a review literature, hypotheses, data analysis and discussion of findings about a social network using some of the methods and ideas of social network analysis. Completing this paper will require a series of steps (see Assignments &

- a) Calendar for due dates and more details:
- b) submitting a topic
- c) meeting with Omar and/or to discuss the topic
- d) constructing an annotated bibliography of important literature on your topic
- e) describing possible data sources and detailing the pros and cons of each source
- f) submitting a final research paper

2) Weekly Homework Assignments (first half of the course): These are designed to build familiarity with network methods, software, and analysis techniques. Assignments must be submitted, but they will be self graded and we will go over them in class.

3) Class Participation: Seminar participants are required to come prepared to seminar sessions by reading the required readings and preparing questions that they want discussed in class.

Grade Breakdown

Final Grades for the course will be computed as follows:

- Final Paper: 75%
- Homework: 15%
- Participation: 10%

Topics

Social Networks: Methods, Theory and Applications