Social Network Analysis Theory and Applications in Political Science

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CORE SEMINARS: Theoretical foundations
1. Model or metaphor? SNA between method and paradigm.
   CSW ch1
   Galaskiewicz and Wasserman (1993)
   Emirbrayer, (1997)
   Christopoulos (2008)

2. Agency in social structure.
   CSW ch4
   Granovetter (1983)

3. Elementary graph theory.
   W&F (1994) Ch1-4

4. Theoretical Foundations of SNA

LAB & THEORY SESSIONS: Applications and software
A. A software platform for SNA analysis: UCINET
   CSW ch13

B. Graphics with NETDRAW & UCINET for advanced statistical analysis.
   CSW ch12

C. Conducting network surveys & snowballing.
   CSW ch2&3
   Christopoulos (2009b)

D. Large data sets and data collection. PAJEK.
   CSW ch2&3
   McCarty etal (1997)
   Borgatti, Carley and Krackhardt (2006)

E. Social movements and relational ties.
   CSW ch10
   Diani & McAdam (2002)
   Diani & Baldassari (2008)
**F. Exceptional action political entrepreneurship and leadership.** Brokerage and the relational horizon.
Christopoulos (2006)
Christopoulos and Quaglia (2009)

**G. Political networks and influence.**
Knoke et al (1996)
Pappi and Henning (1998)
Henning (2009)

**Options: Specialised Interest.**

i. *Organisations and hierarchies: The relevance of formal structure.*
Ahuja (2000)

ii. *Social capital.*
Van Der Gaag and Snijders (2005)

iii. *Psychological predisposition and relational action.*
Kalish and Robins (2006)
Oh and Kilduff (2008)

Emirbrayer and Goodwin (1994)
Emirbrayer (1997)

v. *Position and name generator surveys.*
CSW ch2
Van Der Gaag and Snijders (2005)

vi. *Data validity, reliability and longitudinal networks.*
CSW ch2

vii. *Simulation of networks and network evolution. (Siena)*
CSW ch11

viii. *Two mode networks.*
CSW ch4&7

ix. *SNA & method triangulation.*
Borgatti and Molina (2005)

x. *Correlation, regression, MDS and correspondence analysis.*
CSW ch7
Kilduff & Krackhardt (2008)
Course Objectives
This module is aimed at postgraduate researchers in the social and political sciences. It is intended as an introductory workshop on the theory and methods of Social Network Analysis (SNA).

Course participants will get the opportunity, to present their data or SNA related hypotheses to the group and tutors for feedback.

In this module we will:
- introduce the theoretical concepts underlying social network analysis,
- introduce key methodological tools for the analysis of networks in social science research,
- explore methodological innovations for the testing of hypotheses employing SNA,
- demonstrate a number of different statistical packages that will allow for the analysis of network statistics,
- demonstrate the effective graphic representation of relational ties,
- demonstrate ways of triangulating SNA with other quantitative and qualitative social science methods.

Course Prerequisites
Computer literacy is assumed. This should allow participants to work on windows based environments and employ software tools such as EXCEL. All necessary software will be demonstrated during the course.

Introductory Reading

Key software
UCINET 6 – free for 60 days- excellent for general analysis- good help menus http://www.analytictech.com/ucinet.htm
Netdraw – freeware – good for visual analysis and representation (packaged with UCINET) http://www.analytictech.com/netdraw.htm
Keyplayer -freeware- good for identifying nodes whose elimination can disrupt a network http://www.analytictech.com/keyplayer.htm
STOCNET –freeware- a general platform for a number of models including ZOO and p2, most vital is SIENA that allows for a statistical analysis of longitudinal networks employing MCMC simulations http://stat.gamma.rug.nl/stocnet/
PAJEK – freeware- excellent for cluster analysis and large network analysis http://vlado.fmf.uni-lj.si/pub/networks/pajek/default.htm
ORA - freeware - interesting platform for a number of applications including spatial and text analysis http://www.casos.cs.cmu.edu/index.php

Bibliography on software
Bibliography on SNA methods and applications


Marsh, D. Smith, M. (2001) ‘There is more than one way to do political science: on different ways to study policy networks’ Political Studies vol.49, pp. 528-41.


Wasserman, s. and Faust, K. (1994) Social Network Analysis: Methods and Applications. CUP.


