

Call for Abstracts for the organized session

Making Sense of Big Network Data: Testing Hypotheses on New Data

at the conference

Networks in the Global World 2016

Multiple Structures and Dynamics:

Applications of Network Analysis to European Societies and Beyond

July 1-3, St. Petersburg, Russia

www.ngw.spbu.ru

Deadline: **March 1st 2016**

Chair: *lina Hellsten, VU University Amsterdam*

Traditionally, network data have been difficult to collect. Observation of network ties among people is time-consuming and therefore restricted to ties within small groups. There are limits to the number of network contacts a respondent is able and willing to list in a questionnaire (Bernard et al. 1990) and surveying the ties of and among network contacts requires snowballing samples that increase quickly in size (Laumann, Marsden & Prensky 1983). It has long been recognized that networks can be constructed from archival records (Burt & Lin 1977, Burt 1983), but the advent of large-scale digital data storage is now offering access to network data that are nearly as limitless as social networks themselves. The Internet, as a network of pages linked by hyperlinks, logs of contacts between persons through (mobile) phones, social networking sites, and so on, links between people and products from purchases with credit cards or customer cards, geographical proximity between persons based on GPS tracking; relational data suddenly seem to be generated everywhere.

The sheer size of the data poses technical problems, however, these are not central to the session. Instead, we invite contributors to focus on the substantive questions that can be answered with these types of data and the methods needed to find answers. We welcome proposals and examples of ways in which (long-)standing hypotheses from the social and behavioral sciences may be put to new and perhaps better tests using Big Network Data. For example, availability of data on the overall structure of the Internet allowed a new test (Barabási & Réka 1999) of the Matthew Effect (Merton 1968) or Cumulative Advantage Processes (De Solla Price 1976), which is now commonly known as Preferential Attachment. In addition to analyzing the overall structure of a network, large-scale network data may also serve as a sampling frame for clever selection of ego-networks or pairs allowing tests of network hypotheses such as a tendency for transitive closure of social contacts (Kossinets & Watts 2006). Novel approaches to theoretically driven network questions are likely to emerge, and we welcome papers introducing them in traditional fields, as well as emerging research topics such as innovation ecosystems, intellectual landscapes, and network cultures, to name a few.

Particularly welcome will be papers (1) devoted to big data on relations between networks of different kinds – inter-personal, semantic, organizational, material objects, etc., - (2) applying to big data approaches that combine several networks, including multilevel, multiple or other combinations, as well as (3) using big data to compare networks across cultures, societies, states, economies, cities, - and so on.

Please submit your abstract (not exceeding 200 words) [here](#) before **March 1st 2016**.

When submitting, don't forget to select the session title "**Making Sense of Big Network Data: Testing Hypotheses on New Data**" from the list.

The conference [website](#) provides additional information.
We are looking forward to your contributions.

Email any questions to i.r.hellsten@vu.nl or netglow@spbu.ru.