

A background image of a stage with red curtains. The curtains are closed and have a vertical pleated texture. The stage floor is visible at the bottom, with two black rectangular objects, possibly speakers, on either side.

Welcome To Advanced Network Analysis

Olga Chyzh

Some Quick Rules of Engagement

- Please keep your camera on, if possible
- Silence your mic unless you are speaking
- If you have a question/comment, use the “raise hand” feature. You can also post question in the chat, but I may not see them right away.

About me...

- Assistant Professor of Political Science, University of Toronto, since June 2020
- My research areas are network analysis, spatial statistics, substantive focus on non-state violent actors
- www.olgachyzh.com, olga.chyzh@utoronto.ca
- Teaching Assistants

Outline

- Introduction
- Objectives, software, modules
- Assessment/Grades
- What do you already know?
- Getting started

“Tall-Order” Objective

- Become proficient in network theory and analysis, including implementation in R

Objectives

- Learn how to deal with complex messy networks data
- Use graphics to visualize and understand networks
- Gain familiarity with formatting/managing networks data
- Become fluent in common networks packages in R
- Learn to perform inferential network analysis using a variety of cutting-edge tools

Set-up

- Complete assigned readings before each class
- Learn the theory/concepts and applications
- About 2:1 split of class between teaching:practice
- Recommend 2 screens: one to watch slides, one to follow along in R

Assessments

- 4 homework assignments due each Friday
- 25% each
- Revise what we covered, synthesize some new information

Lectures

- We have a course website: <https://networkanalysis.netlify.app/>
- All class materials, including slides, R-scripts, and homeworks will be posted there.
- Lecture videos will be available through Canvas.
- Follow along with in-class demos or you will get swamped.

What do you know already?

- Have you taken an Intro to Statistics? A GLM class?
- Have you taken Intro to Networks?
- Have you used R before?
- For more than a year?