Scripting
for network analysis and modelling

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Not all material will be on slides

- Interactive class ↔ prepared presentation
- If no slides, will upload "lab notes" after class
- But your interpretation might differ
- Take notes & extend mine if I miss something

Technicalities

Lecture	Lab
Lecture	Lab
Lecture	Lab
Lecture	Lab
Lecture	Lab
Lecture	Lab
Lecture	Midterm
Spring break	Spring break
Guest Lecture	Lab
Guest Lecture	Lecture
Lecture	Lab
Lecture	Lab
Lecture	Lab
Lab	Guest Lecture
Lab	Project presentations

Grading

- – Homework
- – Activity in class
- – Open-book midterm
- – Term project & presentation

Office Hours

- Thursday 11 – 12 (after lab)
- I might be around a bit before the lab, too
- and also by email: ait@danielabel.hu

Homeworks

- mostly optional ones after the midterm, due to term projects

- Due by Monday 6 pm

- If sent by Saturday 6pm, I will review it so that you can do another pass

Midterm & term projects

- Midterm exam (open-book) on March 19th

- Term projects:

  - "textbook project" or research project

  - presentations on May 14th

Topics We will cover

- Manual network analysis (cytoscape)

- Scripting

- Random network models

- Interpreting various network quantities

- Using networks in models: dynamics

- Acquiring & cleaning network data

"point and click" network analysis

- First 2 lab sessions – cytoscape

- Easier when experimenting with and
  visualizing small networks

- Can only use pre-made functionality

- Hard to re-use previous work

Focus on scripting

- Write code

- Automate work

- One-off vs. reusable

- Performance tradeoffs:

    programmer time vs. runtime

- "Technical issues" vs. "science"