Social Network Analysis for Computer Scientists

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https://liacs.leidenuniv.nl/~takesfw/SNACS

Code review session
In the next weeks ... 

- Finish writing code
- Run experiments
- Evaluate results
- Write remaining sections of the paper
- Dec 9: project deadline
- Report any questions, issues, difficulties or problems
Code review

- **Peer review**: evaluation of work by one or more individuals with similar competence
- “Pair programming”
- Four eyes see more than two
- Go beyond your current knowledge and skills
- Output: list of “best practices”
Today

- Explain your work to the other team
- Mention what you have done and not yet done
- Introduce the other team to your code
- Ask questions about the other team’s code
- Explain to the other team positive and less positive constructive points about their work
- Together, derive useful “best practices” and add them to the Google Doc (see website)
Evaluation criteria

- Correctness guarantees
- Time and memory constraints
- Are input and output data validated for consistency?
- Is the output easily reusable for result tables or diagrams?
- Is there a pipeline of experiments to run different algorithms on different datasets?
About the Data and Experiments

- Is the data relevant and sufficient?
- Is the data “diverse” in relevant dimensions?
- What do you measure in each experiment?
  Quality, running time, error?
- Why is this data good for these experiments?
- Is the data possibly biased and how may this affect the experiments?
Remember ...
### Team pairs

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<th>Resilience</th>
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<td>Network embeddings 1</td>
<td>Community detection 4</td>
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| Community detection 2         | Community detection 3    |
| Anomaly detection             | Influence spread 2       |
| Link prediction               | Signed link prediction   |
| Influence spread 1           | Network de-anonymization |

| Betweenness centrality 1      | Network data errors      |
| Visualization 2              | Motifs in temporal networks |
| Shortest paths 1             | Shortest paths 2         |
| Motifs in multilayer networks| Motifs in networks       |
| TBD                           | Personalized PageRank    |