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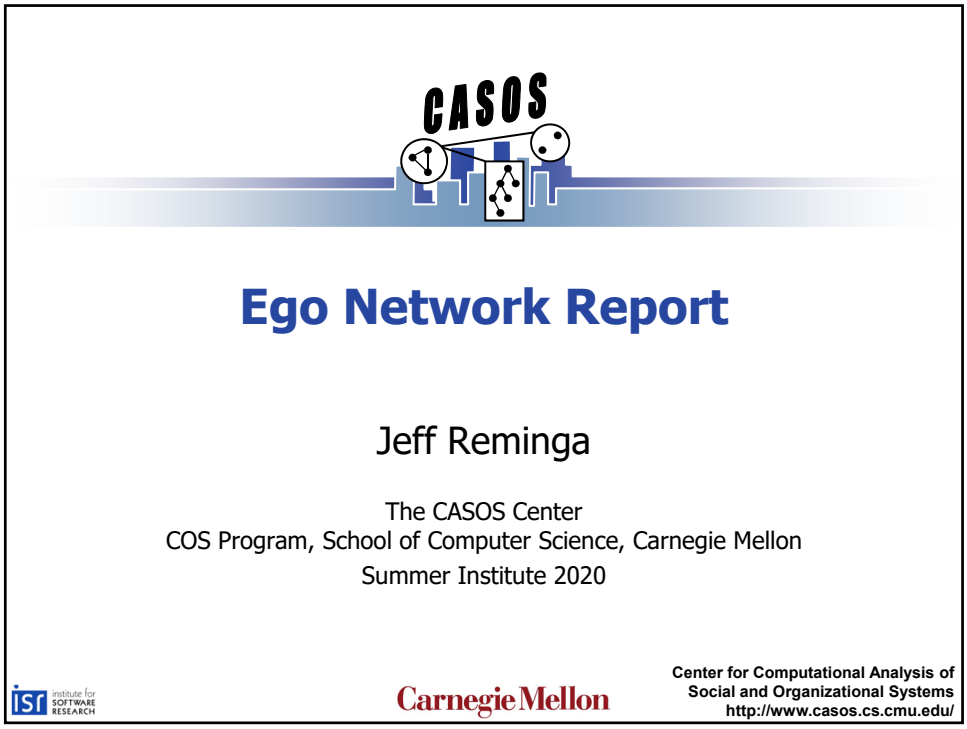
CASOS
Ego Network Report
Jeff Reminga
The CASOS Center
COS Program, School of Computer Science, Carnegie Mellon
Summer Institute 2020
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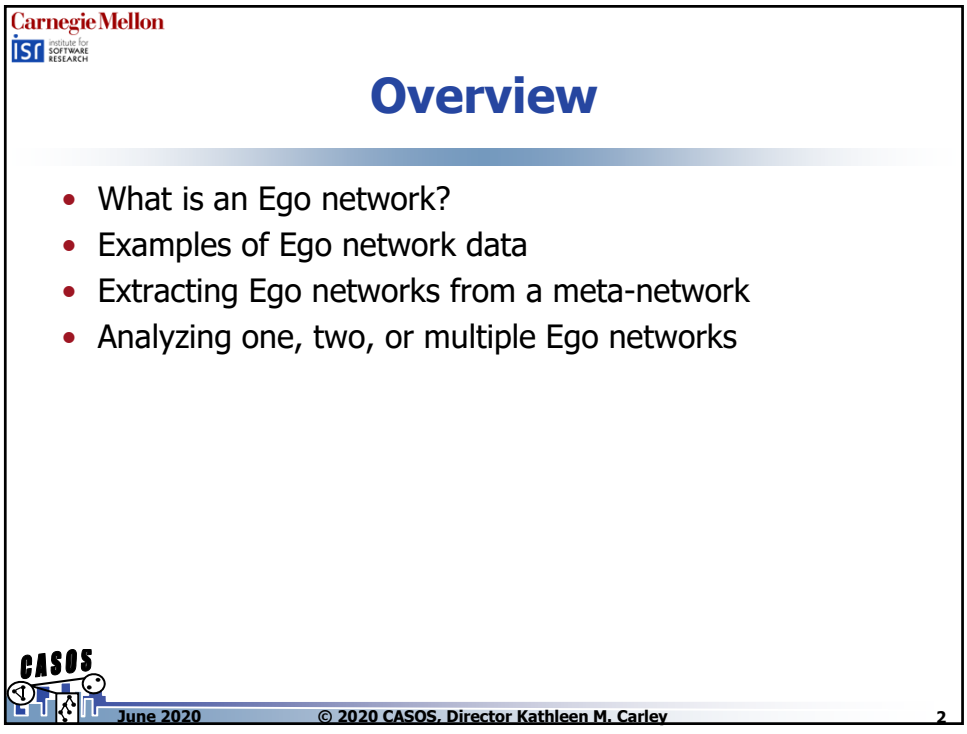
Carnegie Mellon
Center for Computational Analysis of Social and Organizational Systems
http://www.casos.cs.cmu.edu/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Overview
What is an Ego network?
Examples of Ego network data
Extracting Ego networks from a meta-network
Analyzing one, two, or multiple Ego networks
CASOS
June 2020
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What is an Ego network?

- Ego network contains:
  - Ego node itself
  - Nodes directly connected to the ego (called alter nodes)
  - Links between the ego and alter nodes
  - Links between alter nodes

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Analysis Use-Case

- When we want to analyze the Ego networks for nodes within a single meta-network
- Run the Ego Net report to automatically extract the Ego networks and measure them
- Extract the Ego networks from the main menu in ORA:
  - Generate Networks → Ego Network Generator
  - Run other reports as needed on the individual Ego networks

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Load Software Company

- Load the Software Company dataset:
  - We could ask questions: what is direct linkage of the LDR to the rest of the software company?
  - How do the two managers Mgr1 and Mgr2 compare in terms of their ego networks?
    - Do they overlap in agents, knowledge, tasks?
    - How do they most differ?
  - What knowledge and tasks do Engineers share on average? What knowledge and tasks do at least half of the engineers connect to?
- Answer these questions using the Ego Net report running in Single, Comparison, and Multi-Mode

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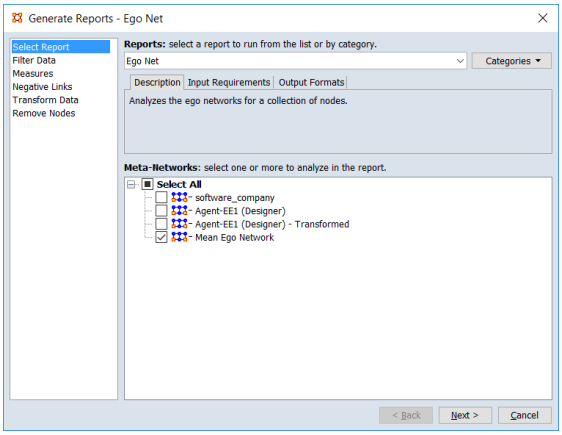
Ego Net Report

- We will first run the Ego Net Report on a single node: LDR



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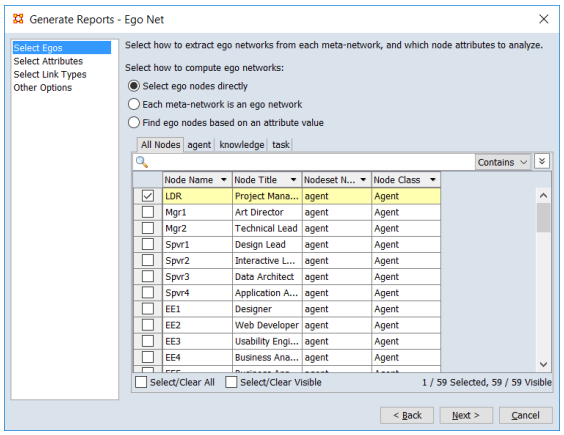
Ego Net Report: Single-Mode

- Select the LDR Agent to analyze:



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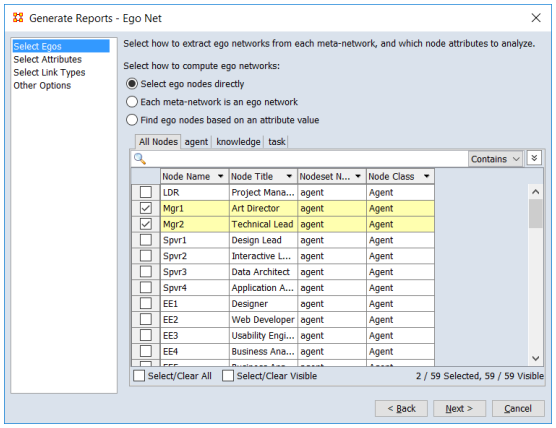
Ego Net Report: Comparison Mode

- Two compare two ego networks, select Mgr1 and Mgr2 to analyze:



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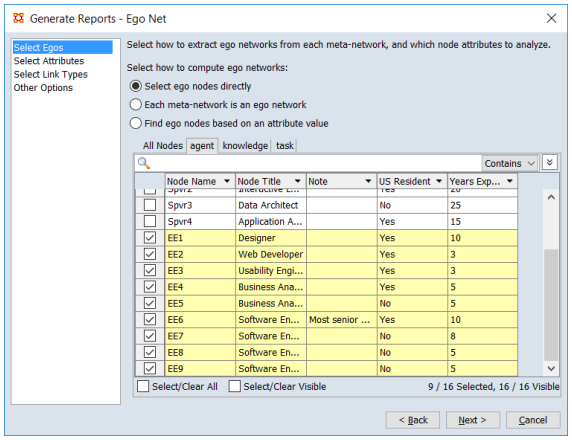
Ego Net Report: Multi-mode

- To compare all engineers, select all engineers:



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Ego Net Report: CSV Output

- The CSV output of the report contains a spreadsheet of all measures computed across all selected meta-networks

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