My ego network

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HSE "Computational Linguistics"
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Data collection

- Data was scraped through VK API (vk.barkov.net)

- Some data was not collected and needed to be put in manually (grouping by school / university)

- Key attributes:
  - Nodes: ID, full name, school, university
  - Edges: friends (did not find any followers)

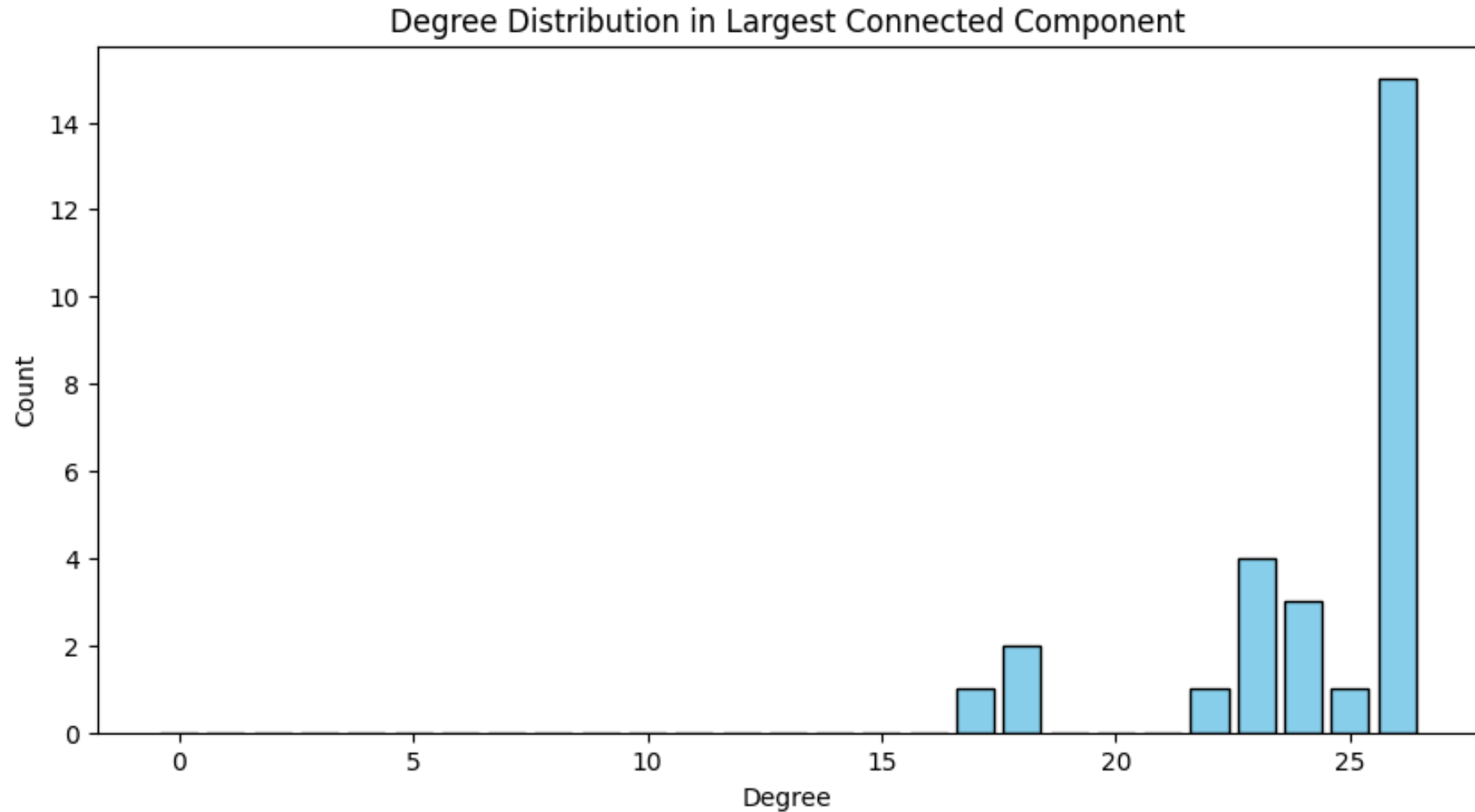- Preprocessing: simple node creation + hand-made edges

Network summary

- Graph type: undirected, unweighted
- Statistics:
  - Edges: 735
  - Nodes: 100
- (Largest connected component):
  - Diameter: 2
  - Radius: 1
  - Global clustering: 0.95
  - Avg local clustering: 0.95
  - Avg shortest path: 1.07

Degree Distribution: Full Network
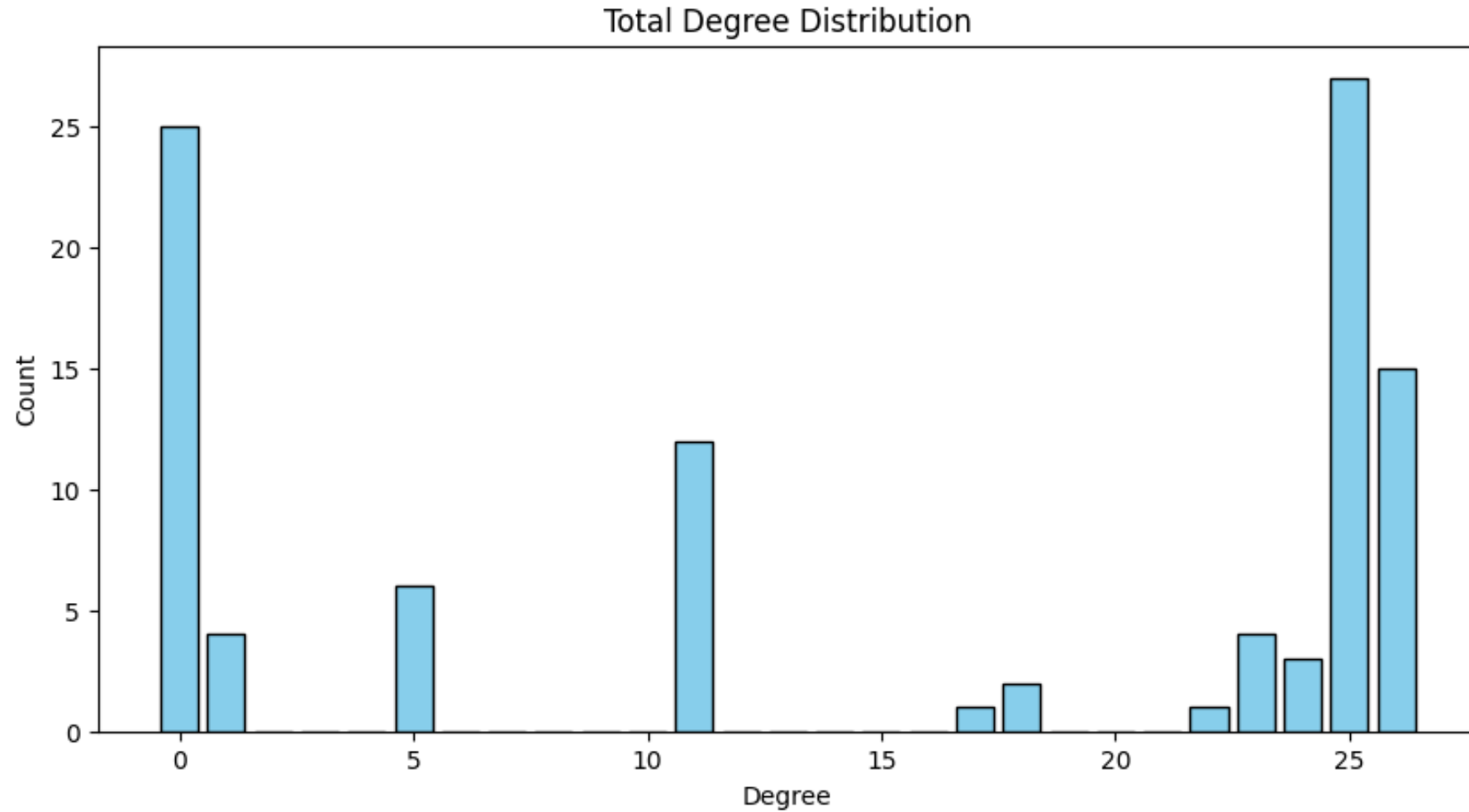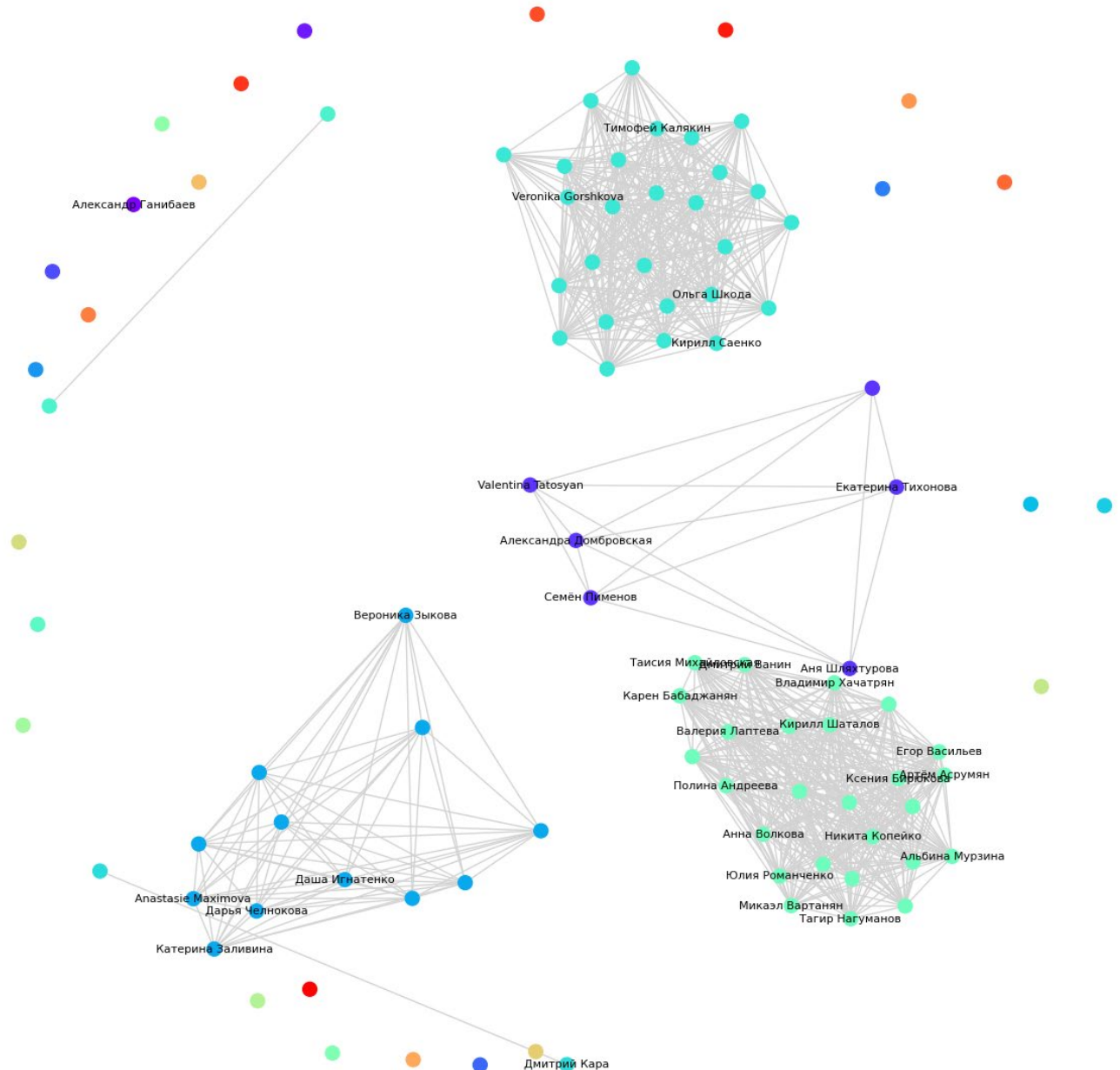
# Degree Distribution: Largest Connected Component

Structural analysis

- Metrics: degree, closeness, betweennes, eigenvector

- Top nodes:
  - Degree: ('Настя Тищенко', 1.0), ('Elizaveta Mesnyankina', 1.0), ('Ольга Шкода', 1.0),
  - Closeness: ('Настя Тищенко', 1.0), ('Elizaveta Mesnyankina', 1.0), ('Ольга Шкода', 1.0)
  - Betweennes: ('Настя Тищенко', 0.00438), ('Elizaveta Mesnyankina', 0.00438), ('Ольга Шкода', 0.00438)
  - Eigenvector: ('Настя Тищенко', 0.203), ('Елена Семёнова', 0.203), ('Полина Райкова', 0.203)

Community detection

- Algorithms used: Louvain

Network visualization: Largest Connected Component
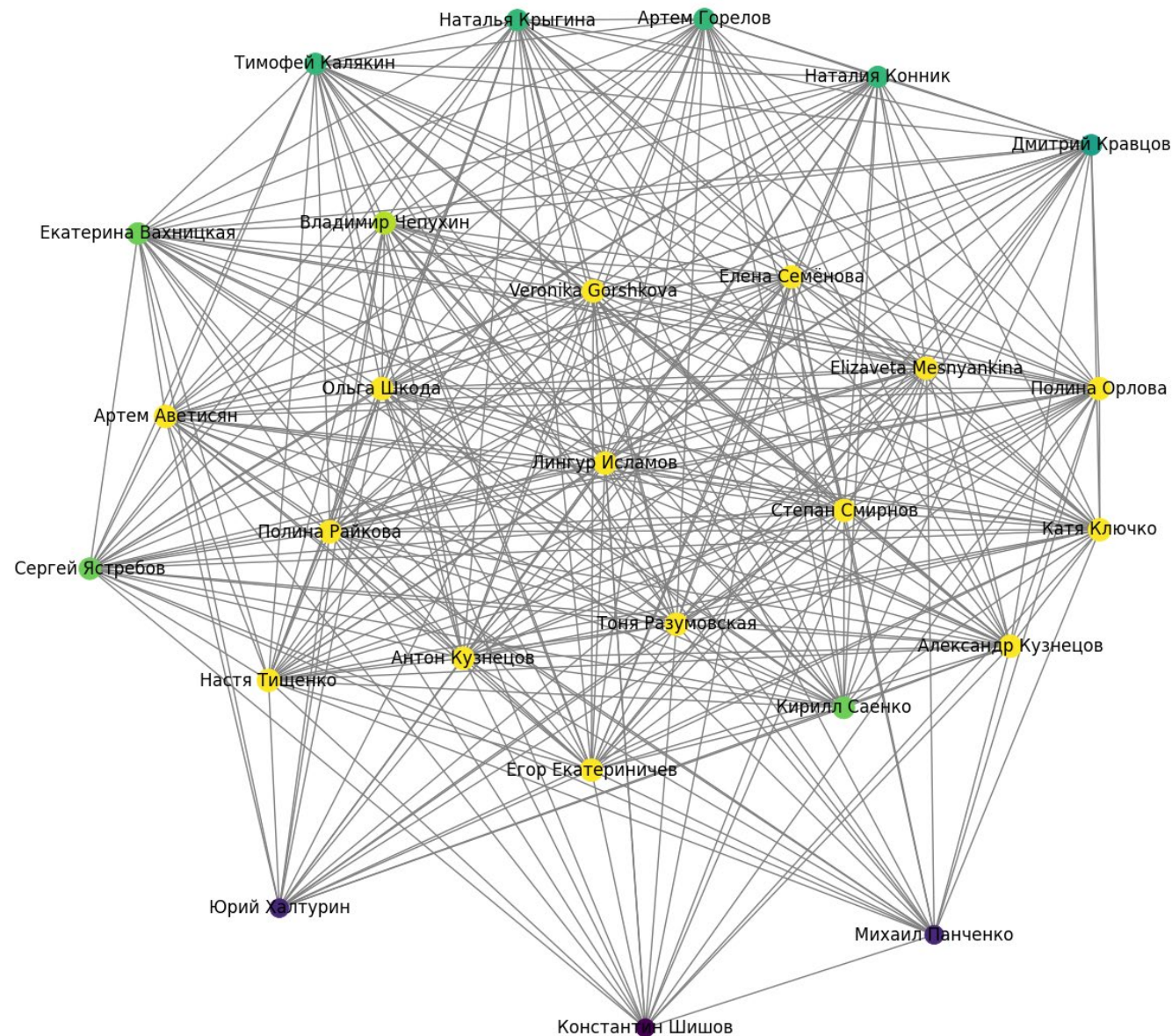
Conclusion

- 4 distinct social groups in the network, based on their affiliation
- The largest are school friends, which are tightly-knit, with a little variation
- Teachers and some friends who did not stay for the full duration of the school years had less influence (left earlier or joined later)