Introduction to Social Network Analysis with R

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Outline

Online Access to the Tutorial Materials

GitHub - Tutorial Materials

- `https://github.com/bulentozel/RSNA`

Installing R and All

- `http://www.r-project.org/`

An Integrated Development Environment Tool for R

- `http://www.rstudio.com/`

Introduction to R

Computing Environment

- Using external packages
- Introduction to R syntax
- Help tools

Data Structures and Data Manipulation

- Vector, Matrix, List, Data Frame, Array
- Operators
- Basic visualization options

Part II: Social Network Data Manipulation

Data

- ► Using built-in datasets
- ► Importing external data

Network Data Manipulation

- ► Creating a network from scratch manually
- ► Creating random networks
- ► Manipulation of network level, node level and link level attributes
- ► Basic network attributes

Part III: Classical Network Analysis with R

Network Level Analysis

- ► Connectivity
- ► Centralization
- ► Reciprocity
- ► Transitivity
- ► Components

Node Level Analysis

- ► Degree Centrality
- ► Betweenness
- ► Closeness
- ► Designing custom measures