

Introduction to Social Network Analysis with R

Bulent Ozel

Universitat Jaume I
Department of Economics
Castellon de la Plana, Spain

ozel@uji.es

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Outline

Online Access to the Tutorial Materials

Part I: A Brief Introduction to R Environment

Part II: Social Network Data Manipulation

Part III: Classical Network Analysis with R

Online Access to the Tutorial Materials

GitHub



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