A Graph-based approach for Data Exploration in Recommendation Systems

Marialena Kyriakidi ¹, Georgia Koutrika ², Yannis Ioannidis ¹,²

¹University of Athens, Dept. of Informatics and Telecom., ²ATHENA Research Center
Recommendations Currently

Characteristics
- Numerous, different approaches on algorithms, philosophy
- Application-dependent

Requirements
- Flexible schema
- Dynamic recommendation front
- Handling large volumes of interconnected data
A Graph-based Approach

- Recommendation graph to model all domain
  - Abstracts from application specifics
  - Maps everything as node/edges
- A set of path traversal operators
  - View recommendations as paths between entities
  - Formulate recommendations in a concise way
- Built on top of a graph engine for efficient implementation