Efficient Graph Search Algorithms for Public-Private Social Networks

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OBJECTIVES

1. To design public-private graph models, and collect real-life public-private graph datasets;
2. To investigate efficient algorithms of community search and keyword search on public-private networks;
3. To develop a prototype system to demonstrate the feasibility of public-private social network analysis;

HIGHLIGHTS

Real-world Datasets Generation, Modelling, and Algorithms for Public-Private Attributed Networks

- Develop classification-based hybrid algorithms using node/edge insertions/deletions to incrementally compute k-truss in public-private graphs [1]
- Design a novel attributed public-private graph model, and generate real-life public-private network datasets with DBLP [4]

An Interactive Graph Query Processing System for Searching and Visualizing Communities

- Investigate a new problem of community search without query nodes but only using query keywords [2]
- Develop a graph query processing system for community search [3], interactive visualization [5], and summarized view [8]

SELECTED PUBLICATIONS