

Matching user identities across social networks with limited profile data

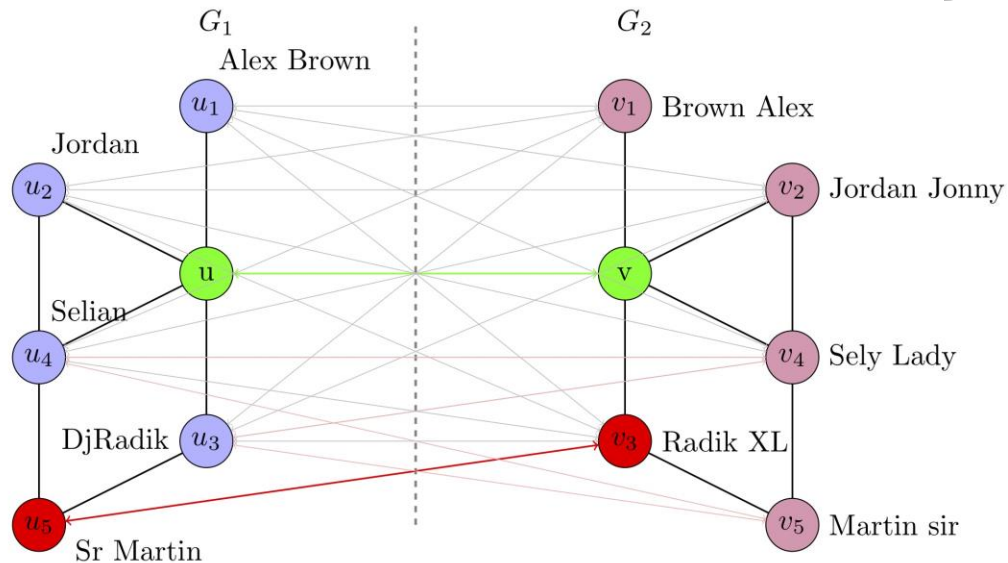
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Problems & Ideas

- Problems of matching user identities across different social networks
 - users attempt to keep their profile information private
 - profile inconsistency
 - network diversity
- Ideas: Maximum Subgraph Matching with combination of
 - Percolation Graph Matching over named node graph
 - Graph embedding and structural machine learning

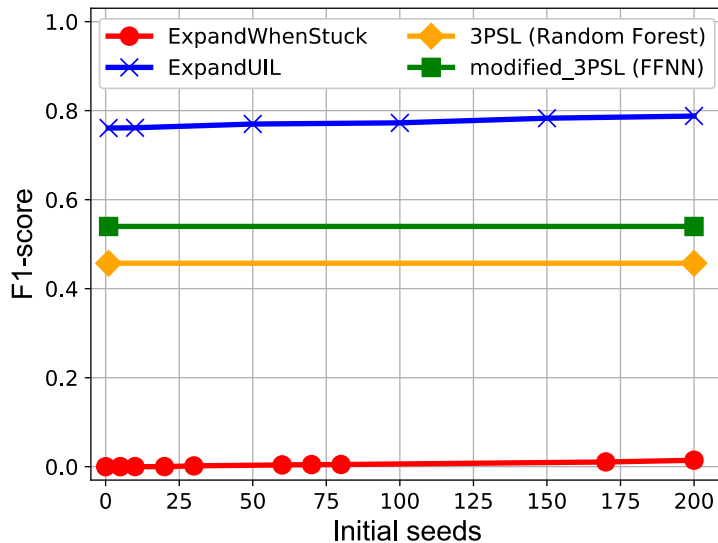
ExpandUIL



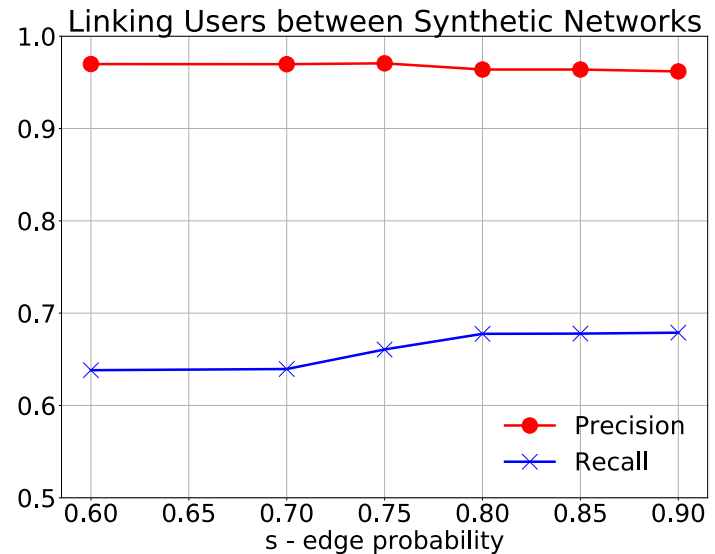
Main Contributions

- ExpandWhenStuck, 3PSL and modified 3PSL show poor precision and recall relying just on topology, while the **ExpandUIL** shows that percolation could be used with the smart decision function to overcome the bottlenecks in network diversity.
- The edge probability s does not significantly affect the performance of the **ExpandUIL** except the recall degrades smoothly with less topological information that is regulated by s .

Linking Accounts between Social Networks (VK, Instagram)



Crawled dataset: Vkontakte & Instagram



Synthetic graph: Barabási–Albert model