Search and Recommendation in Decentralized Online Social Networks
Agenda

• Introduction
• Problem Statement
• Research Objectives & Questions
• Research Significance
• Research Challenges and Limitations
• Research Methodology and Timeline
• References
Online Social Network (OSN)

Introduction
Introduction

- Centralized OSN vs Decentralized OSN (DOSN)
Introduction

DOSN Architecture

A survey on decentralized Online Social Networks - 2014

Search and Recommendation in DOSN
Introduction

• Search and recommendation

Problem Statement
Problem Statement

The Diaspora* Ecosystem

How could we recommend friends on different PODs to a person on ‘POD 1’?

“Diaspora, with about 400,000 users to be the most successful DOSN. It still comes without a recommender system for friends and content and without a system-wide content and profile discovery mechanism.” - Paul, 2014
Research Objectives & Questions
Research Objectives

Design a Model for DOSN capable of search and recommendation

Search and Recommendation in DOSN
Research Questions

• What kind of APIs and framework are currently being used by the recommendation Platforms?

• How could we adapt existing communication protocols (e.g. XMPP, Gossip) in DOSN?

• How are search queries distributed (e.g. flooding)?

• Which data should be transferred and what are the implications on users’ privacy?
Research Significance
Research Significance

• Our focus is on search/recommendation in DOSN

• Insights about challenges of search and recommendation in DOSN
Research Challenges and Limitations
Research Challenges and Limitations

• No enough literature (search and recommendation in DOSN)

• Validating proposed approach
Research Methodology and Timeline
## Research Methodology & Timeline

### DOSN Recommendation a...

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<th>Study communication protocols</th>
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References
References

• Gondor, Sebastian, and Hussam Hebbo. "SONIC: Towards seamless interaction in heterogeneous distributed OSN ecosystems." (WiMob), 2014.
Questions