





Adaptive navigation support for discussion forum posts

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Highlights of the Project

- Adaptive Recommendation
- User profiling
- Collaborative Filtering
- Visualization
- Socially Navigable

Dataset and Software

- **Dataset**

- One year discussion thread content
- Related to Java
- Source – Stackoverflow

- **Software**

- Lucene
- Python
- Java

How adaptive ?

- Includes Explicit and Implicit Feedback
- **Explicit Feedback**
 - Preference of “tags” during registration
 - Option to retrieve Text only or Code
- **Implicit Feedback**
 - User searches for a query
 - Extract Tags
 - Update Tag counts

How Adaptive? Cont..

- Calculate implicit and explicit parameters
- Assign weights
- **40 % Implicit ; 60 % Explicit**
- Frame weighted query
- Retrieve results

Collaborative Filtering

- Nearest neighbor approach based on similarity in user profiles
- Used Pearson correlation to compute NN
- Recommendation based on NN's search topics

Visualization

- Individual user topic visualization
- Social user topic visualization

Individual User Visualization

- Logged in user's search history based on the frequency of keyword tags
- Keyword tags retrieved from user search query
- Topic concentration chart to improve the learning of the user

Social Visualization

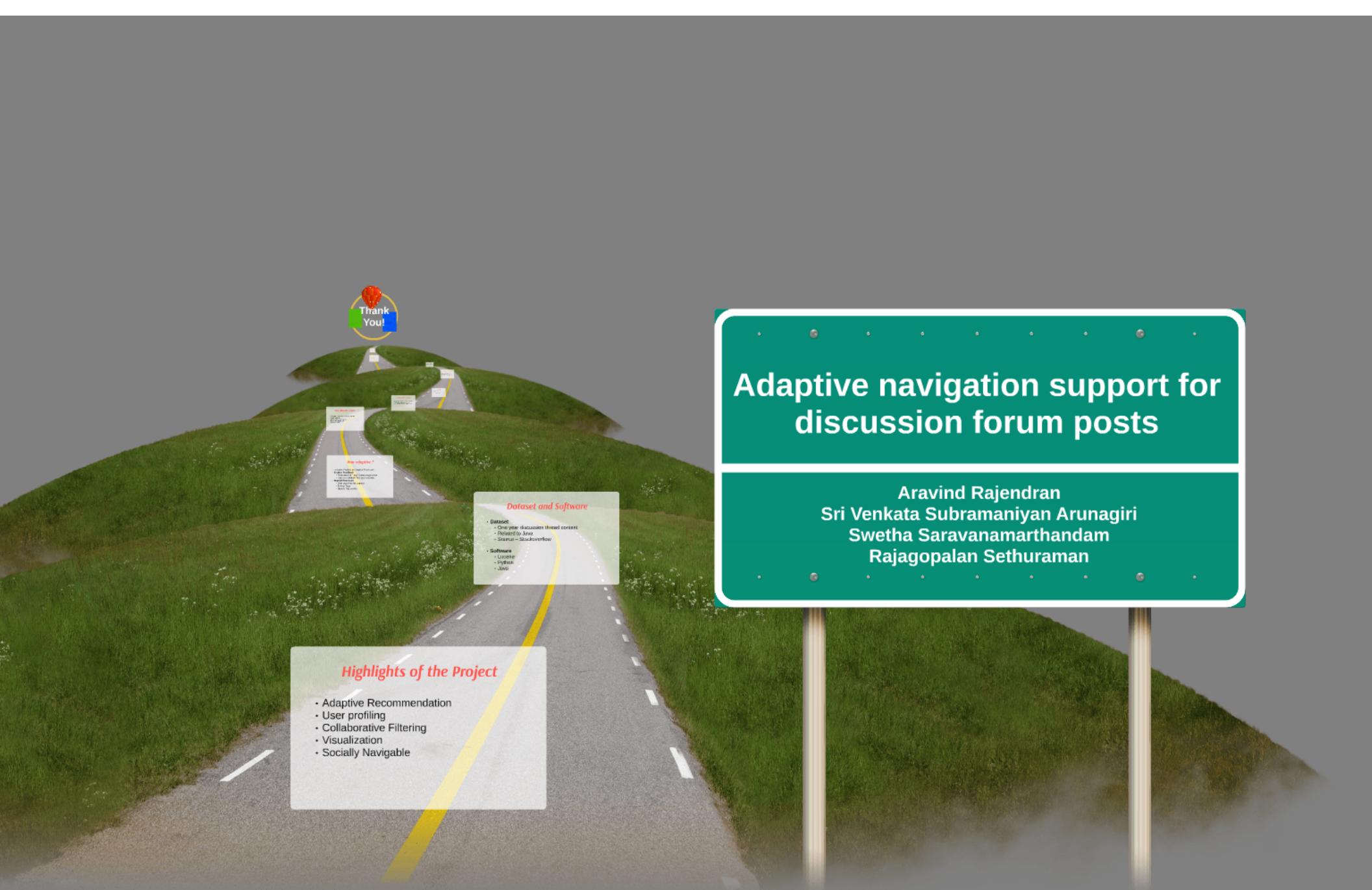
- Sankey Visualization of nearest neighbor's search tags
- Recommend social navigation to searches done by nearest neighbors

Demo

Questions ?

Thank You!





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