Research Collaborator Recommendation using Hybrid Recommender System in Science Gateways through Conversational Agent

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Agenda

● Science Gateway Introduction
● Research Community Growth Problem Formulation
● Our Proposed Solution
Helping Domain Sciences use Cyberinfrastructure

- Science gateway (SG) is an online community space for science and engineering research and education
- SGs allow access to shared data, software, computing services, instruments, educational materials, and other resources specific to their disciplines
Problem Formulation: Researcher Community Growth

- The existing SGs do not foster the re-use of knowledge of prior users as part of the resource composition of future users.
- Growth in research can be accelerated by recommending potential collaborators as a resource to researchers.
- Considering the enormous user base in SG, finding individual with common research interest is difficult task without an expert.
- There are many recommendation systems for collaboration discovery but there is scarce use of them in SGs.
Proposed Solution: Hybrid Recommendation System

- We propose a novel Collaborator Recommendation System to recommend collaborators in Neuroscience Gateways using a conversational agent.
- We developed 'Vidura' chatbot based on Google's Dialogflow.
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- Data for our system is collected using chatbot
- Hybrid approach is used for recommendation system which is a combination of collaborative, content-based, demographic and knowledge based filtering
- Our recommender system helps users in building and maintaining strong research teams
Thank You!

Questions?