

# genSpace: Community-Driven Knowledge Sharing in geWorkbench

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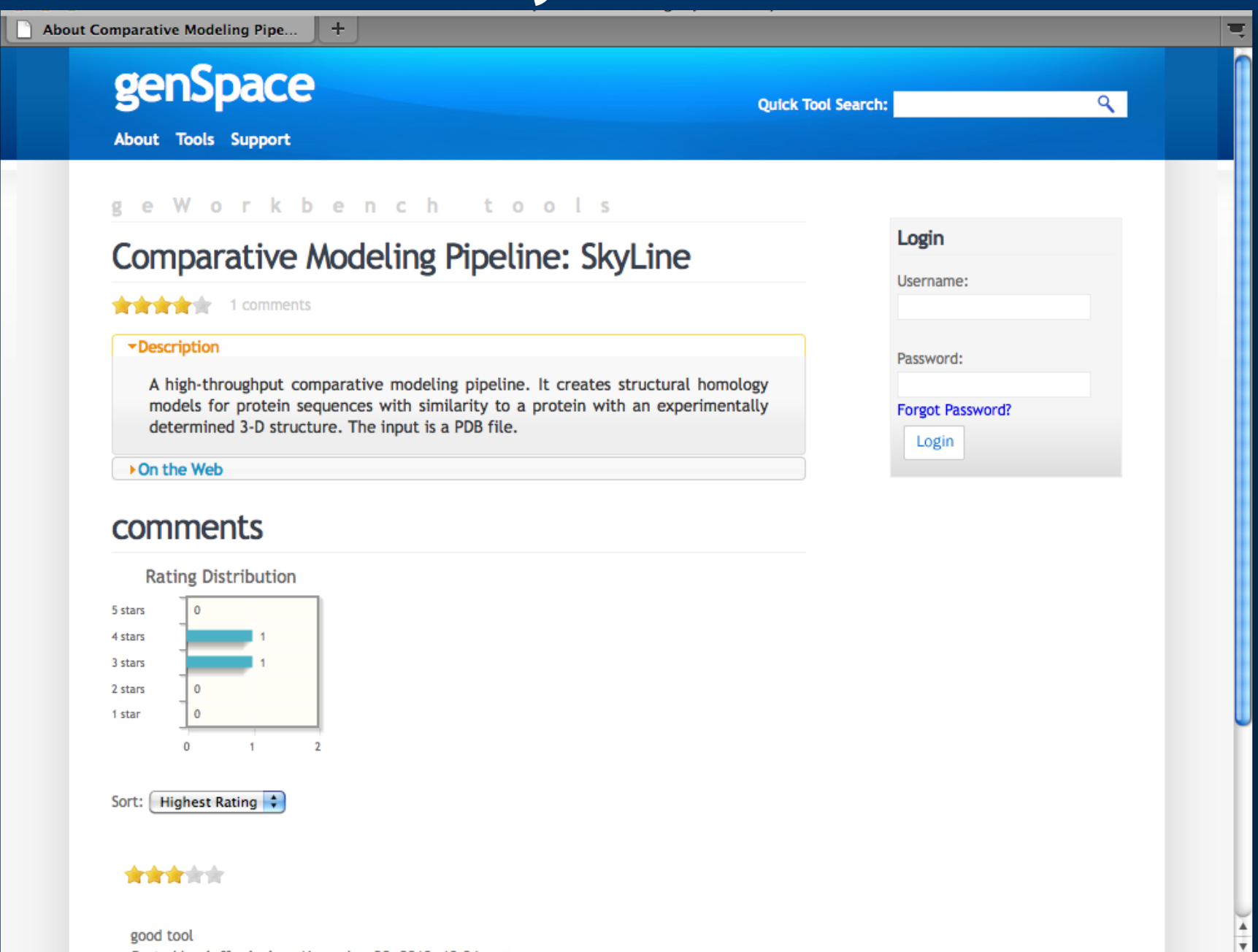
- Prior work on collaboratories for computational scientists
  - Tool and Data sharing (e.g., caBIG, caGrid from NCI)
  - Terminology sharing (e.g., BiomedGT from NCICB et al.)
- We seek to introduce **knowledge sharing**
  - What tools should I use?
  - Which tools work together?
  - Where does this tool fit in the workflow?
  - How can I get help?
  - What are my colleagues working on?

- Social Networking facilitates Collaborative Filtering
  - What movies would I like?
  - Who also likes this book?
  - Where does this song fit in the playlist?
  - When was this restaurant last reviewed?
  - How can I get help?
- Investigate Social Networking Models as an approach to Scientific Knowledge Sharing
  - Implemented prototype for geWorkbench
  - Logging Module released in geWorkbench v.1.6.3 (8 January 2009)
  - Recommendations Module released in geWorkbench v.1.7 (17 July 2009)
  - Chat and workflow repository released in geWorkbench v.2.2 (19 May 2011)

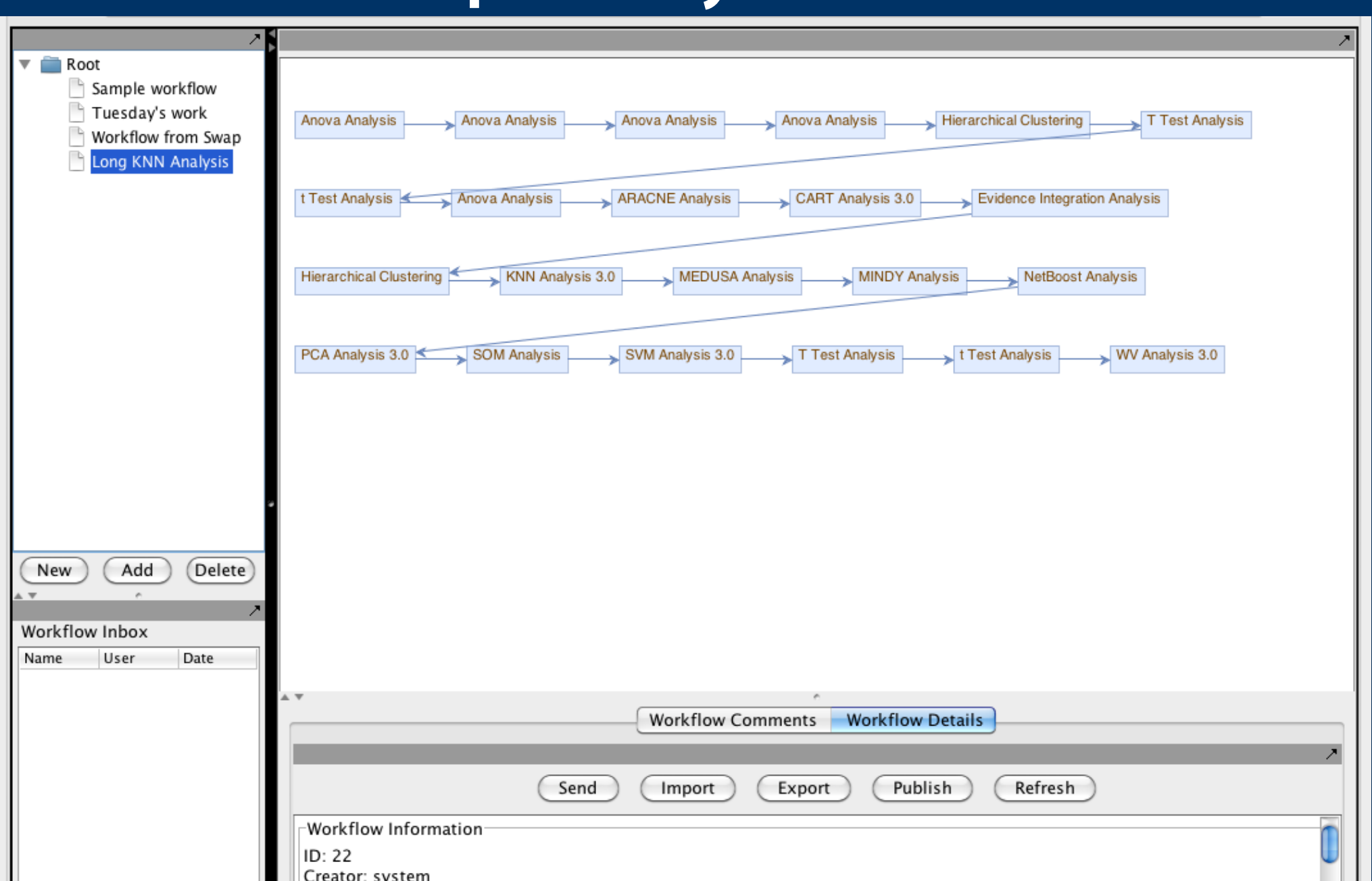
## genSpace: Technical Approach

- genSpace is a geWorkbench plugin
- Instrument geWorkbench to record tool usage
- Aggregate event logs for communities of users
- Data mine usage patterns
- Visualize workflows that include or start with a particular tool
- Recommend popular workflows and most common tools
- Suggest next best tools based on tools just used
- Provide direct access to communicate with other scientists

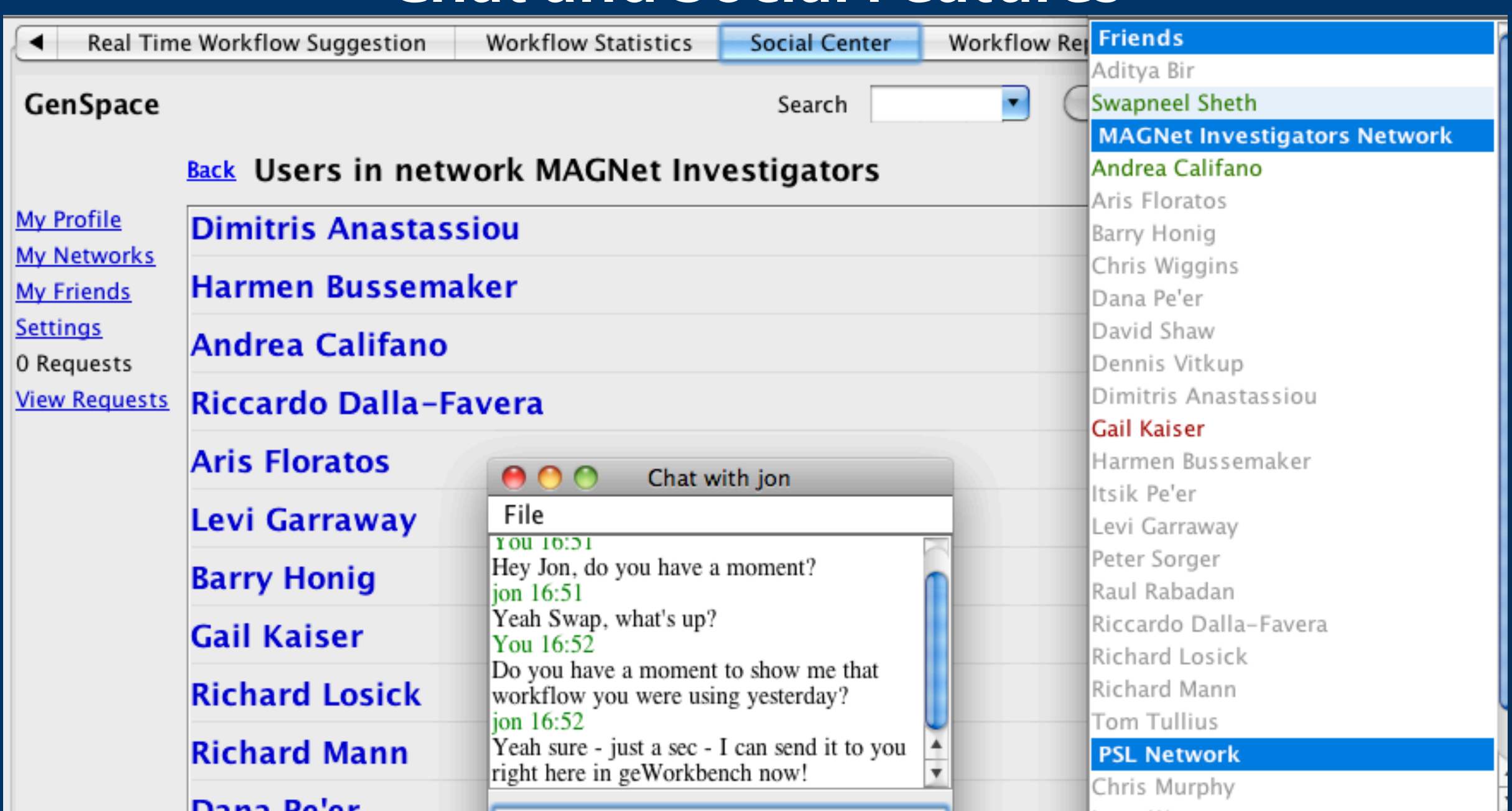
## Community Portal Website



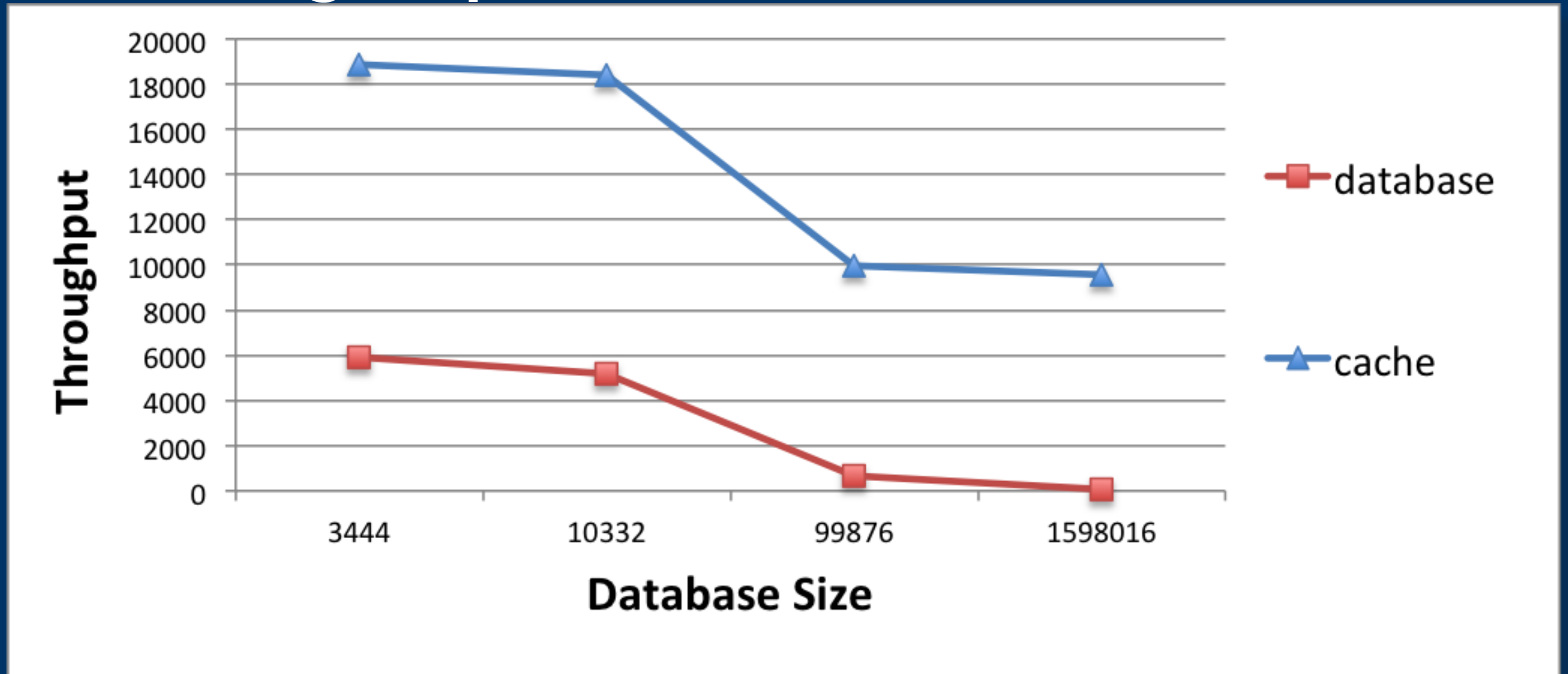
## Workflow Repository and Visualization



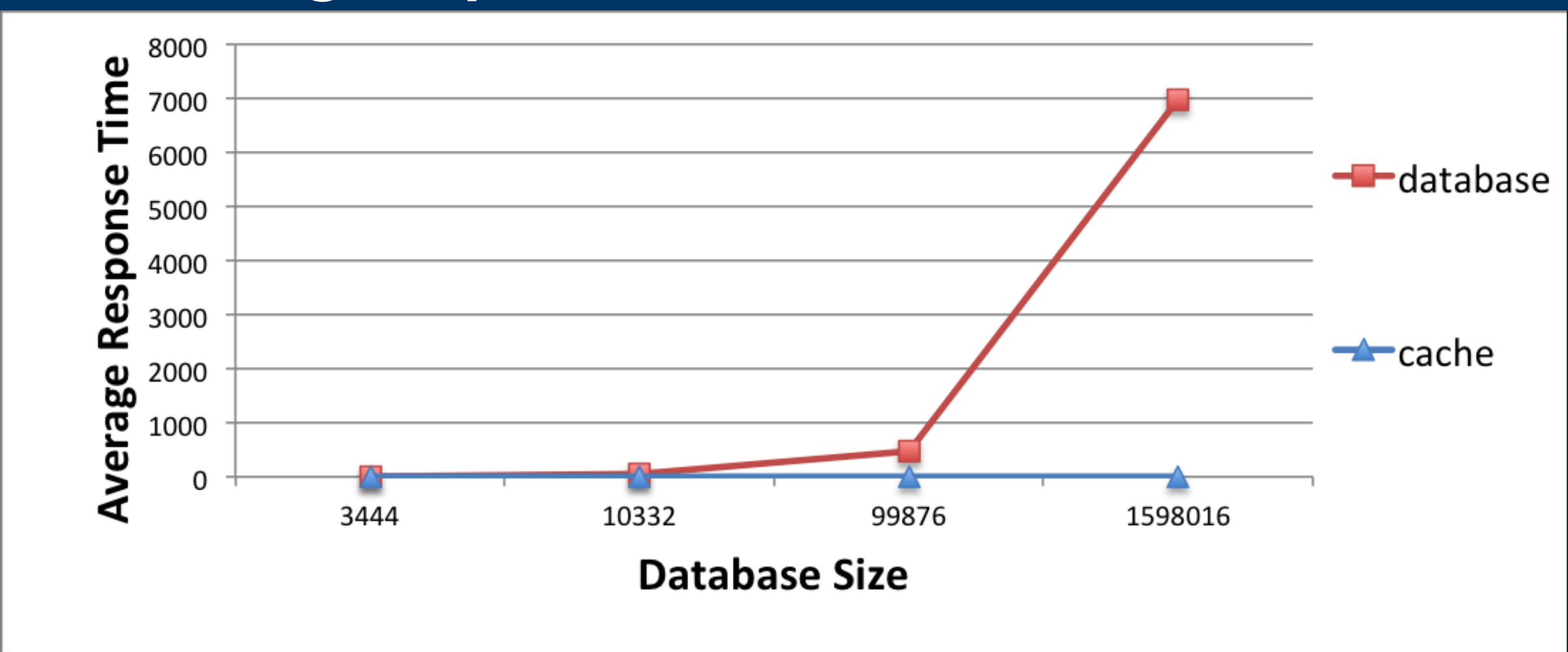
## Chat and Social Features



## genSpace Cache Evaluation (1)



## genSpace Cache Evaluation (2)



## Usage Logs

