Project
Web Search
Searching trending topics

• Answering some queries with a static list of documents does not provide the full picture.

• But...
  • The Web is highly dynamic.
  • Information occurs in cascades.

• In this project we will target the problem of searching developing stories in Web data.
How to summarize search results?
Setting

- The user submits a story topic and the corresponding story segments.

- The system must return the sequence of documents that best match the submitted story topic segments.
Applications

• Search results presented as Wikipage
• Search results provide a summary
• Provide illustrations for news
• Infer the storyline from UGC
• Learn the different story branches
• Detect new developments in an event-plot
• Discovery of event specific tags

...
Everyone wants it!!!
Project-based learning

- Topic filter
- Visual analysis
- Temporal analysis
- Semantic visual analysis
- Data story creation
Step 1: Static retrieval (25%)

- Text retrieval with BoW and named entities.
- Image retrieval with automatic tags.
- Searching by similarity for pseudo relevance feedback.
Step 2: Graph representations (25%)

• In this step you ought to use graph representations of your data.

• These graph representations will allow you to navigate your data and search for the optimal sequence of documents.
Step 3: Rich embeddings (50%)

• The goal is to use semantic embeddings to find more relevant information.

• Such multimodal embeddings can capture relevant interactions between text and visual data.

• This will enable the discovery of richer information to create the search results.
Project grading

• Scoring:
  • Implement. correctness 30%
  • Results analysis 30%
  • Critical discussion 40%

• Report:
  • Maximum of 8 pages.
  • No cover page.
  • Must include graphs, tables, etc.

• Report organization:
  • Introduction
  • Algorithms
  • Implementation
  • Evaluation
    • Dataset description
    • Baselines
    • Results analysis
  • Critical discussion
  • References
Q&A?