

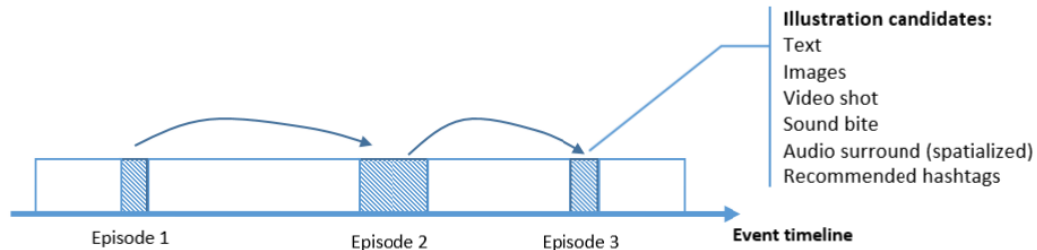
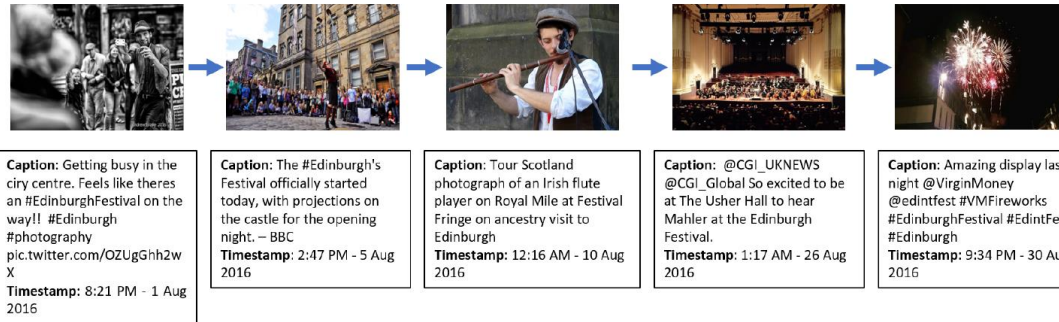
Project

Web Search

Searching trending topics

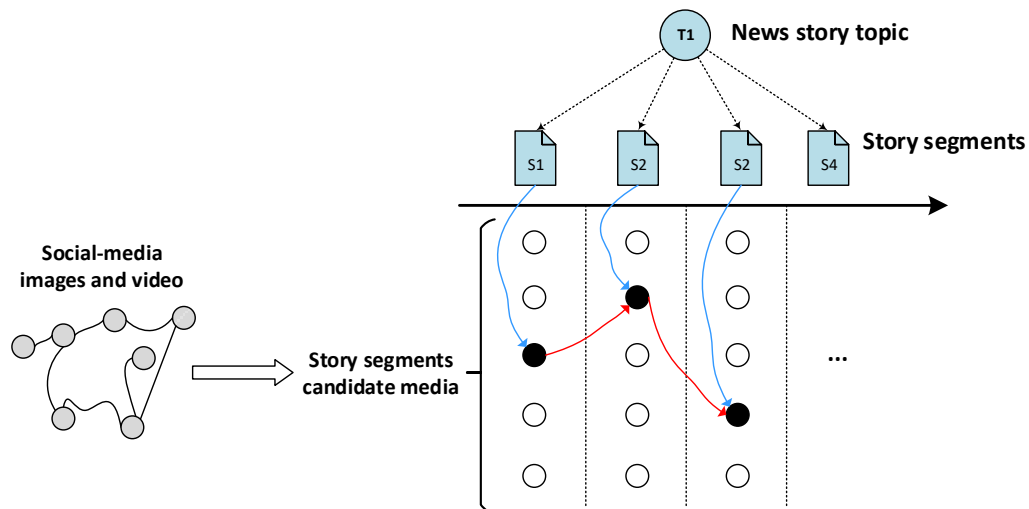
- Answering some queries with a static list of documents does not provide the *full picture*.
- But...
 - The Web is highly dynamic.
 - Information occurs in cascades.
- In this project we will target the problem of searching developing stories in Web data.

How to summarize search results?



Setting

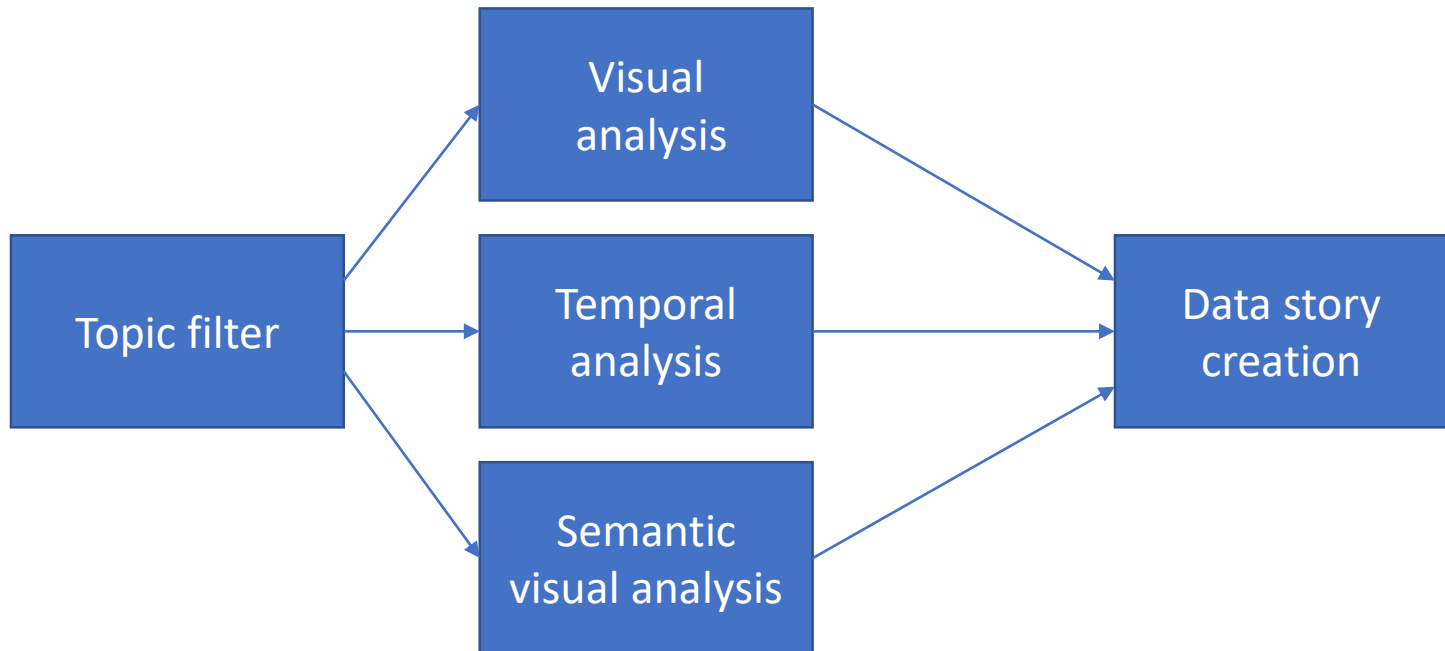
- The user submits a story topic and the corresponding story segments.
- The system must to return the sequence of documents that best match the submitted story topic segments.



Applications

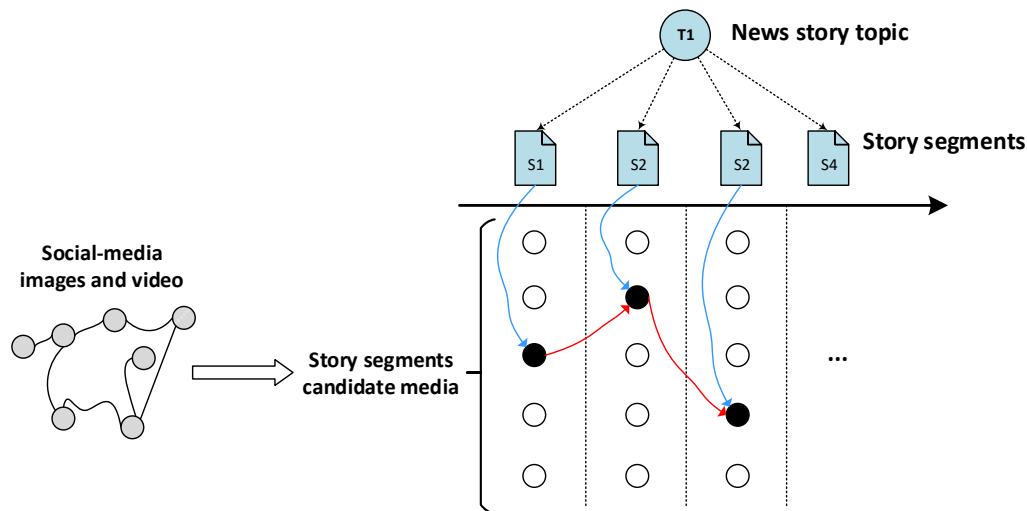
- Search results presented as Wikipage
- Search results provide a summary
- Provide illustrations for news
- Infer the storyline from UGC
- Learn the different story branches
- Detect new developments in an event-plot
- Discovery of event specific *tags*
- ...

Project-based learning



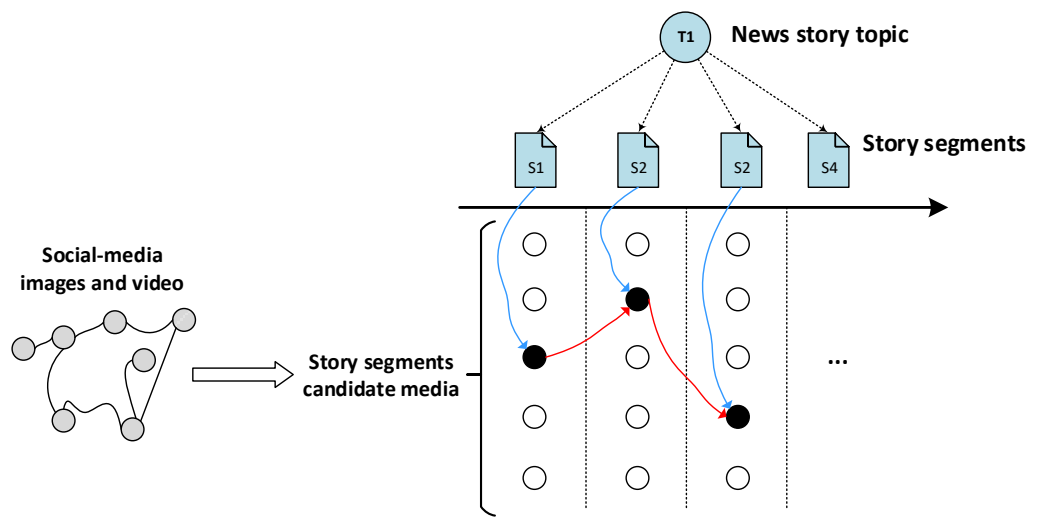
Step 1: Static retrieval (25%)

- Text retrieval with BoW and named entities.
- Image retrieval with automatic tags.
- Searching by similarity for pseudo relevance feedback.



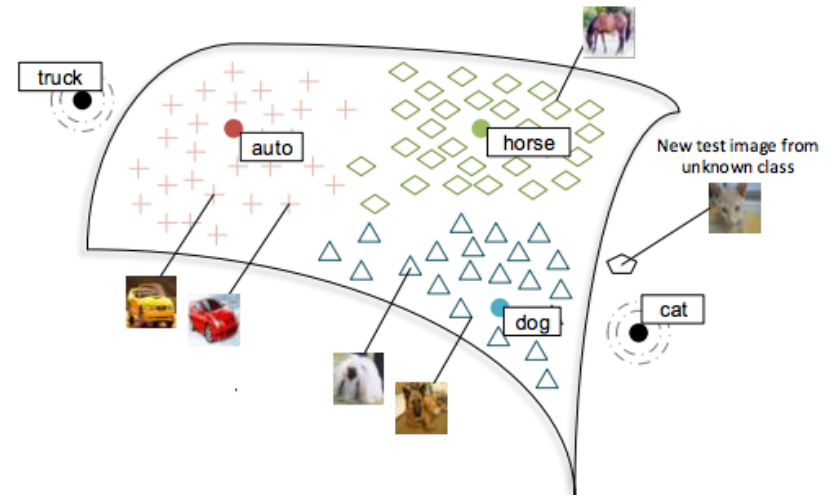
Step 2: Graph representations (25%)

- 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?