

Natural Language Processing and Multimedia Content Ranking

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Ranking approaches

- Personal
 - interest-based recommendations (imho.net)
 - query-based advertisement (yandex.ru)
- Group
 - TOPs (youtube.com, P2P sites)
 - semantic-based ranking

Semantic-based approach

- Media-content description analyzing
- Key words and key concepts mining
- Knowledge base creation
- WWW searching (blogs, articles, reviews, newslines, etc.) and information analyzing
- Ranking by mapping key concepts

Knowledge base creation

Official media description

**Key
words
mining**



Knowledge base

Key words and key concepts mining

- Semantic analysis of sentences in media content official description
- Recognition of linking words between sentences
 - Pronouns
 - Equivalent words
- Selection of key concepts and key words
 - Character names
 - Place names

Example

This swash-buckling tale follows the quest of Captain Jack Sparrow, a savvy pirate, and Will Turner, a resourceful blacksmith, as they search for Elizabeth Swann.

Elizabeth Swann, the daughter of the governor and the love of Will's life, has been kidnapped.

This swash-buckling tale follows the quest of Captain Jack Sparrow, a savvy pirate, and Will Turner, a resourceful blacksmith, as they search for Elizabeth Swann.

- follow(tale(this, swash-buckling), quest(Captain Jack Sparrow(pirate(savvy)), Will Turner (blacksmith(resourceful))), as(search(they, for(Elizabeth Swan)))

- kidnapped(Elizabeth(daughter(governor), love(life(Will))), Capitan

Barbos

follow(tale(this, swash-buckling),
quest(Captain Jack Sparrow(pirate(savvy)),
Will Turner (blacksmith(resourceful))),
as(search(they, for(Elizabeth Swan)))

Knowledge base

- Semantic expressions
 - Pirate
\$12413419/0/15(S1>Oper01(S1:MAN\$1241,
PIRACY\$153134))
 - Robber
\$12413419/0/15(S1>Oper01(S1:MAN\$1241,
ROBBERY\$153134))

WWW searching

- Today trends analyzing
 - Blogs
 - Articles
 - Twitter
- Most important events
 - War conflicts
 - Catastrophes

Ranking

Semantic expressions for the most important things at this moment

Counting expressions

Ranked media content

Thank You for your attention!