

Content-based recommendations in e-commerce services

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Abstract

The subject of this paper focuses on issues of determining a semantic similarity between text documents and recommendations of similar documents. A detailed problem comes from the online auction site Allegro, which has a section of articles describing products available on the platform. This section offers a recommendation system for similar textual articles based on their content. The aim of this paper is to investigate a possibility of improving the existing recommendation system using semantic text analysis methods. In this paper, I adapt some state-of-the-art methods for determining a similarity between text documents to the above problem, I introduce measures to evaluate a performance of these methods and analyze possibilities of using them in the real system.

Keywords: recommendations, natural language processing, word embedding, semantics, allegro

I. INTRODUCTION

Recommendation systems are often part of web services.

The key issue of recommendations generation is how suggested items are relevant to these which the user is interested in.

We can divide recommendation systems into two groups: collaborative and content-based filtering. The first one assumes that user is likely to be interested in items which also users similar to s/he were interested in. In this paper we are focusing on the second group in which recommended items are similar to these that the user liked so far.

In this paper we strive to check if newly proposed word embeddings methods are able to replace recently used method based on Elasticsearch query.

Allegro - the biggest marketplace platform

in Eastern Europe contains a section presenting text articles concerning products available via the platform. Currently there is a list of links to articles similar to given one.

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II. METHODS

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Table 1: Example table

Name		
First name	Last Name	Grade
John	Doe	7.5
Richard	Miles	2

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Text requiring further explanation¹.

III. DATASET

Given dataset consists of 20000 textual articles concerning different products available via Allegro platform.

IV. RESULTS AND DISCUSSION

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$$e = mc^2 \quad (1)$$

¹Example footnote

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V. CONCLUSION

i. Subsection One

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ii. Subsection Two

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