

News Personalisation Recommender Systems

Peter Kolbeinsen Klingenberg, Master's in Information Science,
Department of Information Science and Media Studies, UiB
peter.klingenberg@student.uib.no

Media Futures



Abstract

This thesis focuses on how to make the digital news platform more personalised and appealing for a paying/registered user in Bergens Tidende/Schibsted.

Journalism and the interest in the news are as relevant and essential in today's society as they were before. Technology has not changed this, but it has helped to make more information accessible, contributing to an abundance of information. It is elementary to convey information or reach out in the myriad and round of available data.

The media today have far more competitors than before, as everyone can easily convey what they want online. The battle for attention is a significant challenge and technology has many opportunities to contribute in a good way.

Since the dawn of time, standing out has been important as minor differences could mean that customers prefer the competitors service instead.

Research question

1. How to enhance current news recommender systems in Norwegian language using news content and user behavioural data?

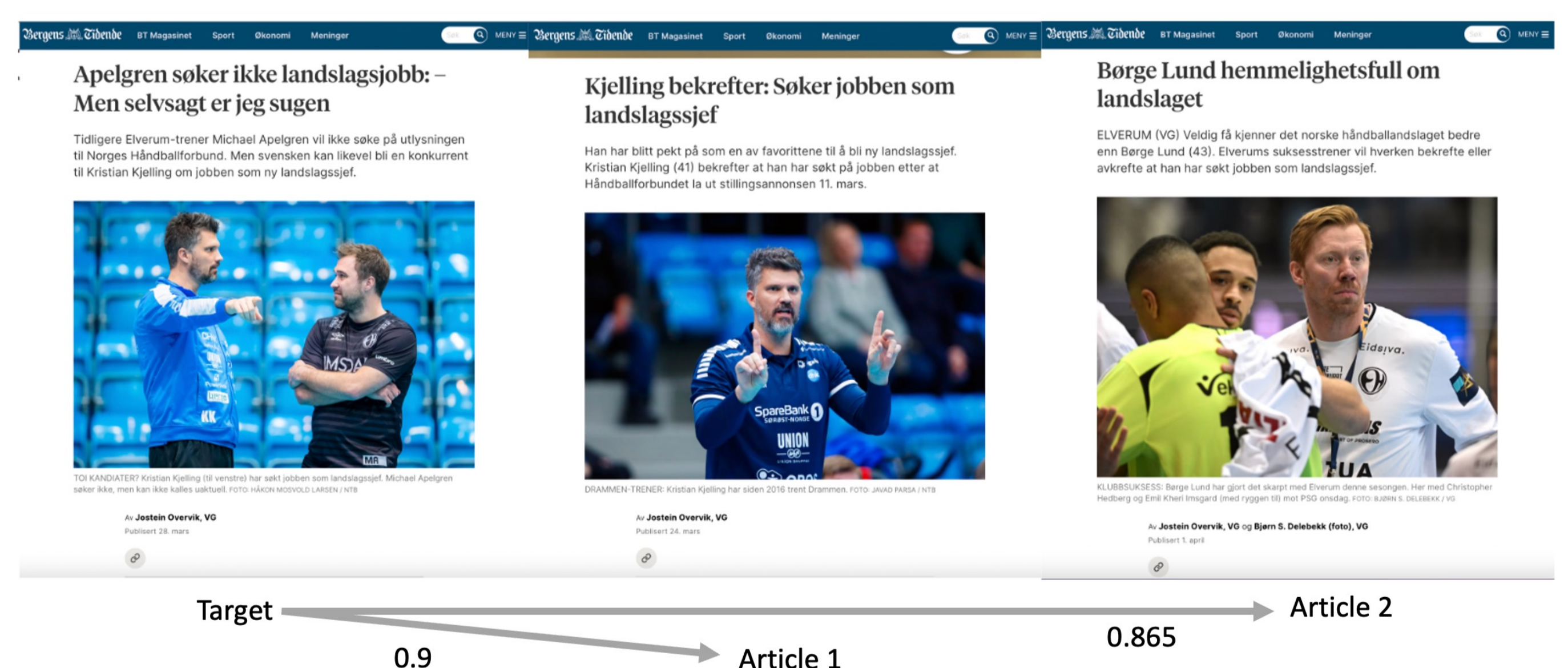
Methods

In recommender systems, there are two main techniques for recommendations for a user: Content-based filtering (CBF) and Collaborative Filtering (CF).

Content-based filtering focuses on similarity between articles. Approaches used in this thesis is similarity by the textual content of articles, based on cosine similarity of word embeddings in **Bert** and **TF-IDF**.

Collaborative filtering focuses on similarities between user patterns in user behaviours and interests. Different models are used to train machine learning models to predict a users interest, such as ALS, KNN, etc. The data primarily focuses on implicit feedback, i.e., whether or not user “read” an article.

The goal of this thesis is to compare these two methods and take advantage of both. This will help enhancing the output of news recommendation in problematic situations such as Cold Start, where no sufficient data is available to generate relevant recommendation.



Supervisors

Supervisor:

Mehdi Elahi, University of Bergen, mehdi.elahi@uib.no

Co-supervisor:

Thomas Husken, Bergens Tidende, thomas.husken@Schibsted.com

PARTNERS



HOST



UNIVERSITY OF BERGEN

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