

Inspiring Heterogeneous Perspectives in News Media Comment Sections

Escaping the filter bubble of comment sections

Jan Steimann, M.Sc., Computer Networks Group, HHU

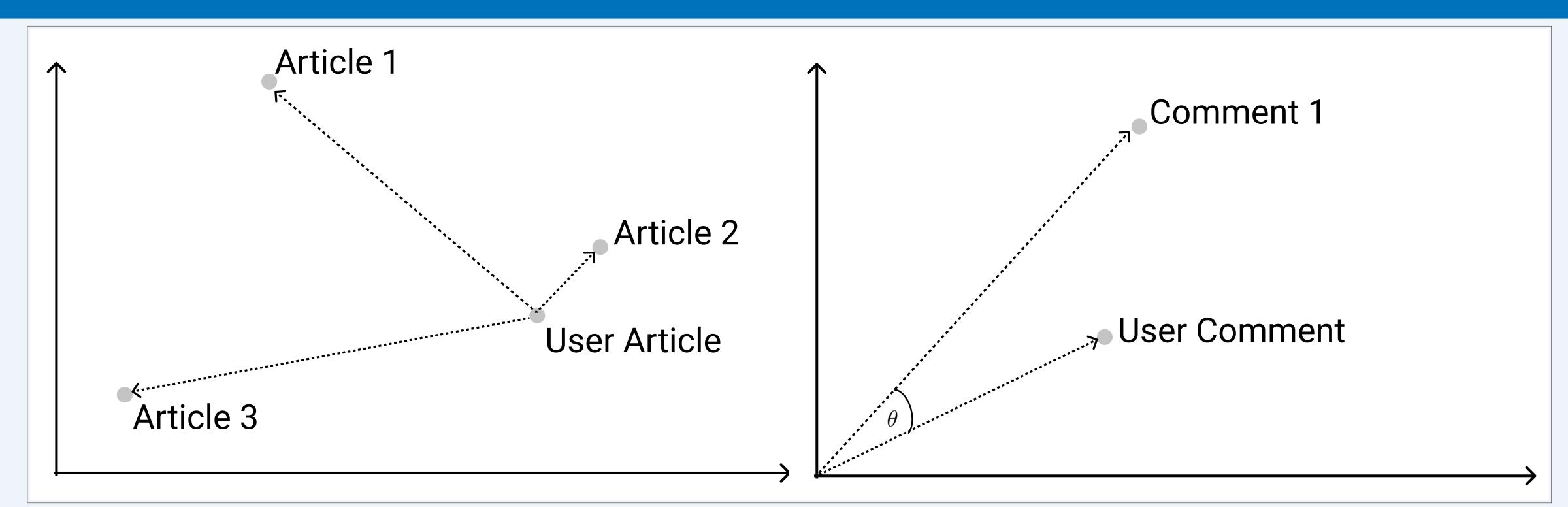
Problem Description

Discussions in the comment sections of news articles are often characterized by highly one-sided arguments. One reason is that users primarily consume information that fit into their worldview and consequently argue from their echo chamber when responding to a comment.

We are introducing a new approach for comment recommendation. Instead of presenting comments based on the previous behavior and interest, we recommend comments based on the comment the user is currently interested in. The system's selection provides different points of view on the topic and helps the user to form a well-balanced opinion.

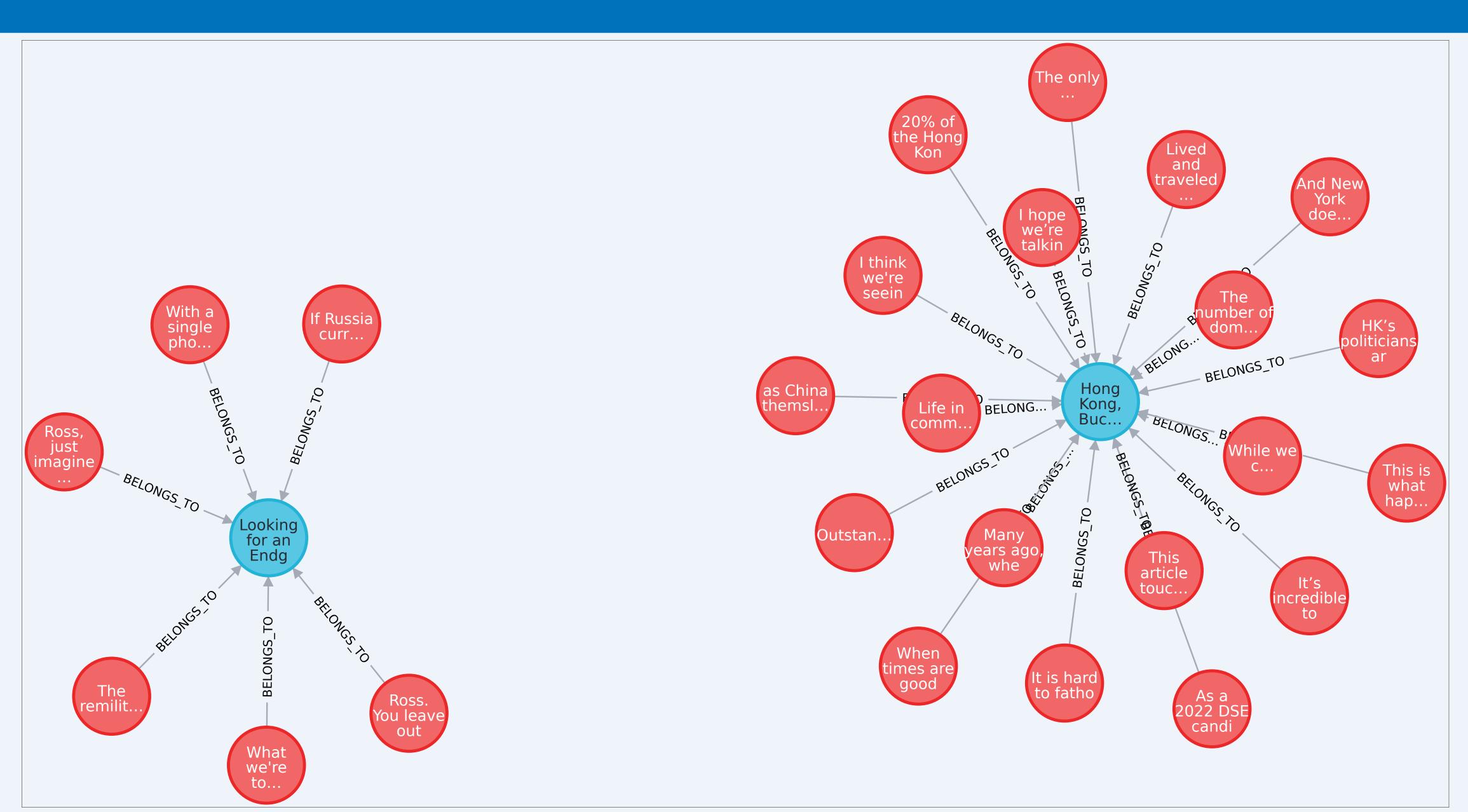
Based on this approach we are developing a multi-component ecosystem that can be adapted to various intended use-cases. The ecosystem contributes the practical application to our model and shows how our system could be used in a real-world environment.

Comment-Centric Comment Recommendation



Comment-Centric Comment Recommendation uses the comment the user is currently interested in to present a selection of comments to broaden the perspective of the user. For this, we developed a simple model as a baseline for future experiments. In the first step, the model searches for thematically related articles using a k-nearest neighbor search. In the second step, the model presents a selection of comments by sorting via sementic similarity.

Ecosystem



The *ecosystem* demonstrates the practical applicability of our approach. It consists of different components that can be customized for various real-world applications. For the interaction with the user, we have a Chrome extension front-end component with an interchangeable user-interface. In the backend, the server receives the comment the user is interested in and triggers the retrieval process by calling our recommendation model. The model retrieves the comments from our graph database which will play an important part in the future development of our model. We plan to use thematic nodes to increase connectivity in the graph and then weight the edges based on analytic scores.