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Abstract

This deliverable consists of a tool-based intervention aimed at helping users detect and mitigate bias in Web-based news sources.

| **Keyword(s):** | COVID-19 information, Google News, Demo system, Political bias, Web-based intervention |

Contents

1.   Executive Summary

As described in the CyCAT DoA, the goal of WP5 is to implement and evaluate a selection of the "solutions on paper" that were developed in WP4.

Deliverable 5.5 consists of a prototype tool/software, and is of the type "demonstrator." In a future deliverable, D5.6 ("Evaluation of tool-based intervention"), we shall present a detailed user study, which evaluates the effectiveness of our tool in raising users' awareness of the potential sources of biases in a Web-based search environment.

2.   Tool-based Intervention

Public access to balanced sources of news and information has become critical in the face of the COVID-19 pandemic. With this in mind, we developed a prototype system (see Figure 1), which enables users to explore Google News sources related to "coronavirus" as well as other related terms (e.g., "covid vaccine," "covid," "covid lockdown").

The prototype addresses biases in the search engines using two approaches:
1. *To visualise biases in the results*. The prototypes inform users of possible biases found in the results in the form of icons found in the right hand side of each article (see Figure 2).
2. *To re-rank the results*. Users may "rerank" the articles presented to them by Google using four aspects: the political bias of the article's source (i.e., publisher), the geographical location of the publisher, the geographical location of the article content, and the entity discussed in the article content (see Figure 3). This approach allows users to easily access content from different viewpoints and allows them to get a balanced view of the topic.

The prototype can be accessed online: https://cycat.group.shef.ac.uk/prototype/
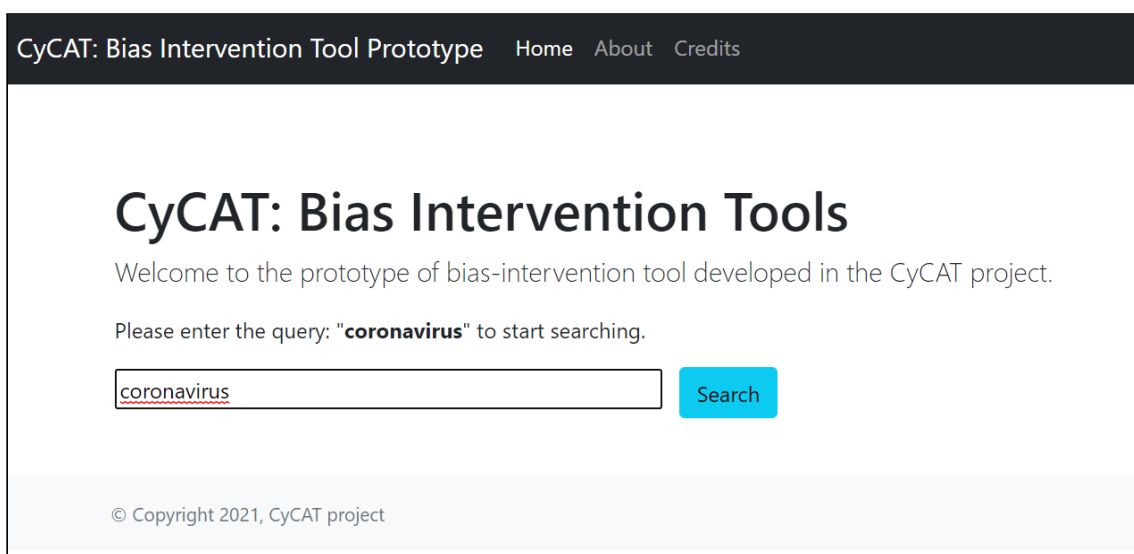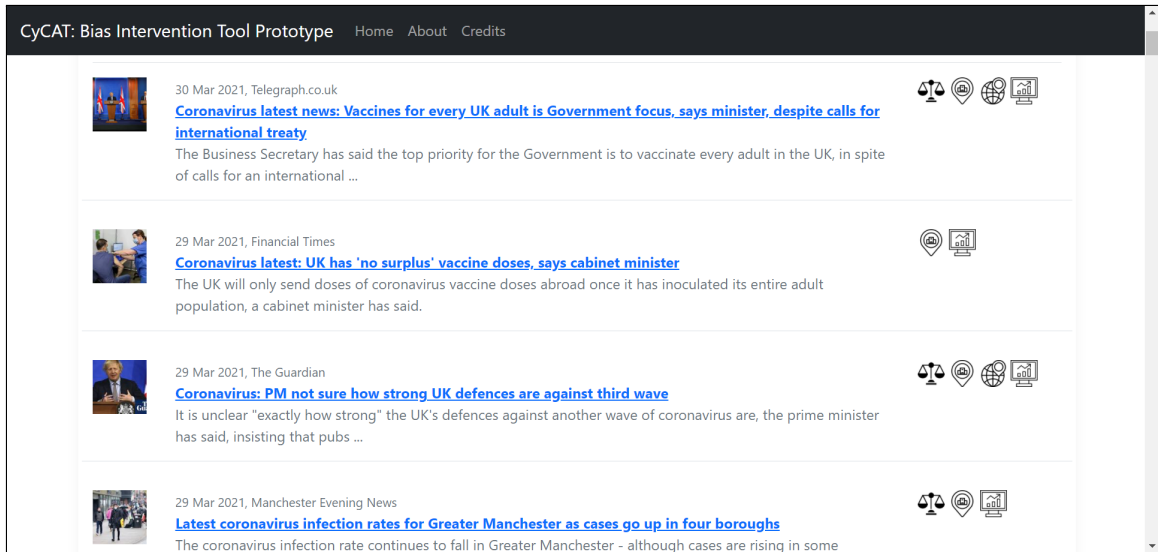

Figure 1. Prototype main page

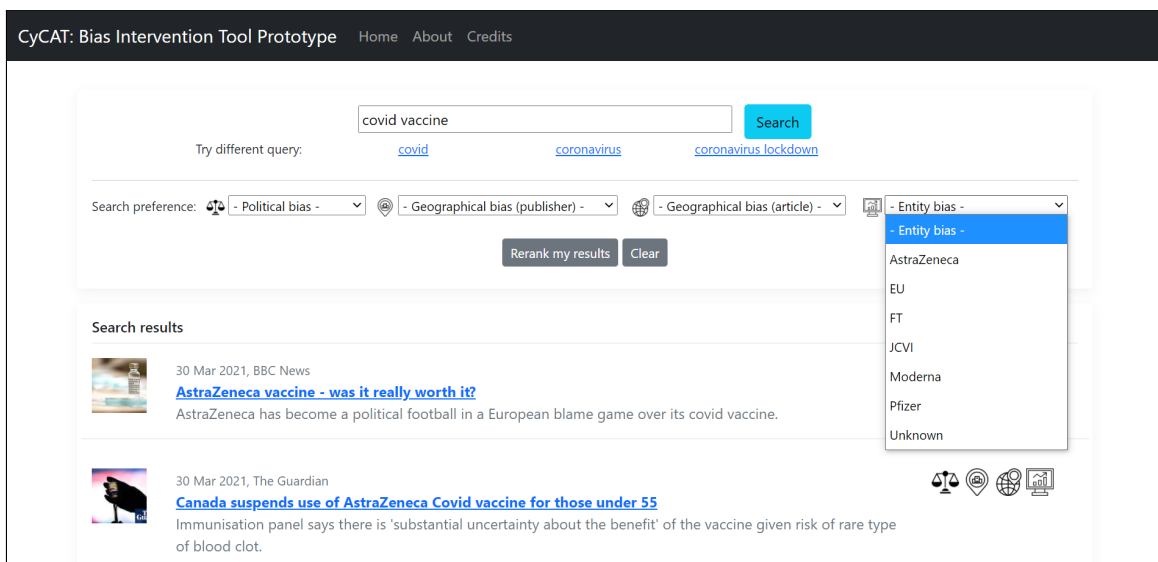Figure 2. Bias visualisation features in the prototypes

Figure 3. Results-reranking features in the prototype (e.g., based on the entities discussed in the article content)