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COSC490

Research Project

No More 10 Blue Links

*“Search engines famously produce a results list containing 10 results and 10 blue links to the pages. In this project, we will ask if it is possible to go beyond the 10 blue links, to a two dimensional representation of the results. Most queries contain fewer than three words, so the results could be presented as a graph with each axis representing the relevance of a document with respect to a given term. With 3-term queries, this could be done in 3D. We will take the output of a search engine and draw the results rather than listing them, and then we will test the quality of our presentation using human subjects”* – COSC490 Project List

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# Introduction

This research project focuses on testing an alternative to the current interface provided by popular search engines such as Google, Bing, Ask, and many others. Rather than showing the famous “10 Blue Links” that each of these provides, this test will show each of the ten links on a graph, where the first two terms of the search are shown along the x and y axes, where the site which best matches the first term will be further from the origin on the x axis, the second term on the y axis. For the third term, multiple options may be explored to show how well or poorly this term is matched for each site. Some options being considered are dot size, dot colour, numerical ranking or even adding a z-axis.

The overarching goal for this research project is to produce a fair evaluation of the visual search display. I hope to estimate how useful this interface is in a few key areas; ease of use, effectiveness, and willingness to use. Each of these will be tested by an “average” user. The average user is here defined as someone that is familiar with the use of a search engine to find information, but has no direct instruction in the use of a visual search display.

Ease of use considers how easily a first-time user navigates the interface. It is important that the test users are not deliberately led to a “positive result”, and so a key consideration for the experiment is to not interact with the users beyond what is on the screen. All the necessary information to use the interface should be provided on the screen, as it would be in a real-world environment.

Effectiveness considers how useful this tool is for finding a solution. This could be user-rated, as in the user subjectively decides that it was quicker to use a “Blue Links” interface, or something measured objectively, such as the number of clicks used to find the answer to a question, or the time spent between the search starting and the answer being found.

The user’s willingness to use this interface is another question I will be asking. Even if it’s easy to use and effective, a user may decide they’d rather stick to a comfortable and reliable current interface. It will be useful to ask whether the test users would consider using this option if available, or ignore it in lieu of current solutions.