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ABSTRACT

Search engine sites can be thought as Internet's Yellow Pages. It is the number one way users find new sites and information. According to survey results, over 85% of users rely on search engines to navigate and filter through the amount of data on the web. However, a lot of users only use and are aware of the services of major sites like Yahoo and Google, which are both very efficient and effective, but other search engine services provide different functions and approaches that can be extremely beneficial to users. In addition to its ability to sort and filter data to users, technology has also enabled us to observe and analyze the things an individual searches to a grand scope of what social and cultural information is being passed on and highlighted. In my project I aim to educate users who experience brand loyalty to one search engine or who might be unaware of the range of search tools available to them on popular search sites that are used today. Additionally, I want to begin to explore the concept of how users can visualize themselves through what they search with what the rest of the world is searching.

INTRODUCTION

The amount of information on the web is growing rapidly. These information and resources are valuable only if they can be accessed and used by people efficiently and effectively. However, as information become more readily accessible, search engines are advancing in their ability to collect and organize these data. For example, survey indicates that 85% of users use search engines to locate information on the web. However, there still exist a number of new users inexperienced in the art of web research and users who simply stick to one search engine regardless of the type of content they are seeking.

I. BACKGROUND (artist statement)

My motivation came from wanting to find my own footing in the web world. I discovered that though I have been a frequent user of the Internet for several years now I am still not close to comprehending the type, quality, and range of information online. Additionally around the same time, I had been infected by viruses through msn messenger and was curious as to where this information was coming from on the web, who was sending it, and the motivation behind it.

II. CONCEPTS (impetus/motivation/ /design/technology goal or socially-oriented goal)

My initial prototype concepts revolved around data transmission. While taking an intro to computer application class, the assumption I had of how information is transferred on the web had been broken and left a strong impression in my mind. I had set out to visualize what the breakdown of information into little packets online would look like while it travels from one place to another. However, thought it would serve the purpose of demystifying data transfer on the internet, it would not be something of significant purpose or use. However, after analyzing why I had been persistent in pursuing these data transfer prototypes, I realized that it was the first mistake and assumption that I had made while first learning the backend of web technology that I wanted to address.

III. RELATED WORK (situating in context/ identification of peers)

While in the process of prototyping data transfer visualization I also started my research on memes. One expert studying memes was Cameron Marlow, the creator of Blogdex. Blogdex is like a search-engine spider that looks at weblogs and extracts and ranks the most popular hypertext links. Cameron expressed, "It's a way of looking at Internet memetics, the way memes evolve and develop over time." Another example is Yahoo Buzz, which reflects what subjects Yahoo users all over the world are searching for. Yahoo is able to break the information they collect from their users and determine subjects with the greatest percentage increase in buzz score from one day to the next, the buzz movers. Meanwhile Google has its own meme-like feature called Google Trends. Its "Hot Trends" section will reveal the hottest queries for that day.

V1. METHODOLOGY (identification of techniques and valuation of approach)

I then examined my research again and decided to focus on what I feel is the gathering place for memes, search engines. I felt that starting with educating on search engines is appropriate because they have become a large part of the web experience and because it is a place where the analysis of what people search become part of and a reflection of what our culture is interested in or want to know.

With this goal in mind I focused my users to people who have brand loyalty to a search engine or people who are unaware of the possible search tools that are available. I began to research on search engines guides that are already on the web and discovered that many of the sites had lists after lists of search engines sites and many of the contents were text driven. After looking at web search engine guides like The Best Search Engine and Internet Search Guide, I decided that my design criteria would be to create a site where people can easily navigate through to learn about search engines. Moreover, I wanted information to be stripped to the essentials to avoid information overload. Furthermore, presenting the contents in a visually appealing manner and concept would not only set it apart from the other sites that guide but also induce a fun learning environment.

VII. IMPLEMENTATION (both idealized design and prototyped solutions)

The idealized design would be a website that dissected each featured search engine into categories. The site should also allow users to determine what type of information they are looking for to return the best search engine for them to use.

What emerged while executing the educational site about search engines was another rough idea of how a person can see the searches that they make in relation to the rest of the world. The concept for the trends builds on Google and Yahoo's existing meme tracking features. The way it works is that the go board would be divided into different categories such as entertainment, news, sports, and so on with shades of color that indicated the degree to which the rest of the world are searching for those topics. It would visualize what the user searches by indicating it with go stones on the go board. Technical aspects would be interpreting what the rest of the world is searching through either Google Trend or Yahoo Buzz. The individual's search results can be tracked by Yahoo's Site Explorer.

VIII. RESULTS (analysis, critical reflection, real-world application)

With the education search engine site I received positive feedback on the design and look and feel of the overall theme. However there are still issues such as filtering of information that have yet to be resolved. I made a choice to include for now general, blog, academic, and visual search engines because I felt they were common tools that should be learned and they are areas where many ideas gathered and spread and are still being molded and developed based on user feedback and needs. General search engines include popular search tools like Yahoo, Google, and Ask.com. Blog search engines were introduced because of their increasing

importance. For example, “just a few years ago, the term "blog" didn't exist. Now, many people follow their postings as they would a favorite television show. Others turn to them for news.” Academic search engines were introduced to combat the weakness of the questionable reliability of information generated by general search engines. However, filtering search engines in those categories is even a challenge because there are so many. I've for now determined what search engines to showcase based on expert evaluations and the popularity of their use. Through the general four categories introduced thus far, the aim is that users will have adequate tool to navigate through the web and vary their search depending on the information they use.

Another design challenge I encountered was trying to move the presentation of the contents away from lists of names. Visually I used their logos instead and I do think that helps with the visual recollection and memory because each logo is unique. However, though the first visual impact does not scream giant long listing, fundamentally it is still a list format. I think it is still an effective way to organized though I would have like to come up with another way of showcasing these contents.

VIII. CONCLUSION & FUTURE WORK (contribution)

Some aspects of my site are still in working progress and needs to be flushed out. If it was to be developed further, I think the trends section is something that is interesting and can be developed further with the goal of increasing awareness of the content we are interested in and what the rest of the world is consuming. In one aspect I had envisioned this tool serving as a self monitoring guide when users see that they are not keeping up with current events and topics in relation to the rest of the web participants.

Additionally, I think people would like to see themselves and what their status is in regards to other people. Some of the current methods of how this is achieved are through Yahoo and Ask.com, where auto complete text feature of users' searches reflect what others have looked up and are interested in finding. Visualizing a virtual space of search engines and searches may be where the future of search engine and online navigation is heading. For example, Yahoo Korea began to explore this with Webzari. Webzari represents websites as planets with size determined by the number of links they have. Planets' attraction to one another is also determined by the number of links between them. The user is a space ship that navigates through the universe.

Though many researches have been conducted regarding search engines, such as their functionalities and services, development in understanding how we can better improve our search is still in progress. If this project was to be taken further, the goal would be developing new and more efficient ways of executing searches and visualizing search engines in a more accessible way that moves away from data in the text format into more creative ways of navigating to different search engines. Perhaps mapping engines to different virtual spaces on the web would be the future of search navigation.

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