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A STUDY ON VERTICAL AND BROAD-BASED SEARCH ENGINES

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Abstract-Vertical search engines or Domain-specific search engines[1][2] are becoming increasingly popular because they offer increased accuracy and extra features not possible with general, Broad-based search engines or Web-wide search engines. The paper focuses on the survey of domain specific search engine which is becoming more popular as compared to Web-Wide Search Engines as they are difficult to maintain and time consuming .It is also difficult to provide appropriate documents to represent the target data. We also listed various vertical search engines and Broad-based search engines.

Index terms: Domain specific search, vertical search engines, broad based search engines.

I. INTRODUCTION

The Web has become a very rich source of information for almost any field, ranging from music to histories, from sports to movies, from science to culture, and many more. However, it has become increasingly difficult to search for desired information on the Web. Users are facing the problem of information overload , in which a search on a general-purpose search engine such as Google (www.google.com) results in thousands of hits.Because a user cannot specify a search domain (e.g. medicine, music), a search query may bring up Web pages both within and outside the desired domain.

Example 1:
A user searching for “cancer” may get Web pages related to the disease as well as those related to the Zodiac sign. As a result, the user has to browse through the list of results to identify relevant Web pages, a task which requires significant mental effort. Directory services such as Yahoo! (www.yahoo.com) provide users with a hierarchy of classified topics. While the precision is high, recall rate suffers as each page included in the results has to be manually evaluated. When we know that we want information of a certain type, or on a certain topic, a vertical search engine can be a powerful tool.

Example 2:
Assume for a moment that you are trying to book a flight online. There are of course many ways to get the job done. The question is —what's the best way?
You could go to a general search engine such as Google or Yahoo, and search for the term

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"flights." The list of results would likely lead you to a discount Web site. Orbitz.com is an especially popular one.

What's wrong with this approach?
Search for the term "flights" on Google and the search engine will display some 93 million results. How do you know which sites are the best? Some of the top-ranked sites aren't even based in the United States.An alternative is the vertical search engine, a relative newcomer to the search engine front. The idea is to restrict the number of Web sites a search engine crawls and generate a smaller, more targeted list of search results. Searching for a flight on farecast.com, a vertical search engine, would allow you to get prices from the all of the airlines, and Orbitz, all in one place.Web sites which focus on particular topics and which especially allow you to search for information relating to those topics. The "vertical" term comes out of the idea that these are places where instead of searching horizontally, or broadly across a range of topics, you search vertically within only a narrow band of interest."
A Vertical Search Engine[3][4] can be defined as one that only contains content gathered from a particular narrowly defined web niche therefore the search results will only be relevant to certain users. Vertical search engines are also referred to as vertical portals -vortals, specialty search engines and topical search engines. When we think of a search engine we automatically think of a "broad-based" search engines such as Yahoo, Google, MSN, Altavista, Ask and Dogpile. Currently, these engines dominate the online search market however specialized search engines for niche markets are increasing in popularity.

Benefits of vertical search engines:

Vertical search offers several potential benefits over general search engines:

- Greater precision due to limited scope,
- Leverage domain knowledge including taxonomies and ontologies,
- Support of specific unique user tasks.

II. VERTICAL SEARCH ENGINES

Scirus:

Scirus is the most comprehensive science-specific search engine available on the Internet. Driven by the latest search engine technology, it enables scientists, students and anyone searching for scientific information to chart and pinpoint data, locate university sites and find reports and articles quickly and easily. It was launched by Elsevier Science, the leading international publisher of scientific information

Google Scholar

It is a freely accessible web search engine that indexes the full text or metadata of scholarly literature across an array of publishing formats and disciplines the Google Scholar index includes most peer-reviewed online academic journals and books, conference papers, theses and dissertations, preprints, abstracts, technical reports, and other scholarly literature, including court opinions and patents. content is accessible through the below url.
https://scholar.google.co.in/

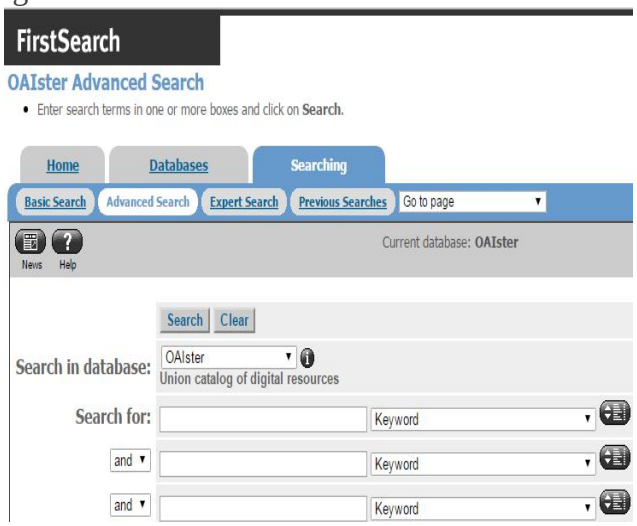
CiteseerX

CiteSeer was a public search engine and digital library for scientific and academic papers, primarily in the fields of computer and information science, that has been replaced by CiteSeerX. Many consider it to be the first academic paper search engine. It became public in 1998 and had many new features unavailable in academic search engines at that time. These included:

- Autonomous Citation Indexing automatically created a citation index that can be used for literature search and evaluation.
- Citation statistics and related documents were computed for all articles cited in the database, not just the indexed articles.
- Reference linking allowing browsing of the database using citation links.
- Citation context showed the context of citations to a given paper, allowing a researcher to quickly and easily see what other researchers have to say about an article of interest.
- Related documents were shown using citation and word based measures and an active and continuously updated bibliography is shown for each document.

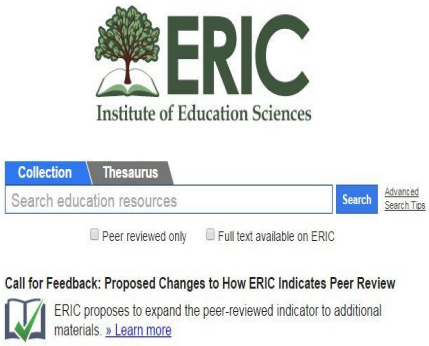
Oaister

OAIster is a union catalog of millions of records that represent open access resources. This catalog was built through harvesting from open access collections worldwide using the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH).OAIster includes more than 50 million records that represent digital resources from more than 2,000 contributors.content is accessible through the below url.
http://oaister.worldcat.org/



Education Resources Information Center (ERIC)

ERIC is an online digital library of education research and information. ERIC is sponsored by the Institute of Education Sciences of the United States Department of Education. The mission of ERIC is to provide a comprehensive, easy-to-use, searchable, Internet-based bibliographic and full-text database of education research and information for educators, researchers, and the general public. Education research and information are essential to improving teaching, learning, and educational decision-making. content is accessible through the below url.
https://eric.ed.gov/

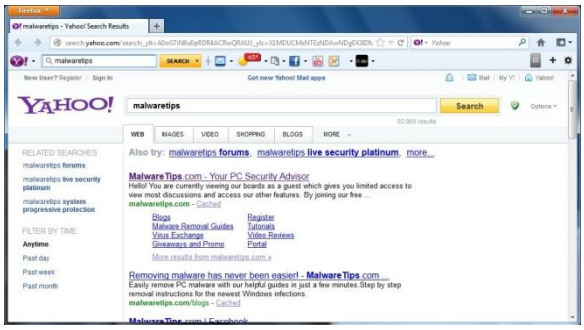


The above mentioned are few examples in vertical search engines or domain specific search engines.

III. BRAOD- BASED SEARCH ENGINES

yahoo

Yahoo is an Internet portal that incorporates a search engine and a directory of World Wide Web sites organized in a hierarchy of topic categories. As a directory, it provides both new and seasoned Web users the reassurance of a structured view of hundreds of thousands of Web sites and millions of Web pages. It also provides one of the best ways to search the Web for a given topic

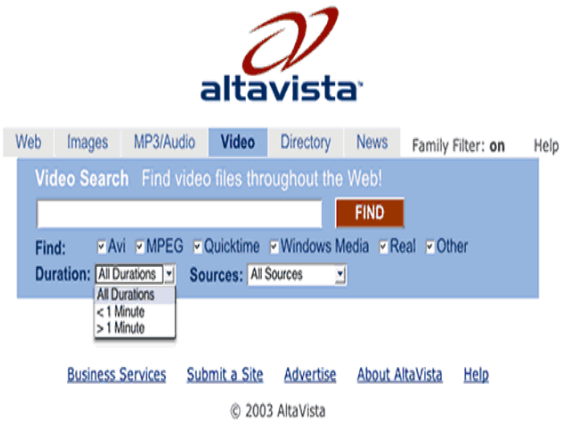


Google

Google Search, commonly referred to as Google Web Search or simply Google, is a web search engine developed by Google. It is the most-used search engine on the World Wide Web handling more than three billion searches each day. The main purpose of Google Search is to hunt for text in publicly accessible documents offered by web servers, as opposed to other data, such as images or data contained in databases. content is accessible through the below url www.google.com

Alta Vista

AltaVista is a popular search engine on the Web. In addition to full-text searches, AltaVista can also search graphic images and tell you who is linked to your own Web pages. AltaVista's search robot, known as Scooter, can look at and collect data from three million Web pages per day. Its indexer, Ni2, indexes one gigabyte of data per hour. content is accessible through the below url
www.altavista.com



Dogpile

Dogpile is a metasearch engine for information on the World Wide Web that fetches results from Google, Yahoo! and Yandex, and includes results from several other popular search engines, including those from audio and video content providers.content is accessible through the below url.
www.dogpile.com

IV. CONCLUSION

A Vertical Search Engine contains content gathered from a particular narrowly definedweb niche so that the search results will only be relevant to specific users. Vertical search engines are also referred to as vertical portals or topical search engines. Broadbased search engines include Yahoo, Google, MSN, Altavista etc. Currently, these engines dominate the online search market however specialized search niche markets are increasing in popularity. Broad based search engines such as Google are not the ultimate for web searching as they are cluttered with all the returned information that matches the words in the requestor's query however relevant or irrelevant they are to what they want. One of the biggest specialized engines at present is LookSmart. The cost to compete on a vertical search engine is much lower than on general search engines, and marketers can expect much higher clickthroughs and conversions on their search ads, as well as a higher return on investment on their marketing campaigns. There are many benefits of advertising on vertical search engines versus Google AdWords if you pick the right vertical for your product or service.

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