СЕКЦІЯ 5. ОСОБЛИВОСТІ ІНФОРМАЦІЙНОЇ ТА ДОКУМЕНТОЗНАВЧОЇ ДІЯЛЬНОСТІ

УДК 004.62(043.2)

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THE PROBLEMS OF RELEVANCE OF INFORMATION RETRIEVAL SYSTEMS

The modern world is characterized by the use of new information technologies in the all areas of human activity. Information is a determining factor in the development of society. All information space in which a person exists is increasingly deepened into the Internet.

The emergence of a global information computer network made it possible to quickly receive information from anywhere in the world. Today search engines are one of the most widespread means of information computer technologies.

The first search engines appeared on the Internet in 1990. At first, it implemented only the function of finding links to newly created pages. At the initial stage of the emergence of the Internet, the number of network users was limited, and the amount of information was relatively small. Today, search engines have become a multifunctional service with their own services. It allows users to search the Internet for a wide variety of information, so they are in great demand.

The first computer program to search the Internet was Archie. Archie began as a project for students. The program downloaded lists of all files from all available anonymous FTP-servers and built a database that could be searched by filenames. However, Archie did not index the contents of these files and did not recognize natural language queries. Archie has since been supplanted by other more

sophisticated search engines including Jughead and Veronica. These were later supplanted by search engines such as Yahoo! in 1995 and Google in 1997. Work on Archie ceased in the late 1990s. The outdated Archie server is still used for historical purposes in Poland. It was the first search engine on the Internet [2].

The problem of searching and collecting information remains one of the important problems of search engines. In the twentieth century, with the advent of the information age, the problem of finding information has changed. Previously, it consisted in the fact that the amount of information was not enough and therefore it was difficult to find it. But now it lies in the fact that now there is an overabundance of information. Every day, the volume of data is growing exponentially, so finding the answer to a question of interest can be a very difficult task.

In addition, the information search problem also complicated when users use virtual sources. It uses the technology of online catalogs, due to the use of which, the user has the right to search in the catalogs of two or more libraries at once. Thus, this further complicates the task, but, on the other side, increases the probability of its solution.

Thus, the main task of any information retrieval system is to search for information that matches the information needs of the user. It is very important not to lose anything as a result of the search, that is, to find all the documents related to the query (search completeness), and not to find anything superfluous (search accuracy). That is why relevance is established – a qualitative characteristic of the search procedure.

In search engine optimization, the concept of «relevance» is used by search engines in order to build search results that suit the interests of the user. The relevance calculation takes into account both internal and external factors.

Internal factors indicate how well the text of the document is suitable for disclosing certain search queries. It should be noted that internal factors also include the behavior of people on a page with text. External factors are external links and references

There are three types of relevance, which are formed by the behavior of persons or programs:

- *Formal relevance* is the relevance at which the decision is made by the robot. The robot compares the pages in the SERPs with its ideas about the ideal response to the request and, based on the received data, creates a rating of relevant sites.

- *Content relevance* is the correspondence of a document to an information request, determined in an informal way. It uses an analytical approach to assess the quality of page content. The assessor gives the relevance score. Assessor is a search engine specialist who evaluates the results of search results. So in this case, a person, a specially trained specialist, is responsible for the relevance.

- *Pertinent relevance* is the correspondence of the results found by the information retrieval system to the information needs of the user, regardless of how completely and how accurately this information need is expressed in the text of the information request. In other words, it is the degree of matches of the result what the user meant by his request. That is, the users themselves are responsible for satisfying the requests. This kind of relevance is determined by behavioral factors. The algorithm is simple: if people go to the site upon request, then it is suitable. [1]

Thus, one of the global problems facing search engines is the satisfaction of the user's information needs. The information system is faced with the task of understanding what the user wants to see in the search results when he enters some search query.

Understanding the user's intentions by search engines will allow the search engine to generate the most appropriate search results, thereby satisfying the user's requests. A satisfied user will return to this search engine again, because it "understands" well what he wanted to receive in response to his request.

The enormous volumes of information that have been accumulated, combined with the continuously increasing rate of information growth, determine the relevance and significance of research in the field of information retrieval. The rapid development of network technologies, including the Internet, contributes to a

significant increase in the available information resources and the volume of transmitted information. Often this is heterogeneous, poorly structured and redundant information with a high update rate.

The problem of low pertinence of information retrieval is due to the complexity of formalizing the user's information needs in the search query used by search engines.

Література

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УДК 621.797:621.664(043.2)

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ЗАВДАННЯ ТА ФУНКЦІЇ ІНФОРМАЦІЙНИХ СИСТЕМ В СИСТЕМІ УПРАВЛІННЯ ПІДПРИЄМСТВОМ

Сучасне виробництво просто неможливо уявити без інформаційних технологій, які забезпечують інформаційні потреби управлінських, виробничих та інших структур підприємства. Саме вони дають можливість раціонально розпоряджатися ресурсами підприємства.

Оскільки матеріальні та фінансові ресурси будь-якої організації завжди обмежені, ключовим фактором успішної економічної діяльності є прийняття правильного і вчасного рішення. Саме актуальна інформація дозволяє концентрувати ресурси в потрібний час у потрібному місці задля вирішення