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СЕКЦІЯ 2. ПРОГРАМУВАННЯ ТА ІНФОРМАЦІЙНО-КОМУНІКАЦІЙНІ ТЕХНОЛОГІЇ

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Promotion of Internet resources and environment link

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Introduction. Developers of search engines strive to ensure that the user of the system receives links to his/her requests to the most suitable online resources that contain exactly the information he/she is looking for. Thus, the degree of semantic content compliance of this resource to corresponding search request is called relevance and the process of order appointment to resource in which they will be located in the search results for a particular request is called the site ranking [1, 2]. Algorithms of sites ranking have changed during evolution as a global network and search engines. In particular, at the phase of development for webmasters it was enough to specify in the meta tags the following: themes, description and keywords to be referred to relevant topics and to be rank highly by the keywords by search engines. Over time, there are more and more online resources and first optimizers with the purpose of attracting more visitors to the resource began to prescribe in meta tags popular keywords that actually did not correspond to the site topic, which served as the impetus for significant improvement of algorithms ranking by taking into account: content of online resource, its trust rank and reference environment.

Overview of literature. The analysis of publications [3] shows that there is a set of researches related to the influence of content quality and trust rank of the resource in its ranking. However, there are almost no authoritative studies relating to reference environment impact analysis, and existing attempts [1] lie in tries of some researchers and seo optimizers to fill this niche. Given that the important task of the research is: to determine the impact on the environment reference on resource ranking in the search engine and formation of the methodological basis for the implementation of recommendation systems of popularization of Internet resources.

Major research results. The conducted analysis of the popularization features of internet sources shows that two types of links are used in practice: internal and external. The use of internal links can equally distribute the weight between the pages of Internet resources. Thus, they can implement a reference as at the beginning of the current page (anchor) and another page of parent resource. This not only facilitates to transfer of pages weight and accordingly to promotion under a particular topic, but also affects the usability of internet resource. It creates a kind of links with the use of attribute *name* (bookmark name) tag A (creating bookmarks page1):

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Then the name of the bookmark is needed to be specified for the jump in a

tag (or so-called internal address of the jump):

Address begins with # sign, followed by the bookmark name - page1. Similarly links to bookmark to another resource document are implemented (document name # bookmark name):

 Links on the page 1 of another document
External links to other resources are also created by using the tag attribute <A> - href, which is used as the meaning of URL-address:

This type of links is assessed by using the technology TrustRank, which is a filter of search engine. The task of TrustRank is a division of "useful" resources from the "extra" ones, created exclusively for the promotion of Internet resources. In particular, if there are a lot of links from the resource and they lead to websites with low attendance and trust rank, TrustRank introduces algorithm of resource weight reduction in the search results.

The conducted study showed that the most important criteria to be considered in creating a reference environment are the following: the number of links (the optimum number of outgoing links depends on the topic of Internet resources, with not more than five on one page); topicality (online resource from the pages of which there are links to resources of various topics, can be perceived by search engine as advertising space specializing in links sale leading to the downgrade); trust rate (outgoing links to resources with high ratings are positively assessed by search engine, particularly if their trust rate is higher than the resource that is moving).

Conclusion. The article shows the influence of the reference environment on a ranking of the resource in the search engine and highlights the main criteria to be considered in the promotion process. The proposed approach creates the methodological basis for further implementation of recommendation systems of Internet resources popularization in a global network.

References

- 1. **J. Jantsch and P. Singleton. 2016.** SEO for Growth: The Ultimate Guide for Marketers, Web Designers & Entrepreneurs. Wiley, 238p
- 2. **T. Basyuk. 2016.** Popularization of website and without anchor promotion. Proceedings of the XI International Scientific and Technical Conference «Computer science and information technologies CSIT-2016», 193-195, IEEE (DOI:10.1109/STC-CSIT.2016.7589904).
- 3. **Alpar, M. Koczy, M. Metzen, 2015.** SEO Strategie, Taktik und Technik. Springer Gabler, 538 (in German).