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## RESEARCH ON SEO STRATEGY FOR DEVELOPMENT OF CORPORATE WEBSITE'S

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**Abstract:** - Along with the speedy growth of network information, using search engines to search information has become an essential part of one's life every day. In recent years, there is a research focus on the search engine optimization technologies used to rapidly publish business information onto the search engines by which higher rankings can be kept. After the establishment of the sites, then companies facing the problem of how to promote the sites, and search engine promotion is a good choice. But then we should consider how to do search engine optimization (SEO). The present paper analyzes the impact of receiving and recording of search engines and SEO strategies from those aspects: directory structure, keyword strategy, URL pseudo-static, code optimization and inbound link and proposes the optimization tactics for the development of a website.

**Keywords:** - component; Search Engine Optimization (SEO); Web Design methods; Internet marketing

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### I. INTRODUCTION

As the Internet develops, enterprises are faced with increasingly fierce challenges in the network economy and the choice of effective marketing communication tools would be the key for an enterprise to win in the competition. Because of its unique and rapid search function of information, search engines have become a powerful tool for network marketing.

Enterprises expect to get a better ranking involved in search engines so that the competitiveness of enterprises can be improved. Under such circumstances, the search engine optimization has been developed rapidly in China and gradually formed an industry demanding in-depth research. Search Engine Optimization is referred to as its abbreviation of SEO. Aiming at its retrieval capability of WebPages, Search Engine Optimization demands the basic elements of a website should be constructed to fit the search engine retrieval principle so that the possible web-pages can be to gained by search engines and higher ranking in the natural search results of search engines can ultimately achieved to realize the purpose of website promotion. Based on the receiving and recording of search engines and their ranking rules grasped, the present paper, applying the search engine optimization techniques to the entire process of website development, researches and analyzes a set of website development tactics appropriate for the receiving and recording of search engines and ranking rules to provide reference for the developers of corporate websites in their Search Engine Optimization [8].

### II. SEO AND RELATED CONCEPTS

### **A. SEO concept**

SEO (Search Engine Optimization) is the techniques of how the search engines crawl the Internet pages, how to index and how to find out the search result ranking of a particular keyword, to optimize the content of the page to meet with search engine users browsing habits, to get better search engine ranking without prejudice the user's experience, and to improve the volume to the site, and finally improve the marketing capability of the site. In short, SEO is to make the sites get better rankings in the search results list.

### **B. SEO approach**

SEO approach includes Off-site SEO and On-site SEO. Off-site SEO, is the search engine technology that separate from your own site. The name originates from other sites' influence on your site's ranking, and these external factors are out of control of your site. Inbound links (other sites linking to your website, also known as backlinks) are the most necessary factor among these external factors. On-site SEO, is the optimization of the site structure and site design elements, which can be controlled by the site itself. On-site SEO includes the optimization of the site directory structure, URL pseudo-static, code optimization, heterogeneous text, inbound links etc.

### **C. PR value**

Page Rank (Page Rank value, PR value for short) is one of Google's measurements of a page's worth based on the quantity and quality of both incoming and outgoing links. The concept behind PR value is that each link to a page constitutes a vote. Google awards PR value on a scale of 0 to 10; a PR value of 10 is the most desirable and very rare. The PR value scale is not linear, so the difference between 4 and 5 is greater than the difference between 3 and 4. And remember these points:

- Google's ranking algorithm is not based entirely on inbound links
- More often than not, pages with high PR value have higher Google rankings than pages with lower PR value
- A high PR value does not guarantee a high Google rank

## **III. AN ANALYSIS ON THE RECEIVING AND RECORDING OF SEARCH ENGINES AND RANKING RULES**

At abroad, an analysis, issued by "Webconfs Search Engine Tools Network", on Google, MSN, Yahoo and other search engines has found that there are 77 major factors affecting the receiving and recording of search engines and ranking rules, including correct, wrong and some neutral factors. The huge majority of factors apply to Google while some applies to MSN, Yahoo and other non-mainstream search engines. Although each search engine's ranking algorithms are differentiated, there is still an overwhelming part which is of common nature. Therefore, such an

Analysis would also be useful for Baidu, Yahoo and some other domestic search engines in their related optimization. Positive factors included in the 77 factors impacting the receiving and recording of search engines and ranking, when getting removal of negative factors and neutral factors, were aggregated in a comparison according to the category to draw the analysis chart shown in Figure 2 from which it is found that the highest score reaches 26 points for "link" factor, "keywords" factor reaches 25 points. So, these are two main factors affecting the receiving and recording of search engines and ranking, which would be deemed as the leading direction for drafting the website development tactics. Meta tags, except for Description and Keywords, have become increasingly unimportant since they are getting smaller and smaller impact on search engines. Besides, the 77 impact factors in the chart are not immutable because, in 2009, the search engine algorithms of Baidu and Google have been adjusted in a certain extent that brings new changes onto search engine optimization [8]. Only the continuous research and analysis on changes of search engine algorithms can always keep an enterprise's high rankings of its website involved in the search engine optimization process.

## IV. SEO STRATEGIES

### A. Site Structure Improvements

Search engines have a restriction on crawling depth. For search engines, the best structure of a site is the single directory structure, a flat structure (Flat). If website is small enough that absolutely every page on the website is available within two clicks from the home page, then the suggestions are:

- Major information (such as product's description etc.) can be visited from the home page
- Using text links to provide global navigation on every page of the website
- Prompting the path from home page to current page on every page of the website

But if the website is larger, especially if it contains pages that may be hard for search engines to find, then a site map (a page that links to every page on the site) is highly recommended. Because it provides search engine robots with links to navigate through the site by pointing search engine robots to dynamic or hard-to-reach pages that may not be accessible otherwise[9]. To website's map site, the suggestions are:

- Including the most important pages of the website
- Generating the website's site map by human touch rather than automatically generating it by some tools
- Linking to the map site from every page of the website

### B. Keyword Strategy

Keywords (also referred to as keyword phrases, key phrases and key terms) are the short, descriptive phrases that you want to be found with on the search engines. Keyword choice is the focus of the entire optimization process [1]. First, choosing the keywords of website, Considering company's name that the company belongs to, location etc. Make sure to think about generic and proprietary descriptions. Second, expanding the keywords list. Thinking about the special fields of the product. . Third, whittling down the keywords list according to the keyword's search popularity and relevance. Search popularity means how many people are actually searching for a given word. Relevance describes how well a keyword connects with the site. Fourth, combining the keywords to generate key phrases or short sentences.

After the choosing of keywords, the core keywords need to be matched to a landing page on the website. There are two things that should be considered when the keywords matched to the landing page:

- Density of the keywords, in other words, the frequency of keywords appears in the page. Keywords density are appropriately between 1% and 7%
- Locations of these keywords. Keywords could appear in the following locations of the website's pages: <title> tag; <Meta> tag; <header> tag; image objects <alt> tag; the most attractive place of the text between <body> tags; text of hyperlinks etc.

### C. URL Pseudo-static

The following address is a URL address of an article.

[http://wulixb.iphy.ac.cn/cn/ch/common/view\\_abstract.aspx?file\\_no=w20100403&flag=1](http://wulixb.iphy.ac.cn/cn/ch/common/view_abstract.aspx?file_no=w20100403&flag=1)

It is an dynam\_c address, file no is article number, flag is the status mark.

When flag changes, the URL address changes, but the content of the page is the same. Unnecessary crawling would be done if we don't handle the parameters. And the following address moved the unrelated parameters.

[http://wulixb.iphy.ac.cn/cn/ch/common/view\\_abstract.aspx?file\\_no=w20100403](http://wulixb.iphy.ac.cn/cn/ch/common/view_abstract.aspx?file_no=w20100403)

Although current search engines are able to crawl and analyze such dynamic URL, the static pages still have advantage in the click rate. So we need to consider how to do URL pseudo-static, to make such dynamic URL looks like an static URL as follows:

[http://wulixb.iphy.ac.cn/cn/ch/common/view\\_abstract.aspx/  
file\\_no/w20100403](http://wulixb.iphy.ac.cn/cn/ch/common/view_abstract.aspx/file_no/w20100403)

URL redirect function could implement URL pseudo-static. And general mapping expression is as follows[3]:

```
RewriteRule (.*? \. Php) (\ ?["/*"]?/["/*"]/["/*"](.+)? (? 2  
&: \?) =? 5: [N, I]
```

However, URL redirect just achieve a pseudo static, the .html page is in essence a dynamic page, just the URL address looks like a static URL.

#### D. Code Optimization

Bloated mess of code not only extends the load time of pages, but also affects search engines' crawling of pages, so the code should be optimized. Website's code optimization should focus on these points:

- Using CSS to unify the font style, making the code standardized
- JavaScript scripts should be put into .js files
- For the java scripts that cannot be put paper no more than 4 pages into .js files, put them in the bottom of html code before </body> tag
- All the CSS and .js files should be put into an external file

#### E. Heterogeneous Text Processing

Google can search many types of files, including pdf, doc, xls, ppt etc. As pdf format's files often contain important content, Google default pdf format's files PR value as 3, which is higher than normal html document. It is suggested that the valuable content of website, such as the information of product, made into pdf format.

Meanwhile, in order to make the heterogeneous text easily to be searched out, the heterogeneous text need to make some necessary changes [2]:

- Metadata for compelling titles
- Contain the keywords in the description of the text
- Ensure the link to the text is clickable

Google can search many types of files, including pdf, doc, xls, ppt, etc. As pdf format's files often contain important content or articles, Google default pdf format files PR value as 3, which is higher than general html document. It is suggested that the valuable content of journal website, such as the text of articles, made into pdf format. Meanwhile, in order to make the heterogeneous text easily to be searched out, the heterogeneous text need to make some necessary changes [2]:

- Metadata for compelling titles
- Contain the keywords in the description of the text
- Ensure the link to the text is clickable

#### F. Inbound Link Optimization

Page Rank algorithm was a very important algorithm of Google search engine, it gives an at-a-glance measure of a page's significance to a search engine, but it doesn't consider the weight of the inbound link. Now PR value is one of the factors that affect the ranking. Inbound links indirectly improve website's search engine ranking, and directly bring visitors to website through the link, these visitors can be potential beneficial to the in the future [9].

But now search engines are looking at not just the number of inbound links, but their quality too. So website should gain quality links. Some examples:

- Related or complementary sites with PR value of no less than 4.
- Well-known and frequently updated news sites

## V. TACTICS FOR WEBSITE DEVELOPMENT

### A. Tactics for Domain Name and Host

In the initial planning of a website, the selection of a domain name is also an important factor related to the search Engine optimization (SEO) of a enterprise's website. A search engine pays priorities to different domain name suffixes, especially to domain names with suffixes like edu or gov. However, this class of domain names can only be used by the education sector and government agencies while a corporate website has no right to apply for any registration. Under the same circumstances, non-commercial website suffixes like .org and .net have more advantages for a higher ranking than .com. For Indian websites, the Indian domain suffixes of .in and .co.in have certain advantages than .com of non-regional nature.

As for a website space, it should be ensured that the storage space of web-pages is considered by a search engine to be "safe" without any contrary to the relevant rules? "Safe" pointed out here includes two aspects, namely, the running stability of the space and its network environment.

### B. Tactics for Website Content

The actual content of a website is an important factor of the optimization strategies for a website. When a website is expected to be searched in the front pages among the search results, then real content thereof is needed. The search engine spiders can only determine the quality of a website based on its content rather than judging from pictures or flash animations. All pages should be provided with enough content to be searched by a search engine as index. This is the basic need for the successful optimization tactics for a search engine[4].

### C. Tactics for Keywords

Keywords are a factor for mathematical operations using search engine algorithm. It is used to determine the correlation between several billions of web-pages and the specific search. Those deemed as the most relevant to a keyword by search algorithms will be arranged in sequence [5]. So, it should identify the core keyword in the position and perspective of a customer as far as possible.

In order to get a better ranking for a website, the density of keywords must be defined well within the scope allowed by search engines. Some studies have shown that the density of keywords within 2% -8% is thought to be useful for the improving of a website's ranking. On the contrary, excessive use of keywords will result in keyword stuffing which would be difficult to read to cause loss of visiting flow rate [6].

### D. Tactics for Links

Links are the soul of a website, through whose hyperlinks users may obtain a wealth of website content. Besides, the search engine spider also tracks in-depth layers of a website's links to complete the crawl of information of a website. Search engines, especially Google, will determine a website's ranking basically subject to the number of high-quality external links pointing to this website, i.e., external links or reverse links known as inbound links or back-links. The outbound links to other sites from a website as well as the links connecting pages each other within a website would also bring about more or less impact onto rankings [7].

## VI. CONCLUSION

With those strategies, the websites could gain higher rankings in search results list, and this is more evident for new websites. Higher ranking helps to attract more potential visitors, and finally improve the product's status which is the ultimate goal of the websites' SEO work. The present paper proposes the tactics for domain name space, for website content, for keywords and for links, which are effective for search engine optimization. Nevertheless, along with the development of search engine technologies, to explore continuously new tactics for optimization is bound to be a long-term and constant study.

SEO process is a long-haul process. While SEO is not hard, it can be tedious. It requires diligence and organization.

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