Application of Search Engine Optimization in the College’s Official Website from the Perspective of Website Diagnosis

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Abstract. The official website is a window for the school to publicize and a "business card" that reflects the strength of running a school. Use relevant tools to diagnose the official website of Hainan College of Software Technology, and propose internal and external optimization suggestions to improve the website's inclusion, ranking and traffic in search engines. This is of great significance for school brand building and website enrollment consultation.

Keywords: Website Diagnosis, Search Engine Optimization, Increase Traffic

1. Preface
In the Internet age, search engines are still traffic portals. However, many school websites generally have the problem that they are not very friendly to search engines, and they have not deliberately optimized for search engines. The school's official website ranks low in search engines, resulting in less website traffic and failing to achieve the purpose of website promotion [1].

Take the official website of Hainan College of Software Technology as an example. In Baidu, keywords such as "Hainan College", "Hainan Public College", "Hainan Vocational College" are not ranked. Searching with "Hainan Vocational College" as the keyword, the rankings on Baidu’s PC and mobile terminals are 32 and 35 respectively. This shows that the school failed to seize the search engine traffic entry for website optimization, and neither the lack of ranking nor the low rankings could not bring effective exposure to the school. Except for users who know the school's name or website address, the probability of other users finding the school's official website in a large number of websites is very small.

Therefore, colleges and universities should integrate search engine optimization skills in the process of building websites, so that more school website information is included in search engines and ranked high, so that they can better promote the school brand and increase the school’s reputation [2].

2. College Website Diagnosis

2.1. Analysis of the Current Situation of the Official Website
For the official website domain name of Hainan College of Software Technology www.hncst.edu.cn, enter site, intitle, domain and other instructions in various search engines, and use ready-made tools such as Aizhan Tools, Webmaster's Home Tools, Baidu Index, etc. Search for information such as website weight, website ranking, response speed, collection status, snapshot update, friend link detection, dead link detection, Robots detection, webpage tags, website content update status, etc.

2.1.1. Website weight. Website weight is the search engine's evaluation of the website. The higher the website weight, the better the ranking. By querying the weight value of the college's official website, we find that Baidu weight, 360 weight and Sogou weight are all 1, which shows that the college's official website is not very friendly in search engine evaluation.

2.1.2. Website ranking. Website ranking has a very important impact on website traffic import and brand exposure. Through the inquiry, the official website of the college is not included in the website ranking list, showing no ranking information.

2.1.3. Response speed. If the website opens slowly, it will increase the bounce rate, and the spider crawling and crawling of the search engine will also slow down. The speed of the official website of the college is 679 milliseconds. Within one second, most people can wait in this range. However, the large pictures and flash on the home page of the college's official website take up too much space, which easily leads to unstable response speed and affects the user experience.

2.1.4. Collection status. Inclusion is the basis of ranking. If there is an inclusion, there will not necessarily be a ranking, but without an inclusion, there will definitely not be a ranking. A total of 6667 web pages were indexed by Baidu, about 11,900 web pages were indexed by 360 search, and about 29,133 web pages were indexed by Sogou search. From the above data, it can be seen that the college's official website has been indexed by multiple search engines, but there is still room for further improvement, especially the indexation on Baidu is not satisfactory.

2.1.5. Snapshot update. Website snapshot is the backup of "taking photos" when the search engine collects web pages. The website snapshot update time is within 24 hours, which indicates that the search engine spider grabs the website content more frequently.

2.1.6. Friend link detection. Friendship link is the exchange of links between websites, which can not only increase external links, but also attract spiders to crawl. There are 7 outbound links on the college's official website, and there are no anti-chains, which shows that the college does not attach importance to the construction of friendly links.

2.1.7. Dead link detection. Dead link refers to the situation where the website page cannot be opened or the link is invalid and cannot be found, and the link to the 404 page. The official website of the college has no dead links.

2.1.8. Robots detection. The robots.txt file is the first file that the search engine spider visits the website to view, to determine the content that the website prohibits or allows the search engine spider to crawl. The robots.txt file does not exist on the college website.

2.1.9. Webpage tags. The content of the title, keywords and description tags in the header information is "Hainan College of Software Technology", and the length of the content is 10 characters, which is far from the requirement that the title is generally no more than 80 characters, the keywords is no more than 100 characters, and the description is no more than 200 characters. There is still a lot of room for improvement. When inserting pictures in the webpage, alt tags are not used to let search engines understand the picture information.
2.1.10. Website content update. The content update frequency of the college's official website "News" and "Notice" is relatively fast, while the content of "Department News" and "Media Concern" is updated less frequently. The page content is not updated in time will affect the website traffic import and search ranking improvement.

2.2. Analysis of Official Website Structure
The navigation bar of the college's official website includes the home page of the website, general situation of the school, organization setting, enrollment and employment, school enterprise cooperation, visual software and other contents [3]. Although there are not many contents in the navigation bar module, the style of each sub-pages are quite different, and even some pages are not the same style as the home page at all, which makes the user seem to have entered another new website and the user experience is not good. In addition, the college's official website has a frame, which can easily cause search engines to fail to capture the content in the frame.

3. Search Engine Optimization Suggestions for the Official Website
Through the website diagnosis and analysis of the college's official website, if the website wants to improve its attention and brand awareness, and the page design of the website should conform to the SEO specification, it not only needs to strengthen the internal optimization construction of the college's website, but also needs to strengthen the construction of external links, so as to improve the keyword ranking and obtain more free traffic from search engines.

3.1. Content Optimization
The official website of the college should do a good job in the news and announcement content, write high-quality hot articles, ensure the originality and update frequency of the content, and release the hot news of the school to nanhai.com and other news websites with large traffic, so as to attract more users to read and enhance the popularity of the school [4]. In addition, other modules should be published. For example, the secondary colleges should timely release the daily activities, the enrollment and employment office should timely update the relevant enrollment policies and employment information, and the academic affairs office should develop an online learning platform on the official website to facilitate the online communication between students and teachers. With the rich content of the college website, teachers, students and parents will naturally pay more attention to it. The search engine will also crawl and grab the page content frequently, and the traffic from the search engine will naturally increase.

3.2. Keyword Optimization
Keyword optimization not only allows the target keywords to have a better ranking in search engines, but also allows users to quickly find their own content. The target keywords of the website should be distributed in various places in a planned way. "Hainan College of Software Technology" is distributed on the homepage as a core keyword, and other keywords such as "Hainan Software", "Hainan Software College", "Hainan Vocational College", and "Hainan Higher Vocational College" are distributed on each column page. Long-tail keywords such as "How to get Hainan Software Vocational Technology" and "What is the admission score of Hainan College of Software Technology" can be placed on the content page. In the specific distribution, keywords can be placed in the title and description tags of the web page, keywords can be bold and black in the H tag, and keywords can be used in the ALT tag of the picture. Of course, keywords can be reasonably distributed at the beginning, middle and end of the body of the web page [5].

3.3. Link Optimization
Link optimization includes internal link construction and external link optimization [6]. Internal links are the links between the various pages in the website. We must check the interconnection between the pages in the website to avoid page islands [7]. Internal link construction can be operated freely,
through reasonable and effective internal link construction can speed up the collection of the website, the anchor text of internal link can also optimize the page ranking, at the same time, through internal link construction can also accurately transfer the page weight. External links are links imported from other websites, which are equivalent to the recognition and voting of other websites. Therefore, external links will directly affect the weight of websites in search engines. The school’s official website can increase external links in different forms, such as exchanging links with brother colleges, publishing soft articles on education related websites and professional forums to improve the exposure rate, and publishing topics of interest to students and parents through self questioning and self answering on Baidu know, baidu experience and other platforms. The external link optimization of the college's official website is not achieved overnight, it needs a long time of accumulation.

3.4. Structural Optimization
The structure of the college website should be friendly to search engines, and it should not use frameworks, Flash and other layouts that are not conducive to search engine spiders [8]. Secondly, it is necessary to ensure that the page level is clear, and go through the homepage, column pages, and content pages step by step. You can return to the previous page through any web page and return to the home page step by step. The distance between the deepest content page and the homepage should not exceed three to four levels. If the level is too far, not only the weight is low, but it is also difficult for search engine spiders to crawl. Finally, the page style should be unified. The style of each page should be the same as that of the home page, including color matching, layout, and article style. It should bring people a consistent visual effect [9].

4. Conclusion
If the college’s official website wants to increase its popularity and exposure, it must conform to the habits of search engines. In the optimization process, we must first make the content of the website flourish, with high originality and strong practicability. On this basis, we will optimize the keywords, structure, tags and external links of the site, so as to improve the ranking of the official website of the college in the search engine in an all-round way and bring high traffic [10].

Acknowledgments
This work was financially supported by Hainan Provincial Natural Science Foundation of China (Project approval number: 719MS071).

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