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Internet Solutions for Higher Education

Improving Search Engines on College Websites

Site Search Failure

There are two kinds of website users—and pity the poor search-dominant user.

There are two kinds of website users—link-dominant users and search-dominant users. Link-dominant users will use the navigation structure of a web site, clicking through the site to find the information they are seeking. They use the search capabilities of a web site only as a last resort.

Search-dominant users, on the other hand, will head straight for the site's search box. More than half of all Internet users are search-dominant.

Unfortunately, 85 percent of site searches don't return usable results, according to Jupiter Research. In fact, research by IDC shows that 22 percent of site searches return no results at all.

A high school senior who visits a college web site in search of an application form is typical. She expects to find the form quickly and easily. If she's a search-dominant user, she'll "search" on the term "application." If she doesn't find the information she needs among the top results in the search, frustration mounts. She has to try another search term or click through the site in an attempt to find the information. Of course, clicking through the site is exactly what she was trying to avoid, and she may just bolt altogether.

If she bolts, she loses out—but so too does the college. When search is poor, the college's search-dominant constituents lose faith in the site's search capability—and the faithful group is already alarmingly small, with just 8 percent of users actually trusting site search. More important, 80 percent of users will abandon a site if the search functionality is poor. Some users may resort to the telephone or email, but others won't, and the college or university may have just lost a potential recruit, a supportive parent, a valuable media contact, or a donation.

Why Website Search is Poor

Site searches deliver such poor results for several reasons.

1. Poor planning for search

Most web sites publish their content, set up a search engine to index the content, and launch the site. Providing an effective search is something of an afterthought in the web development process.

At the same time, no plans are made to monitor *the performance* of the search. With little insight into the usage of the search and its performance, colleges and universities find it impossible to alleviate frustrations or remedy problems as they surface.

2. Inconsistent and nonexistent keywords

In order for search to work well, web content must be well-tagged (or labeled) and it must be organized. Frequently, these steps are bypassed even during re-development projects. Untagged or poorly tagged content undermines the ability of the search engine to index this content. Inconsistent use of keywords and disorganization within the content leads to sketchy and unreliable search results.

3. Poor search user interfaces

A well-designed search page is a thing of beauty—but it's the kind of beauty that doesn't call attention to itself. Users most notice it when it isn't there. Poorly designed interfaces increase frustration levels. Too many options for the initial search can be overwhelming. Results pages can be even worse: too many results, irrelevant results, and difficult-to-understand displays force users to interpret and filter, when all they wanted to do was search and click.

4. Ill-equipped search engines

Out of the box, most search engines are configured to spider the standard content on one web server. For an environment where the content is scattered across multiple servers, these search engines will be unable to index all of the available content. In addition, a site may have content stored in various file formats—Word, PDF, HTML, PowerPoint, Excel. Content may also be stored within a database. To develop an effective search, a complete analysis of the entire web site is crucial before making a decision on the search engine software to employ.

The result? Furious faculty members, college offices demanding subsite-specific searches, critical trustees, unnecessary calls to administrative offices, and gigabytes of email addressed to the webmaster.

Improving search

How do you make an effective search? We count five steps.

1. Develop standard content categories and properly tag all content.

A full analysis of the information available on the web site will help you define a list of hierarchical categories, or taxonomy, which can be used to classify the content. Each page within the site should then be tagged with the pre-defined category that most accurately describes the content of the page. This organization is most effective when completed in tandem with the overall design of the site, but it can be easily implemented after a site has been launched.

The categorization of content provides numerous benefits for a search solution. A relevant and well-balanced categorization of content makes a big

difference to the success rates of user searches—in fact, Microsoft reported a 40 percent improvement in hit rates and a doubling of satisfaction metrics when a site employs even a relatively primitive list of categories.

These categories provide guidelines for content managers to accurately classify the content. These guidelines typically involve synonyms, acronyms and partial synonyms being defined by a specific category. This allows a search for “Indian Law” to return content containing “Native American Law,” as well as the verbatim search term. Categorization provides a common language to be shared among both the content creators and the users of the web site.

Categories can satisfy the needs of both search-dominant and link-dominant users. Not only can users search the entire list of categories by entering a search term—but a sophisticated search page listing all of the categories allows link-dominant users to browse through the list to find what they need. Furthermore, users can target their search to the most promising content by first selecting the category and then performing a search within this category.

2. Update your search user interface.

Evaluate the search interface and search results. It isn't easy—but it's well worth the effort.

Simple Search

Users should be able to perform a quick search from anywhere within the site—this can be accomplished by integrating a search textbox within the tactical navigation. A separate search page will be provided as well to allow users to perform a simple or advanced search.

Both “search boxes” – within the tactical navigation and on the search page – will start users on the path of a simple search – by default, the simple search will search everything. On the search page, in addition to the simple search, advanced features will be provided to allow users to further refine their search. For example, the users could be given the option to search within a specific area of the site. Or by using the pre-defined list of categories, users can narrow the search to look only within a specific category.

Search Results

Search results should be easy to use. Most Internet users have become accustomed to searches working in a certain way and those standard features should remain – for example, users expect results to be sorted in order of relevance. In fact, research by IDC has shown that only 1 in 20 visitors will scroll to the second page of search results.

With that “one page” rule in mind, the space available on the results page becomes a valuable commodity—and results should be designed accordingly.

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- **A title and description of each entry on the results page are must-haves.** These help users to determine if the result entries are useful.
 - **File size and update date are probably not top candidates.** Consider file size—will it really help the user determine the relevance of this result? And what about the update date: is it correct? For example, if the template for news stories is updated, the page is then displayed as being updated recently. However the actual content of the page has not been updated—only the template is new. More to the point: does the update date actually reflect the accuracy of the information? For example, a page containing stable content, such as the admission process, appears to be out of date because it hasn't been updated for an extended period of time.

Features that should be considered when designing the search results interface are those that will further aid the user in finding the information quickly and easily—and the update dates are probably not helpful.

- **A “Best Bets” section should be displayed at the top of the search results-** containing the best possible matches for the search term that was entered. The “Best Bets” section can also be used to allow content editors to manually force search results to the top of the list.
- **A short listing of all the categories containing matches for the search term will help the user to focus their search results to the intended category.**
- **A “Did you mean” feature will head off frustrations.** “Did you mean” not only catches misspellings of a term but also provides alternate concepts for the search phrase. For example, with a search for “liberty,” this feature could suggest “Statue of Liberty” or “freedom” as alternate search terms, thus aiding the user to more quickly find the information they need.

3. Determine the search engine configuration.

When choosing a search engine, the features of the search engine should be compared to the needs of the site. Some environments may be set up with the admissions content on one web server and the athletics content on a completely different server. Therefore, the search engine should be able to index content on more than one server.

Content may be stored in various formats throughout the site. The Admissions office may regularly offer Word documents on the web site, whereas Athletics may rely on simple HTML pages. Meanwhile, the News & Events group may store their stories in a database. In order for all of this content to be accessible,

a search engine that is capable of spidering a web site should be used versus a search engine that will only crawl the file system.

In addition, the search engine should be set up to re-index the content of the web site on a regular basis in order to allow new and modified content to be accessible to the users. Consider scheduling your re-index nightly.

4. Run reports.

In order to close the loop on search solutions, administrators should be able to evaluate the performance of the search solution.

Reports should be generated on a regular basis to show the top searches being performed on the web site, the trends of search terms over a specified period of time, and the most popular links that were followed for a specific search term.

Information about search terms that are returning no results and the area of the site where a search was performed should also be captured. These reports will provide insight into how the search functionality is being used by site visitors.

5. And after you've run them? Review them.

By regularly reviewing the reports, administrators and content managers can make informed decisions about how to create content people want and how to help users find that content more easily.

Imagine knowing the top searches that are being performed and the subsequent links that are followed...in Admissions, in Academics, in Giving. You'll know what users are looking for, what kinds of problems they're having, and where your visitors are finding information. Knowing all this, you can reorganize content on these subsites and optimize the order of result entries, moving the most likely results to the top of the list.

Even more exciting, you can see where the gaps are. Reviewing the statistics compiled on quick searches (a search completed from the tactical navigation) can show what page a link-dominant user was viewing when he or she became frustrated and resorted to using the search functionality.

And you'll know how the search function is performing. Analyzing abandoned searches (search in which a user doesn't click on any of the search results) can reveal a lot. Actions can be taken to develop content that will satisfy that search term or identify the appropriate synonym to bolster "Best Bets".

The effect of this kind of closed feedback loop is cumulative. Over time, the number of empty and abandoned searches and the number of links followed per search will decrease. The percentage of users who find the information they are seeking will

increase. Content will increasingly be on target and in the right place. Nomenclature will be as intuitive as it can be. That impatient college applicant won't bolt after all.

You'll have fewer lost applicants, furious faculty members, and would-be donors with an axe to grind. And your search for a search solution will be over.

About Global Image

Global Image helps higher education clients build and implement internet solutions that attract prospective students and enable alumni relationships and giving.

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