

New Concepts for an Internet Web Site Directory

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Abstract

Traditional Internet directories were introduced before the availability of modern search engines and are less relevant to the current Internet. However, a redesign of the directory concept has produced a system design that continues to provide value to web site owners at very low cost and effort. This article discusses various improvements to the directory concept for use in the modern Internet and describes how these concepts have been applied to a real-world Internet web directory.

Keywords: SEO, HTML, web site access

Introduction

Internet directories are one of the first developments to enhance use of the World Wide Web. For example, the Yahoo Directory, developed by students at Stanford University in 1994 became the nucleus of an IPO in 1996 that raised more than \$30 million [1]. This and other traditional directories were organized like a “phone-book” directory that alphabetically listed businesses and organizations within a particular discipline (e.g. new car dealers) and then within a geographic locale. Each listing provided a title and short description. Clicking the title would take the user to the corresponding web site. Such directories solved a major problem: users could physically connect to any web site in the world but had no practical way to identify sites corresponding to activities in their geographic area or area of interest. Prior to the advent of directories, only the larger businesses and organizations could afford to advertise the existence and Internet location of their web sites.

Current Situation Summary

Search Engine Issues

Today, search engines are clearly superior to directories in a case where the user already knows the name of a particular activity and has no difficulty typing (e.g. “Ferguson’s Restaurant in North Fort Myers, FL”). In such a case, better search engines like Google [2] easily and accurately deliver a clickable connection. In such cases, the search engine is acting as a connection service, relieving the user from having to memorize an Internet address and deal with the arcane connection process by typing a URL, but does not actually perform a “search” service.

However, in less defined cases search engines frequently deliver inaccurate and misleading machine-generated results. Search engines still struggle to filter out the deluge of search spam directed at fooling the automated systems into displaying useless or misleading information and displaying links to sites having no plausible relevance to the user's search.

Search Engine Optimization can be an expensive process, especially from the viewpoint of a typical small-town small business owner. Our analysis of more than 400,000 web sites listed on Seekon shows that it is common for otherwise attractive small-business sites to have major deficits regarding features that can be important to search engine display of the site. Examples: Missing or malformed title, description, and keyword tags, titles like "home" or "title" or even "place title here," and excessive keyword duplication or capitalization.

Users with typing, spelling, or language issues or using mobile devices with tiny keyboards may not like search engines.

Directory Issues

A telephone style directory is somewhat obsolete in today's Internet. An alphabetic order for listings is less useful in a world that includes search engines and further tends to lead to the proliferation of titles like "1AAA Plumbing Supply Company" that offer no value to the user because 1AAA is not likely to be better than 9ZZZ and alphabetic order provides no indication of merit.

Free, volunteer-edited directories were highly unreliable. Frequently, requested listings took a long time to appear or never appeared for no stated reason. Some volunteers might promote their own list of sites producing an unfair situation for other sites. Other volunteers might enjoy their power to reject a site for unstated arbitrary and capricious reasons. The site owner had no recourse. "You get what you pay for."

Our experience in operating a free directory was that "free" results in an overwhelming deluge of spam. The vast majority of free submissions were for pornography, gambling, or other sites objectionable to a general audience, sites with grossly misleading or poorly written titles and descriptions, or sites otherwise inappropriate for the directory page for which they were submitted. The review workload was unsustainable.

Listings in free directories, blogs, or lists tend to be poorly maintained and outdated.

Paid directories (such as the discontinued [3] Yahoo directory) typically charge large fees (e.g. \$199 per year per listing).

Traditional directories such as the discontinued DMOZ Open Directory [4] tend to have many empty or nearly empty pages and require a long chain of directory hopping. For example, it was common to drill down through a directory tree like: .../Regional/ North America/ United States/ Maryland /Localities /S /Smallville /Businesses /Services /Lawyers /Real Estate Law and find an empty page with no sites listed!

Some site owners are concerned that appearance of a link to their site on an established web directory (especially a paid directory) would reduce their rank on search engines because the search engine would punish them for using a directory. However, this would be a grossly anti-competitive and potentially illegal behavior on the part of the search engine and there is no evidence that any major search engine is actually employing such practices.

New Directory Concepts - Real World Applications

New concepts directed at solving some of the problems with traditional directories have been applied in the *Seekon Regional Web Site Directory* [5]:

Seekon is a web directory operated since 1999 by Maryland company Azinet LLC. Seekon is locally-oriented and primarily intended to provide on-line listings for smaller businesses and organizations in small cities and towns in the United States, Canada, and the Caribbean.

Unlike traditional former directories such as DMOZ and Yahoo that listed sites in alphabetic order, Seekon uses an algorithm (similar to a search engine) to determine page order within a locality page based on a merit assessment. In addition, Seekon algorithms work to avoid empty or poorly populated pages and excessive “drill down” that characterized earlier directories. In larger localities (cities) the algorithm adds pages by discipline (e.g. Restaurants, Legal Services, etc. as needed).

Seekon charges a small fee (currently \$10 US) for listing a single URL on up to five nearby Seekon locality pages and generally posts new listings within one week of submission. A full refund is provided if a URL is not accepted or if the customer is otherwise unable to use Seekon.

Seekon is a human reviewed directory and publishes the submitted site title and description as opposed to editing these items as done in traditional directories. The review verifies that the site is substantially as described by the submitted title and description and is about an activity that is of plausible interest to residents or visitors of the locality associated with the Seekon page on which the listing will appear. This procedure assumes that someone capable of producing a good web site can also produce and is the best source of a good title and description. An automated robot checks the site for obvious problems during the submission process. Seekon reviewers then assure that the site content matches the customer provided title and description, are appropriate for the Seekon page(s) on which listing is requested, and fairly describe the site. Seekon provides instructional material [6] to help users provide good titles and descriptions.

Seekon obtains some listings from the Open Directory (DMOZ) database, which is no longer being maintained by DMOZ. Seekon now maintains its portion of this database. A Seekon web crawler periodically visits all sites listed on Seekon to verify their continued operation and content. Site owners who originally submitted their site to DMOZ can request to modify or even delete any of their listings on Seekon.

Results

The small fee requirement (relative to free) virtually eliminated submission of spam. The nominal fee does not represent any significant limitation on smaller businesses and organizations.

Imposition of the fee also dramatically improved the quality of non-spam submissions, which now almost always meet the requirements for title, description, and relevance specified by Seekon [6].

Finally, imposition of the fee in combination with the reviewing as opposed to editing (rewriting) of submitted listing requests allows a much lower processing workload and consequently economically feasible operation and quick response.

The very simple and well-defined procedure for submitting sites represents a very minor effort for even inexperienced site owners. However, the majority of site submissions have historically come from web site development and promotion companies in support of their customers.

Conclusions

The web site directory concepts described here allow for continued provision of a useful service for web sites at very low cost and effort.

References

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- 5 Seekon Regional Web Site Directory <http://www.seekon.com/>
- 6 Seekon listing guidelines <http://www.seekon.com/sitelistingreq.html>