

From the Editor

SEARCH ENGINES FACILITATE NAVIGATION ON THE INTERNET

...but do they help easily locate useful environmental resources?

The "hot" topic in the literature seems to be Internet search and retrieval engines. Even popular magazines such as FORBES have recently featured cover stories (October 23, 1995) on Internet "spiders." Spiders are the small programs that are loaded onto the Internet to locate WWW sites and other data resources. Once they have identified such a site, they capture texts from home pages and integrate the words they have collected into large indexes, which can subsequently be searched by users interested in identifying the locations of specific kinds of information.

Navigating the net has gotten far easier since WWW pages (with their integrated links for retrieving related information) have become popular. Finding an item in which one may be interested is not, sad to say, all that much easier. One reason for this is that while navigation is an activity that can be dealt with technologically, finding pertinent information is largely an intellectual process; this process can be aided by technology, but not ever wholly replaced by it.

When I compiled and wrote the *The NEW RIDERS OFFICIAL INTERNET YELLOW PAGES* with my colleague, Christine Maxwell, we had two principal intentions in mind:

- to demonstrate that (for the average person) locating items of interest on the Internet was greatly facilitated by topical or subject-oriented arrangements, which were intuitive, cultural, and structural; and that these structures were more important than mere keyword identification; and
- to show that human evaluation of information repositories has wide-ranging utility as a value-added function that is critical in helping distinguish the valuable from the chaf in almost every kind of Internet search.

There continues to exist an underutilized role for librarians as intermediaries between the raw, undifferentiated "stuff" on the Global Information Infrastructure, and the useful sites we all look for when we wish to find specific items of information on the net. Individuals who contribute a thoughtful and objective analysis, impose a logical structure, or help validate the reliability of information at a site, perform a very important but underappreciated critical service.

There is an added bonus for those who undertake such often altruistic work. Frequently, people who engage themselves in evaluating the Internet sites within given subject fields begin with their own dedicated interest and curiosity. By the time they are through, they may well have created a kind of topological structural understanding (an "Internet map" of the discipline's resources) that helps comprehension. Such a map certainly aids in accessing the specific kinds of information that may be sought. It also reveals lacunae where information must be sought in order to provide a more comprehensive record. It is at once a useful searching aid and an interactive assignment giver.

Human-developed guides to useful sites can certainly be created by dedicated individuals, scientists, or even the government (a good environmental site exists in Australia, at:

<http://kaos.erin.gov.au/general/naviq.html>). Canadians are also at the forefront of environmental education and issues as can be seen from the site at Environment Canada:

<http://cmits02.dow.on.doe.ca/@html/ebsites.html>.

It would seem obvious that librarians, with their professional understanding of classification systems, authority lexicons, and thesauri, as well as their likely familiarity with existing print-based resources, would be best-equipped for the job of reviewing, abstracting, and objectively evaluating sites for their particular merits.

Examples of the kind of work that has just been described exist at the University of Michigan's "Clearinghouse for subject-oriented Internet Resource Guides," headed by Peter Morville and Lou Rosenfeld. Two things strike one on reaching the Clearinghouse site, located at <http://www.lib.umich.edu/chouse/chhome.html>. First, within the top level of 12 topic headings, "Environment" is listed. Second, the resource collection prepared by Carol Briggs-Erickson and Toni Murphy <gopher://una.hh.lib.umich.edu:70/00/inetdirsstacks/environment%3Amurphybriggs> conveys a larger sense of what is encompassed by environmental issues than any of the searches conducted by Lycos, Web Crawler, InfoSeek or Yahoo. Their work is not complete, but it shows the librarian's orderly approach to the subject area and provides a classification methodology from which it would be easy to travel to the specific sites related to the information map. The additional value would be in the act of human selection that would accompany the choice of whether to include particular Internet resources or not.

There is a lot of concern about the idea of scalability. Technological solutions seem particularly apt at dealing with quantity. We are the beneficiaries of the great imagination of programmers and scientists who develop searching tools, such as those named above. On the other hand, we also need quality discriminators, and these are likely to come from dedicated human intelligence.

This raises a final, somewhat related, issue. Many people are convinced that environmental issues are receding from the public attention in the face of current powerful political pressures (not least in the United States) which are intent on casting environmental protection and environmental legislation as adversarial and oppositional to good business practice. This is, of course, patently wrong, though public perception is swayed by the rhetoric and authority of the business lobbying community.

It is for this reason that it is particularly dismaying not to find "environment" in the upper levels of the currently-popular search engines. Those of us who work on environmental issues have learned that the environment tangles itself with issues of policy, business, geography, politics, sociology, culture, and even religion. One might not know this by looking at the top subject categories on most popular search engines. In Lycos, for example, are ten top subject categories; "environment" is not one of them. You will not find the term "reference" there, either. Tucked under "Science" there is a "reference," but not a very good section. Yahoo is a little better, "environment" is tucked under "Society and Culture," but at least the term appears (in small print) in the upper levels of categories. Even in McKinley's Internet Directory (the antecedent of the Yellow Pages effort, and expertly brought to the network by Christine Maxwell) there is no category for "environment" per se.

These facts should give us pause. It seems to me that an idea that merits considerable attention is the creation (perhaps collaboratively) of a WWW Home Page that would begin to do justice to the topic of

environmental information -- one that would gather resources and links to them in a unified fashion, and that would be so comprehensive and clear that every one of the search engines mentioned above (and others not mentioned) would find and register the comprehensive environmental resources in their directories.

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