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Internet applications, sites, trends and happenings

David Raitt
draitt@estec.esa.nl

This column aims to draw your attention to various interesting Web sites that I have come across and that might appeal to you, and to keep you up to date with news and views on Internet trends, developments and statistics. It offers essentially a personal selection rather than comprehensive coverage.

Signal in space through Internet
Knowing your precise position anytime via the Internet is now possible thanks to the signal-in-space through Internet (SisNet) technology, developed by the European Space Agency (ESA). The technology combines the powerful capabilities of satellite navigation and the Internet. As a result, the highly accurate navigation information that comes from the European Geostationary Navigation Overlay Service (EGNOS), signal-in-space (SIS) is now available in real time over the Internet.

EGNOS is Europe's first step in satellite navigation, paving the way for Galileo. At present it is in its final development phase and will become operational in Spring 2004. An experimental EGNOS signal has been available since February 2000 through the EGNOS test bed (ESTB). EGNOS is what is called an augmentation signal: it corrects and improves the signals sent by the American GPS constellation, using geostationary satellites, and it offers a precision in the order of 1 to 2 m as opposed to the 15–20 m presently available with GPS signals. In addition, EGNOS provides an integrity signal through which the user can assess in quasi real time how much he or she can trust the GPS estimated position. The challenge is how to make the best use of this corrected data.

To access it, a SISNeT receiver has been developed through a contract between ESA and the Finnish Geodesic Institute (FGI). This device uses three technologies: a pocket ipack type PC, a mobile phone card (GSM or GPRS) and a GPS card receiver. Combining these three technologies: satellite navigation, digital software and Internet access, offers a prototype of what looks set to become the tool of the future – a clever computer-phone that knows exactly where it is. Dr Ruizhi Chen, head of the navigation department at FGI, says that the receiver he created 'will evolve in the future, but already the possibilities are tremendous, capitalizing on Internet capabilities'.

Tests have been under way to validate the concept. The SISNeT receiver was installed in a car, which, while being driven on the roads around Helsinki, gave its position with an accuracy of less than two metres. The receiver is of special interest as it can be used not only in cars, but also in many other situations as it is a hand-held device. Access to satellite data via the Internet also allows the user to keep on navigating even when out of range of a geostationary satellite, something which can be useful when travelling in towns where buildings interfere with signal reception. Indeed SISNeT extends the service area of EGNOS to regions that can only be reached by EGNOS with difficulty as, in combination

with mobile links, it can be used in urban areas. Read more at http://www.esa.int/export/esaSA/ESAW0OZPD4D_index_0.html.

InfoSci-Online.com: comprehensive full-text database

Information Science Publishing, an imprint of Idea Group (IGI) Inc. (see this column in the previous issue), has recently released a new on-line product called InfoSci-Online.com, which is a comprehensive database consisting of e-documents (book chapters, journal articles, proceedings papers and teaching cases) all released under IGI imprints ('Idea Group Publishing', 'Information Science Publishing' and 'IRM Press'). The database provides the latest research findings and applications in the shortest period of time possible, given the fact that technology changes in the field of information technology (IT) evolve so rapidly that the traditional publishing process of two to three years is considered to be inefficient. Additionally, IGI publications will be integrated into this database before the print versions of the same publications are even available to the public. This delivers a significant value to librarians who are facing a patron base that wants access at any time and from any location.

Not only does the system provide fast and reliable access to the material, it also presents an extreme cost saving for libraries that would otherwise have to purchase or subscribe to all IGI publications in their print forms. According to Dr Tony Krug, of the Appalachian College Association Central Library, the subscription cost for the InfoSci database is reasonable when one considers the real and attendant costs to purchase and process the comparable paper-based books, journals, proceedings and case studies in an area where information is quickly outdated.

Access to InfoSci-Online.com will be licensed on an annual basis and the subscription fee will include unlimited access to search and browse the abstracts and the full-text content within the database.

Through InfsoSci-Online.com, IGI is thus not only publishing, but also applying the research and findings that allow such technologies to thrive in both academic and corporate environments. It is the aim of IGI to publish the latest research findings in information science in the shortest period of time, utilizing the latest publishing techniques available today.

Comments from users of InfoSci-Online.com suggest that the InfoSci-Online.com database would allow instructors to create their course curricula and reading lists based on a variety of sources: book chapters, journal articles and proceedings papers. 'Customization of curricula that is independent of a particular printed textbook would afford instructors greater flexibility to choose the topics covered in their courses', says Phillip Edwards, University of Michigan Media Union Library. Lisa Stimatz of the University of North Carolina at Chapel Hill notes that 'the database really provides an excellent entry into the research literature of the field. It presents a manageable number of highly relevant sources on topics of interest to a wide range of researchers. The sources are scholarly, but also accessible to "practitioners"'. Mary Reddick, California State University, adds that 'there are few databases specifically designed to enhance the research and professional development opportunities of academic librarians. This database would enable librarians to keep up with the research trends and developments in information technology and related subjects.'

For additional information about InfoSci-Online.com and subscription rates, contact Carrie Stull Skovrinskie at cstull@idea-group.com.

UK firms increasingly monitoring Internet use

A new survey from The Work Foundation indicates that two-thirds of UK employers now monitor their employees' use of the Internet, reports NUA Surveys (http://www.nua.com).

According to the study findings, 66% of companies in the UK monitor Web site access in the workplace while 65% observe incoming e-mail messages. The survey also found that 43% of employers monitor e-mails for inappropriate words or content. Monitoring is more likely in larger companies with 62% of organizations with over 2500 employees saying they monitor e-mails for inappropriate content.

The Work Foundation report indicates that 75% of UK employers either have a 'netiquette' policy in place or are in the process of implementing one. The majority of netiquette policies are most likely to include guidelines on e-mail and Internet use, disciplinary procedures for those who disregard policies, and virus eradication and virus liability. Around a quarter of organizations stated that they would dismiss an employee for breaching netiquette policies. However, while most organizations communicate their polices to staff via documents or e-mail messages, only 49% said they tell new employees about their netiquette policies as part of induction.

The study indicates that companies in the utilities and financial sectors are most likely to have netiquette policies in place, whereas firms in the IT sector are least likely to implement guidelines regarding Internet use in the workplace. The report also found that in 46% of UK companies, the IT department is responsible for implementing netiquette polices. Find out more at
http://www.theworkfoundation.com.

Web-based teaching and course delivery tools most important
An independent survey sponsored by McGraw-Hill Ryerson found that Web-based technology is considered by higher education faculty to be the most effective institutional resource in encouraging student success, outweighing traditional resources such as the library and tutoring.

Following three years of data collection at US and Canadian colleges and universities, the survey confirms that 83% of higher education faculty members are almost unanimous in their opinion that Web-based technology is a key contributor to student success. The survey revealed that presently 62% of faculty use Web content for course preparation, 56% use the Web to supplement textbooks and 51% use the Web to ensure up-to-date course content. The use of the Web in course preparation, 'using up-to-date or current materials', jumped to first place in terms of importance with 91% of faculty ranking it very or extremely important, reflecting the increasing amount of current Web-based information available and students' expectations about it being used in their courses.

McGraw-Hill Ryerson sponsored 'Technology and Student Success' to provide the higher education community with a better understanding of the use of technology in colleges and universities and its impact on student success. This third annual survey examined more than 1100 faculties in colleges and universities across Canada. In 2002, for the first time, a concurrent US survey assessed close to 700 American faculty members. The survey showed that there continues to be a consensus among faculty members that the three key factors leading to student success are course preparation, faculty training and professional development. The faculty assigned a high degree of significance to the role Web-based content, tools and applications played in accomplishing all three.

The survey also examined faculty's anticipated future use of Web-based technology and found that participants plan to spend more time integrating Web content, tools and applications into their teaching and using more Web technology in course delivery. Some 84% expect to spend more time on the Web, with 52% very or extremely likely to do so. Regarding emerging technologies, the survey found that 4% of university and college teachers are currently using e-texts and 42% expect to be using them within two years. Read

more and how to obtain the report at
http://www.businesswire.com/cgi-bin/f_headline.cgi?bw.101502/222882156&ticker=MHP
or http://www.mcgraw-hill.com/media/media.html.

Change e-mail – lose touch
A new study, reported by Yahoo, indicates that e-mail addresses are changing at the rate of 31% annually and are driven by a change in Internet service providers (ISPs), job changes and consumer efforts to avoid spam. The e-mail survey, conducted by independent, third party research firm NFO WorldGroup (http://www.nfow.com), concluded that as a result the majority of consumers lose touch with personal and professional contacts and with preferred Web sites. The study was commissioned by Return Path Inc., the leading provider of e-mail change of address services (http://www.returnpath.net) and Global Name Registry, licence operator of the .name top-level domain (http://www.name.com). The survey, conducted in August 2002, updates a similar study from September 2000, which identified a 32% annual rate of e-mail address changes. The results are based on responses from 1015 American e-mail users over the age of 18.

The survey also revealed that on average consumers now own 3.1 e-mail addresses (up from 2.6 in the 2000 study) but, despite obtaining additional accounts, the rate of e-mail address changes remained steady. Overall, 49% of the survey respondents indicated they had changed an e-mail address, either work or personal, at some point in the past. Of the 43% of respondents who had changed their personal e-mail address, half of them cited an ISP switch as the main reason for the change. Respondents also mentioned efforts to avoid spam (16%), a change of residence (12%), and the desire for a more attractive e-mail address (8%) as reasons they changed their personal e-mail address. Work e-mail addresses most often changed owing to new jobs (41%). Other reasons for an e-mail address change in the workplace included an ISP change (18%), a change of residence (8%) and a name change resulting from a marriage or divorce (6%).

The survey data show that e-mail address changes lead to lost relationships, both personal and commercial. In fact, more than 50% of participants indicated that they had lost touch with personal contacts and Web sites as a result of an e-mail address change. Consumers indicated that contact with valued Web sites and e-newsletters represented the relationships most frequently lost. And the survey revealed that young adults (53%) are significantly more likely to lose these contacts than older individuals (42%).

Notifying contacts of an e-mail address change is no small task, according to the survey. While the average consumer registers his or her e-mail address with more than twelve Web sites, e-mail address changers only notify about six Web sites of the change, in addition to any personal or professional contacts. And 22% of those who changed an e-mail address did not notify any Web site about the change. Conversely, many respondents who had not changed an e-mail address cited the hassle of updating contacts, including friends, colleagues, Web sites and on-line newsletters as their primary reason (14%). Full story at http://biz.yahoo.com/iw/021015/047545.html.

Google still the world's top search site
Google's global usage share continues to rise – increasing 1,9% in the last two months – and its search site is the number one in the world. Google's global usage share has reached an all time high and has risen from 53,2% to 55,1%. Meanwhile, the global usage share of the second largest search engine on the Web, Yahoo, remains stable at 20,6%. This is the assessment of OneStat.com, which has just released statistics on the largest search engines.

The largest search engines on the Web are:

1. Google: 55,1% global usage share, up 1,9%
2. Yahoo: 20,6%, up 0,2%
3. MSN Search: 9,4%, up 0,3%
4. AOL Search: 3,5%, up 0,6%
5. Terra Lycos: 3,0%, down 0,7%
6. Altavista: 2,4%, down 0,4%
7. Ixquick: 1,7%, down 0,5%

All numbers are an average of the last two months.

OneStat.com is the number one provider of real-time Web site analysis software in the world and its technology powers thousands of Web sites in different countries all over the world. Search engines like Google can drive a lot of traffic to a Web site and software such as that from OneStat.com offers a solution to measure traffic from search engines to a Web site. Each Web site owner can analyse what kind of search engines and keywords visitors use to find a Web site and with its accurate, detailed and reliable reports OneStat.com can provide details about visitor behaviour, site performance and retention. For more on the kinds of information OneStat.com can provide on users and how they carry out their assessment, visit
http://www.onestat.com/html/aboutus_pressbox12.html.

KartOO – a search engine with a difference
KartOO is a new French meta-search engine that presents its results visually. First the user selects the language of the interface (the words and menus are specific to each country), then enters a search request and clicks the 'OK' button. Once a search is launched, KartOO analyses the request, questions the most relevant engines, selects the best Web sites, and then places them on a type of map. On this map, when the mouse pointer is moved over a 'ball', the description of a particular site is displayed. Clicking on the ball opens the site. Sites are linked to each other in a type of hyperbolic tree and are colour coded to suggest how the results are related.

KartOO technology analyses the words the user is asking for and then decides to question the most accurate search engines. For example, if the request is a question ending with a question mark, KartOO will query search engines that are specialized in natural language. As for relevance, when the user asks for the word 'bow', for example, he or she may mean a bow and arrow, a bow tie, a bow as in rainbow, a bow as in bending forward from the waist and so on. The results obtained may therefore be accurate or totally irrelevant to what the user is looking for – such false drops are the age-old problem of retrieval systems. What is significant about KartOO in such a situation is that the technology provides a map that summarizes all the various and possible topics so that retrieved Web sites are in fact grouped into a form of topical 'family'. A list, in other words, a linear classification of search results, could not represent all the applications connected to a word like 'nuclear' for example and, furthermore, a list could not display the links existing between the applications.

Usually, search engines only cover a small part of the Web, around 20% for the most effective ones. KartOO technology is a metacrawler – a search tool that summarizes the results of various search engines. Thus it covers the exact proportion corresponding to the combination of the engine indexes. It's nice to play around with an attractive way to present the outcome resulting to a search. Have a look for yourself at http://www.kartoo.com.

Visualization software – visual Internet
Visual Net is information visualization software that creates large-scale browsable maps of data, enabling users to navigate and find information more intuitively and efficiently. The

developers, Antarctica of Canada, note that search software has not changed much in the last 10 years. People are still typing in keywords and getting long lists of not always relevant search results – therefore Visual Net is claiming to be the natural evolution of search. Visual Net provides a number of benefits. For instance, search results are presented two-dimensionally on one screen, eliminating long lists of results so users can narrow their research more efficiently. The software also provides the ability to browse through subject maps, so users can point and click to find information without the need to guess at keywords. Search results are clustered by subject, so users know that information located nearby is also relevant.

Visual Net is basically enterprise software built around standard open interfaces, including SQL, HTTP and extended markup language (XML), that provide a graphical user interface to on-line information. It uses similar techniques to those used by cartographers (map makers) for centuries to create large-scale browsable maps of data. This enables users to navigate and find information more intuitively and efficiently. Visual Net is not a search engine; however, it is software that helps people search more effectively and locate relevant information faster. The software is being positioned as an enhancement to existing search tools, not a replacement, and is claimed to work well as an enhancement to current search engines – users can take the output of their search engine and ask Visual Net to draw a map of what was found. The search engine's output is needed to include the identifiers (usually URLs) of the objects it found, and what categories it found them in. Visual Net can then generate a map of the search result on the fly. The system has already been integrated with the Inktomi and Google search APIs. Find out more at http://antarctica.net/products.html or http://www.map.net/.

Information visualization

If you are interested in information visualization and want to find out more, then have a look at InfoVis.net (http://www.infovis.net/MainPage.htm). InfoVis.net is a project devoted to information visualization, which is seen as the process of the incorporation of knowledge through the perception of information, mainly (but not only) in visual form. The electronic magazine gives current information on the topic (including a detailed review of KartOO above), as well as articles and trends. Browse through it at http://www.infovis.net/E-zine/Magazine.htm.

Learn the Net

Learn the Net is a Web site dedicated to helping users save time and money when roaming through cyberspace. Learn the Net is a private company based in San Francisco, California that focuses on delivering high quality educational products and services in print, CD-Rom and to the desktop, via the Internet and intranets. Learn the Net's Web site went on-line in April 1996 and, since its launch, the company claims that thousands of businesses, ISPs, schools, libraries and community organizations from around the world have linked to the site as a way of providing comprehensive, user-friendly Internet training. The site, which has versions in English, French, German, Italian and Spanish, provides the latest news and top technology stories as well as tips and advice on how to surf the Web, download files, join newsgroups, do e-business and so on. One regular section is 10 Things You Can Do on the Net, a list of Web sites that provide fun and interesting things to discover and do. Recent topics have included Web sites where you contemplate belly button lint, discover the science of cooking, laugh at jokes from around the world, take a virtual trip to New Zealand, get some pointers on Microsoft Outlook and see the world through the eyes of a bee. Learn something yourself about the Web at http://www.learnthenet.com/english/html/00start.html.

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