Internet applications, sites, trends and happenings

David Raitt
David.raitt@esa.int

This column aims to draw your attention to various interesting Web sites which I have come across and which 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.

Mapping the news differently

Newsmap is an application that visually reflects the constantly changing landscape of the Google News aggregator (http://news.google.com/). A treemap visualization algorithm helps display the enormous amount of information gathered by the aggregator. Treemaps are traditionally space-constrained visualizations of information, but Newsmap takes things a step further and provides a tool to divide information into quickly recognizable bands which, when presented together, reveal underlying patterns in news reporting across cultures and within news segments in constant change around the globe. Newsmap does not aim to replace the Google News aggregator, but rather to simply demonstrate visually the relationships between data and the unseen patterns in news media. Newsmap uses different colours for different topics – green for technology, blue for business, orange for national, mauve for health and so on. And there are two layouts: 'squarified', with each square size representing different importance levels; and standard, with horizontal bars representing sectors such as national, world and technology. It is also possible to see the news in different language or country groupings, for example German, French, Italian, or relating more to, say, Australia or India. Try Newsmap out for yourself at http://www.marumushi.com/apps/newsmap/newsmap.cfm.

Answers to what you want to know

Answers.com is a free, ad-supported, reference search service, created to provide you with instant answers on over a million topics. As opposed to standard search engines that serve up a list of links for you to click on and follow, Answers.com displays quick, snapshot answers with concise, reliable information taken from over 100 authoritative encyclopaedias, dictionaries, glossaries and atlases.

Answers.com, founded in 1999, is the next-generation product of the GuruNet Corporation, which leverages its patented 'Answer Engine' technology to bring up-to-date answers to Internet users. The AnswerPages can be accessed from any Internet browser and the query simply typed into the look-up bar on the Web site. Several tailor-made categories such as business, health, entertainment, food, games and science are already available for the user to browse for up-to-date information. To gain the full benefit of Answers.com, you can install a free tool which lets you press the Alt key and click any word on your screen to get an

answer. The Answers IE Toolbar (installed with 1-Click AnswersTM for Windows) adds a convenient look-up bar to every Internet Explorer window you have open. Look up answers to your questions at http://www.answers.com/.

Maps and imagery online

Google Maps is a Google service offering powerful, user-friendly mapping technology – including business locations, contact information and driving directions – to anyone searching for results in the US, Canada and the UK. Additional countries are to be added. Google Maps allows you to click and drag maps to view adjacent sections immediately; find business locations and contact information all in one place; enter an address and have Google Maps plot the location and/or driving directions for you; and view a satellite or aerial image of your desired location that you can zoom and pan. The interactive satellite view gives you a chance to explore and evaluate your locations in far greater detail. However, it has to be noted that image resolution varies by distance – so at the lowest resolution/farthest distance, you can identify large landmarks like mountains and lakes and at the highest resolution/closest distance, you can locate specific cars and buildings. Also, the satellite images are current, but not real-time. If you are planning a trip to the US or UK, or have relatives or friends living there, play around with the maps at http://maps.google.com/.

The satellite imagery comes from Keyhole which has been acquired by Google. In yet another site, Google Earth combines satellite imagery, maps and the power of Google Search to put the world's geographic information at your fingertips – from exotic Paris or Hawaii to local points of interest such as local restaurants, hospitals or schools. Not all cities are covered in high resolution, where you can see individual buildings and cars in detail. There is currently more imagery of the United States than other countries – though many parts of the world are covered, including areas like Cape Town and Johannesburg. Because the imagery comes from a variety of sources, is not in real time and is in a mosaic format, it is difficult for the exact date of a city or region to be given; a single city may have imagery taken from different months.

The whole world is covered with medium resolution imagery and terrain data. This resolution allows you to see major geographical features and man-made development such as towns, but not details of individual buildings. Additional high-resolution imagery, which reveals details of individual buildings, is available for most of the major cities in the US, Western Europe, Canada, and the UK. 3D buildings are represented in 38 US cities (the major urban areas). Detailed road maps are available for the US, Canada, the UK and Western Europe and Google Local search is available for the US, Canada and the UK. Find out more and download the requisite software to view the images free from http://earth.google.com/index.html.

Send a message into space

Want to leave a message for posterity? Then go to http://www.keo.org/ and leave a note. Each and every person on Earth is invited to address his or her distant descendants, be it to describe his or her life, to share a thought, to pass on his or her experiences, aspirations and dreams or whatever, in a few written lines. The messages will be uncensored and all received messages will be launched in 2007/2008 on the KEO satellite which is built to return to Earth 50 000 years from today bringing with it our messages to our future descendants. All the messages will be put on the KEO Web site where they will be able to be freely accessed so that people can appreciate the diversity of cultures languages, ages and continents. It will be made possible to 'visit' the thoughts of people never met. By writing a personal message for the KEO project, each person is invited to join in a new form of

citizen reflection and to take part in an inter-culture dialogue. Sociological analyses will be carried out based upon all the received messages so as to attempt to formulate an answer to the following questions that haunt us: 'who are we?' and 'what is it that we expect of ourselves?'

You can also add your name (and get a certificate to print out) on a Web site dedicated to a spacecraft leaving for Pluto soon. NASA's New Horizons mission is the first mission to the last planet – the initial reconnaissance of Pluto-Charon and the Kuiper Belt – sent out to explore the mysterious worlds at the edge of our solar system. The Pluto-Charon encounter is set for 2015 to mark the 75 th anniversary of Pluto' s discovery in 1930 by American astronomer Clyde Tombaugh. The spacecraft will carry a CD bearing the names of those who recorded their details on the special Web site at http://pluto.jhuapl.edu/ecard/sendName_ecard_content.html.

Ecosystems and us

Human well-being is highly dependant on ecosystems and the benefits they provide, such as food and drinkable water. Over the past 50 years, however, humans have had a tremendous impact on their environment. In fact, virtually all of Earth's ecosystems have been significantly transformed through human actions. In the second half of the 20th century, ecosystems changed more rapidly than at any other time in recorded human history. The most rapid changes are now taking place in developing countries and some of the most significant changes have been the conversion of forests and grasslands into cropland, the diversion and storage of freshwater behind dams and the loss of mangrove and coral reef areas. To better understand the consequences of current changes to ecosystems and to evaluate scenarios for the future, UN Secretary General Kofi Annan launched a comprehensive scientific study to assess the situation and to see what actions could be taken to limit harmful consequences of ecosystem degradation. This Millennium Ecosystem Assessment (http://www.millenniumassessment.org/en/index.aspx) resulted in a comprehensive report, which has been made into a readable, easily digested digest by GreenFacts – an independent, non-advocacy, multi-stakeholder non-profit organization based in Brussels with its mission to provide non-specialists with unbiased scientific information on the environment and health matters. If you are concerned about the environment then have a look at http://www.greenfacts.org/ecosystems/index.htm.

High speed Internet

High-speed Internet connections reached 37.9 million subscribers in the USA in 2004, according to a recent report released by the Federal Communications Commission (FCC). Twice a year, the FCC collects data on the number of high-speed connections from broadband providers with at least 250 high-speed lines in a state. Broadband is divided into two classifications: high-speed lines deliver services at speeds exceeding 200 Kbps in at least one direction; and advanced service lines deliver services at speeds exceeding 200 Kbps for both download and upload streams. The 2004 calendar year saw a 34% increase in broadband subscribers for residential, small and larger business accounts. The second half of the year experienced a slightly higher conversion rate of 17%, while the first half of 2004 generated 15% overall growth. Although growth is strong, a trend in growth over time is not seen and it will be harder to sustain high percentage growth rates over time.

Broadband is available to 99% of the U.S. population and the FCC found more than one service provider present in 83% of the nation's Zip codes. High-speed increases, broken down by delivery method from the first to the second-half of 2004, show a 21% increase in ADSL subscribers, 15% rise in coaxial cable subscribers, 9% increase in fibre or powerline delivery, 30% in satellite or wireless and 4% increase in other wireline means. For more

information and tables see
http://www.clickz.com/stats/sectors/broadband/article.php/3518746.

About the author
Dr David Raitt is senior technology transfer officer with the European Space Agency in the Netherlands. His work involves finding applications for space technologies in non-space sectors, particularly those useful for improving everyday life. An information scientist by education and training, David is also editor of *The Electronic Library* and chairman of the Internet Librarian International conferences.