Project Helps Internet Have-Nots Search the Web

Gathering information from the Internet is laborious and sometimes impossible in developing countries, where computers are scarce, phone lines often unreliable, and online time expensive. By letting a computer in the U.S. perform searches and package the results, a project at the Massachusetts Institute of Technology called TEK aims to spread online data to knowledge-seekers who don’t have lightning-fast connections or their own machine.

TEK delivers Internet content without requiring the recipient to log on to the Web. Curious users e-mail their queries to the TEK server, which will scour the Net, glean relevant sites, and copy and compress each one. The return message contains these duplicates, which anyone can read offline. “It’s a huge time savings because it takes much longer to load those pages into a browser,” says project co-director Libby Levison, a specialist on appropriate information technology. She sees schools and community centers in developing countries as the main beneficiaries of the service, but she adds that TEK could also aid residents of the developed world who are frustrated by sluggish Internet connections. A free program will allow users to communicate with the server and view the duplicated pages. You can test and critique a prototype of the software at the project’s Web site (cag.lcs.mit.edu/tek). Levison says that the team plans to release an upgraded version in 3 or 4 months.

RESOURCES

Developing Science

Want to know if Brazil’s laws to prevent “biopiracy” are inhibiting research there? Curious about why China has been reluctant to approve the use of genetically engineered crops? Check out the Science and Development Network, an information clearinghouse that explores the impact of science and technology on developing countries. Try the news section for the latest updates, or browse the editorials and opinion pieces to see what issues have people talking. To dig deeper, flip open “dossiers” on topics such as the brain drain from developing to developed countries, genetically modified crops, and climate change. The site’s offerings include a selection of free articles from Science and Nature.


NetWatch

edited by Mitch Leslie

DATABASE

Mutation Bank Open for Deposits

Each human disease gene can come in hundreds or thousands of varieties; molecular biologists have identified more than 600 faulty versions of the gene that causes cystic fibrosis, for example. Now researchers have launched a new database to house information on these myriad mutations, a collection they hope will become the central repository for such data.

Analyzing mutations can help reveal disease mechanisms, speed diagnosis, and suggest novel or improved treatments. However, many newly discovered genetic variants never appear in the literature, and no one has attempted to gather them systematically. Geneticists, clinicians, and scientists at diagnostic labs can now report unpublished mutations at the WayStation Web site, hosted by the Human Genome Variation Society. Visitors who want to contribute data must first register and submit their credentials. The site opened last month and doesn’t yet allow users to search the submissions, but the project’s organizers plan to build a master archive that will merge deposited mutations with others gleaned from separate genomic collections.

www.centralmutations.org

EXHIBITS

Care for Some Plesiosaur Spotting?

Long before amber waves of grain covered Kansas, waves of a different kind sloshed over the state, much of which lay beneath a huge inland sea. The educational Web site Oceans of Kansas Paleontology transports you back 85 million years to meet the denizens of this ancient ocean. Curator Mike Everhart, a paleontologist at the Sternberg Museum of Natural History in Hays, Kansas, uses photos of fossils and artists’ reconstructions to bring alive the era’s toothed birds, snake-necked plesiosaurs, hulking sharks, and long-snouted mosasaurs, such as Platecarpus planifrons (above). Other pages whisk you to dusty digs and explain what subtle clues on fossils reveal about the animals’ lives—and deaths. For example, tooth-scarred and partially dissolved mosasaur vertebrae show that the creatures sometimes ended up in the gullet of the 5-meter ginsu shark.

www.oceansofkansas.com

Send site suggestions to netwatch@aaas.org. Archive: www.sciencemag.org/netwatch