



NET NEWS

Crater Raters

Here's a way to mark the year 2001 (cue bombastic music) and take part in space exploration without leaving your desk. You can become a "clickworker" who helps scientists at NASA's Ames Research Center in California identify martian craters. After completing the site's short tutorial, you're ready to scrutinize photos snapped by the Viking orbiters in the 1970s and early 1980s and classify the circles you spot as fresh, degraded, or "ghost."

Crater data could help answer questions such as how fast the surface of Mars ages and what causes it to change. But scientists and grad students now spend many tedious months classifying the splotches. The Clickworkers pilot project should show the level of interest in this kind of work and whether people with minimal training can perform it accurately, says NASA knowledge engineer Bob Kanefsky.

So far, so good: Since its 17 November launch, Mars Clickworkers has chalked up more than 200,000 crater identifications and 60,000 gradings. And collectively, the amateurs seem to be doing almost as well at crater identification as expert planetary geologists, Kanefsky says. If that continues, the project may expand to newer, higher resolution images from the Mars Global Surveyor.

* clickworkers.arc.nasa.gov/top

EDUCATION

New European Science Channel

A new science and technology channel that combines the latest thing in television with the Internet debuted in Europe this week. Einstein.tv, whose slogan is "feeds a hungry mind," will offer digital TV to paying viewers along with a free Web site packed with science information.

In a venture similar to the United States' Discovery Channel, Einstein.tv will provide cutting-edge science programming—in this case through digital TV, which is unfamiliar to most Americans but already widely available in Europe. The company promises an intriguing array of topics, from deep-sea tourism to



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asteroid detection research to a robot football league. On the accompanying Web site, visitors can read program transcripts, learn about topics in more depth, ask questions, and enter contests. Initially "the target audience ... is very much the interested amateur," says Web master Abigail Murray, but more sophisticated articles about new research will be added over time.

www.einstein.tv

ONLINE TEXTBOOKS

The Chemicals Within

Need to brush up on glycolysis, or muscle biochemistry, or how genes are cloned? This medical biochemistry site created by a professor at the Indiana University School of Medicine's branch in Terre Haute holds a huge collection of concise backgrounders organized by subject. Topics range from basic biochemistry (amino acid metabolism, neurotransmitters) to molecular biology, including growth factors and tumor suppressor genes. Outside links lead to related sites such as Online Mendelian Inheritance in Man, an encyclopedia of genetic diseases.

web.indstate.edu/thcme/mwking/home.html

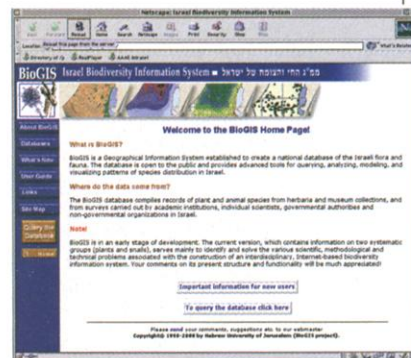
DATABASES

Mapping Israel's Biodiversity

The trove of natural history data hidden in museum collections and field biologists' notebooks is getting new exposure on the Web. One site being developed at The Hebrew University of Jerusalem in Israel, for instance, showcases the promise of creating geographic information systems (GISs) that can transform raw observations into user-friendly maps that detail where plants and animals live.

BioGIS is aimed at helping preserve the biodiversity of Israel, where the meeting of Mediterranean and desert climates has resulted in an unusually rich flora and fauna. So far, the site contains plants and snails from five specimen and observation databases. Visitors can click on a species and pull up all its records, then plot them on a map. The site's map tool can be used to zoom in on any point in Israel and pull up data on specimens and ecological conditions. And visitors can create potential distribution ranges—maps that show where a plant or animal may be found, or could be introduced—using a bioclimatic model based on temperature, rainfall, soil, and other requirements. The Israeli researchers aren't the only team working on this kind of Web tool, says Hebrew University ecologist Ronen Kadmon, but BioGIS has many GIS features that are "unique."

* www.biogis.huji.ac.il
† biodi.sdsc.edu



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