COOL IMAGES

Bee's-Eye View

If you thought Albert Einstein's wild shock of hair appeared a bit wacky, just look at how a honeybee would have seen the great physicist. Download this and other peculiar images at neuroscientist Andrew Giger's B-EYE site, which reframes patterns and faces as a honeybee might see them. Created while Giger was investigating bee vision at the Australian National University in Canberra, the site lets you choose a picture, select the insect's position, and see the stretched and blurry result. Giger also shows step by step how the honeybee's compound eyes, arranged in a hexagonal array, process an image, detailing just why its world seems straight out of the fun house. cvs.anu.edu.au/andy/beye/beyehome.html

HOT PICKS

SNPing away. Perhaps the hottest thing in genomics these days are one-base variations in DNA that serve as markers for finding disease genes. Eager to foster sharing of these so-called single nucleotide polymorphisms (SNPs), the National Institutes of Health has now opened for business—with a couple hundred sequences already deposited—dbSNP: a Database of Human Genetic Variation. www.ncbi.nlm.nih.gov/SNP

Dumb and dumber. Does the Coriolis force really make water draining in a sink spin counterclockwise in the Northern Hemisphere and clockwise down under? Discover the truth about this and other misconceptions at the Bad Science pages, with sections on bad meteorology, bad chemistry, bad physics, and bad astronomy. www.ems.psu.edu/~fraser/BadScience.html

NET NEWS

Mapping the Net's Terra Incognita

The information superhighway is nothing like a real highway in one key respect: It has no maps. If traffic gets snarled, it's impossible to find out where the congestion is or predict how traffic will change if, say, an arterial network is added. But researchers at the Cooperative Association for Internet Data Analysis (CAIDA) at the University of California, San Diego, have now unveiled the first large-scale views of the Net.

The maps, which can be seen at www.caida.org, are produced with a kind of cyberradar called Skitter. Five source computers send out tiny packets of data programmed to travel a certain number of "hops" along the computers that route Internet traffic. The last router sends an error message back to the origin when the data expires, allowing Skitter to determine a packet's route. By sending out about 300,000 packets an hour to 20,000 preselected destinations, the scientists were able to produce maps such as the treelike picture above depicting countries (the United States is blue, Germany red). Each branching point represents a hop.

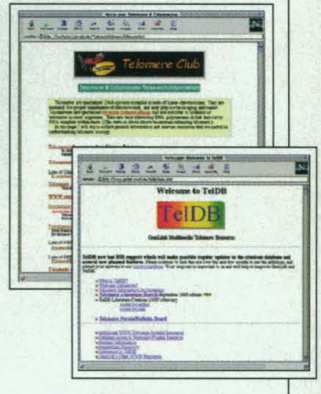
Skitter's creators admit that the maps aren't very useful yet: "They're really messy and hard to interpret," says Daniel McRobb, who wrote the program. But the group plans to add a third dimension that would make the maps easier to understand. They also plan to track how traffic patterns shift from minute to minute. Says project manager K. C. Claffy, "We're trying to get the tools to better understand this behavior."

Despite their shortcomings, the new maps are "absolutely top-notch," says Massachusetts Institute of Technology Internet researcher Carl Malamud. He has started a company, called Invisible Worlds Inc., that will sift through the terabytes of CAIDA data to produce interactive maps for members of the general public who might want to know, for example, where to mine financial info. "It's all about creating spaces that people can see," says Malamud. "It's like the lights have been off on the information highway."

SITE VISIT

End of the Story

The DNA stretches capping the ends of eukaryotic chromosomes known as "telomeres" are hot stuff in molecular biology right now, as they may hold secrets to aging and cancer. Telomeres are repeating series of base pairs that get shorter as a cell divides. Repairing these frayed ends is a tantalizing protein called telomerase, dubbed "The Immortality Enzyme" by *Time* magazine last year.



One way to stay up to speed is to frequent the Telomere Club, a site run by Toru Nakamura, a grad student in Thomas Cech's lab at the University of Colorado.* The site offers tables of telomeric sequences for various organisms (in humans, it's TTAGGG) and links to sequences for cloned telomerase genes and related proteins that make up the telomere complex. The club connects to the Telomere Database at Washington University in St. Louis, which holds over 1800 literature citations.** TelDB, which also has a discussion forum, is an offshoot of a human genome site called Genlink that has lost funding; but TelDB "has a bright future," says the project's Cindy Helms, who has plans to add more pictures, descriptions, and links to other databases. Useful links here include a glossary and human telomere atlas.

* resolution.colorado.edu/~nakamut/telomere/telomere.html
** www.genlink.wustl.edu/teldb/index.html

Send Internet news and great Web site suggestions to netwatch@aaas.org