

EDUCATION

Audio Engineering



Bill Hammack can rhapsodize over the clever design of a soda can or a Scotch tape dispenser. Every week on his public radio show *Engineering and Life*, the chemical engineer from the University of Illinois, Urbana-Champaign, explores the genesis of ordinary things such as superglue, contact lenses, the Internet, matches, and even SPAM, the canned meat. At Hammack's EngineerGuy Web site, you can listen to nearly all the programs dating back to the show's inception in 1999. His light, often humorous essays also provide insight into the cultural forces that speed or hamper the acceptance of new products and the inventors' often unexpected sources of inspiration.

www.engineerguy.com

RESOURCES

Algal Bloom

Some kinds can grow nearly as tall as redwoods and others show up in everything from ice cream to inks. Find out more about the 10,000 species of kelps, wracks, and seaweeds—as well as other kinds of algae—at this site created by Michael Guiry of the National University of Ireland in Galway. The heart of the site is AlgaeBase, a taxonomic database that provides geographic distributions, type localities, synonyms, and illustrations for more than 18,000 kinds of marine, freshwater, and terrestrial algae (right, *Fucus serratus* from the west coast of Ireland). And if that only whets your appetite, tuck into the bibliography or sample the primers on algal biology and the uses of seaweed, which range from sushi wrappings to bone replacement therapy.

seaweed.ucg.ie



TOOLS

Star Search

Facing a data glut, astronomers need an efficient way to compare information collected by telescopes that differ in resolution and sensitivity, says astrophysicist Alex Szalay of Johns Hopkins University in Baltimore, Maryland. SkyQuery, a new search tool for experts, retrieves and collates information from three astronomical databases, including the Sloan Digital Sky Survey, whose goal is to map one-quarter of the night sky. You can, for example, find the positions of all the galaxies in the databases that exceed a certain brightness. In six harried weeks, Szalay's group crafted SkyQuery for a Microsoft contest to design modular Internet applications, winning second prize among nearly 100 entries. The site is the prototype for a "virtual observatory" that will mesh disparate data held by 18 sky-watching institutions, Szalay says.

www.skyquery.net



DATABASE

Blueprints of Immunity

Aimed at immunologists, cancer biologists, and AIDS researchers, ImMunoGeneTics supplies sequence databases for genes that govern the immune response. At the 7-year-old site, created by Marie-Paule Lefranc of the Université Montpellier II in France, you can compare and contrast the sequences of hundreds of bug-battling antibodies across a range of vertebrate species. Or follow a link to a database hosted by the European Bioinformatics Institute that holds more than 1400 variants of the human major histocompatibility complex genes, which serve as cellular identity markers and help peg pathogens.

imgt.cines.fr

NET NEWS

Sites for Sleuths

Who did it? And did he or she act alone? Those and other questions are still unanswered by the federal investigation into the 7-month-old anthrax outbreak. But on the Web, sleuthing and speculation are rife.

The most talked-about site* is maintained by Barbara Hatch Rosenberg, who heads the Federation of American Scientists' Chemical and Biological Arms Control Program. The FBI is dragging its feet, Rosenberg concludes in her elaborate analysis, perhaps because the perpetrator is a government insider who knows too much. Making sense of hundreds of disparate clues is also why Ed Lake, a retired computer systems analyst in Racine, Wisconsin, decided to start an anthrax Web site.† Lake speculates that there were two perpetrators, a "supplier" and a "refiner/mailler," and offers his psychological profiles of each.

What may appear to be photocopy stains on copies of the anthrax letters are, after some digital processing, actually images ("Two skull caricatures with shared eye") that could offer valuable clues, according to another, apparently serious site.‡ Meanwhile, under the flag-draped logo of the FBI's own site,§ wannabe sleuths will find a profile of the criminal and interviews with FBI officials. Perhaps tellingly, the last update here is 4 months old.

* www.fas.org/bwc/news/anthraxreport.htm

† www.anthraxinvestigation.com

‡ www.anthrax-letters.com

§ www.fbi.gov/majcases/anthrax/amerithraxlinks.htm

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