

Extra links that we couldn't fit in this month's newsletter...



What's Emerging

Is China's pollution poisoning its children?

Researchers may have found the best test case yet for environmental molecular epidemiology: a city in China whose coal-fired power plant was shut down in 2004. Preliminary analysis shows that children born in 2002, when the plant was still operating, have smaller heads and lower scores on developmental tests than those born a year after the plant closed. They also have correspondingly higher levels of pollution-related genetic abnormalities.

Photography as a weapon

On July 10, various major daily newspapers published a photograph of four Iranian missiles streaking heavenward; then Little Green Footballs (significantly, a blog and not a daily newspaper) provided evidence that the photograph had been faked. Later, many of those same papers published a Whitman's sampler of retractions and apologies. It begs the question: Why do we tend to trust photographs? Hany Farid, a Dartmouth professor and an expert on digital photography, looks at that question in light of the way the brain processes visual information.

Forget the gym, just head to the office

The design of the average office does little to enhance health and promote weight loss, but Mayo Clinic endocrinologist Dr James Levine has "re-engineered" a United States office with positive health and financial results.

Monash developing medical micro-robots

Scientists hope that within the next few years micro-robots will travel through the narrowest blood vessels in the brain, allowing treatment and diagnosis in areas previously thought inaccessible.

Toyota plug-in hybrid testing in Great Britain

Toyota's expanded its road testing of the Prius plug-in hybrid, sending a small fleet of the corded cars to Great Britain. After roaming around Japan, America, Belgium and France, the prototypes started silently motoring through the greater London area.

Vibrating cells disclose their ailments

Bridging physics, engineering, and microbiology, researchers at MIT have measured the frequency at which red blood cells vibrate and have shown that those frequencies reflect the health of the cells. The research could lead to better medical diagnostics.

Trulia mobile

Trulia is just one of a number of companies providing a mobile service for locating real estate for sale using GPS technology.

U.S. fish farms tap former coal mines for water

In the Appalachian mountains of the United States, growing numbers of fish farmers are raising trout, catfish, and even salmon. What they'd rather not tell you, however, is that the source of their water is deserted coal mines.

Building a self-assembling stomach-bot

Researchers are testing a way to connect several swallowable devices to create a surgical "robot" that would self-assemble inside the stomach and perform more-sophisticated diagnosis and treatment.

Carbon dioxide capture pilot plant opens

Almost ten years of work on carbon capture and storage has resulted in a milestone: the world's first pilot plant for the Oxyfuel technology which offers the possibility to test the technology on a level that is comparable to a power-plant-scale. The target is to decrease specific emissions from more than 900 grams to well below 100 grams of CO₂ per kWh.

Cleaning ship hulls with a robot

European researchers and engineers are working on an automated robotic cleaning system that removes marine growth from the hull of a ship. By cleaning a ship's hull, this robot will allow ships to travel through the water more efficiently by cutting down on drag - and of course reducing fuel costs.

New nano device detects immune system cell signaling

"This is an important advance and potentially very useful technology," says co-author Derya Unutmaz, now an associate professor of microbiology at New York University's School of Medicine. "The ability to study the behavior of single cells may not be as critical if you are studying the heart or muscles, which are mostly formed by uniform cells, but it is crucial for understanding how the immune system functions.

Yahoo radically opens web search with BOSS

Yahoo has made a radical and historical initiative called BOSS, which stands for "Build Your Own Search Service" and basically turns web search into a web service by inviting developers to leverage Yahoo's core search technology and build their own web search implementations.

A tiny gripper that responds to chemical triggers could be a new tool for surgery

A tiny hand like gripper that can grasp tissue or cell samples could make it easier for doctors to perform minimally invasive surgery, such as biopsies. The tiny device curls its "fingers" around an object when triggered chemically, and it can be moved around remotely with a magnet.

New Android Market is YouTube for mobile applications

Google released early details yesterday about their plans for Android Market, an online bazaar for programs that run on Android phones. Essentially an Android version of the iPhone's popular App Store, it offers three key advantages over Apple's offering according to zdnet. An interesting development in the battle between platforms and whether the Apple hardware and its system will win or whether the alternative software model proposed by Google will.

Sequence your own DNA

Got a spare US \$350,000? Then you can get your DNA sequenced. Knome is the first personal genomics company to offer whole-genome sequencing and comprehensive analysis services for individuals.

Will your device really get to know you?

Intel released three presentations at the Intel Developer Forum on research on how mobile devices that can sense and adapt to you, including one on health that is worth a look. The general concept goes like this: Mobile devices will learn you, know what situation you're in, gauge the environment and infer what you need. Perhaps a forerunner of how we will interact with technology in the future.

Solar plane makes record flight

A UK-built solar-powered plane has set an unofficial world endurance record for a flight by an unmanned aircraft, staying aloft for over three days.

Evolution to turbocharge wireless broadband

Ericsson has demonstrated a new wireless broadband technology that transmits data 20 times faster than current 3G systems.

Europeans retreat on venture investing

Is this a lead indicator of long term reductions in innovative financing and support?

Internet traffic begins to bypass the U.S.

During the network's first three decades, most Internet traffic flowed through the United States. And now, the balance of power is shifting. Data is increasingly flowing around the United States, which may have intelligence - and conceivably military - consequences.