

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



## What's Emerging

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### **Surgical snake robot**

A snakelike surgical robot from Carnegie Mellon University could let a surgeon performing a critical heart operation make just one incision. It looks kind of freaky.

### **Climbing robot throws its weight around – Link to you tube video**

A four-limbed robot climbs vertical walls using foot- and handholds like a human climber. The technology could be used to scale Martian cliffs to find exposed rocks and reveal new information about the planet's geology.

### **Time to adjust to, not prevent climate change**

We're all doomed! 40 years from global catastrophe - and there's NOTHING we can do about it, says climate change expert

### **The new world of music**

News Corp's MySpace, the world's largest social network Web site, said it has formed an online music venture with three major recording companies in a challenge to Apple Inc's (AAPL.O) dominant iTunes Music Store.

### **AT&T: Internet to hit full capacity by 2010**

U.S. telecommunications giant AT&T has claimed that, without investment, the Internet's current network architecture will reach the limits of its capacity by 2010.

### **Holographic storage ships next month!**

Even since astronaut Dave Bowman disconnected the HAL 9000's holographic memory in 2001: A Space Odyssey techies have been wondering when we could buy real holographic storage. Now we know: May, 2008.

### **Faster DNA sequencing**

New techniques could finally make a \$1,000 genome possible.

### **The \$100 genome**

Forget the \$1,000 genome. Some companies are looking far past that goal in the hope of creating a really inexpensive sequencing technology.

### **Artificial muscle heals itself, charges I pod**

Researchers in California have created an artificial muscle that heals itself and generates electricity.

### **Laser medical scan does away with biopsies**

A new medical imaging technique can reveal the chemical make-up as well as the shape of structures inside the body. It provides a non-invasive way to get information about tumours or other disease sites normally only accessible by biopsy

### **Dreaming of a 3-D web**

Vivaty will begin a private test of its service on Facebook this week, wants to offer 3-D chat rooms and social environments on any blog, Web site or social networking page. These will be integrated into the Web — smaller but easier to access versions of massively multiplayer platforms like Second Life.

### **Broadband network soon to be obsolete**

By the time Australia upgrades its broadband infrastructure, the network could be obsolete - thanks to a high-speed internet network developed in Geneva. The new network, called "the grid", is more than 10,000 times faster than a typical broadband connection.

### **Helium**

Helium is an add supported web site where you can earn money for your writing. Not large amounts admittedly but more than most bloggers receive.

### **Nanotechnology researchers working toward storing a petabyte on one DVD**

Nanotechnology researchers in Australia are developing a format for optical disk recording that they expect will be able to store as much as a petabyte on one disk—20,000 times as much as on one Blu-ray Disc—and which they say could be in commercial use within 10 years

### **Trash people**

1000 human figures made of trash by German artist HA Schult are exhibited around the world to raise awareness of the volume of garbage left by humans and the resulting ecological imbalance.

### **Calculate your human footprint**

This great interactive calculator from National Geographic lets you calculate your total consumption and see a visual picture of this.

### **The clean energy scam**

Renewable fuels has become one of those motherhood-and-apple-pie catchphrases, as unobjectionable as the troops or the middle class. But several new studies show the biofuel boom is doing exactly the opposite of what its proponents intended: it's dramatically accelerating global warming, imperiling the planet in the name of saving it. Corn ethanol, always environmentally suspect, turns out to be environmentally disastrous. Even cellulosic ethanol made from switchgrass, which has been promoted by eco-activists and eco-investors as well as by President Bush as the fuel of the future, looks less green than oil-derived gasoline.

### **Green building is "more than a fad"**

Some 77% of Australian architects, engineers, contractors and building owners surveyed for the 2008 Green Building Market Report said rising energy prices were a key reason for incorporating sustainability into their building designs. It comes after the release of an International Energy Agency report that found numerous market barriers are preventing energy efficiency improvements.

### **Targeted gene therapy provides relief for chronic pain, study shows**

Researchers in the Department of Medicine and Department of Neurosciences at Mount Sinai School of Medicine have discovered that chronic pain can be successfully treated with novel targeted gene therapy.

## **Making memories**

A new strain of genetically engineered mice has allowed researchers to pinpoint, for the first time, the precise cellular connections that form as a memory is created. By tracing a protein tagged to glow fluorescent green, the researchers could see exactly which synapses - connections to other neurons - were involved when the mice learned to fear an electric shock.

## **Cheap solar hydrogen?**

Nanoptek Corporation is developing technology that produces hydrogen directly from sunlight and water with a proprietary nano-engineered photocatalyst. Nanoptek's Solar Hydrogen Generators will employ this photocatalyst to produce low-cost carbon-free hydrogen anywhere in the world, for use in clean power production, manufacturing, and transportation.

## **Contact lenses a possible platform for superhuman vision**

Movie characters from the Terminator to the Bionic Woman use bionic eyes to zoom in on far-off scenes, have useful facts pop into their field of view, or create virtual crosshairs. Off the screen, virtual displays have been proposed for more practical purposes - visual aids to help vision-impaired people, holographic driving control panels and even as a way to surf the Web on the go. The device to make this happen may be familiar. Engineers at the University of Washington have for the first time used manufacturing techniques at microscopic scales to combine a flexible, biologically safe contact lens with an imprinted electronic circuit and lights.

## **Darkest ever material created**

The "darkest ever" substance known to science has been made in a US laboratory. The material was created from carbon nanotubes - sheets of carbon just one atom thick rolled up into cylinders. Researchers say it is the closest thing yet to the ideal black material, which absorbs light perfectly at all angles and over all wavelengths. The discovery is expected to have applications in the fields of electronics and solar energy.

## **Consumer led innovation**

"HACKERS, welcome! Here are detailed circuit diagrams of our products — modify them as you wish." That's not an announcement you'll find on the Web sites of most consumer electronics manufacturers, who tend to keep information on the innards of their machines as private as possible. But Neuros Technology International, creator of a new video recorder, has decided to go in a different direction. The company, based in Chicago, is providing full documentation of the hardware platform for its recorder, the Neuros OSD (for open source device), so that skilled users can customize or "hack" the device — and then pass along the improvements to others.

## **Gene therapy for alcoholics**

Researchers in Chile have succeeded in keeping the drinking habits of alcoholic rats in check using gene therapy. The treatment mimics a natural mutation common in East Asian people, which lowers their tolerance to alcohol, making them less likely to become alcoholics.

## **The microbes within us could explain rising allergy rates**

A number of theories have been advanced on rising allergy and asthma rates. New research on differences in gut microbes could reveal the answer.

## **Virtual cable**

Virtual Cable™ is a unique display for a car navigation system. The driver sees a true 3D image of a red cable through the windshield which appears as if suspended over the road and provides a visual pathway to the desired destination.

### **Invisible UV tatoos**

Invisible tattoos that only show up under UV light (popular with the rave scene apparently).

### **Screen sharing**

CrossLoop provides a quick, easy, and completely free way to give a colleague, a friend, or a relative access to your computer. Or vice versa. Remote tech support just became universal.