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

What's Emerging

IBM targets Google Apps for business, undercuts pricing and touts reliability

IBM is going after Google Apps Premier hard and has the pricing to show it's serious. Big Blue is announcing the general availability of LotusLive, iNotes, a cloud email, calendar and contact management service, for $36 a year per user. Google Apps Premier runs $50 per user a year. *Read more...*

A turning point for personal genomes

Scientists are finally starting to find medical information of value...In the last year, the number of sequenced, published genomes has shot up from two or three to approximately nine, with another 40 or so genomes sequenced but not yet published... *Read more...*

Powerful Ideas: River turbines could electrify New York City

A network of floating docks could harness clean energy for New York City and provide new space for parks, researchers now propose. *Read more...*

Future is TV-shaped, says Intel

By 2015 more than 12 billion devices will be capable of connecting to 500 billion hours of TV and video content, says chip giant Intel. It said its vision of TV everywhere will be more personal, social, ubiquitous and informative. "TV is out of the box and off the wall." *Read more...*

Honda shows off innovative transportation device

Honda recently showed off a new personal mobility technology that closely mimics a robotic unicycle designed to help disabled people move around. *Read more...*

The HIB-System - The simple building system

The HIB-System is a virtually problem free self-build system. The blocks are easily handled without the need for expensive lifting devices and lock into each other in a "Lego" style operation which achieves a very quick assembly time. Either part or total self build options give the potential for money saving. *Read more...*

1,000 cameras 'solve one crime'

Only one crime was solved by each 1,000 CCTV cameras in London last year, a report into the city's surveillance network has claimed. *Read more...*

Carbon nanotubes are super fertilizer

Tomato plants exposed to nanotubes grow bigger and faster, but safety concerns remain. *Read more...*

Real science sets up surrogates futuristic robot action

Taken at face value, Bruce Willis' new sci-fi thriller Surrogates sports a premise every bit as outlandish as the

wig he wears during much of the movie. In the film's near-future setting, humans have withdrawn from everyday life almost completely. Instead, they hole up in their homes and send robotic versions of themselves, called "surrogates," into the real world. *Read more...*

What is the future of teaching?

PH: A very interesting blog post by Josh Catone at Mashable about the future of education. I do not necessarily agree with education cost moving to zero but if studies consistently show online learning environments can deliver better results then a significant cost reduction is on the horizon. Of course test outcomes are just one outcome of a quality education. *Read more...*

Cyber security experts learn from ant tactics

Scientists have worked out a new way to defend computers from cyber attackers - by studying ants. *Read more...*

Slime-dispensing hulls could boost fuel efficiency for ships

A DOD-backed project would give ships a regenerating slime layer to help shed unwanted marine life. *Read more...*

Moon could become the world's 'service station' thanks to abundance of oxygen and hydrogen

The discovery of water on the moon could pave the way for us to build a rocket refuelling station up there. For man to be able to make sustainable, affordable voyages in the solar system, we need a way to re-fuel off the planet. *Read more...*

World biofuel use expected to double by 2015

Global biofuel use is expected to increase twofold by 2015 and Brazil will remain the world's top exporter of biofuel, according to a report released Wednesday by Hart Energy Consulting. *Read more...*

Now you see it, now you don't

Look down a long stretch of highway on a summer afternoon and in the distance a pool of water seems to wait for you, glistening under the hot sun. It's only an illusion—Mother Nature's version of a practical joke. Scientists and engineers are trying to emulate that trick by designing materials that could constitute the next-next (or next-next-next) generation of stealth. *Read more...*

Two-minute video makes a lot of sense of Google Wave

Google has started releasing invites to Google Wave which is a new collaboration tool which is supposed to improve on email. If you are interested in what it can do here is a short and simple video that gives the basic concept. *Read more...*

Farmed out: How will climate change impact world food supplies?

A new study attempts to estimate the effects of climate change on global agriculture--and outline ways to mitigate its most dire consequences. *Read more...*

Disarmingly cute: 8 Military robots that spy, fly, and do yoga

A new generation of military robots are coming soon to a battlefield near you. These new battle bots are more WALL*E than ED-209—cute, small, and innocent-looking, rather than giant and murderous.But while they may appear adorable, the latest generation of robotic warriors can do a lot more than box up trash. Here are a few examples of these cute but deadly robots in action—leaping walls, flipping trucks and...doing yoga? *Read more...*

Navy's future command center makes star trek a reality

The Space and Naval Warfare Systems Center Pacific (SPAWAR) is the Navy's new command center designed to create an "unfair advantage" over enemy forces. *Read more...*

Scientists develop nasal spray that boosts memory

In a research report featured as the cover story of the Oct. 2009 issue of The FASEB Journal, scientists from the University of Lubeck demonstrate that administering a spray with a molecule from the body's immune system -

interleukin-6 - helps the brain retain emotional and procedural memories during REM sleep. *Read more...*

Startup that builds biological parts

Ginkgo BioWorks aims to push synthetic biology to the factory level..... Founded by five MIT scientists, the company offers to assemble biological parts--such as strings of specific genes--for industry and academic scientists. *Read more...*

Changed behaviours to affect food purchases for years

More evidence is emerging that this recession has changed everything. *Read more...*

Ultrafast DNA Nanosensor

A new type of sensor makes diagnosing infections quick and easy. *Read more...*

Artificial intelligence helps diagnose cardiac infections

Mayo Clinic researchers say that "teachable software" designed to mimic the human brain may help them diagnose cardiac infections without an invasive exam. *Read more...*

Time to plan: Era of cheap food over

A diverse coalition of community organisations says the era of cheap, accessible fresh food may be almost over, and that integrated planning is needed to ensure future supply. *Read more...*

Will books be napsterized?

You can buy "The Lost Symbol," by Dan Brown, as an e-book for $9.99 at Amazon.com. Or you can don a pirate's cap and snatch a free copy from another online user at RapidShare, Megaupload, Hotfile and other file-storage sites. Until now, few readers have preferred e-books to printed or audible versions, so the public availability of free-for-the-taking copies did not much matter. But e-books won't stay on the periphery of book publishing much longer. E-book hardware is on the verge of going mainstream. *Read more...*

Rocket Company tests world's most powerful ion engine

Rockets that would use charged particles to propel super-fast missions to Mars are one step closer, now that a small-scale prototype has been demonstrated at full power. *Read more...*

Underground city envisioned in Nevada

Sietch Nevada is a fascinating concept exhibited in Innovative Technologies and Climates at the University of Toronto. Fans of the science fiction novel Dune will immediately recognize this proposal - to build semi-subterranean terraced geometries in the Nevada desert. *Read more...*

DNA sequencing in a holey new way

IBM will announce on Tuesday how it intends to hold DNA molecules in tiny holes in silicon in an effort to decode their genetic secrets letter by letter. Their microelectronic approach solves one of two long-standing problems in "nanopore" DNA sequencing: how to stop it flying through too quickly. The aim is to speed up DNA sequencing in a push toward personalised medicine. *Read more...*

Electron microscopes powered by quantum mechanics could see through living cells

Being able to see inside a living cell could potentially reveal scores of mysteries when it comes to offering hard evidence on how living organisms function on an atomic level. A team of researchers at MIT are working with an idea that calls for the development of a non-invasive electron microscope that can remotely peek into cells using quantum mechanical measurement. *Read more...*

Abruptly forgotten: Working memory disappears in a blink

Researchers say a sudden die-off is to be expected if working memories are stored in circuits that feed back on themselves. Luck says the system is like a laptop as compared with a flashlight. "The laptop is an active system that uses feedback circuits to limit how much power it draws," he says. So whereas a flash¬light dims when it runs low on juice, "the computer runs perfectly normally while the battery drains," he says, "until suddenly the laptop shuts off." *Read more...*

Android to grab No. 2 spot by 2012, says Gartner

Global forecast puts Android ahead of iPhone, BlackBerry, Windows Mobile. *Read more...*

Double-screen laptop appears in Japan

This otherwise run-of-the-mill laptop from local PC purveyor Kohjinsha has not one, but two widescreen displays. One of the 10.1-inch screens actually slides behind the other, so it's able to be closed like a normal laptop. When they slideout they form an admittedly odd-looking, but useful dual display setup. *Read more...*

New vaccine may immunize addicts from cocaine's pleasurable effects

Clinical trial data suggest that although pharmacotherapy for cocaine may be on the horizon, challenges remain. *Read more...*

Next gen UI: Learning tools and toys for the digital age

Is this part of a concept of how computing might work in the future? *Read more...*

Tuesday at 3pm is the most agreeable meeting time

Meeting scheduling service When is Good looked at 100,000 responses to 34,000 events logged to their service over 2 years and found that 3pm-specifically Tuesday at 3pm-seems to be the most agreeable time for a meeting. *Read more...*

Burning buried coal has 'potential'

Burning coal underground could be one of the next breakthroughs to increase the world's energy supply, say some experts. They say the technology could provide access to additional coal reserves that are either too deep or remote to mine. *Read more...*

A life of its own

Where will synthetic biology lead us? *Read more...*

What happened to global warming?

This headline may come as a bit of a surprise, so too might that fact that the warmest year recorded globally was not in 2008 or 2007, but in 1998. But it is true. *Read more...*

The evolving face of social networks

It seems that everyone is excited about social networks. But not quite in the same way as Harvard graduate student Erez Lieberman, whose evolutionary graph theory is encouraging people to think about social networks in a different way: as an evolving population. *Read more...*

Computers faster only for 75 more years

With the speed of computers so regularly seeing dramatic increases in their processing speed, it seems that it shouldn't be too long before the machines become infinitely fast -- except they can't. A pair of physicists has shown that computers have a speed limit as unbreakable as the speed of light.

PH - of course during that time we will be seeing exponential growth in the speed of computers and their power. The change in 75 years will be many times the level of change in the last 30. *Read more...*

Video: Raytheon's free roaming combat simulator lets you feel getting shot

A new combat simulator lets you toss real flash-bangs and feel the consequences of getting shot by virtual enemies. *Read more...*

Birth rates rise in wealthiest nations

Crunching the latest (2005) numbers for 140 countries, the study still finds a negative correlation between national fertility rates and the United Nations' development index, but only up to a point. At the highest development levels - attained only in recent years - countries' fertility rates rise again. *Read more...*

Tiny 'nuclear batteries' unveiled

Researchers have demonstrated a penny-sized "nuclear battery" that produces energy from the decay of radioisotopes. As radioactive substances decay, they release charged particles that when properly harvested can

create an electrical current. *Read more...*

Nitrogen cycle: Key ingredient in climate model refines global predictions

For the first time, climate scientists from across the country have successfully incorporated the nitrogen cycle into global simulations for climate change, questioning previous assumptions regarding carbon feedback. *Read more...*

Robots that eat bugs and plants for power

No matter how intelligent a robot might be, it's nice knowing you can pull its plug to halt the anti-human insurrection. Whoops, not anymore. A new cohort of 'bots that make energy by gobbling organic matter could be the beginning of truly autonomous machines. *Read more...*

Battery 500 project wants to make a 500 mile range electric car battery

IBM, UC Berkeley and five US National Labs are collaborating in a consortium to make an electric vehicle battery that goes all the way up to 500 miles per charge. The project wants to make this happen by using a lithium-air battery. *Read more...*

Resilient cockroach-inspired robot survives large falls, dashes off

Aptly called DASH (Dynamic Autonomous Sprawled Hexapod), the six-legged insect-inspired robot can reach speeds of 1.5 meters per second and is flexible/strong enough to be dropped from a height of 28 meters without breaking. ARTICLE and VIDEO. *Read more...*

Nanorobot for Brain Aneurysm

The idea of nanorobots floating throughout our arteries to fight diseases and deliver drugs is migrating from science fiction to medical fact, at least in virtual 3D simulations. *Read more...*

Spider Pill" camera bots could crawl your colon

People who dislike having medical cameras snake through their body on the ends of long tubing now have a fun alternative. A new remote-controlled spider bot can scuttle around inside the colon or intestine and perform a medical inspection instead. *Read more...*

Building a bridge of (and to) the future

The Neal Bridge is barely a bump in the road for motorists roaring down Route 100.But it's what is underneath that really makes the bridge stand out. The structure consists of 23 graceful arches of carbon- and glass-fiber fabric. These are 12-inch-diameter tubes that have been inflated, bent to the proper shape and stiffened with a plastic resin, then installed side by side and stuffed with concrete, like giant manicotti. Covered with composite decking and compacted soil, the arches support a standard gravel-and-asphalt roadway. *Read more...*

Gene linked to better and faster decision making

Decision-makers are born not made, say scientists, as they discover people inherit a decisive gene. *Read more...*

Be overweight and live longer, German study suggests

According to the authors' analysis, overall mortality is unchanged by overweight, but increased by 20% by obesity, while extreme obesity raises it by up to 200%. *Read more...*

Colonel mustard returns!

Clue fans bored with Colonel Mustard with the lead pipe can now move beyond the mansion with CLUE: Secrets & Spies, an international espionage edition of the classic detective game. The mission here is not impossible and the new Clue comes with a new real-time tech twist: Hasbro says it is the first board game in the company's history to use cellphone text-messaging in gameplay. *Read more...*

Throwable robot and remote-controlled mini-helicopter unveiled as latest battlefield surveillance technology

Soldiers on the battlefield could soon benefit from new state-of-the-art surveillance equipment that can remotely pinpoint snipers, ambushes and explosive devices. A throwable wheeled robot and a remote-controlled

helicopter were both unveiled at a demonstration at the Defence and Equipment Support at Abbey Wood, near Bristol. *Read more...*

New Israeli battery provides thousands of hours of power

A new kind of portable electrochemical battery that can produce thousands of hours of power - and soon replace the expensive regular or rechargeable batteries in hearing aids and sensors and eventually in cellphones, laptop computers and even electric cars - has been developed at Haifa's Technion-Israel Institute of Technology. *Read more...*

Google Editions aims to bring e-books to all devices

Google has announced that it plans to sell e-books online through a service called Google Editions. It plans to simultaneously work with and against other e-book retailers, but wants to ensure that people can read books on nearly any device. *Read more...*

EcoATM provides an ATM where you can deposit your old mobile phone and get it recycled or get money for it

Automated eCycling Station for pricing and buy-back of used consumer electronics and mobile phones for trade-in/trade-up and recycling. *Read more...*

Cheetah, gecko and spiders inspire robotic designs

Imagine this one coming towards you - how does it make you feel? *Read more...*

Digital Rosetta Stone

Tadahiro Kuroda, an electrical engineering professor at Keio University in Japan, has invented what he calls a "Digital Rosetta Stone," a wireless memory chip sealed in silicon that he says can store data for 1,000 years. *Read more...*

Another century of oil? Getting more from current reserves

- Forecasts that global oil production will soon start to decline and that most oil will be gone within a few decades may be overly pessimistic.
- The author predicts that by 2030, thanks to advanced technologies, wells will be able to extract half of the oil known to be underground, up from the current average of 35 percent.
- Together with new discoveries, the increased productivity could make oil last at least another century.

Read more...

The other peak oil: Demand from developed world falling

Oil demand in industrialized countries peaked in 2005 and will not reach that high again, a new report predicts. *Read more...*

A cure for jet lag? Scientists identify brain cell which keeps us awake

A pill that cures jet lag is a step closer today, after scientists discovered how signals from the brain control our biological clocks. *Read more...*

Biofuel from sewage

Qteros forms a partnership to use sewage as a feedstock for making ethanol. *Read more...*

A cheekbone grows in Cincinnati

Doctors at Cincinnati Children's Hospital report the first successful construction of a new cheekbone in a teenage patient born without one. *Read more...*

Libraries and readers wade into digital lending

Kate Lambert recalls using her library card just once or twice throughout her childhood. Now, she uses it several times a month. The lure? Electronic books she can download to her laptop. *Read more...*

Augmented reality turns breakfast cereal into a 3D games console

A breakfast cereal box is transformed in to a three-dimensional games console in the latest augmented reality campaign, to promote the animated film 'Arthur and the Revenge of Maltazard'. *Read more...*

High-speed 'other' internet goes global

A super high-speed global Internet devoted solely to science and education has just expanded to include half the countries of the world, and yes, you at home can be jealous. *Read more...*

Labs-on-a-chip that you can shrink to fit

INTEL's latest microchip technology has created transistors 22 nanometres wide - a mere 200 times the width of a hydrogen molecule. Carving such tiny features is devilishly difficult and expensive, but in another realm of microchips altogether, something odd is happening: chips are being made on an outsized scale and then shrunk to the required size. *Read more...*

Commandos field test 'Plasma Knife'

Special Operations Command have "completed ongoing testing and field evaluation studies" of a Plasma Knife which cuts through flesh with a "blade" of glowing ionized gas. But rather than being a weapon, the Plasma Knife is a surgical instrument that could save lives. *Read more...*

Energy out of the blue: Generating electric power from the clash of river and sea water

This concept of "salt power"-also known as osmotic, or salinity-gradient, power-has been kicked around for decades, and now, proponents hope, technology has advanced enough to make it economically competitive. *Read more...*

Could early retirement kill you?

Full retirement after a life of work could actually kill you, claims new research. *Read more...*

First-time internet use alters activity in older brains

Adults with little internet experience show changes in their brain activity after just one week online, a new study finds. The results suggest Internet training can stimulate neural activation patterns and could potentially enhance brain function and cognition in older adults. *Read more...*

Centenarians with the bodies of 50-year-olds will one day be a realistic possibility, say scientists.

Half of babies now born in the UK will reach 100, thanks to higher living standards, but our bodies are wearing out at the same rate. To achieve "50 active years after 50", experts at Leeds University are spending £50m over five years looking at innovative solutions. *Read more...*

Disney touts a way to ditch the DVD

The technology, code-named Keychest, could contribute to a shift in what it means for a consumer to own a movie or a TV show, by redefining ownership as access rights, not physical possession. The technology would allow consumers to pay a single price for permanent access to a movie or TV show across multiple digital platforms and devices–from the Web, to mobile gadgets like iPhones and cable services that allow on-demand viewing. *Read more...*

Massive gene database planned in California

Plans for genetic analyses of 100,000 older Californians--the first time genetic data will be generated for such a large and diverse group--will accelerate research into environmental and genetic causes of disease, researchers say. *Read more...*

$13 an hour? 500 sign up, 1 wins a job

PH: Gives some sort of an idea of the state of the Us Economy. *Read more...*

U.S. military create live remote-controlled beetles to bug conversations

Spies may soon be bugging conversations using actual insects, thanks to research funded by the US military. The US Defense Advanced Research Projects Agency has spent years developing a whole host of cyborg critters, in the hopes of creating the ultimate 'fly on the wall'. *Read more...*

Neural prostheses go wireless

An entirely implantable system being tested in monkeys transfers data through the skin via laser. *Read more...*

3M enhances 3d display capabilities for handheld displays with 3D optical film

3M has developed a new, field sequential 3D optical film for handheld devices-enabling true auto stereoscopic 3D viewing on mobile phones, gaming and other handheld devices without the need for glasses. *Read more...*

Building a brain inside a supercomputer

Blue Brain is an IBM computer built to simulate a human brain. It's powered by 2,000 microchips, each acting as a single neuron, that enable it to execute 22.8 trillion operations per second. *Read more...*

Cancer society, in shift, has concerns on screenings

The American Cancer Society, which has long been a staunch defender of most cancer screening, is now saying that the benefits of detecting many cancers, especially breast and prostate, have been overstated. *Read more...*

U.S. debt crisis may cause 'fall of Rome' scenario

U.S. budget deficits will continue to pile up in the next decade, eventually reaching an unsustainable level that may result in an economic collapse, according to Richard Duncan, author of "The Dollar Crisis." *Read more...*

Head-up displays go Holographic

A new projection technology could see in-vehicle displays pop up in wing mirrors. *Read more...*

Self-steered tractors and UAVs: Future farming is (finally) now

It was 1903 when Robert Blair's great-grandfather began farming the dry ridge overlooking the Clearwater River near Lewiston, Idaho. In 2001, when Blair took the reins, the farm's books were still kept by hand. Now, he has deployed a set of Darpa-like technologies, including unmanned aerial vehicles and self-steering tractors. *Read more...*

Hydrogen muscle silences the domestic robot

IF ROBOTS are ever going to be welcome in the home they will need to become a lot quieter. Building them with artificial muscles that run on hydrogen, instead of noisy compressed-air pumps or electric motors, could be the answer. *Read more...*

Google's android allows soldiers to put drones on buddy list

Defense giant Raytheon has turned Google's mobile operating system into a military application. *Read more...*

Scientists reveals secrets of drought resistance

A team of biologists in California led by researchers at The Scripps Research Institute and the University of California (UC), San Diego has solved the structure of a critical molecule that helps plants survive during droughts. Understanding the inner workings of this molecule may help scientists design new ways to protect crops against prolonged dry periods, potentially improving crop yields worldwide, aiding biofuels production on marginal lands and mitigating drought's human and economic costs. *Read more...*