

@ Emergent Futures | New Around the World | What Are We Writing About

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



What's Emerging

Manned and unmanned helicopters most efficient when working together

Flying alongside drones might seem a bit strange for U.S. Army chopper pilots, but it has major payoffs. The U.S. Army found that a mixed flight force of manned and unmanned helicopters could locate and kill 90 percent of targets, compared to manned helicopter forces that located just 70 percent of targets. [Read more...](#)

The next decade's top sustainability trends

What trends are likely the next ten years? One thing for sure, 2010 through 2019 will be one day looked at as 1) the turning point for addressing climate change by using effective urban management strategies, or it will be remembered as 2) the time when we collectively fumbled the Big Blue Ball. [Read more...](#)

Nearby T Pyxidid supernova could destroy life on earth

Astronomers at this week's American Astronomical Society meeting revealed that a massive white dwarf star in the throes of multiple nova is much closer to our solar system than once thought. [Read more...](#)

Sleep cycle analyzes your sleep patterns for a better wake-up

iPhone only: The Sleep Cycle app watches your slumbers and wakes you when you're lightly dozing, instead of right before you win the lottery. [Read more...](#)

Zyxio announces winners for "be a mind blower" contest

Zyxio, a start-up that has developed a proprietary technology called SensaWaft that lets people control computers via air flow. With that in mind, the start-up launched a contest, BeAMindBlower to crowd source new product ideas and will fund development of the most innovative product ideas that are submitted. [Read more...](#)

Ferropaper' is new technology for small motors, robots

Researchers at Purdue University have created a magnetic "ferropaper" that might be used to make low-cost "micromotors" for surgical instruments, tiny tweezers to study cells and miniature speakers. [Read more...](#)

ModCell's stunning straw-bale prefab home

A prefab company in the UK called ModCell, has taken an innovative approach that merges straw bale construction with prefabricated panels, with an end result that is highly attractive, energy-efficient and very sustainable. [Read more...](#)

Samsung 9000 series 3-D TV is no thicker than a pencil

Samsung is going whole hog into 3-D with their newly announced TV line-up, but at the top is the 9000 series: an LED-backlit panel that's just 0.3 inches thin. And on its remote. a colour touch screen that can carry broadcast TV while you watch a Blu-ray disc. [Read more...](#)

Skiff e-reader has some new tricks

What's really interesting about the new crop of e-readers in general, and Skiff in particular, is that we're seeing the first serious attempts to translate design-heavy print materials into an e-Ink environment without simply displaying image files. [Read more...](#)

Contrarian investor sees economic crash in China

James S. Chanos built one of the largest fortunes on Wall Street by foreseeing the collapse of Enron and other highflying companies whose stories were too good to be true. As most of the world bets on China to help lift the global economy out of recession, Mr. Chanos is warning that China's hyperstimulated economy is headed for a crash. [Read more...](#)

Boys will be boys when it comes to toys

PARENTS hoping to shield their children from sex stereotypes by giving them gender-neutral toys may be fighting a losing battle, especially if their offspring are boys. It seems that hormones released both before birth and well into the first few months of life may dictate the type of toys and play that boys are drawn to. [Read more...](#)

Thieves use Google Earth to find and plunder wineries' solar panels

Many thieves have reportedly used trucks to simply crash winery gates and steal up to 70 panels at a time. Local sheriff deputies speculate that online tools such as Google Earth might make it particularly easy to locate possible targets -- more than 400 panels worth over \$1,000 each were stolen from Napa Valley vineyards in 2009. [Read more...](#)

No more power lines?

Buried super-cooled electrical cables may replace towering transmission lines and carry solar and wind energy efficiently over long distances. [Read more...](#)

For the scoot people with too much luggage

What designer Elliot Ortiz has whipped up here is the solution for your luggage woes, the aptly titled, "Cargo" scooter. With a large capacity for storage and a "Drive by Wire" tank-style steering system. [Read more...](#)

Alzheimer's discovery could lead to long-sought preventive treatment

A new discovery by University of Central Florida researchers has revealed a previously unknown mechanism that may drive the early brain function deterioration of Alzheimer's victims, thus opening a new exploratory path in the quest for an Alzheimer's cure. [Read more...](#)

Coral reefs are most fecund cradles of diversity

Coral reefs have generated more new kinds of animal than all other marine habitats put together. So concludes an analysis of the earliest fossils of more than 6000 sea-floor invertebrates, which found that reefs "gave birth" to close to 6 in 10 of the groups studied. [Read more...](#)

BlockChalk

Use your mobile phone to leave messages on your block, your street, at the coffee shop, or anywhere you happen to be. Respond privately or publicly to messages from people in your neighborhood. **Paul Higgins: this is an interesting concept. Messages that are tagged with a geographical location and you only receive them if you are in that geographical location.** [Read more...](#)

A really interesting cartoon commentary on our current world by comparing the work of Orwell and Huxley

Our brains are confused about time

A recent study published in the journal Psychological Science has found our concept of time is distorted, and we consistently underestimate how much time has passed since events in the past, condensing the time. [Read more...](#)

AsthmaMD helps asthma sufferers, gathers aggregate research data

A new iPhone app called AsthmaMD, which was created by am Pejham (a doctor and researcher) and Salim Madjd, aims to help asthma sufferers. The application let's them keep a diary of attacks, helping them keep records of the severity of attacks, medications used, etc. [Read more...](#)

Despite risks, internet creeps onto car dashboards

To the dismay of safety advocates already worried about driver distraction, automakers and high-tech companies have found a new place to put sophisticated Internet-connected computers. [Read more...](#)

The mini ice age starts here

The bitter winter afflicting much of the Northern Hemisphere is only the start of a global trend towards cooler weather that is likely to last for 20 or 30 years, say some of the world's most eminent climate scientists. [Read more...](#)

From print to phone to web. and a sale?

With the sudden ubiquity of smartphones, which have apps that can read bar codes, and camera-phones, which can easily snap pictures of icons, magazines like Esquire and InStyle are adding interactive graphics to their articles, while Entertainment Weekly and Star are including them in ads. [Read more...](#)

China passes US as world's biggest car market

On the opening day of the Detroit Motor Show 2010 — a century after the Model T Ford made America forever inseparable from its cars — China has roared past the United States to become the world's biggest car market. [Read more...](#)

Slime mold map making: Using natural behavior to inspire inter-city planning

Using the slime mould *Physarum polycephalum*, researchers at the University of the West of England in Bristol have been exploring new models for inter-city road planning. New Scientist reports that most of the resulting maps mimicked existing road networks, but some did offer novel routes. [Read more...](#)

Watching TV shortens life span, study finds

Australian researchers find that each hour a day spent in front of television is linked with an 18% greater risk of dying from cardiovascular disease and an 11% greater risk of all causes of death. [Read more...](#)

Artificial leaf could make green hydrogen

The idea is not new, but until now researchers have focused on trying to modify or mimic the molecules directly involved in splitting hydrogen. "We'd like to adopt an entirely different concept, to mimic photosynthesis by copying the elaborate architectures of green leaves," [Read more...](#)

Australia: Use of wireless broadband services mushroomed during the past year

The Australian Communications and Media Authority's communications report, released yesterday, revealed the use of wireless broadband services jumped 162 per cent in 2008-09, while fixed-line telephone services dropped 3 per cent. [Read more...](#)

Europe slapping rich with massive traffic fines

European countries are increasingly pegging speeding fines to income as a way to punish wealthy scofflaws who would otherwise ignore tickets. [Read more...](#)

Brain 'entanglement' could explain memories

Subatomic particles do it. Now the observation that groups of brain cells seem to have their own version of quantum entanglement, or "spooky action at a distance", could help explain how our minds combine experiences from many different senses into one memory. [Read more...](#)

iPhone as RFID tag & reader: Coming soon

According to a number of believable blog reports, RFID is set to be a part of the as yet unannounced iPhone 4G. Apple holds a patent for a touch screen RFID tag reader and is said to be testing an RFID-enabled iPhone currently. So RFID could be a feature of the iPhone 4G as soon as spring 2010. [Read more...](#)

No needle in a haystack too small for DARPA's dream goggles

DARPA's dreamers and brainiacs have set their sights on a new technology for the U.S. military -- high-tech binoculars or goggles that would supposedly have the ability to find the not-so-proverbial needle in a haystack.

[Read more...](#)

Wet computing systems to boost processing power

A new kind of information processing technology inspired by chemical processes in living systems is being developed by researchers at the University of Southampton. [Read more...](#)

Just how fast is the climate changing?

CLIMATE change has a speed: about 420 metres per year. That's the average rate at which temperature zones will shift across global landscapes during this century, according to research led by the Carnegie Institute in the United States. [Read more...](#)

Electric cars and concepts at the 2010 Detroit auto show (photos)

Audi's second e-tron concept, following the one originally launched at the 2009 Frankfurt auto show, uses a lightweight sports car body. Each rear wheel gets its own electric motor, and the car's torque vectoring corrects for understeer and oversteer. Audi says this car gets to 60 mph in 5.9 seconds, with a range of 155 miles. [Read more...](#)

'Longevity gene' helps prevent memory decline and dementia

Scientists at Albert Einstein College of Medicine of Yeshiva University have found that a "longevity gene" helps to slow age-related decline in brain function in older adults. Drugs that mimic the gene's effect are now under development, and could help protect against Alzheimer's disease. [Read more...](#)

DARPA spends \$51 million on matrix-like cyber war firing range

DARPA hopes a \$51 million network simulation, complete with computer programs that behave like human targets and adversaries, will provide the perfect arena for developing the next generation of cyber war weapons and tactics. [Read more...](#)

Major Antarctic glacier is 'past its tipping point'

A major Antarctic glacier has passed its tipping point, according to a new modelling study. After losing increasing amounts of ice over the past decades, it is poised to collapse in a catastrophe that could raise global sea levels by 24 centimetres. [Read more...](#)

Poker paradox: The more hands you win, the more money you lose

Analyzing more than 27 million hands of No-Limit Texas Hold'em, a Cornell researcher has found that the more hands players win, the less money they're likely to collect - especially when it comes to novice players. The study was published in the Journal of Gambling Studies. **Paul Higgins: This is an interesting example of our cognitive biases.** [Read more...](#)

Diamond oceans possible on Uranus, Neptune

By melting and resolidifying diamond, scientists explain how such liquid diamond oceans may be possible. [Read more...](#)

Arctic permafrost leaking methane at record levels, figures show

Experts say methane emissions from the Arctic have risen by almost one-third in just five years, and that sharply rising temperatures are to blame. [Read more...](#)

Voodoo wasps that could save the world

Genetic breakthrough could enable scientists to unleash armies of insects on deadly crop pests. [Read more...](#)

The dangers of a high-information diet

Humans are uniquely at risk because we have always craved information. Anthropologist Robin Dunbar and his colleagues at the University of Oxford suggest that this trait has almost certainly been bred into us during our evolutionary history. [Read more...](#)

Neural thermostat keeps brain running efficiently

Our energy-hungry brains operate reliably and efficiently while processing a flood of sensory information, thanks to a sort of neuronal thermostat that regulates activity in the visual cortex, Yale researchers have found. [Read more...](#)

Hexapod robot moves in the right direction by controlling chaos

Researchers are leading a project that has created a six-legged robot with one CPG that can switch gaits depending upon the obstacles it encounters. [Read more...](#)

Report: Skype now accounts for 12% of all international calling minutes

VoIP services juggernaut Skype has seen its share of international calling minutes jump to 12% in 2009, a 50% increase compared to the year before. [Read more...](#)

China's population of Web users hits 384 million

BEIJING -- China's population of Internet users, already the world's largest, soared nearly 30 percent last year to 384 million as the number of people surfing the Web by mobile phone more than doubled, a research group reported. [Read more...](#)

Using printed nanocircuits to sense hormones

Researchers at a startup called Aneev Nanotechnologies believe they're building hormone sensors that could revolutionize the understanding and treatment of infertility, menopause, and other conditions related to hormone fluctuation. [Read more...](#)

Israel developing semi-lethal sonic cannon to control rioters

Although it's intended to be less than lethal, the Thunder Generator cannon can cause death to people within 30 feet of the blast. For people farther away than 30 feet, the sonic boom will deafen them and knock them back, and hopefully disperse an unruly crowd. [Read more...](#)

Plug-and-play electric car design

Trexa has created the first electric vehicle development platform. The flexible system offers all the basics to create a variety of different electric transportation options. [Read more...](#)

Tough snail shell could inspire better body armor

A snail's shell that protects it from attacks underwater could provide clues for designing improved body armor to guard human soldiers, a new study suggests. [Read more...](#)

Study: Internet radio reaching 32% of households, e-readers are hot

Most of this isn't huge news but the statistics are pretty striking. For example:

- 32% of users listen to an average of 5.8 hours of Internet radio a week, a huge jump.
- iPod owners consume 8.9 hours of media per week while e-reader owners consume 18.2 hours of new media per week. That means e-readers have a captive audience.
- Folks aged 50-64 use 8.3 hours of Internet per week compared to 24-39 year olds who use it for 6.8 hours.

[Read more...](#)

Staying still too long hurts you, even if you exercise

If you take laziness just as seriously as exercise, you're still at a higher risk of dying from cancer, heart disease, or other illnesses than those who stay moderately active throughout the day. [Read more...](#)

If your kids are awake, they're probably online

The average young American now spends practically every waking minute using a smart phone, computer, television or other electronic device, according to a new study from the Kaiser Family Foundation. Those ages 8 to 18 spend more than seven and a half hours a day with such devices. And that does not count the hour and a half that youths spend texting, or the half-hour they talk on their cellphones. [Read more...](#)

Solar shingles see the light of day

Augmented Reality apps are starting to appear in the App Store and the segment has a ton of potential with the advancements in GPS and camera technologies on smartphones like the iPhone. Augmented Reality (AR) combines real-world and computer-generated data in real-time. [Read more...](#)

Researchers develop anti-cancer 'nano cocktail'

A team of researchers in California and Massachusetts has developed a "cocktail" of different nanometre-sized particles that work in concert within the bloodstream to locate, adhere to and kill cancerous tumours. [Read more...](#)

Those less motivated to achieve will excel on tasks seen as fun

Those who value excellence and hard work generally do better than others on specific tasks when they are reminded of those values. But when a task is presented as fun, researchers report, the same individuals often will do worse than those who say they are less motivated to achieve. [Read more...](#)

iPhone and Android now account for 81 percent of smartphone web ads in the U.S.

According to market share data put out today by AdMob (which is being acquired by Google), the iPhone and Android combined captured 81 percent of U.S. mobile ad impressions on smartphones in the fourth quarter of 2009, up from a combined 55 percent in the first quarter of 2009. [Read more...](#)

(Some) Nokia phones get free turn-by-turn GPS directions

Not wanting to be left behind by the likes of Android, Nokia is today rolling out a free turn-by-turn GPS app for 10 of its phones: the Nokia X6, N97 mini, E72, E55, E52, 6730 classic, 6710 Navigator, 5800 Xpressmusic, 5800 Navigation Edition, and 523. All GPS-enabled phones will eventually be able to download the software, and new Nokia phones shipping in March will come with the service pre-installed. [Read more...](#)

Brain scans predict video gamers success

The size of three specific regions of the brain can predict performance in video games, and may show the way forward for education, said American psychologists. [Read more...](#)

A synchronous clock made of bacteria

Such microorganisms might make environmental sensors or drug delivery systems. [Read more...](#)

Scientists use synthetic muscles to control eyelids, restore ability to blink

Surgeons have demonstrated the use of artificial muscles to control eyelids, restoring the ability to blink for those suffering from facial paralysis. [Read more...](#)

Electromagnetic pulse cannon could demo car-stopping power next month

Eureka Aerospace's system consists of a suitcase-sized antenna that weighs roughly 50-55lbs, and can supposedly stop cars in their tracks up to 656 feet (200 m) away. That disabling power only works for more modern cars that rely upon microprocessors and various electronics for their engine, as opposed to pre-1970s cars. **Paul Higgins : The thought of a suitcase size weapon that can be aimed at cars and stop them working is a bit unnerving to me. Imagine the havoc that someone could cause on busy freeways.** [Read more...](#)

UK government sets its data free, for the people's apps

The UK government has decided to make the non-personal data it holds available for web developers to create a new wave of public applications. It's a bold move which will open up more data than even the US government holds at Data.gov. [Read more...](#)

Fish oil slows burn of genetic fuse in ageing, say scientists

Omega-3 fatty acids from fish oils have a direct effect on biological ageing, US research suggests. [Read more...](#)

Johann Hari: The age of the killer robot is no longer a sci-fi fantasy

When the US invaded Iraq in 2003, they had no robots as part of their force. By the end of 2005, they had 2,400. Today, they have 12,000, carrying out 33,000 missions a year. A report by the US Joint Forces Command

says autonomous robots will be the norm on the battlefield within 20 years. [Read more...](#)

Rickets makes comeback among computer generation

The growth of the computer generation and changing lifestyles among children are leading to a Vitamin D deficiency and a rise in cases of rickets, medical experts have warned. [Read more...](#)

Six industries Apple's tablet could shake up

Apple's tablet announcement is next week. And like the iPhone before it, the product may well have a power that ripples far beyond its on-sale date. Here are six industries that the Apple tablet could shake up. [Read more...](#)

Report: E-reader sales will surge at the \$150 price point

The e-reader market is set to surge—once the devices hit an optimal price of about \$150, according to research from the Yankee Group. In a report, Yankee Group forecast that e-readers will generate \$1.3 billion in revenue in 2010 and hit \$2.5 billion by 2013. [Read more...](#)

ComScore reports global search market growth of 46 percent in 2009

The total worldwide search market boasted more than 131 billion searches conducted by people age 15 or older from home and work locations in December 2009, representing a 46-percent increase in the past year. This number represents more than 4 billion searches per day, 175 million per hour, and 29 million per minute. [Read more...](#)

Watch Obama's state of the union speech live from your iPhone

The White House has announced on its blog that they have released an official iPhone / iPod Touch application dubbed 'The White House' app. [Read more...](#)