

We help you think about the future so you can act today ...

# What's Emerging?

The latest news and information ...

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## Mid February 2011

### Welcome to the middle of February edition of What's Emerging

Everyone should be back in the swing of things and certainly the inquiries for our work have rapidly escalated in the last two weeks. We have a number of interesting strategy, workshop and presentation projects now in place for the next 3 months along with a number of published articles that are in the pipeline. Stay tuned on the website and via the newsletter and as always we will share as much as we can with you. Our writing section is a little different this month . We have decided to put more insight pieces and commentary on the blog as and, as detailed below if you are interested you can follow the posts as they go up on our blog.

We hope that you continue to find the newsletter interesting and valuable and would welcome any feedback.

Cheers

Paul Higgins, Sandy Teagle, Kim Stewart, Anitha Mendonca, Syed Muqthar, and Samantha Kyle-Little

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### ■ What we are writing about

We have a number of stories and presentations in preparation including a commentary on social media for regional Australia, a presentation on the future of education technology, an article on innovation in regional Australia, and an article of the future media landscape. They are all in draft form and we cannot share them with you here until they are published. However we have commenced putting more commentary and opinion into our blog posts as a policy to provide more value to our followers. Here is a selection of some of them. If you want to read more of these then follow us on Twitter or sign up via RSS for the blog by going to our [home page](#).

#### Sleep selectively stores useful memories

After a good night's sleep, people remember information better when they know it will be useful in the future, according to a new study in the Feb. 2 issue of The Journal of Neuroscience. The findings suggest that the brain evaluates memories during sleep and preferentially retains the ones that are most relevant. For our commentary go to the post on our [blog](#). [Read More...](#)

#### How flexible car sharing messes with your brain

Different business models can result in you adapting your thinking but also encounter resistance in your thinking. Here is Paul's comment on the flexible car share system he is using in Melbourne and how those around him have reacted to him not owning a car. [Read More...](#)

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### ■ Business Tips

Our business tips are in our main newsletter please click [here](#).

## ■ What's Emerging

### Grow your own security: Prof breeds bomb-spotting plants

"Plants can't run and hide," says June Medford, the biologist who's spent the last seven years figuring out how to deputize plants for counterterrorism. "If a bug comes by, it has to respond to it. And it already has the infrastructure to respond." [Read More...](#)

### In the blink of bird's eye, a model for quantum navigation

Quantum entanglement is a state where electrons are spatially separated, but able to affect one another. It's been proposed that birds' eyes contain entanglement-based compasses. [Read More...](#)

### The seven global economic spheres of 2020

Jean-Pierre Lehmann, professor at International Institute for Management Development (IMD), paints a possible portrait of the world's economic landscape in 2020. [Read More...](#)

### iPad a winner at Australian Open tennis

The hugely popular Apple device has increased workers' productivity by saving up to three hours a day, said Chris Yates, Tennis Australia's chief information officer. [Read More...](#)

### 25 years of digital vandalism

***Paul Higgins: An interesting opinion piece at the New York Times on computer viruses by one of my favourite authors William Gibson.*** [Read More...](#)

### A physicist explains why parallel universes may exist

Our universe might be really, really big — but finite. Or it might be infinitely big. Both cases, says physicist Brian Greene, are possibilities, but if the latter is true, so is another posit: There are only so many ways matter can arrange itself within that infinite universe. Eventually, matter has to repeat itself and arrange itself in similar ways. So if the universe is infinitely large, it is also home to infinite parallel universes. [Read More...](#)

### Cancer and heart disease costs to skyrocket hundreds of billions of dollars

Two decades from now, the costs of treating heart disease will triple by 2030, hitting \$818 billion, predicts an American Heart Association (AHA) study. [Read More...](#)

### Physicist discovers how to make quantum foam in a test tube

Metamaterials should allow scientists recreate and study the properties of space time on the smallest scale. [Read More...](#)

### New York Times prepares digital paywall, tiered pricing

The Times is considering charging about \$20 per month for a digital bundle that includes access to the website, as well as the iPad app, according to a report in The Wall Street Journal. The paper will charge "less than half that for the web-only offering." Reading the paper using Amazon's Kindle e-reader currently costs \$20 per month. [Read More...](#)

### Are location-based services ready to turn the corner?

Despite reports that location-based services are far from mainstream, new research by Microsoft suggests the technology is gaining adoption and may be poised to follow in the footsteps of the ATM, which took some time to dispel safety concerns on its way to being universally used. In an online survey of 1,500 people around the world last month, 51 percent report having used a location-based service including 50 percent in the U.S. [Read More...](#)

### Giving hackers a printed invitation

Computer criminals may have a new target: the office printer. [Read More...](#)

### Efficiency could cut world energy use over 70 per cent

To calculate how much energy could be saved through such improvements, Julian Allwood and colleagues at the University of Cambridge analysed the buildings, vehicles and industry around us and applied "best practice" efficiency changes to them. [Read More...](#)

### How Egypt turned off the internet

It's simple to make these changes in the country because there are only 10 Internet providers

and a centralized government that can quickly order them to yank out the cables. If the providers refuse, they can lose their licenses from the Telecommunications Regulatory Authority. [Read More...](#)

### U.S. scientists work to grow meat in lab

In a small laboratory on an upper floor of the basic science building at the Medical University of South Carolina, Vladimir Mironov, M.D., Ph.D., has been working for a decade to grow meat. [Read More...](#)

### Potential 'cure' for type 1 diabetes?

Type 1 diabetes could be converted to an asymptomatic, non-insulin-dependent disorder by eliminating the actions of a specific hormone, new findings by UT Southwestern Medical Center researchers suggest. [Read More...](#)

### Report advocates GM crops in food supply measures

Genetically-modified crops are among measures needed to tackle problems with global food supplies that could see prices soar. [Read More...](#)

### The fantastical promise of reversible computing

Reversible logic could cut the energy wasted by computers to zero. But significant challenges lie ahead. [Read More...](#)

### Climate matched Europe's rise and fall

WASHINGTON: Ancient tree rings show links between climate change and major events in human history, like migrations, plagues and the rise and fall of empires, according to a new study. [Read More...](#)

### Volkswagen XL1: World's most efficient car?

Eleven years ago Prof. Dr. Ferdinand Piëch, who is today Chairman of the Supervisory Board of Volkswagen AG posed a challenge the VW's engineers to develop a mass market car which would get 100 km consuming just 1.0 litre of fuel (282 mpg) ***Paul Higgins: While there is an aspect of playing with numbers here by ignoring the petrol equivalence of the energy required to power the plug in motor there is also some impressive stuff.*** [Read More...](#)

### A quicker way to identify skin cancer

A new device that a doctor holds over a mole uses laser light to determine if it's melanoma. [Read More...](#)

### U.S. home prices slump again, hitting new lows

Nine of the 20 cities in the index sank in November to new lows for this economic cycle: Chicago; Las Vegas; Detroit; Atlanta; Seattle; Charlotte, N.C.; Miami; Tampa; Fla.; and Portland, Ore. Only a handful of places — essentially, California and the District of Columbia — went counter to the trend and had rising prices over the last year. [Read More...](#)

### First bottled water free university for Australia

The Vice-Chancellor of the University of Canberra announced on Friday 21 January that its campus will discontinue the sale of bottled water by World Water Day (22 March 201). The initiative started by students, assisted by environment action group Do Something! and supported by University administration and campus businesses is thought to make Canberra Uni the first Australian university to eradicate single use bottled water. [Read More...](#)

### "Quantum water" discovered in carbon nanotubes

A new quantum state of water found in carbon nanotubes at room temperature could have important implications for life. [Read More...](#)

### Israel shaken as turbulence rocks an ally

The street revolt in Egypt has thrown the Israeli government and military into turmoil, with top officials closeted in round-the-clock strategy sessions aimed at rethinking their most significant regional relationship. [Read More...](#)

### CHART OF THE DAY: Here's how much a unique visitor is worth

How much is a unique visitor worth on the Internet? Depends on who you are. [Read More...](#)

### Kraft store kiosk scans your face then knows what to feed it

The digital signage, equipped with a freaky sort of Anonymous Video Analytics technology,

zooms in on his or her face and instantly determines gender and age group to guess what products might exert some allure. [Read More...](#)

China to make largest city in the world by combining 9 cities, 42 million people

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New technique for rapidly prototyping nanoscale devices and structures

Northwestern University researchers have developed a new technique for rapidly prototyping nanoscale devices and structures that is so inexpensive the "print head" can be thrown away when done. [Read More...](#)

Worldwide mobile data traffic exploding, nearly tripled in 2010

In 2010 alone, the amount of mobile data sent was 2.6 times what it was in 2009. And by 2015, people will send 26 times more mobile data than they do now, according to Cisco's annual Global Mobile Traffic Forecast. [Read More...](#)

The AI revolution is on

Instead of organizing the warehouse as a human might—by placing like products next to one another, for instance—Diapers.com's robots stick the items in various aisles throughout the facility. Then, to fill an order, the first available robot simply finds the closest requested item. The storeroom is an ever-shifting mass that adjusts to constantly changing data, like the size and popularity of merchandise, the geography of the warehouse, and the location of each robot. [Read More...](#)

Without broadband, the internet in Egypt

Make no mistake about it, the Egyptian government did what they intended to do: They've cut their people from using the modern broadband Internet. Using cobbled together technology, however, Egyptian Internet users have continued on. [Read More...](#)

Apple imagines 3-D multitouch everywhere

How about an intelligent multitouch grip on your golf club to tell you you're holding it well? Or a multitouch steering wheel to control your car radio? Or just a portable stretchy multitouch sheet to make, well, anything 3-D touchy? Apple's imagined (and patented) it all. [Read More...](#)

Alternative fuels don't benefit the military

The United States would derive no meaningful military benefit from increased use of alternative fuels to power its jets, ships and other weapons systems, according to a government-commissioned study by the RAND Corporation. [Read More...](#)

Egypt could become a greater threat than Pakistan, say analysts

Turmoil in a state western counter-terrorism agencies have been able to rely on could have 'far-reaching consequences'. [Read More...](#)

World food prices hit new record: UN

The FAO Food Price Index, which monitors monthly price changes for a basket of commodities, averaged 231 points in January - up 3.4 per cent from December and its highest level since FAO started measuring food prices in 1990. [Read More...](#)

22% of online Americans used social networking or Twitter for politics in 2010 campaign

In contrast to the 2008 race—in which Democratic voters led the way in their use of online social networks for political purposes—Republican voters and supporters of the "Tea Party" movement caught up with Democrats in their use of social media in 2010. [Read More...](#)

New class of implantable monitoring devices for heart patients

Implanted in the pulmonary artery, CardioMEMS' new heart sensor enables Class III heart-failure patients (considered to be in the moderate stage of heart failure) to take daily intracardiac pressure readings at home. [Read More...](#)

Darpa crowdsources new military vehicles

Darpa announced today that it'll give \$10,000 to whomever comes up with the best design for new "Combat Reconnaissance and Combat Delivery & Evacuation" vehicles. Welcome to the Experimental Crowd-derived Combat-support Vehicle Design Challenge, or XC2V, conducted in partnership with Local Motors, a company that's the automotive equivalent of a microbrew.

[Read More...](#)

## 'Death by GPS' in desert

"It's what I'm beginning to call death by GPS," said Death Valley wilderness coordinator Charlie Callagan. "People are renting vehicles with GPS and they have no idea how it works and they are willing to trust the GPS to lead them into the middle of nowhere." [Read More...](#)

## Amazon joins the battle for lucrative online movie market

The online retailer is set to launch its own film-streaming service as it attempts to counteract falling DVD sales, but it faces a tough contest with Netflix, which dominates the American market. [Read More...](#)

## Space so full of junk that a satellite collision could destroy communications on Earth

Space is so littered with debris that a collision between satellites could set off an "uncontrolled chain reaction" capable of destroying the communications network on Earth, a Pentagon report warned. [Read More...](#)

## Star-shaped self-sustaining city of the future

The city of tomorrow takes to the skies in an incredible new concept from Beijing-based MAD Architects. Although its spires may look menacing, the aptly named Superstar is a completely self-sustaining city that is capable of producing all of its own power and food while recycling all of its waste. Conceived as a future-forward update to the contemporary Chinatown, the Superstar will travel the globe, supplying its host cities with energy, commerce, and cultural activities. [Read More...](#)

## Japan's elderly fail to welcome their robot overlords

The Japanese government and care industry now seems to agree after robots have turned out to be too expensive, impracticable and sometimes unwelcome, even in "robot friendly" Japan. [Read More...](#)

## Heritage health prize

Heritage launched the \$3 million Heritage Health Prize with one goal in mind: to develop a breakthrough algorithm that uses available patient data, including health records and claims data, to predict and prevent unnecessary hospitalizations. [Read More...](#)

## Human blood vessels grown in the laboratory

Off-the-shelf blood vessels that could revolutionise heart surgery have been developed by scientists. [Read More...](#)

## Google Earth finds Saudi Arabia's forbidden archaeological secrets

An armchair archaeologist has identified nearly 2,000 potentially important sites in Saudi Arabia using Google Earth, despite never having visited the country. [Read More...](#)

## Twitter is having acquisition talks with Facebook and Google and thinks it can become a \$100 billion company

Twitter has also had "low-level" acquisition talks with Facebook and Google and other companies and wants an \$8-\$10 billion takeout price. [Read More...](#)



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