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## Extra Links September 2010

### Welcome to the extra links of September edition of What's Emerging

For those of you in Melbourne, Paul came in contact last week with an interesting concept being developed in Melbourne called the Hub.

It is part of a worldwide system under the same name. It is sort of a social enterprise incubator and it aims to create a space and a community where social innovation can take place by people interacting between all sorts of disciplines. Paul is facilitating a group from leadership Victoria that are acting as business mentors for the program in its attempt to gain investment from Social Traders in their [Crunch competition](#) which funds social enterprises. They are offering free associate memberships until the 15th October and also having open days on Thursday afternoons if you want to check it out.

You can see more details [here](#). If you are not in Melbourne then there are still opportunities to participate on line and there are likely to be connections in other major cities in Australia. If you are not in Australia they have a clickable map to the other hub sites around the world.

Cheers

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### What we are writing about

Please see our [September](#) newsletter for what we are writing about:

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### Business Tips

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

### What's Emerging

Discovery highlights promise of new immune system-based therapies

A new focus on the immune system's ability to both unleash and restrain its attack on disease has led Dana-Farber Cancer Institute scientists to identify cells in mice that prevent the immune system from attacking the animals' own cells, protecting them from autoimmune diseases. [Read More...](#)

'Artificial ovary' develops oocytes into mature human eggs

Researchers at Brown University and Women & Infants Hospital have invented the first artificial human ovary, an advance that provides a potentially powerful new means for conducting fertility research and could also yield infertility treatments for cancer patients. [Read More...](#)

### Why thinking of nothing can be so tiring

Mathematicians at Case Western Reserve University may have part of the answer. They've found that just as thinking burns energy, stopping a thought burns energy -- like stopping a truck on a downhill slope. [Read More...](#)

### Blood disorder cured – a first for gene therapy

A 21-YEAR-OLD Frenchman is the first person in the world to be cured of the blood disorder beta-thalassaemia through gene therapy. But there is some confusion over what made the treatment work. [Read More...](#)

### Robot does yoga

This is a video of the latest humanoid robot from Kawada Industries in Japan. [Read More...](#)

### Beware of greeks bearing bonds

I love Michael Lewis' writing and this article on the Greek economy for Vanity Fair is another great piece. Examples just on the first page are:

Add it all up and you got about \$1.2 trillion, or more than a quarter-million dollars for every working Greek.

In just the past decade the wage bill of the Greek public sector has doubled, in real terms. The average state railroad employee earns 65,000 euros a year. Twenty years ago a successful businessman turned minister of finance named Stefanos Manos pointed out that it would be cheaper to put all Greece's rail passengers into taxicabs: it's still true. [Read More...](#)

### The verdict on cash for clunkers: A Clunker

The program induced the purchase of an additional 360,000 cars in July and August of 2009. However, almost all of the additional purchases under the program were pulled forward from the very near future; the effect of the program on auto purchases is almost completely reversed by as early as March 2010 – only seven months after the program ended. [Read More...](#)

### Robotic archer hits bull's eye

What's remarkable about the robot is how it learns over time to improve its aim until it's able to hit the bull's-eye. [Read More...](#)

### Payment cards to touch 10 billion mark worldwide by 2014: Retail Banking Research

The number of payment cards are set to increase from 7.4 billion in 2009 to more than 10 billion worldwide by 2014, as per the latest study titled 'Global Payment Cards Data and Forecasts 2009-2014' by Retail Banking Research. [Read More...](#)

### Sunspots could soon disappear for decades: Study

Sunspot formation is triggered by a magnetic field, which scientists say is steadily declining. They predict that by 2016 there may be no remaining sunspots, and the sun may stay spotless for several decades. The last time the sunspots disappeared altogether was in the 17th and 18th century, and coincided with a lengthy cool period on the planet known as the Little Ice Age. [Read More...](#)

### Wireless recharging for mobile phones by 2012

Fujitsu, the Japanese technology company, has created a system capable of simultaneously charging multiple portable electronic devices such as mobile phones, digital cameras and laptop computers without the need for cable connections. [Read More...](#)

### Supercrops: Fixing the flaws in photosynthesis

Many vital crops capture the sun's energy in a surprisingly inefficient way. A borrowed trick or two could make them far more productive. [Read More...](#)

### Are you ready for a world without antibiotics?

Hyperbole? Unfortunately not. The highly serious journal Lancet Infectious has posed the question itself over a paper revealing the rapid spread of multi-drug-resistant bacteria. "Is this the end of antibiotics?" it asked. [Read More...](#)

### Ancient viral invasion shaped human genome

This finding is an important contribution to the advancement of stem cell research and to its potential for regenerative medicine. Led by GIS Senior Group Leader Dr Guillaume Bourque, the study was published in Nature Genetics on June 6, 2010. [Read More...](#)

## How do people use their Smartphones?

Advertisers take note: People who have phones with Android operating systems are more likely to open an advertisement inside an app than are iPhone users. That, at least, is what the Nielsen Company says in a new report that it released on Monday about how people use mobile apps. [Read More...](#)

## Relating introspective accuracy to individual differences in brain structure

A Paper in science shows that: introspective ability is correlated with gray matter volume in the anterior prefrontal cortex, a region that shows marked evolutionary development in humans. Moreover, interindividual variation in introspective ability is also correlated with white-matter microstructure connected with this area of the prefrontal cortex. Our findings point to a focal neuroanatomical substrate for introspective ability, a substrate distinct from that supporting primary perception. [Read More...](#)

## Treating cancer based on its genome

Just two years ago, scientists published the sequence of the first cancer genome, detailing the constellation of genetic mutations that likely enabled tumor cells to grow out of control. Now a handful of scientists and physicians are starting to use data from this "whole genome analysis" to help them choose the best drugs for their patients. [Read More...](#)

## MIT inventors create robot swarm for mopping up oil spills

MIT researchers have invented a super-absorbent robot that can lap up oil faster than you can say Deepwater Horizon. [Read More...](#)

## Wireless printing comes to Apple iPad, iPhone, iPod

The software, which automatically finds printers on local networks, will be released to members of Apple's iOS developer program. It can print text, photos and graphics without requiring the installation of drivers, and is available for the iPad, iPhone 4, iPhone 3GS and second-generation or later iPod touch. [Read More...](#)

## Gut bacteria in Japanese people borrowed sushi-digesting genes from ocean bacteria

Japanese people have special tools that let them get more out of eating sushi. [Read More...](#)

## Natural gas to chemicals

Virus-based nanowires are the key to making valuable chemicals out of methane, says Siluria. [Read More...](#)

## 2010 tied with 1998 as warmest global temperature on record

The first eight months of 2010 tied the same period in 1998 for the warmest combined land and ocean surface temperature on record worldwide. [Read More...](#)

## Nano antenna increases the intensity of light by a factor of 1,000

Knowing how to concentrate light this way could lead to the development of optics and chemical and biological sensing on the single-molecule level. [Read More...](#)

## World must prep for bigger Net

In 2025, the world's Internet population will hit 5 billion users with a market worth US\$3 trillion, according to a new report, where its author calls for governments and businesses to start planning over the next five years to ensure success for this future. [Read More...](#)

## This is how much we text now

Interesting Graphic on how much Americans text. [Read More...](#)

## Gene limits learning and memory in mice

Deleting a certain gene in mice can make them smarter by unlocking a mysterious region of the brain considered to be relatively inflexible, scientists at Emory University School of Medicine have found. [Read More...](#)

## British scientists invent 'Skylon' spaceplane

A space aircraft that can take off from an ordinary airport runway before carrying tourists into

orbit could be a reality with 10 years, according to British scientists. [Read More...](#)

### Sequencing tested as infection early warning

Scientists aim to monitor communities for infections using fast sequencing technology.

[Read More...](#)

### Sensor-equipped spider webs to coat aircraft

Inspired by spider webs, a new sensor network can expand more than 265 times its original size. [Read More...](#)

### Itsy Bitsy Spider's web 10 times stronger than Kevlar

Scientists have found the toughest material made by life yet — the silk of a spider whose giant webs span rivers, streams and even lakes. [Read More...](#)

### Artificial human brain being built in a lab

Researchers have developed an artificial bit of human brain to help them study Alzheimer's and other diseases, a huge improvement over animal models. [Read More...](#)

### Scientists develop new 'photonic' chip that could make quantum computers a reality

The photonic chip, built by scientists from Bristol's Centre for Quantum Photonics, uses light rather than electricity to pass information. [Read More...](#)

### Personal exoskeletons for paraplegics

A mobile device helps patients with spinal cord injuries walk. [Read More...](#)

### Facebook's virtual currency push hints at micro-payments battle

Facebook is making a play to become the dominant player in virtual currency — the funny money you use to everything from digital magazines to Farmville turnips. [Read More...](#)

### More, better biodiesel

Yields of biodiesel from oilseed crops such as safflower could be increased by up to 24 percent using a new process developed by chemists at UC Davis. The method converts both plant oils and carbohydrates into biodiesel in a single process, and should also improve the performance characteristics of biodiesel, especially in cold weather. [Read More...](#)

### Electron switch between molecules points way to new high-powered organic batteries

The development of new organic batteries -- lightweight energy storage devices that work without the need for toxic heavy metals -- has a brighter future now that chemists have discovered a new way to pass electrons back and forth between two molecules. [Read More...](#)

### U.S. vulnerable to multidrug-resistant TB epidemic, computer model shows

According a study led by Johns Hopkins researchers. Computer simulations show that as TB prevalence falls, the risk for more extensive MDR-TB increases. In addition, the simulation also showed that higher detection of TB cases without proper treatment of cases also increased risk.

[Read More...](#)

### The rise of apps culture

"An apps culture is clearly emerging among some cell phone users, particularly men and young adults....."Still, it is clear that this is the early stage of adoption when many cell owners do not know what their phone can do. The apps market seems somewhat ahead of a majority of adult cell phone users." [Read More...](#)

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