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## Extra Links Mid September 2010

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

Welcome to the extra links of What's Emerging mid September edition of What's Emerging. Please remember that we are giving out a book voucher for comments on the revamp of our website, our Tumblr blog and our Twitter site so please visit them and give us some feedback. Paul has done a number of conference and workshop presentations in the last few weeks. If you want to have a look at them go to our presentation download section [here](#). We hope you continue to find the newsletter both entertaining and useful and please feel free to forward it to anyone you think might find it useful.

Cheers

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

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### What we are writing about

#### Book Review: At Home – A Short History of Private Life by Bill Bryson

Bill Bryson is one of those authors whose books that I automatically read as they come out because I love the fact that he can write in a way that makes any subject interesting. He also has the ability to find out surprising details of history and science. However there is another reason why we have reviewed this book. This story is basically about the history of the world and it is important when we think about the future that we have as thorough an understanding of the past as possible. It is even more important that we understand the past from different perspectives than seen in the standard history texts. [Read here.](#)

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### Business Tips

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

### What's Emerging

#### Shape-shifting robot compensates for damaged limb

Think that shape-shifting robots, or ones that march on no matter how many limbs they lose, are just for Terminator films? Think again. A team of European roboticists have developed

## What's Emerging?

software that allows a modular robot to adapt when one part stops working. [Read More...](#)

### Advances offer path to further shrink computer chips

Scientists at Rice University and Hewlett-Packard are reporting this week that they can overcome a fundamental barrier to the continued rapid miniaturization of computer memory that has been the basis for the consumer electronics revolution. [Read More...](#)

### Cell phone sees in the dark

New tech is shrinking night-vision goggles down to the size of a nickel. [Read More...](#)

### Does it pay to be optimistic?

According to a new working paper by Ron Kaniel, Cade Massey, and David T. Robinson, the answer is yes, at least if you're an MBA student looking for a job. [Read More...](#)

### Plug-in electric vehicles to hit 3.2 million by 2015

Plug-in electric vehicles, which include autos with batteries only and hybrid plug-ins, will hit the 3.2 million unit mark by 2015, according to Pike Research. [Read More...](#)

### Robot with frog egg smell sensor

Researchers from the University of Tokyo have invented a novel means of improving a robot's sense of smell, by using inexpensive olfactory sensors containing frog eggs. [Read More...](#)

### Pave this: Replace asphalt on roads with solar panels

Solar panels, operating at just 15 percent efficiency, installed as roadway surfaces within the 25,000 square miles of existing roads in the lower 48 states, would be capable of producing "three times as much electricity that we produce on an annual basis — almost enough to power the entire world," [Read More...](#)

### Hawking: It's outer space or die for humans

Stephen Hawking says he's an optimist. Perhaps theoretical physicists have an idiosyncratic definition of the word. For in an interview with BigThink, Hawking suggested that unless the human race begins to inhabit outer space, it will disappear. [Read More...](#)

### A new way to use the sun's energy

The device could be designed to send waste heat to a steam engine and convert 50 percent of the energy in sunlight into electricity--a huge improvement over conventional solar cells. The most common silicon solar cells convert about 15 percent of the energy in sunlight into electricity. [Read More...](#)

### Atlantis unveils AK1000 - World's largest, most powerful tidal power turbine

Auspiciously-named tidal energy developer, Atlantis Resources Corporation, has unveiled its AK1000, assuming the throne as creator of the world's largest, most powerful tidal power turbine. Scheduled to be installed at the European Marine Energy Center (EMEC) in Orkney, Scotland, the AK1000 boasts 1 megawatt of energy -- enough to power 1000 homes. [Read More...](#)

### Robots take out the trash

In the Italian town of Peccioli the streets are too old and narrow for garbage trucks to navigate, so residents have had to manage their own trash collection. That is, until the appearance of this summer of "Dustcart", a Segway-wheeled, sensor-equipped robot, that responds to house calls to collect garbage. [Read More...](#)

### Transplanting gut microbes to treat disease

Earlier this summer, scientists reported the success of an unusual medical transplant; a woman with a life-threatening *Clostridium difficile* infection was treated, and apparently cured, with an injection of some of her healthy husband's gut bacteria. [Read More...](#)

### Electricity collected from the air could become the newest alternative energy source

"Our research could pave the way for turning electricity from the atmosphere into an alternative energy source for the future," said study leader Fernando Galembeck, Ph.D. His research may help explain a 200-year-old scientific riddle about how electricity is produced and discharged in the atmosphere. [Read More...](#)

### The boss is robotic, and rolling up behind you

## What's Emerging?

Dr. Alan Shatzel's pager beeped at 9 on a Saturday morning. A man had suffered a stroke, and someone had to decide, quickly, whether to give him an anti-clotting drug that could mean the difference between life and death. Dr. Shatzel, a neurologist, hustled not to the emergency room where the patient lay — 260 miles away, in Bakersfield — but to a darkened room at a hospital. [Read More...](#)

### Inducing salamander-like powers of regeneration in mammals

A team of scientists at Stanford's Institute for Stem Cell Biology and Regenerative Medicine, led by Helen Blau, have shown that blocking two proteins in mouse muscle cells allows them to generate more muscle. The research was published today in Cell Stem Cell. [Read More...](#)

### Speeding Up Diagnosis of Infectious Disease

A startup is developing sequencing-based tests that could detect infections within 24 hours. [Read More...](#)

### Social media more popular than e-mail

Americans spent 22.7 percent of their online hours in June using social media sites, says Nielsen. That's a 43 percent increase from June 2009, when 15.8 percent of Web time was devoted to social media. Meanwhile, e-mail usage fell from 11.5 percent to 8.3 percent, and instant messaging dropped from 4.7 percent to 4 percent. [Read More...](#)

### Ye cannae change the laws of physics or can you?

In a paper just submitted to Physical Review Letters, a team led by John Webb and Julian King from the University of New South Wales in Australia present evidence that the fine-structure constant may not actually be constant after all. Rather, it seems to vary from place to place within the universe. [Read More...](#)

### How failure breeds success

Everyone fears failure. But breakthroughs depend on it. The best companies embrace their mistakes and learn from them. [Read More...](#)

### Helping joints regrow themselves

A chemical-infused scaffold generates new tissue by attracting stem cells. [Read More...](#)

### Nano switches that store more data head to market

An electronic component that offers a new way to squeeze more data into computers and portable gadgets is set to go into production in just a couple of years. [Read More...](#)

### Is micro-news the future?

Estimates of what the hyper-local market may be worth vary. New-media researchers at Borrell Associates in Virginia forecast that nearly \$15 billion will be generated from local online ads this year [Read More...](#)

### Not 'life,' but maybe 'organics' on Mars

Thirty-four years after NASA's Viking missions to Mars sent back results interpreted to mean there was no organic material - and consequently no life - on the planet, new research has concluded that organic material was found after all. [Read More...](#)

### Clean water for the developing world

Cotton fabric treated with nano inks produces a water filter that's efficient and needs little power to work. [Read More...](#)

### Android to catch Symbian for global market share lead, says Gartner

By 2014, Gartner argues that Symbian's market share will be 30.2 percent in 2014 with Android at 29.6 percent. That's roughly a statistical tie. Gartner also has Research in Motion losing operating system market share with 11.7 percent share in 2014. [Read More...](#)

### Satellite of profit

A Chicago company called Remote Sensing Metrics LLC has been using satellite images to track the number of cars in Wal-Mart parking lots, as a means of helping forecast earnings at the retail chain. If Wall Street begins to rely on satellite imagery for such information, how long until firms start rolling out the inflatable decoys to scramble their competitors' advantage? [Read More...](#)

### A cheaper, safer way to move natural gas

A new transport method involving ice crystals could make it practical to get natural gas from remote areas, with no worries about explosions. [Read More...](#)

Older people enjoy reading negative stories about young

Older people like reading negative news stories about their younger counterparts because it boosts their own self-esteem, according to a new study. [Read More...](#)

The future of the USA

**Paul Higgins: I am generally against those that predict the fall of the USA citing the fall of Rome as an example of a failed empire. However it is hard to argue that the USA can keep its pre-eminence when you read this article from the New York Times. Here is an excerpt:**

RICHARD X. BOVE is a bank analyst who likes to take what he calls "extreme positions." He occasionally moves the stock market, which has earned him a certain amount of prestige and notoriety — but has also gotten him fired several times.....But for the last two years, Mr. Bove has been engaged in a lonely legal battle to retain his ability to say whatever he likes, an ordeal that he says has been anything but fun. BankAtlantic, a Florida bank, sued him, accusing him of defamation after he wrote a report about the banking industry in July 2008, just as the financial crisis was starting to boil over. The bank contended that the report falsely suggested that the institution was in trouble. [Read More...](#)

For those that want to be depressed further you can read this opinion piece by Maureen Dowd on the politics of the mid term elections

The president is everywhere, trying to get more aggressive and recapture some of his "Yes we can" mojo in an effort to fend off the rebuke that's barreling toward him from voters this fall.

[Read More...](#)

Electric skin that rivals the real thing

Flexible sensors could give prosthetics and robots a more sensitive sense of touch. [Read More...](#)

Location based services

Foursquare's Alex Rainert: Key to Dominating Location Space Will Be Informing People's Behaviour in Real Time. [Read More...](#)

Researchers give robots the capability for deceptive behavior

A robot deceives an enemy soldier by creating a false trail and hiding so that it will not be caught. While this sounds like a scene from one of the Terminator movies, it's actually the scenario of an experiment conducted by researchers at the Georgia Institute of Technology as part of what is believed to be the first detailed examination of robot deception. [Read More...](#)

Building an implantable artificial kidney

A collaborative, multidisciplinary group of labs is working to create the first implantable artificial kidney. The prototype, revealed last week, is compact, no larger than a soup can. [Read More...](#)

Insect brains are rich stores of new antibiotics

Cockroaches could be more of a health benefit than a health hazard according to scientists from the University of Nottingham, who have discovered powerful antibiotic properties in the brains of cockroaches and locusts. [Read More...](#)

Microwave-powered rocket ascends without fuel

A scale model is further proof that beamed-energy propulsion works. [Read More...](#)



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