

What's Emerging?

The latest news and information ...

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

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Extra Links February 2011

Welcome to the end of February edition of What's Emerging

As we put this newsletter together rescuers are scouring the rubble in Christchurch, New Zealand for survivors from the earthquake. The last couple of years seems to have visited an unprecedented level of natural and man-made disasters on the Australia and New Zealand region between bushfires, floods, earthquakes and mine disasters. Our thoughts go out to families that have lost loved ones or are still uncertain as to their fate.

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

SECTIONS

[What we are writing about](#)

[Business Tips](#)

[What's Emerging](#)

[More Links](#)

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■ What we are writing about

Book Review: What Technology Wants by Kevin Kelly

The scope of this book by Kevin Kelly is enormous as he covers the development of technology back from the big bang at the start of the universe. His theory being that all of what constitutes our technology flows from the nature of energy and matter and how we have evolved. Therefore this book is not for the fainthearted but if you are really interested in how technology affects our world, our thinking, and how it may evolve and change and you are prepared to spend the time and effort then you will be richly rewarded. [Read More...](#)

A place for NGOs to share & learn from failures

Launched last month by Engineers Without Borders Canada, Toronto-based Admitting Failure is intended to be "a collaboration between like-minded NGOs, governments, donors and those in the private sector," in the site's own words. Those involved with charitable development groups can visit the site to submit their own stories of plans gone wrong, or they can browse through the stories submitted by others, rating and commenting upon them along the way. For our comment go to the [blog](#). [Read More...](#)

Does America's Fightback Start with Chicago?

James Warren has written an interesting piece over at The Atlantic on the election of Rahm Emmanuel as the Mayor of Chicago and the challenges that he faces. On a broader level the reinvigoration of the cities all over the USA could be a major part of the solution to what is clearly a broken political and teetering economic system. [Read More...](#)

Obama faults spy agencies' performance in gauging Mideast unrest, officials say

One former American official said that in recent weeks Mr. Obama urged intelligence officials to ensure that spy agencies were devoting as much effort to "long-term analysis" as they were to carrying out operations against Al Qaeda, including the C.I.A.'s bombing campaign using armed drone aircraft. For our comment go to the [blog](#). [Read More...](#)

[↑ Top of the page](#)

■ Business Tips

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

■ What's Emerging

How great entrepreneurs think

Sarasvathy concluded that master entrepreneurs rely on what she calls effectual reasoning. Brilliant improvisers, the entrepreneurs don't start out with concrete goals. Instead, they constantly assess how to use their personal strengths and whatever resources they have at hand to develop goals on the fly, while creatively reacting to contingencies. By contrast, corporate executives—those in the study group were also enormously successful in their chosen field—use causal reasoning. They set a goal and diligently seek the best ways to achieve it.

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Root molecular cause of declining health in the old found by scientists

Harvard scientists found that the basic cause of age-related health decline is malfunctioning telomeres — the end caps on cells' chromosomes that protect them against DNA damage.

[Read More...](#)

China overtakes Japan as world's second-biggest economy

China has overtaken Japan as the world's second-biggest economy, putting it on course to surpass the United States within the next 15 years. For our comment go to the [blog](#).

[Read More...](#)

The 2010 mobile year in review

ComScore's inaugural Mobile Year in Review report, a look at the top trends in mobile throughout 2010 and their implications for the coming year. The report looks across the U.S., EU5 and Japan, providing insights on the dynamic mobile ecosystem. [Read More...](#)

Ubiquitous sharing of sound is inevitable

Paul Higgins: Interesting post on how applications utilising sound rather than pictures and video might go. headlined by the following (which is an excellent caveat): History has proved that predicting the direction of a technology is a very hard thing to do. The general rule seems to be that a technology will, after contact with a large set of variables evolving together, such other technologies, contact with early adopters and culture, find new use cases. The examples are numerous.[Read More...](#)

Ultrafast quantum computer closer: Ten billion bits of entanglement achieved in silicon

Scientists from Oxford University have made a significant step towards an ultrafast quantum computer by successfully generating 10 billion bits of quantum entanglement in silicon for the first time -- entanglement is the key ingredient that promises to make quantum computers far more powerful than conventional computing devices. [Read More...](#)

An app for dissidents

A startup is offering free encrypted voice and text communications to protesters in Egypt.

[Read More...](#)

Be a neighborhood hero (and earn some cash) by sharing your driveway

Have you ever been stuck circling the block waiting for a parking space to open up? The new ParkCirca space-sharing service might make that a thing of the past. [Read More...](#)

China growth in context. Not so different after all?

Graph showing growth rates of various countries at different stages of development.

[Read More...](#)

Pfizer slashes R&D

Drug-maker plans to cut jobs and spending as industry shies away from drug discovery.

[Read More...](#)

New drilling method opens vast oil fields in US

This new drilling is expected to raise U.S. production by at least 20 percent over the next five years. And within 10 years, it could help reduce oil imports by more than half, advancing a goal that has long eluded policymakers. [Read More...](#)

The hidden dangers of sleep deprivation

Missing out on your nightly rest has recently been linked to major health problems including heart disease and stroke. [Read More...](#)

Predicting which prostate cancers will spread

Prostate cancers grow slowly in many men but aggressively in others. New research suggests that a group of four molecular markers found in some tumors can be used to predict whether the cancer will spread. [Read More...](#)

Ship of Knaves

Paul Higgins: Interesting piece by Simon Johnson, former Chief Economist at the IMF on the global financial crisis. [Read More...](#)

Innovation far removed from the lab

What the team discovered, described in a paper that is under review for publication, was that the amount of money individual consumers spent making and improving products was more than twice as large as the amount spent by all British firms combined on product research and development over a three-year period. [Read More...](#)

U.S. consumers should prepare to pay more for food

Americans should brace for higher food prices this year now that demand for corn has pushed U.S. supplies to their lowest point in 15 years. For our comment go to the [blog](#). [Read More...](#)

Rare glimpse into world's biggest wind tunnel that blows gusts twelve times the speed of sound

Journalists were offered the rare glimpse of the 24 metre diameter steel tubes at the National Centre for Aerospace Research (Onera), where propellers, weighing over a tonne each, power the huge gusts of wind. [Read More...](#)

Roaches inspire robotics

Ask anyone who has ever tried to squash a skittering cockroach -- they're masters of quick and precise movement. Now Tel Aviv University is using their maddening locomotive skills to improve robotic technology too. [Read More...](#)

Great Info graphic on shares of income in the USA over time

Use the sliders on the timeline to select a timespan, and see how growth in average income was shared between the richest 10% and the other 90% of Americans. All figures are in 2008 dollars. [Read More...](#)

The future of the human genome

What will the next 20 years of research bring? Eric Green, director of the National Human Genome Research Institute, discusses the institute's vision. [Read More...](#)

Rogue planets could harbor life in interstellar space, say astrobiologists

Planets that have been ejected from their solar systems could still support subglacial oceans of liquid water, according to new calculations. [Read More...](#)

Forecast: A billion gigabit WiFi shipments by 2015

Shipments of devices using the yet-to-be-approved 802.11ac Wi-Fi standard will reach nearly 1 billion by 2015, according to a forecast contained in a study by market research firm In-Stat. The proposed 802.11ac standard is for very high speed data transfer at speeds of approximately 1 gigabit per second. [Read More...](#)

Monopoly's new tower of power

In Monopoly Live (\$50), you still land on Boardwalk and collect \$200 for passing go. But the

money flows electronically to your bankcard, and a computer manages such details as dice rolls and rent calculations, which can speed the pace of the game. [Read More...](#)

Playing catch-Up, Nokia and H.P. Try to innovate

Nokia and H.P. — tech giants though they are — face long odds in catching up with competitors that have a head start in a rapidly changing landscape. It's hard to do that in any business, but especially so in technology markets. [Read More...](#)

Complexity with a human face

Paul Higgins: An interesting piece on complexity in connected and hierarchical systems including some interesting links to other articles. Worth reading and thinking about.

Below is an excerpt: [Such systems] are fine so long as the top of the hierarchy is in place, and can recover quickly. But take the top away — as is happening in Egypt — and the entire system risks collapse. [Read More...](#)

Peak oil: We are asleep at the wheel

Revelations that the Saudis have overstated their oil reserves are a timely reminder of the huge threat to the global economy. [Read More...](#)

HP's open innovation strategy: Leveraging academic labs

HP Labs seek technology from around the world for next-generation smart printers, optical chips, wireless nano sensors, and more. [Read More...](#)

JPEG for the mind: How the brain compresses visual information

In the February 10 online issue of Current Biology, a Johns Hopkins team led by neuroscientists Ed Connor and Kechen Zhang describes what appears to be the next step in understanding how the brain compresses visual information down to the essentials. [Read More...](#)

Great opinion piece on Egypt by Thomas Friedman

"But here's the big question in Egypt now: Can this youth-led democracy movement take the power and energy it developed in Tahrir Square, which was all focused on one goal — getting rid of Hosni Mubarak — and turn it into a sustainable transition to democracy, with a new constitution, multiple political parties and a free presidential election in a timely fashion? Here, the movement's strength — the fact that it represented every political strain, every segment and class in Egyptian society — is also its weakness. It still has no accepted political platform or leadership." **Paul Higgins: While many are running around talking about Twitter and Facebook led revolutions Friedman focuses on the issues, reminds us that the tools are just enablers of what is underneath and provides a concise insightful analysis of the promises and threats.** [Read More...](#)

Banks' hidden subsidies worth £32bn a year

Britain's banks, which are preparing to announce multi-million pound annual bonuses to senior staff, are pocketing hidden subsidies worth more than £32.5 billion a year from the taxpayer, it was disclosed last night. [Read More...](#)

The economics of blogging and the Huffington post

Paul Higgins: A really good piece of research and analysis on the Huffington Post and the difference between paid content and unpaid content on the site which has been sold to AOL for \$315 million. It is limited though because of the information that is available. Read the comments for some critiques of the analysis which has been used as a proxy for the real data which is not available publicly before coming to a conclusion.

[Read More...](#)

Bookstore giant Borders files for bankruptcy

US bookstore chain Borders announced that it has filed for bankruptcy protection from its creditors so that it can reorganise and re-emerge as "a stronger and more vibrant book seller."

[Read More...](#)

Report a pothole

New York city has launched a Tumblr site showing everyone where potholes in street have been repaired and allowing people to report potholes that require attention. [Read More...](#)

CHART OF THE DAY: Is the smartphone killing the PC?

Home usage of the PC is down 20% since 2008, according to this chart from a Morgan Stanley report examining the burgeoning tablet market. [Read More...](#)

Food prices at dangerous levels, says World Bank

The World Bank says food prices are at "dangerous levels" and have pushed 44 million more people into poverty since last June. [Read More...](#)

Savour that chocolate while you can still afford it

In the not-too-distant future, chocolate will become a rarefied luxury, as expensive as caviar.

Paul Higgins: Not sure about this one but the article is an interesting summary of the risks to production in the face of rising demand and how people have ignored those risks. [Read More...](#)

Changes in the distribution of workers' hourly wages between 1979 and 2009

This is from a new CBO report, Changes in the Distribution of Workers' Hourly Wages Between 1979 and 2009. [Read More...](#)

Facebook, Twitter, and Foursquare could learn social responsibility from South Africa's social network

MXit spends enormous resources encouraging its users to become more educated, healthier, and, most recently, better citizens. [Read More...](#)

Police bees for surveillance, tracking and buzzsting biohackers?

Can you imagine a future where London police bees conduct genetic surveillance, officers conduct pollen forensics and their buzzing little police bees help them track offenders back to the place of crime? [Read More...](#)

3D printer that prints itself gets closer to reality

The RepRap is an open 3D printer design whose goal is to produce a printer that can copy itself. [Read More...](#)

Why China should fear the Egyptian revolution

Paul Higgins: Interesting post by Bruce Nussbaum on some of the underlying issues in the Egyptia Revolution. As always these things are far more complex than the media reports, especially the media that favours glib reporting of it being a social networking revolution. Social networking tools were an enabler, the underlying issues go much deeper. [Read More...](#)

App tells your friends what you're watching

A new iPhone app can identify the show you're watching just by analyzing a few seconds of audio, making it possible to automatically share your TV viewing choices with friends through Facebook and Twitter. [Read More...](#)

In digital era, music spotters feed a machine

Mr. Slomovitz, a music industry veteran, spends his days tracking down hot new artists — but not for a big record label. Instead, he works for Shazam, maker of the application of the same name that can figure out what song is playing in a bar, a clothing boutique or a TV commercial. [Read More...](#)

Housing market looks sickest in cities that once seemed immune

The rolling real estate crash that ravaged Florida and the Southwest is delivering a new wave of distress to communities once thought to be immune — economically diversified cities where the boom was relatively restrained. [Read More...](#)

Fewer big fish in the sea

Fewer big, predatory fish are swimming in the world's oceans because of overfishing, leaving smaller fish to thrive and double in force over the past 100 years, scientists have said. [Read More...](#)

India won't outpace China without a few miracles

Several recent economic reports glowingly predict that by 2013-15, India will start outpacing China's stunning annual GDP growth rate of 8.5-9.5%. A number of trends in India lead to this conclusion, including a young, increasingly educated labor force, relatively few retired people to care for, India's high savings rate, the massive structural reforms the Indian government continues to undertake, and increased infrastructure spending. [Read More...](#)

10 consumer mobile applications to watch for in 2012

Gartner, Inc. has identified what it believes will be the most important mobile applications in

2012. Focusing on high-end devices with an average selling price (ASP) of more than \$300 dollars, analysts have identified the top 10 cutting-edge technologies and trends for 2012.

[Read More...](#)

The future of glass: A seamless world of connectivity

Paul Higgins: *Not sure that I want my computer screen and messages coming up in the mirror as I brush my teeth. I think there is far too much intrusion in our lives as it is. Having said that there are some pretty amazing things here. I just wish more of them were about important stuff instead of marginal improvements in information displays.* [Read More...](#)

Have you charged your eyeglasses today?

A NEW device may be joining smartphones, iPads and music players that you have to charge overnight: electronic eyeglasses. These glasses have tiny batteries, microchips and assorted electronics to turn reading power on when you need it and off when you don't. [Read More...](#)

Lymph node study shakes pillar of breast cancer care

A new study finds that many women with early breast cancer do not need a painful procedure that has long been routine: removal of cancerous lymph nodes from the armpit. [Read More...](#)

Google-backed moon robot teams confirmed

The prize will go to the builders of the first robot to send back video as it travels over 500 metres of the Moon's surface. Competition organisers hope to spur the development of low-cost robotic space exploration. [Read More...](#)

Navy breaks world record with futuristic free-electron laser

The Navy just set a new world record, a test blast from a new type of laser that can shoot cruise missiles from the sky in seconds with a deadly accuracy that simply doesn't exist in the military's vast arsenal today. [Read More...](#)

BrainDriver: A mind controlled car

Imagine you could drive your car using only your thoughts. German researchers have just made that possible -- and they have the video to prove it. [Read More...](#)

Food scientist develops 'rechargeable' anti-microbial surfaces to improve food-handling safety

Using nano-scale materials, a University of Massachusetts Amherst food scientist is developing a way to improve food safety by adding a thin anti-microbial layer to food-handling surfaces. Only tens of nanometers thick, it chemically "re-charges" its germ-killing powers every time it's rinsed with common household bleach. [Read More...](#)

US will no longer dominate science and research, says Penn State researcher

The entrance of more nations into global science has changed the research landscape. From 1996 to 2008, the share of papers published by U.S. researchers dropped 20 percent. Wagner attributes much of this output shift not to a drop in U.S. research efforts, but to the exponentially increasing research conducted in developing countries, such as China and India. [Read More...](#)

Climate change will force 40% shift in asset allocation

Institutional investors need to shift 40% of their portfolios into climate-sensitive sectors, including infrastructure and agriculture, to safeguard returns against the impact of global warming, according to consultant Mercer. [Read More...](#)

The first full-color display with quantum dots

Researchers at Samsung Electronics have made the first full-color display that uses quantum dots. Quantum-dot displays promise to be brighter, cheaper, and more energy-efficient than those found in today's cell phones and MP3 players. [Read More...](#)

A smartPhone diagnoses tumors at your bedside

Don't get up, no need to leave the room... scientists have designed a device to diagnose life-threatening tumors that attaches to a phone. [Read More...](#)

A big solar storm could cost \$2 trillion, could be a global Katrina

We live in a different world now, it's more connected than ever. GPS is ubiquitous. When the last solar storm hit, we weren't as wired and hooked to the grid. [Read More...](#)

50 million 'environmental refugees' by 2020, experts say

"In 2020, the UN has projected that we will have 50 million environmental refugees," University of California, Los Angeles professor Cristina Tirado said at the annual meeting of the American Association for the Advancement of Science (AAAS). [Read More...](#)

MIT engineers design new nanoparticle that could lead to vaccines for HIV, malaria, other diseases

The new particles, described in the Feb. 20 issue of Nature Materials, consist of concentric fatty spheres that can carry synthetic versions of proteins normally produced by viruses. These synthetic particles elicit a strong immune response — comparable to that produced by live virus vaccines — but should be much safer. [Read More...](#)

Augmented reality iPhone helps police track suspects

After booting up an iPhone app, an officer would train the phone's camera on the crowd. The suspect's position, after he had been tracked by covert police, would be highlighted by an icon overlaid on the image. Similarly, other icons could pinpoint the positions and range of other officers (see picture), including those operating undercover. [Read More...](#)

3D-printed skin could revolutionize treatment for burn victims

Growing human skin may sound like science-fiction, but scientists from the Wake Forest Institute for Regenerative Medicine are working on a way to do just that. Inspired by conventional printers and their cartridges, the research team believe that they could soon 'print' human skin which would transform the lives of wounded soldiers and burn victims. [Read More...](#)

For students, electronic textbooks by the chapter

Focusing initially on education, business and the social sciences, UK-based Reference Tree aims to give higher-education students a way to purchase just the portions of the textbooks they need to efficiently complete their coursework. [Read More...](#)

Device 'could revolutionise blood pressure monitoring'

A device which can be worn like a watch could revolutionise the way blood pressure is monitored in the next few years, scientists say. [Read More...](#)

The printed world

Three-dimensional printing from digital designs will transform manufacturing and allow more people to start making things. [Read More...](#)



[Top of the page](#)

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