

Welcome to the June edition of What's Emerging. This month the usual suspects - links and book review. If you missed our interview with Richard Fidler last month we now have some short sound bites you can listen to on our downloads page, [click here](#).

We hope you enjoy this edition.

Cheers

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Business Tips

[MicroHoo: Advice to Microsoft and Yahoo on strategy](#)

For those of you interested in the internet and where it might be heading this blog by Tim O'Reilly (who coined the phrase "Web 2.0") is well worth reading.

[Mastering Google desktop](#)

Those of you that have followed our newsletter for a while will know that we are big fans of Google Desktop. It is free and can be downloaded from <http://desktop.google.com/>. It indexes your computer in a similar way that Google indexes the web for its search function. Therefore searches for stuff take just seconds. For those of you that have been using it for a while [LifeHacker](#) has some tips on how to improve its power.

[The killer apps of academia](#)

This is a collection of mostly free software applications for students. However there are some among them that are generally useful to everyone and the list is worth having a look at.



What's Emerging

[Microsoft's plan to get rid of phone numbers](#)

Right now the mobile phone, the desktop phone, the e-mail that you have on the PC, or instant messaging, these are all very different things, and the issues about how much of your information or your schedule, your current activity you share with people who communicate with you is not well designed.... By bringing together all of these kinds of communication, we can greatly simplify them. **We can get rid of phone numbers.**

Mobile phones used by half the world's population

Just under half the world's population now use mobile phones. More than two thirds of all mobile subscribers were from developing countries by the end of 2007, a positive trend that suggests that developing countries are catching up.

No power use in standby: New zero-watt monitor

Computer monitors will soon save far more energy. Fujitsu Siemens Computers has developed the world's first monitor that requires no electricity at all in standby mode.

Three Chinese banks in world's top four

Three Chinese institutions were among the world's top four banks at the end of 2007 at a time when the market capitalisation of Western banks was suffering from a global financial crisis.

Water crisis to be biggest world risk

A catastrophic water shortage could prove an even bigger threat to mankind this century than soaring food prices and the relentless exhaustion of energy reserves, according to a panel of global experts at the Goldman Sachs "Top Five Risks" conference.

Older brain really may be a wiser brain

When older people can no longer remember names at a cocktail party, they tend to think that their brainpower is declining. But a growing number of studies suggest that this assumption is often wrong.

Nanotechnology produces material to almost instantly stop bleeding

In an application of nanotechnology to medicine, a nanotech material has been produced that self-assembles in the presence of bodily fluids into highly hydrated fibers that stop bleeding within 15 seconds, and which are harmlessly adsorbed by the body when no longer needed.

Some nanotubes could cause cancer

New studies suggest that long carbon nanotubes behave like asbestos.

A self-writing to-do list

New online schedulers rely on natural-language processing to take the drudgery out of getting organised. There is even one called 'I Want Sandy'!!!!

The write stuff?

Livescribe aims to revolutionize note-taking by linking your scrawl to audio recordings. Livescribe Pulse converts your writing to searchable computer files and adds audio recording synchronized to your handwriting. Point the pen to a spot in your notes (or click on your computer screen), and hear what was said when you wrote it.

Cell phone radiation levels

CNET has compiled a list of most of the major mobile phones and how much radiation they put out.

China increases lead as biggest carbon dioxide emitter

China has clearly overtaken the United States as the world's leading emitter of carbon dioxide, the main heat-trapping gas, its emissions increasing 8 percent in 2007 and accounted for two-thirds of the growth in the year's global greenhouse gas emissions.

The new, new city

Shenzhen has gone from a small fishing village to 8 million people in 30 years. This article looks at how rapid city growth changes perspectives. It has some great images and it ends with a poignant statement: "The amount of building becomes obscene without a blueprint...Each time you ask yourself, do you have the right to do this much work on this scale if you don't have an opinion about what the world should be like?...But is there time for a manifesto? I don't know."

Shifting the load? Sun studies energy consumption implications of telecommuting

Sun says that workers can cut their work carbon footprint by up to 98% by telecommuting.

230 mpg car!

This video shows a prototype of a very fuel-efficient car built by two engineers in their spare time.

Message in a bottle

Americans spent more money last year on bottled water than on ipods or movie tickets: \$15 Billion. The article is full of sobering statistics (eg. 24% of the bottled water we buy is tap water repackaged by Coke and Pepsi" and "If you bought and drank a bottle of Evian, you could refill that bottle once a day for 10 years, 5 months, and 21 days with San Francisco tap water before that water would cost \$1.35) and explores the growing debate around the future of "ethical" consumer choices.

Top 5 ways to cause a man-made earthquake

In the first Superman movie, supervillain Lex Luthor plans to trigger a massive, California-detaching earthquake by detonating a couple of nuclear weapons in the San Andreas Fault. Crazy Lex! That scheme never would have worked, geologists will tell you. But, if he'd been serious about creating an earthquake, there are ways he could have actually done it. He would just have to inject some liquid (as some carbon-sequestration schemes propose) deep into the Earth's crust, or bore a few hundred thousand tons of coal out of a mountain.

Out there performance art

The work of Chinese artist Li Wei is a mixture of performance art and photography that creates illusions of a sometimes dangerous reality. Amazingly the images are not computer montages, Li Wei works with props such as mirror, metal wires, scaffolding and acrobatics.

Costs of factory farming

Factory farming takes a big, hidden toll on human health and the environment, is undermining rural America's economic stability and fails to provide the humane treatment of livestock increasingly demanded by American consumers, concludes an independent, 2 1/2 -year analysis that calls for major changes in the way corporate agriculture produces meat, milk and eggs.

More links

We have many more links than we can fit in the newsletter – this month's 'Additional Links' are available on our website.



What We Are Writing About

Book Review – The logic of life by Tim Harford

One of the main things that futurists must do is to understand the underlying drivers that determine human behaviour. If we only look at surface trends and behaviours then our ability to understand what might happen is significantly diminished. Tim Harford describes a number of situations and experiments that look at our decision making and he quite correctly cautions that we should be careful with experimental results and how they translate into real life.

For example on page 16 he describes an experiment with what economists call “the endowment effect” – that we irrationally value things more highly because we own them. This effect goes beyond just things we have a deep seated emotional attachment to. Harford also describes extended experiments in the real world where experience in buying and selling moderates the effect – something that did not show up in lab experiments.

On page 18 he describes another experiment that shows that rats can respond rationally and make economic decisions. They did this by setting an income – limiting the number of times that the rats could press two levers to get a drink - and then setting price by varying how much liquid came from each press of a lever. One lever dispensed root beer which the rats preferred on taste and one dispensed tonic water, but the tonic water supplied much more volume. One might expect that when the “price” of tonic water went up (there was less supplied per lever push) but was still cheaper than the root beer, that the rats would drink more root beer and less tonic water. However the opposite happened – the rats made a rational decision to drink more tonic water because they needed a certain volume of fluid to stay alive and they altered their behaviour to get what they needed from their “income”. Of course rats don’t have credit cards.

One excellent piece of work is in Chapter 6 (p130 onwards) where Harford demonstrates that rational racism (racism that makes rational economic sense) is much more dangerous and pervasive than non-rational racism. Finding the underlying causes and drivers for these sorts of behaviours give us a much better chance of creating robust solutions and also justifying those solutions to the community.

In Chapter 7 Harford suggests that while wages are higher in the big cities the cost of living is proportionally higher and therefore people are disadvantaged financially by living in them so there must be other benefits to staying. This seems fairly straightforward but he then goes on to purport that this benefit gap is filled by the ability to innovate because of the myriad of opportunities to meet and interact with interesting people. While I think this is true to some extent it ignores the emotional attachments of family, upbringing, etc.

I would take issue with Tim Harford on his view that most things in our society can be explained by a rational analysis or that they are a result of a group of rational decisions, even subconsciously. It is clear to me that our decisions and how we make them are partly rational and partly emotional because of the way that our brains have evolved. It is also clear that we cannot always make rational decisions even when we try to. A recent blog on the MIT Technology Review site posed the following question: if your family has two cars and one does 12 miles to the gallon (mpg) and one does 34 mpg and you drive both 10,000 miles a year do you save more petrol by replacing the 12 mpg car with a 14 mpg car or replacing the 34mpg car with a 50 mpg car. Instinctively it looks like the 50mpg car is a better result but actually the opposite is the correct answer (do the maths if you don’t believe me). If we can’t make those simple decisions in a rational way then how can we expect that more complicated and complex decisions are all done in a rational way?

Reading this book and the work that has been done is greatly beneficial for understanding rational analysis and drivers. However we must be careful not to confuse causation with correlation and remember that we are in part emotional decision makers and only partly successful rational decision makers. Within that framework this book is an

excellent reference for anybody who wants to think about the future. Read together with Predictably Irrational by Dan Ariely (see our last book review) they make an excellent comparison between the two approaches.

Paul Higgins

