

E.I.T. Links

From “self-service” to “room service”:
How Emerging Information Technology is changing the way we live

“The saddest aspect of life right now is that science gathers knowledge faster than society gathers wisdom.” - Isaac Asimov, 1988

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Editor's Note:

Please feel free to pass on the newsletter to those interested. *Anyone wishing to receive future editions of the newsletter, please email me at: sknode@gmail.com.*

Note: This newsletter contains links found during Oct 2009, and all of the links were working at time of publication.

Remember, all links here can be found at www.steveknode.com/news_updates.htm and previous newsletters are available at: <http://www.steveknode.com/newsletters.htm>.

Anyone seeking more frequent updates can follow my 'tweets' via my twitter account, <http://www.twitter.com/sknode>

Links for this Issue

AI General

- ["Total Recall: How the E-Memory Revolution Will Change Everything." \(video\)](#) – Gordon Bell and Jim Gemmell visit Google's Mountain View, CA headquarters to discuss their book "Total Recall: How the E-Memory Revolution Will Change Everything."
- [Researchers Probe Computer 'Commonsense Knowledge'](#) – For artificial intelligence scientists, enabling computers to have such human-level intelligence requires a

commonsense knowledge base that can evolve and learn new things.

- [Google Analytics Now More Powerful, Flexible And Intelligent](#) – Google has improved its analytics, adding power and flexibility.
- [Artificial Intelligence Surveillance Systems Aim to Replace Security Guards](#) – Now with a new technology from BRS Labs, you'll now be able to catch criminals in the act, in real-time without even having a real person monitoring the security cameras. The technology is called AISight(pronounced eye sight), and what it does is automatically monitor hundreds of cameras simultaneously using computer vision, machine learning and artificial intelligence.

Brain

- [Henry Markram builds a brain in a supercomputer](#) (video) – Henry Markram is director of Blue Brain, a supercomputing project that can model components of the mammalian brain to precise cellular detail -- and simulate their activity in 3D.
- [First-Time Internet Users Find Boost In Brain Function After Just One Week](#) -- UCLA scientists found that middle-aged and older adults with little Internet experience were able to trigger key centers in the brain that control decision-making and complex reasoning after just one week of surfing the Web.

Chatterbots

- [Pandorabots Announces the Availability of Bespoke Pandorabots SpellBinder™ Service](#) – A new service to allow the development of ‘chatterbots’ to be easier and in a more conversational manner. (NOTE: I am a user of Pandora to develop chatterbots for several informational areas.)

Data Mining/Business Intelligence

- [Google Envisions 10 Million Servers](#) – Big plans for Google to manage as many as 10 million servers in the future.
- [How the Modiv Shopper Works](#) – Yet another interesting example of data mining, this time real time in a supermarket.

Educational Technology

- [5 Steps to Make the Social Web Work for Higher Ed](#) – Five very good ideas on how to leverage the Social Web for higher education.
- [Barnes & Noble's Nook eReader Launches](#) – Yet another ebook reader as they continue to emerge.

Future

- [In the Year 2020, Part I: Cloud Computing](#) – A look at where we might likely be in the area of cloud computing in 2020.
- [In the Year 2020, Part II: Biotechnology and Genetics](#) – A look at where biotechnology and genetics are likely to be by 2020.
- [In the Year 2020, Part III: Transportation, Urban Planning, and Energy](#) – A look at where transportation, urban planning and energy are going to be in 2020.
- [Five Technologies That Could Change Everything](#) – There are many technologies emerging quickly. These five will have profound impacts on our world.
- [Tomorrow's world: The gizmos about to change the way we live](#) – Another

interesting list of technologies that will have a significant impact on our lives.

Information Overload

- [Taming The Vast And Growing Digital Data-Sphere](#) – European researchers are making an impressive effort to link up digital repositories to create a vast network of easy to search online data.
- [The Human/Machine Continuum of the Real-Time Web](#) – How the real time web is progressing in terms of how we make use of data, including a great chart.

Information Visualization

- [Live video makes Google Earth cities bustle](#) – Google is now adding motion to its maps by putting live video streams into the areas to bring the cities to life.
- [50 Great Examples of Data Visualization](#) – Some of the most dramatic and useful examples of how to visualize data.

Innovation

- [HealthyWage: Get Paid to Jog and Other Exercise Motivators](#) – Interesting and innovative ways to motivate persons to exercise.
- [9 Web sites that can make your life easier](#) – Extremely innovative websites that can make things easier.
- [Your Wallet in the Cloud](#) – iPhone apps continue to emerge, this one to make use of cloud computing to store and access important information.
- [Kellogg's will use laser to burn logo on to individual corn flakes to stamp out fakes](#) – Individually stamped corn flakes to separate real from fakes---quite an interesting breakthrough.
- [Google announces project 10^100 Projects](#) – Google is orchestrating a contest to fund projects that will have ‘mega’ impact on lots

of people.

- [Filter Your Front Door: Buzzeromatic Makes Doorbells Smarter](#) -- Buzzeromatic allows subscribers to grant access to visitors, allow delivery folks to leave voice messages, and create passwords for frequent guests, all from a web interface with SMS commands for when users are on the go. And yes, there's an app for that.

Knowledge Management

- [The future of knowledge workers, Part 1](#) – A look at long term trends to see how organizations will have to provide a compelling work environment to attract and retain the best workers.
- [The future of knowledge workers, Part 2](#) – Part 2 of the study.
- [Google Wave 101](#) – A primer on Google's new product, Google Wave.

Kurzweil

- [By 2040 you will be able to upload your brain...](#) – Kurzweil believes we're on the brink of a new age – the 'singularity' – when mind-boggling technology will allow us to email each other toast, run as fast as Usain Bolt (for 15 minutes) – and even live forever.

Machine Learning

- [New 'consumer-intelligence' technology will compile detailed profiles](#) – This multichannel platform constantly updates profiles of customers, effectively learning from any purchase or query and updating the database.
- [Mumboe data extraction software](#) – Mumboe can automatically extract key information from contact data.

Manufacturing

- [Intelligent Structural Elements: Support Frames, Adaptive Engine Hoods And More](#)

[To Come](#) – The era of intelligent structural materials is about to arrive. These materials can adapt to changing environmental conditions.

- [Replicating Rapid-prototyper](#) – RepRap is a practical self-copying 3D printer - a self-replicating machine. This 3D printer build s the parts up in layers of plastic.

Medical

- [Artificial intelligence aid for dementia sufferers](#) – Researchers have developed a computer system that reminds patients about their daily appointments.
- [Surgical Scalpel Sniffs Out Cancer](#) – European researchers have now demonstrated that a chemical analysis instrument called a mass spectrometer can be coupled with an electroscalpel to create a molecular profile of tissue during surgery.
- [Microchip can detect type and severity of cancer](#) – The researchers' new device can easily sense the signature biomarkers that indicate the presence of cancer at the cellular level, even though these biomolecules - genes that indicate aggressive or benign forms of the disease and differentiate subtypes of the cancer - are generally present only at low levels in biological samples.
- ['Spider pill' used for scans \(video\)](#) – Scientists in Italy think they may have come up with a new way to scan for cancer of the stomach or colon. The 'spider pill', which is fitted with a camera, is swallowed by the patient and once within the colon or intestine the legs are opened.

MISC

- [Cloud rEvolution \(Vol 1\): Laying the Foundation](#) – The latest excellent white paper from CSC's Leading Edge Forum group, this one on Cloud Computing. (NOTE: Other volumes are also in the works.)
- [Interesting videos from Singularity University](#) – Many riveting videos are at this site, outlining the future of robots, synthetic

biology, and medicine among others.

- [Researchers create smaller and more efficient nuclear battery](#) – Batteries continue to shrink in size and increase in capability. This is the latest incarnation.
- [5 New Technologies That Will Change Everything](#) – Five technologies that will change things dramatically.
- [Special Report: Smarter IT](#) – An excellent special report on how information technology is being used to make things smarter.
- [IBM Debuts Food Traceability iPhone App](#) – Another iPhone app, this one can give consumers access to information about grocery food items.

Neural Networks

- [ARTIFICIAL INTELLIGENCE DIAGNOSES ABUSE](#) – This application matches various illnesses, injuries and other conditions with abuse. (NOTE: I have taught courses in Neural Networks and have a streaming presentation on neural networks, available from: http://www.steveknode.com/streaming_presentations_main.htm)

Robots

- [GeckoSystems Discusses Upcoming In-Home Personal Robot Family Care Trials](#) – Gecko Systems has long been involved in the home robot business. There are several interesting videos of their systems in operation at: <http://www.geckosystems.com/>.
- [The Reality of Robot Surrogates](#) – How long until we send robot surrogates into the world to represent us? Sooner than you think.

Search Engines

- [Training to Climb an Everest of Digital Data](#) – Learning to grapple with extremely large amounts of data is the subject of this effort.

Sensors

- [Real-Time Notifications - More Power to The Internet of Things](#) – The internet of things continues to advance, with the ability to share real-time sensor data. NOTE: There is also a [complimentary analysis of the company behind this effort](#).
- [Ultrafast DNA Nanosensor](#) – A portable instrument based on an ultrasensitive nanoscale sensor could detect bacteria in minutes, helping to catch infectious diseases early and prevent their spread.
- [New Technology Detects Chemical Weapons In Seconds](#) – Scientists at Queen's University Belfast are developing new sensors to detect chemical agents and illegal drugs which will help in the fight against the threat of terrorist attacks.
- [Energy-Autonomous Sensors Find Dents And Cracks In Aircraft](#) -- Aircraft maintenance will be easier in future, with sensors monitoring the aircraft skin. If they discover any dents or cracks they will send a radio message to a monitoring unit. The energy needed for this will be obtained from temperature differences.

Virtual Reality

- [Faster Maintenance with Augmented Reality](#) – In the not-too-distant future, it might be possible to slip on a pair of augmented-reality (AR) goggles instead of fumbling with a manual while trying to repair a car engine. Instructions overlaid on the real world would show how to complete a task by identifying, for example, exactly where the ignition coil was, and how to wire it up correctly.
- [Virtual students' go to school without being in school](#) – Now virtual students don't sit in a classroom at all. Their day can start whenever they like -- 7 in the morning or 7 at night. They work at their own pace. They may never meet their teachers in person, let alone fellow students.

Web 2.0

- [Need to Borrow Sugar? NeighborGoods Wants to Help](#) – Borrowing a rake or cup of sugar used to be a matter of just stopping by your neighbor's apartment. Now even that's gone online, thanks to a new service launching in Los Angeles called NeighborGoods.
- [Two New Apps Superimpose Wikipedia Over Your iPhone Camera View of the World](#) – Applications that can superimpose information from wikipedia onto your iPhone, adding context.
- [Movie-Finding Resources](#) – A list of several impressive movie finding resources.
- [Uncovering Connections on Twitter Could Become Big Business](#) – A new class of tools intended to surface influencers and the people they are influenced by are focusing on a hub of rapid, connected conversation that's wide open for analysis - Twitter.