

E.I.T. Links

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

“Technology... the knack of so arranging the world that we don't have to experience it.”
 -Max Frisch

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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 Jul 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>.

Links for this Issue

AI General

- [Frank Rose Forecasts Artificial Intelligence \(video\)](#) – Interesting forecasts for Artificial Intelligence from one who is an expert on the subject. Watch the video for the prognostications of what is coming shortly.
- [Artificial Intelligence in the C-Suite](#) – Even though AI is making great strides in addressing complex problems, there remains a question as to its acceptance in the top level business domains.
- [Artificial Intelligence Arrives](#) (video) – The latest development in AI from Microsoft--- an agent that can sense and perform as a virtual admin assistant.

Artificial Life

- [From simple rules, complex behavior](#) – The latest update on how simple rules can result in complex behavior. This example of the use of artificial life to solve problems contains many examples.

Brain

- [Take two video games and call me in the morning](#) – It appears that playing video games early in life does, in fact, alter the way in which the brain develops. There are some advantages to playing video games in advancing certain skills.
- [Brain Rules](#) – The author of the book, “Brain Rules” maintains an interesting website, with videos and excerpts from the book. Take a look at his 12 Brain Rules and why they are important.
- [Mind Uploading and Mind Children](#) – Fascinating article from one of my favorite magazines (H+) updating the discussion about the possibility of uploading a mind--- one way to achieve immortality.
- [In Search for Intelligence, a Silicon Brain Twitches](#) – Blue Brain, an experiment in developing a simulated human brain in silicon, appears well underway. The project hopes to tackle one of the most perplexing mysteries of neuroscience: How does human intelligence emerge?

Educational Technology

- [WatchKnow \(videos\)](#) – Instructional videos on almost any academic topic are available for use from this site.
- [YouTube EDU](#) – Videos from universities on many subjects are available in this subdomain of YouTube.

Future

- [Technology On Way To Forecasting Humanity's Needs](#) – As the ability to model in great detail continues to improve, it is now possible to do a better job of forecasting future needs. Estimates are that we will one day predict with unprecedented foresight, specificity and scale such things as the economic and social effects of billions of new Internet users.
- [Augmented Reality and Ethical Futurism](#) – (podcast) This interesting podcast outlines how difficult it will be to deal with the intersections of emerging technologies, environmental dilemmas, and cultural transformation.

Information Overload

- [Smartphoniacs: Addicts of the Information Age](#) – One of the fastest growing trends is the use of ‘smart’ phones, with the implications thus far unknown. Smart phone addicts are taking the information overload situation to a whole new level.

Information Visualization

- [Web Trend Map 4](#) – Web trend’s yearly update of web trends presents an amazing way to see the intersection of web trends. NOTE: The map is zoomable to see greater detail.
- [Building Blocks of a New Interface \(Siftables\)](#) – Siftables represent a revolutionary way to manipulate information cubes. NOTE: Be sure to watch the video demonstration of siftables, available at: <http://www.technologyreview.com/video/?vid=365>.

Innovation

- [Study Says Patents Hurt Innovation](#) – Contrary to most beliefs, it appears that patents actually may be harming our ability innovate according to this study.
- [Disruptive by Design Conference Videos](#) – These Wired “Disruptive by Design” Conference videos are extremely interesting. Many innovative leaders are interviewed and/or make presentations.
- [Swoopo: The crack cocaine of auction sites?](#) – If you would like to see an innovative business model (yet extremely addictive in its approach), visit the Swoopo site. Warning: Don’t start a bidding war!
- [Nokia Phones to Aid Against Malaria Deaths](#) – Nokia has been able to modify their phone camera to provide an extremely inexpensive portable microscope with the potential to detect malaria, sickle-cell anemia and tuberculosis from fluid smears.
- [Innovation: Is the future of healthcare online?](#) – Several innovative approaches to improving healthcare, featuring technology, are outlined here.

Intelligent Agents

- [SIRI demo at Sem Tech 2009](#) – SIRI, an intelligent agent that has been called a ‘game changer’, is demo’ed at the Sem Tech 2009 conference in this video. NOTE: This is probably the most advanced intelligent agent application in existence at the moment.
- [A Twitter Clone Infused with AI](#) – Imagine a clone of twitter---one which could understand what you were saying and could then take action on your messages? Akibot claims to just that.
- [Fast, Flexible And Strong: Building Better Automated Workplace Assistants](#) – A European effort is underway to develop a workplace automated agent that will assist workers.

Knowledge Management

- [This is Like \(associative network\)](#) – A new approach to developing an associative knowledge network. You can use this software to develop your own networks of “this is like”.
- [Interview with Tim Berners-Lee, Part 1: Linked Data](#) – In this first part of the interview, Tim Berners-Lee gives an excellent overview of ‘linked data’, and its relationship to the semantic web.
- [Interview With Tim Berners-Lee, Part 2: Search Engines, User Interfaces for Data, Wolfram Alpha, And More...](#) – Several topics covered in the second part of the interview with Tim Berners-Lee.
- [New Tool Makes Online Postings Disappear](#) – If you have ever wanted to remove an online posting, this approach does so. Called “Vanish,” the system places a time limit on any message posted to any web service through a web browser.

Manufacturing

- [The Desktop Manufacturing Revolution](#) – The desktop manufacturing update is in this article. One of my favorite futurists, Jamais Cascio, gives many examples of how desktop printing is already available.
- [Inexpensive Thin Printable Batteries Developed](#) – As an example of desktop printing, thin batteries can be printed inexpensively.

Medical

- [So Goes Cancer—Not with a Bang, but a Whimper](#) – An amazing breakthrough in the battle to conquer cancer. Although not yet mentioned in the mainstream, in this article a company called EnGeneIC, in New South Wales, Australia, has announced an ameliorative therapy for a broad range of cancers that shows 100 percent survival and zero toxicity of mouse subjects with xenografted human cancers over two years.

- [Brain Surgery Using Sound Waves](#) – A revolutionary approach to neurosurgery avoids both radiation and the scalpel. A new ultrasound device allows neurosurgeons to precisely burn out small pieces of malfunctioning brain tissue without cutting the skin or opening the skull.
- [Implantable Device Offers Continuous Cancer Monitoring](#) – An implantable device can now be positioned within the human body to provide up-to-the-minute information about what a tumor is doing—whether it is growing or shrinking, how it is responding to treatment, and whether it has metastasized or is about to do so.

MISC

- [State of the USA](#) – Interesting look at some of the problems, and proposed ideas to solve them, for the USA. Makes use of some of the newer data tools.
- [Wolfram|Alpha: The Use Cases](#) – I have written before about the innovative tool, Wolfram|Alpha. Now, this article gets into details about specific arenas where the tool will be useful.
- [Social Security Numbers Can Be Predicted With Public Information](#) – With a little knowledge and some insights, your social security number can be predicted with great accuracy.
- [5 Companies Building the "Internet of Things"](#) – I have cited the ‘internet of things’ as a coming trend, but this article gets into details and specifics about companies actually doing the developing. Makes for interesting reading.
- [The Big Smart Grid Challenges](#) – The Smart Grid is now being considered for helping to solve many interesting challenges.
- [Technology on way to forecasting humanity's needs](#) -- Tremendous growth in computing power is allowing for more and more forecasting of complex problems to take place.
- [Memristor minds: The future of artificial intelligence](#) – Now that the ‘memristor’ has been invented (discovered?), there are many more new areas where AI and other areas

can be explored.

[Nanotechnology](#)

- [Ralph Merkle on Nanotechnology - Part 1 of 2](#) – One of the most knowledgeable persons on the subject of nanotechnology gives an update at the Singularity University. (NOTE: [Part 2 of the lecture is available.](#))

[Robots](#)

- [Computer Scientists Program Robots To Play Soccer, Communicate With Bees](#) – Still more on the rapid progression of advanced sophisticated robots. Link includes a video demonstration.
- [Robot rescue](#) – David Hanson has an idea he believes will change the world: Build inherently benevolent robots with artificial intelligence that rivals human brainpower and let them solve the problems we can't wrap our heads around.
- [Researchers Unveil Whiskered Robot Rat](#) – A team of scientists have developed an innovative robot rat which can seek out and identify objects using its whiskers. The new technology has been inspired by the use of touch in the animal kingdom.

[Search Engines](#)

- [Find & Grade Companies Based on Environmental, Social Responsibility with Scryve](#) – This search engine will help find and grade companies based on their social responsibility. The data comes from researchers and consumers.

[Sensors](#)

- [Sensors for Tracking Home Water Use](#) – You can now track the usage and see which devices utilize the most electricity, water, or gas. New sensor technology that consists of a single device for each utility, which builds a picture of household activity by tracing electrical wiring, plumbing, and gas lines back to specific devices or fixtures, could

make this far simpler to implement.

- [Wolverton: New 3-D sensors coming soon to computers, cameras, other gadgets](#) – Interacting with your computer, a la “Minority Report” might happen sooner than you think, less than five years.
- [Students Create Portable Device To Detect Suicide Bombers](#) – Engineering undergraduates developed a wireless network of portable, hand-held sensors that could be hidden around an environment to detect improvised explosive devices, weapons often used by suicide bombers.
- [Embedded Electronics: Cars Get Cooperative](#) – Sensors in cars continue to proliferate, adding more functions to the ever-growing list. As more sensors are embedded, their ability to monitor and improve cars' performance grows.
- [When Sensors Meet Virtual Reality](#) – When sensors meet virtual reality, interesting things happen. Some demos of what one lab is up to, focusing mostly on what is termed "Cross Reality" are in this article. (NOTE: There is a [follow-up article](#), relating the issue of privacy to ‘cross reality’.)
- [Know Thyself: Tracking Every Facet of Life, from Sleep to Mood to Pain, 24/7/365](#) – It is now possible to track virtually every facet of your being, then using that information to form a picture of your health.
- [Poised for Growth: an RSS for the Internet of Things](#) – As the ability of ‘things’ to communicate grows, the need for automated relaying of important information also grows. Now, there is a sensor which can relay information of importance automatically. (NOTE: There are links to other interesting items, such as the “Tweeting House”, link available in the Web 2.0 section of this newsletter.)

[Speech Recognition](#)

- [Painstaking Search For Quotes In Television Programs Comes To An End](#) – A new speech recognition system helps to search TV broadcasts. It does not need to be updated and so does not entail any running

costs.

[Virtual Reality](#)

- [Physics brings realism to virtual reality](#) (video) – Virtual reality might be the best environment for simulating physics. More applications are emerging with this innovative approach.
- [AI-powered customer support robots bring human touch to virtual world](#) – Fusing human psychology with an advanced artificial intelligence (AI) engine, MyCyberTwin's virtual humans allow organisations such as NASA, AMP and National Australia Bank (NAB), to improve their customer support levels.

[Web 2.0](#)

- [A Growing Acceptance of Social Networking in the Workplace](#) – A June survey revealed the growing popularity of social networking applications in the workplace. Out of 1199 survey respondents, all IT professionals, there were more who felt that social networks played an important role in the business world than those who didn't.
- [Clay Shirky: How social media can make history](#) (video) – Yet another excellent video from one of the best thinkers, Clay Shirky, this time about the impact of social media on history.
- [Who Uses Social Networks? \(Part 1\)](#) – Want to know who is using social networks? A new study by Anderson Analytics looks into the demographics and psychographics of social networking users on Facebook, MySpace, Twitter, and LinkedIn with a goal of providing marketers with information about users' interests and buying habits as related to their network of choice. (NOTE: Part 2 of the study results is [here](#).)
- [The Tweeting House: Twitter + Internet of Things](#) – Twitter continues to make for interesting applications—this time a house that can automatically generate 'tweets' when certain things happen. Certainly a harbinger of the what is to come. (NOTE: I

am now 'tweeting' regularly on Twitter. You can follow my updates related to EIT subjects at <http://twitter.com/sknode>.)

- [Weekend Treasure.com](#) – Yet another good example of a 'mashup' of web 2.0 technologies, this time showing where the yard sales are going to occur.