

E.I.T. Links

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

“Education makes machines which act like men and produces men who act like machines..”
 ~Erich Fromm

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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 Mar 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

- [Artificial Intelligence Panel](#) – An excellent panel presentation from Convergence 08 conference, dealing with “How AI can be used to build the world we want to live in?”
- [A.I. In The Enterprise](#) – Several examples of how AI continues to permeate the business environment.
resumes is growing and improving.

Brain

- [On How the Internet is Rewiring our Brains](#) – Nicholas Carr (author of “Is Google Making Us Stupid?") writes in his latest article how the web is reducing our capacity

for deep contemplation and reflection.

- [Building a Brain on a Silicon Chip](#) – A chip developed by European scientists simulates the learning capabilities of the human brain. This chip comes closer to mimicking the human brain, with over 200,000 neurons and 50 million connections.
- [A System to Support the Diagnosis of Brain Tumors](#) – A team of researchers is creating a decision support system that will assist doctors in improving diagnosis in clinical oncology.
- [New Brain Mapping Capabilities](#) -- As part of this project, the authors will soon reveal the very first molecular level map of the entire retina and neuronal networks in both a normal mammalian retina and genetic models of retinal degeneration.

Data Mining/Business Intelligence

- [BI Pays Off](#) – Aberdeen Group has a really enlightening piece of research up for free right now (through May 1), concerning Business Intelligence. The post goes into great detail about the ways collaborative tools in BI can really help an organization flourish. (Free Registration required – Report available until May 1.)
- [Robo-Scientist 'Adam' Performs Landmark Solo Experiment](#) – A robot has performed a science experiment without human aid. 'Adam,' as it's known, set a hypothesis concerning yeast, carried out genetic experiments, and reached conclusions based

on their results.

Decision Making

- [Microdecisions for Macro Impact](#) – Microdecisions — small decisions made many times by many workers at the customer interface — can have a major impact on the business. How they are made can be the difference between sloppy and effective execution, and between profit and loss.
- [Hunch](#) – Hunch is a decision-making tool, built by its users. In ten questions or fewer, Hunch gives you its best hunch of what you would like. (NOTE: Free registration required for an account. This is a combination of crowdsourcing, decision making, and expert systems. Once you have an account, check out the decision flow for Leasing or Buying a Car, <http://www.hunch.com/should-i-buy-or-lease-a-car/>)

Educational Technology

- [Flexible electronic books to hit market soon](#) – Flexible books are starting to appear on the market, impacting the educational market.
- [Students Now Getting College Credit via YouTube](#) – Universities such as Duke, Stanford, MIT, and the University of California, among others, already post videos online both to YouTube and in iTunes U, a section of iTunes featuring audio and video podcasts. However, what University of NSW in Australia is doing is unique - they're providing college credit to those watching the YouTube recordings.
- [Virtual music school becomes a reality](#) -- Students of popular musical instruments may soon be learning to play with the help of a new generation of intelligent, interactive computer programs.

Information Overload

- [Exploring a 'Deep Web' That Google Can't Grasp](#) – The challenges that the major search engines face in penetrating this so-called Deep Web go a long way toward explaining why they still can't provide satisfying answers to questions like “What's the best fare from New York to London next Thursday?” The answers are readily available — if only the search engines knew how to find them.
- [Hadoop, a Free Software Program, Finds Uses Beyond Search](#) – Hadoop makes it easier and cheaper than ever to analyze and access the unprecedented volumes of data churned out by the internet. Companies large and small are using this program effectively.

Information Visualization

- [Microsoft Office Labs vision 2019 \(montage + video\)](#) – Microsoft has an impressive video envisioning what is possible . Some of the demoed applications include a 'transparent wall' between two classrooms around the world, animated drawings, realtime conversation translations, etc.
- [The Next Generation in Human Computer Interfaces - Awesome Videos](#) – A set of the most interesting and stimulating videos dealing with the next generation in human computer interfaces.

Innovation

- [A licence to print gadgets](#) (video) – The ability to print almost any electronic device is rapidly emerging. Check out this video showing some of the possibilities.
- [IBM develops a technology that will allow users to talk to web](#) – IBM has developed a technology that will allow people to talk to the web and create voice slides using mobile phones.
- [Google Ventures Open for Business](#) – Google has established a venture capital fund and is open for business. The fund will invest in almost any kind of startup with a

good idea.

- [Tesla unveils groundbreaking electric car](#) – The latest electric car idea is now a reality. Unlike some other electric cars, this one seems to offer high performance with limited restrictions on capability.

Kurzweil

- [Transcendentman](#) – A movie about Ray Kurzweil's life and accomplishments is to be released this Spring. This trailer is pretty impressive.

Machine Learning

- [The Future of Machine Intelligence](#) – Ben Goertzel's report on the state of machine learning, leading to Artificial General Intelligence is highlighted. An interesting discussion of the possibilities is contained.

Manufacturing

- [So Long, Energizer Bunny](#) – Researchers have developed an extremely tiny generator that can produce electricity from the mechanical energy naturally produced when our bodies move. With further development, the nanogenerator could allow people to power personal electronic devices, such as cell phones, MP3 players, and maybe even small laptop computers, entirely from the physical exertions of a day at the office.
- [Crab chemical could give cars a self-healing 'shell'](#) -- A new process which could have cars fixing their own scratches automatically is on the horizon. Small scratches to the surface of the material close up in only a few minutes when the material is exposed to the ultraviolet light in sunlight.
- [Intel Envisions Shape-Shifting Smartphones](#) – Shape shifting phones are about to emerge. Think of a phone which resizes itself into a netbook when you surf the web and even go spherical so you can stick it on your ear, Bluetooth-like, to make a call.

Medical

- [The Doctor Kiosk](#) – A computerized kiosk under development at Massachusetts General Hospital (MGH) can take a patient's medical history, weight, pulse, blood pressure, and other vital signs, and even perform simple blood tests for glucose and cholesterol.
- [Model Predicts Risk of Stroke](#) – A group of researchers at Harvard and Massachusetts General Hospital have published findings on a new, more accurate method to predict stroke risk through a statistical model that screens for thousands of potentially stroke-causing genes.
- [Laser Show in the Surgical Suite](#) (video) – Lasers could soon supplant needles and thread in the operating room to close wounds.
- [IBM Announces Web-Based Radiology Theatre](#) – IBM has announced an online "radiology theatre" product, currently at the prototype stage, which allows teams of medical experts to "simultaneously discuss and review patients' medical test data using a Web browser."
- [Diabetes Device Connects Wirelessly to iPhone](#) – Now there is a device which sends diabetes patients' blood sugar levels automatically and computes the correct amount of insulin to administer.
- [Hospitals' Electronic Wasteland](#) --- Less than 2 percent of U.S. hospitals today use comprehensive electronic health records, according to a new survey of 3,000 hospitals that highlights just how far the health-care system has to go to meet President Obama's goal of providing every American with access to electronic records by 2014.
- [Implantable Telescope for the Eye](#) – A new device may help restore sight to those with severe macular degeneration. A miniature telescope implanted into the eye could soon help people with vision loss from end-stage macular degeneration.
- [Skin to Stem Cell Breakthrough Promises Health Care Revolution](#) – Discovered by the Japanese scientist Shinya Yamanaka, this new method creates stem cells without using and destroying human embryos. By studying

cells created from people with inherited disorders, scientists are observing how diseases progress and react to treatments.

Military

- [A Soldier's \(Robotic\) Best Friend](#) (video) – New video of one of the most impressive robots ever. Capable of autonomous navigation, this dog-like robot can carry up to 340 pounds up steep slopes and through ice and sand.

MISC

- [10 Ideas Changing the World Right Now](#) – Ten interesting ideas that are changing the world right now. Several of these are technology related.
- [Microsoft Offers to Just "Fix It"](#) – Instead of just giving instructions on how to fix common problems, Microsoft has automated the fixing process (using scripts) so that the problem is solved for the user.
- [New technology aids in bank robbery arrests](#) – Police are using a new technology called "[Coplink](#)." It's an artificial intelligence software that can identify suspects based on information entered by other law enforcement officers.
- [9 Ways Tech is the New Black](#) – Nine extremely interesting IT developments, including finger drives, bionic webcams, social networking and others.

Nanotechnology

- [Nanotechnology and Technology Acceleration buzz](#) – Progress in nanotechnology continues as actual developments accelerate.
- [Considering the Complex Ethical, Legal, and Societal Issues with the Parameters of Human Performance](#) – An excellent article outlining some of the complex issues with nanotechnology developments.

Neural Networks

- [Kevin Warwick and his experiments](#) – This amazing video shows how Kevin Warwick (the scientist who puts chips in his own body) continues to lead the way in implanting devices into humans. In this video, he explains how implants, wired to his nervous system, can be used to transmit information.

RFID

- [The High Definition Enterprise](#) – The second phase of UHF RFID is now underway. RFID solutions are maturing into a new generation of enterprise applications capable of managing the accelerated, higher fidelity, real-time needs that companies are demanding.
- [Virgin Atlantic Soars To New Heights With Printronix SL5000r RFID Enabled Printers](#) – Just one of the many uses of RFID chips that are starting to make a difference. Feeling the pinch of increasing operational costs and competitiveness within the airline industry, Virgin Atlantic chose to implement an RFID spare parts tracking system at its Heathrow facility.

Robots

- [Robotic gardening](#) – MIT students have created robots capable of attending a garden.
- [Regulate armed robots before it's too late](#) – Armed robots are coming and there is concern that unregulated, these robots could accidentally cause great harm.
- [Humanoid robot helps scientists to understand intelligence](#) – London's Imperial College's Departments of Computing and Electrical and Electronic Engineering believe that iCub, about the size of a three year old child, will further their research into cognition, the process of knowing that includes awareness, perception, reasoning and judgment.
- [New robot 'steered by human thought'](#) – Honda has a new robot steered by human thought, thanks to a helmet-like device that

measures a person's brain activity and sends signals to the machine.

Search Engines

- [Spidering the "Dark Web"](#) – The "Dark Web" refers to a research project where the social phenomena of terrorism is studied via various techniques including social network analysis, content analysis, link analysis, web metrics, video analysis, data and text mining, sentiment and affect analysis, and authorship analysis.
- [Steve Wozniak Joins DeepDyve Advisory Board](#) – Apple co-founder Steve Wozniak is joining the advisory board of the research engine [DeepDyve](#), a search engine designed to scour the "deep web." This "deep web" is an area of the internet that isn't currently indexed by modern-day search engines like Google and yet consists of an estimated 99.8% of the Internet.

Semantic Web

- [Obama's Groundbreaking use of the Semantic Web](#) – In a revolutionary move, Obama's administration is set to utilize next generation web technologies to bring an unprecedented level of transparency to government.
- [Google Rolls out Semantic Search Capabilities](#) – The new technology will allow Google's search engine to identify associations and concepts related to a query, improving the list of related search terms Google displays along with its results.

Sensors

- [Sensors, Smart Content, and the Future of News](#) – Sensors in every part of our lives are helping us aggregate smart content that is relevant to the device we are using.
- [Body 2.0 - Continuous Monitoring Of The Human Body](#) -- The trio of biomedicine, technology, and wireless communication are in the midst of a merger that will easily bring continuous, 24x7 monitoring of several crucial bodily functions in the years ahead.

Wearable Computing

- [Unveiling the "Sixth Sense," game-changing wearable tech](#) –. One of the best demonstrations I have ever seen showing how sensors are being combined with wearable computers to make information easier to digest. MUST SEE!

Web 2.0

- [Is Social Networking Killing You?](#) – Spending all day, and much of the night networking on a computer might in fact be bad for your body and your brain.