

E.I.T. Links

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

“In this new wave of technology, you can’t do it all yourself, you have to form alliances.”
 - Carlos Slim Helu

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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 Apr 2011, and all of the links were working at time of publication.

Remember, all links mentioned here and all prior newsletters are available at:
<http://www.steveknode.com/>

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

Links for this Issue

AI General

- [Ads Watch Who Looks At Them \(VIDEO\)](#) – Next time you look at a billboard, it might be looking back. It’ll know your age, gender and how long you’ve been staring at it.

Artificial Life

- [Fruit Flies Could Hold Key to Future Internet](#) – Computer processors working in parallel resemble in many ways the

operation of fruit flies. Improved operation of the internet could be based on what is learned from observing flies.

Brain

- [Brain Research Helps Unlock Secrets of Learning](#) – Researchers report that brain stimulation accelerated learning in laboratory experiments that may eventually lead to improved treatments for strokes, tinnitus, chronic pain and more.
- [Allen Institute For Brain Science Announces First Comprehensive Gene Map](#) – The Allen Institute for Brain Science has released the world’s first anatomically and genomically comprehensive human brain map, a previously unthinkable feat made possible through leading-edge technology and more than four years of rigorous studies and documentation.

Educational Technology

- [CourseSmart Brings Textbooks to Android](#) – The future of textbooks is digital and a growing part of the digital economy resides with Android. CourseSmart, one of the largest providers of digital learning material, released an Android application April 19 to make e-textbooks more ubiquitous in the market.
- [A new model for online learning](#) – If a student needs help with homework, this site

now helps provide it and insure the information is accurate.

- [There's an app for that class at Va. universities](#) – VCU and other universities are exploring the uses of smartphones and mobile applications in and outside classrooms as the number of students who own the phones increases dramatically from semester to semester.

Future

- [Programming Regret for Google](#) – Could hindsight be programmed into a computer to more accurately predict the future? *Tel Aviv University* computer researchers think so — and the Internet giant Google is anxious to know the answer, too.
- [The Possible Discovery of the Higgs Will Shake the Foundations of Physics](#) – The LHC has been exploring the elusive Higgs Boson (God Particle). The discovery of it will not only complete the Standard Model as it exists today but will literally shake the very foundation of our understanding of the Universe we live in.

Information Visualization

- [Store data in your body without cyborg modification](#) – Floppy discs? Too 1980s. Thumb drives? Too easy to lose. Anyway, who needs a thumb drive when you can store data in your thumb? A new program called Sparsh lets you transfer files from one device to another simply by touching the screen – and you don't have to join the Borg collective first.
- [ShowYou Will Change How You View Videos on Your iPad](#) – Now add to the list of apps that "change everything", ShowYou, a video application that may just well change the way in which you interact with video content.
- [Google Data Viz Challenge](#) – Google has just released the winners of their Data Viz Challenge.

- [Examples of Poor Data Charts](#) – Here are some examples of poor data communication of quantitative data.
- [Image gallery: 22 free tools for data visualization and analysis](#) – Listed here are several excellent tools for data visualization and analysis.
- [Ultrasharp 3-D Maps](#) – Here are some 3-D maps which offer much greater resolution than Google Maps. Much of the work to create the maps is automated.

Intelligent Agents

- [Speeding Up the Healing Process](#) – New agents could help the body repair chronic wounds, and make the normal healing process work more quickly.

Knowledge Management

- [Developer of Robot Scientist Wants to Standardize Science](#) – After an update to its software, a robot scientist has recycled its previous research to make a new biological discovery. Named Adam, the van-sized robot came to scientific fame after autonomously investigating gene function in yeast. Those findings anticipated an era when computers wouldn't just be research tools, but researchers.
- [Qwiki is the iPad's Newest Killer App](#) – What is this magical app? Qwiki is a technology that takes raw text, photos and videos and attempts to weave it all together into a short, dynamic presentation that makes sense. The system notes data types like dates and locations and creates original infographics to represent it. The first use case, the desktop and now iPad app, uses text from Wikipedia and media from elsewhere around the web.
- ["Open the Pod Doors, Watson. Artificial Intelligence in Science Fact and Fiction."](#) (video) – A lecture by Jeremy Teitelbaum, dealing with many of the implications of 'Watson's' recent triumph on Jeopardy.

Kurzweil

- [Ray Kurzweil appears on the Colbert Report](#) (video) – My favorite futurist, Ray Kurzweil, appeared on the Colbert Report recently. His segment starts 15:43 into the program.
- [Solar Will Power the World in 16 Years](#) – As I have mentioned many times, we underestimate the power of exponential progress. Only eight more doublings of solar power will provide us with all the power needed.

Medical

- [UR Technology to Enhance Eyesight Approved by FDA](#) – A technology created by University of Rochester physicians and scientists that has helped boost the eyesight of patients to unprecedented levels is now more widely available, thanks to approval by the U.S. Food and Drug Administration.
- [New implants make vision possible](#) – A new type of implanted device placed in the eye is bringing vision to people who were not otherwise able to see. It's far from simple and doesn't offer 20/20 eyesight, but it's making a huge difference in people's lives.
- [Watson Goes to Work in the Hospital](#) – Some of the techniques that helped Watson defeat two human *Jeopardy!* champions in February are showing promise in a new context: the hospital. Researchers in Canada are using analytics like those that helped the computer decipher the language of clues to provide an early warning when babies in an intensive care unit acquire a hospital-borne infection.
- [Will Artificial Intelligence Replace Your Family Doctor?](#) – According to *Money* magazine, the Association of American Medical Colleges has projected that in 2015 there will be 63,000 fewer physicians than it needs. Furthermore, an article in *The Atlantic*, "Artificial Intelligence Is the Next Killer App" referenced a statement by a Microsoft executive in a *New York Times* article speculating that future applications might

include a "medical doctor in a box" that could help with basic medical issues.

- [Connecticut hospital may get help from 'Watson' supercomputer](#) – 'Watson', the supercomputer which gained stardom on *Jeopardy* may soon be assisting physicians at Charlotte Hungerford Hospital.

Military

- [Global network will redefine how the Army fights](#) – Army Vice Chief of Staff Gen. Peter Chiarelli told Senate lawmakers Tuesday software-based tactical radios are the military version of smartphones, a platform on which to build competitive and inexpensive applications to support battlefield communications.
- [Army Develops Android Phone for Battlefield](#) – The device, known as a Joint Battle Command-Platform, or JBC-P Handheld, is the first developed under an Army effort to devise an Android-based smartphone framework and suite of applications for tactical operations.

MISC

- [Get a Net-Workout with Cloud-enabled Gym Gear](#) (slideshow) – High-tech gym equipment uses cloud computing to customize workouts.
- [Your iPhone Can Buy Your Groceries](#) – An iPhone app launching today provides a glimpse into the future of shopping. Created by Modiv Media, the app lets customers scan items while they shop, presents them with personalized offers as they go, and speeds up their checkout.

Robots

- [iMobot rolls, crawls and creeps](#) – A single iMobot module has four controllable degrees of freedom, with two joints in the center section and two wheels, one on each end. An individual module can drive on its wheels, crawl like an inchworm, or raise one end of its body and pan around as a camera platform. Individual modules could be

assembled into larger robots for particular tasks, such as a snakelike robot that could get into confined spaces, or a larger, wheeled robot for smoother terrain.

- [Surveillance robots know when to hide](#) – If the robot believes it is in danger of being detected by an approaching sentry, it will try to get to a place where it can hide. What makes the robot special is its ability to build a computer model of its surroundings, incorporating information on lines of sight. The robot is fitted with a laser scanner to allow it to covertly map its environment in 3D.
- [NTU develops robots for customs services: NIA](#) – The National Immigrations Agency (NIA) was yesterday presented with “Monica,” “LuoGuide” and “LuoHead,” three artificial intelligence robots created by the National Taiwan University Department of Electrical Engineering (NTUEE). In the near future, prepare to be stopped, scanned and serviced by a robot while going through customs.
- [FRIDA Offers Glimpse of Future Factory Robots](#) – Designed for assembly applications, FRIDA is capable of using its human-like arms to grasp and manipulate electronic components and other small parts. The machine is a [concept robot](#) that ABB created to show off its vision for a new kind of industrial robot.
- [Herding Swarms of Microrobots](#) – Imagine a swarm of microrobots—tiny devices a few hair widths across—swimming through your blood vessels and repairing damage, or zipping around in computer chips as a security lock, or quickly knitting together heart tissue. Researchers at the University of California, Berkeley, Dartmouth College, and Duke University have shown how to use a single electrical signal to command a group of microrobots to self-assemble into larger structures.

[Sensors](#)

- [Sensor Data up for Grabs](#) – Distributed wireless sensors are increasingly being used to monitor all sorts of things—from water

quality in a river to the oven in your kitchen. A startup in the U.K. called Pachube wants to kick-start a revolution in new apps and services by providing ways for anyone to share and access all this sensor data. The firm has developed sensor gateway that collects data feeds in many different formats and converts them into commonly used standards in real time.

[Simulation](#)

- [Download DARPA's sub-hunting sim, help train its ACTUV automaton](#) – DARPA’s latest program to go the crowdsourcing route is its Anti-submarine Warfare Continuous Trail Unmanned Vessel (ACTUV). DARPA’s created the ACTUV Tactics Simulator, where players complete missions tracking a target sub while navigating through and around commercial ocean traffic. Would-be captains can then choose to submit their strategies and game data to DARPA for use in shoring up the autonomous seabot’s strategic submarine pursuit software.

[Speech Recognition](#)

- [Talk to Your Computer: Chrome Listens and Translates \(Through HTML\)](#) – The latest stable release of the Chrome browser today contains a cool new feature: speech input through HTML. This means that you can talk into your computer’s microphone, and your recorded audio will be translated to text and typed out for you.

[Virtual/Augmented Reality](#)

- [Point... and it will come alive: 'Harry Potter' mobile app that will make everything interactive](#) (with video) – Think of pointing your phone at the advertisement on the side of a bustop and having the ad come to life, complete with interactive features. Think Harry Potter and his magic newspaper.

[Web 2.0](#)

- [Facebook, Your Future Bank](#) – At first blush, this seems like a crazy idea. Facebook would need to overcome consumer privacy concerns, expand its Credits into a payment system that works everywhere, and surmount regulatory hurdles to handle businesses such as deposits and mortgage servicing. Crazy, until you realize how smartphones are changing the world of money.
- [Gov 2.0 on the go: Agencies hit it big with mobile apps](#) – Mobile devices have been a hot topic for federal employees for a while, and federal mobile applications for consumers are also in the spotlight. Agencies have already tackled many of the challenges associated with smart-phone applications, including those related to design, development, evolving technologies, security, privacy, cost, marketing, analytics, and ongoing maintenance and support.
- [Who Is More Trust-Worthy with Our Data: The Government or Big Companies?](#) (video) – Part 1 of a 3 part panel interview series with two of the big thinkers of Silicon Valley, Reid Hoffman and Tim O'Reilly.
- [Letting Go: How Sharing Your Data Can Transform Your Life](#) (video) – Part 2 of a 3 part panel interview series with two of the big thinkers of Silicon Valley, Reid Hoffman and Tim O'Reilly.
- [So Is Web 3.0 Already Here?](#) (video) – Part 3 of a 3 part panel interview series with two of the big thinkers of Silicon Valley, Reid Hoffman and Tim O'Reilly.
- [Facebook Deals Launches Tonight & Groupon Doesn't Stand a Chance](#) – Comparisons to the mega-successful services Groupon and Living Social are inevitable. But Facebook Deals is going to be much, much more interesting for everyone. Retailers likely won't have to pay a cut of the revenue to this deals platform at all. If Facebook can execute this feature well then it's hard to imagine what some of today's fastest growing businesses on earth are going to do to compete.
- [Love House Hunting? New iPad App From Realtor.com Rocks](#) – The app is really solid.

It's intuitive, not too complicated, a joy to use. Realtor.com's app feels responsive and feels like it has the right features for ongoing use.