

# E.I.T. Links

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

“The insanity of the collective egoic mind, amplified by science and technology, is rapidly taking our species to the brink of disaster. Evolve or die: that is our only choice now.”  
 - Eckhart Tolle

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computer and elsewhere, now it is going mobile also. Might AI, running on a smart phone, balance your portfolio on the fly?

## *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](mailto:sknode@gmail.com).*

**Note: This newsletter contains links found during Sep 2010, 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](http://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

- [AI's Time Has Arrived](#) – After decades of failure, artificial intelligence is ready for the masses, owing to tectonic advances in computing power. Several excellent examples shown here.
- [Artificial Intelligence Goes Mobile](#) – Not only is artificial intelligence emerging on the

### Artificial Life

- [Avatar therapy: From couch to cyberspace](#) – Psychotherapy in a virtual world has its advantages – particularly if the real world is what you can't cope with. (NOTE: You must be a NewScientist subscriber to read the entire article.)

### Brain

- [Mapping a brain atlas](#) – Building on a tool that was co-developed in his laboratory and described in a recent issue of Brain, Dr. Yaniv Assaf of Tel Aviv University's Department of Neurobiology is collaborating with an international team of scientists to understand how different parts of the human brain "connect" -- and to turn this information into a "brain atlas."
- [Turning Thoughts into Words](#) – Brain-computer interfaces could someday provide a lifeline to "locked-in" patients, who are unable to talk or move but are aware and awake. Many of these patients can communicate by blinking their eyes, but turning blinks into words is time-consuming and exhausting.
- [Mental muscle: six ways to boost your brain](#) – There are several known ways to boost the

power of the brain. (NOTE: You must be a NewScientist subscriber to read the entire article.)

### [Chatterbots](#)

- [Virtual Tutors: NC State Receives Grant To Study Artificial Intelligence In The Classroom](#) – NC State recently received a four-year, \$3.5 million grant to explore using artificial intelligence as a learning tool inside fourth- and fifth-grade science classrooms. Artificial intelligence is the science of giving computers human-like abilities to understand, plan, communicate, perceive, etc.

### [Decision-Making](#)

- [Don Tapscott discusses his new book, Macrowikinomics](#) (video) – In this new age of networked intelligence, businesses and communities are bypassing crumbling institutions. We are altering the way our financial institutions and governments operate; how we educate our children; and how the healthcare, newspaper, and energy industries serve their customers.

### [Educational Technology](#)

- [How TED Connects the Idea-Hungry Elite](#) – Two things -- great ideas and the human connections they create -- make TED a unique phenomenon. TED, which takes place annually in Long Beach, California, is the only conference that fully exploits the power of what you might call the human network.
- [App Gives Georgia Students High-Tech Access to Campus Info](#) – Students and developers at the Georgia Institute of Technology have created a highly functional iPhone app that lets users view campus maps, reserve books, plan meals and perform many other school-related tasks.

### [Expert Systems](#)

- [Don't Tell the Creative Department, but Software Can Produce Ads, Too](#) – CAI

(pronounced Kay) can randomly generate an estimated 200,000 ads. In a recent demonstration, the software brought forth bland and formulaic — but perfectly acceptable — ads that could run in magazines or newspapers, as banners on Web sites or on billboards.

### [Future](#)

- [What will this next decade look like?](#) – Interesting way, combining forecasting and games, to portray what might happen in the upcoming decade.

### [Information Visualization](#)

- [Visualizing The Stunning Data in The AlloSphere](#) – (video) You will be amazed at the potential for using the AlloSphere to visualize data sets. Must see video!
- [The Internet Time Machine](#) – Select a year from 1860 on and see videos about entertainment, news events, sports, movies, etc. from that year.

### [Innovation](#)

- [Carne Ross: An independent diplomat](#) – You have probably heard of Software as a Service (SaaS), and other things as a service. How about 'diplomat as a service'?
- [Laser projector for smartphones on the way](#) – The development of a tiny new video projector has recently been announced. The projector is said to be smaller in area than a credit card, with a projection head measuring one cubic centimeter. Developers of the device foresee it becoming commercially available in smartphones, laptops and digital cameras, with industrial applications including possible use in operating rooms.
- [Chris Anderson: How web video powers global innovation](#) (video) – TED talk by Chris Anderson on new developments in innovation, powered by the world wide web.

- [Electric Vehicles](#) – Excellent pictures and descriptions of several electric vehicles in development.

### Intelligent Agents

- [Rattner Describes the Future of Context-Aware Computing](#) (related video at: [http://www.youtube.com/watch?v=qbeYdFGHlgo&feature=player\\_embedded](http://www.youtube.com/watch?v=qbeYdFGHlgo&feature=player_embedded)) – In his keynote speech at the Intel Developer Forum, Intel vice president and chief technology officer Justin Rattner focused on "context-aware computing," in which devices anticipate your needs and desires and help fulfill them—before you even ask.
- [MatchUpSingles.com debuts new intelligent agent software for Valentine's Day](#) – This year, for Valentines Day, MatchUpSingles debuts its new web site, with an intelligent agent that crawls the database twenty-four hours a day every single day to come up with the most appropriate matches. To do its work, the agent relies on a series of questions developed with leading psychologists.

### Knowledge Management

- [Harris Corporation Introduces USB Thumb Drive Designed for U.S. Government Cyber Security Missions](#) – The BlackJack™ device boots in less than three seconds. It automatically scans and copies data by prioritizing search criteria and securely partitions search results for analysis. Unlike other search devices, it has LED indicators that immediately alert to the presence or absence of targeted data, so users can be certain whether they have indeed located and extracted information of interest.

### Kurzweil

- [Education: Ten weeks to save the world](#) – Singularity University tries to breed world leaders by immersing students in futuristic concepts. SU students pay US\$25,000 for ten weeks' tuition and board. But the students are sparking ideas, forging relationships and brokering deals that will

last a lifetime and might just save the world — or make the students some money while trying.

### Manufacturing

- [New process promises to revolutionize manufacturing of products](#) – A new "smart materials" process - Multiple Memory Material Technology - promises to revolutionize the manufacture of diverse products such as medical devices, microelectromechanical systems (MEMS), printers, hard drives, automotive components, valves and actuators.

### Medical

- [Better Flu Vaccines with Computer Algorithm](#) – Researchers at the University of Miami and Stony Brook University are using a computer algorithm to create safer flu vaccines rapidly. The research could lead to better vaccines for other viruses and the creation of synthetic organisms.
- [WellDoc App Boosts Health 4X over Pills](#) – The U.S. Food and Drug Administration just approved a diabetes app—the first in a new category of FDA-approved medical software apps that will soon serve every chronic medical condition. WellDoc claims its app improves a diabetic's health index four times more than drugs by using artificial intelligence (AI)—an expert cloud-based system that analyzes a patient's condition, tracks treatment regimes, suggests real-time interventions and detects symptom trends.
- [Surgery Enters the Third Dimension](#) – 3D images have made work a little easier for surgeons at the University Hospitals of Geneva. The imaging helps plan operations and improve doctors' precision, allowing them to see inside the body they're about to go to work on.

### MISC

- [Graeme Taylor: Evolution's Edge – The Coming Collapse and Transformation of Our World – Part 1 \(Shift\)](#) (audio) –

Researcher, lecturer, author and coordinator of BEST Futures, Graeme Taylor talks with host Matthew Gilbert about the need for social transformation to create a sustainable future. Part 1.

- [Graeme Taylor: Evolution's Edge – The Coming Collapse and Transformation of Our World – Part 2 \(Shift\)](#) (audio) – Researcher, lecturer, author and coordinator of BEST Futures, Graeme Taylor talks with host Matthew Gilbert about the need for social transformation to create a sustainable future. Part 2.
- [Tech Talk Podcast: Empathetic Fabric](#) – Fabrics that can see and hear and emit sound may seem like products of science fiction, but they're being developed at M.I.T.
- [Google Shows Off Chrome, HTML5 With Interactive Music "Experience"](#) – Google has released its latest "Chrome Experiment" today in the form of a music video "experience" that takes you, quite literally, back to the streets of your youth.
- [Smartphones Begin to Replace Hotel Keycards](#) – Smartphones are now replacing room keys or key cards. Several hotels can now utilize your smartphone to allow you to gain entrance to your room.
- [4 Ways to Attend Meetings On Your iPad](#) – There are now several ways to attend meetings utilizing your iPad. The device is particularly well-suited to attending meetings on the go, with its large screen for viewing the presentation and microphone and speakers for VoIP-based discussions.
- [Autonomous Vehicle Driving from Italy to China](#) – There is an autonomous vehicle driving from Italy to China to prove the concept.

### Neural Networks

- [Software Predicts Criminal Behavior](#) – New crime prediction software being rolled out in the nation's capital should reduce not only the murder rate, but the rate of many other crimes as well. New advances in computer technology can sift through large amounts of

data more quickly and more accurately than ever.

- [More realistic pet robots that recognize and respond to human emotions](#) – Despite the apparent intelligence of some robot pets, their behavior and actions are usually nothing more than pre-programmed responses to stimuli – being patted in a particular location or responding to a voice command, for example. Real flesh and blood pets are much more complex in this regard, even discerning and responding to a person's emotional state. Robotic pets could be headed in that direction, with researchers in Taiwan turning to neural networks to help them break the cycle of repetitive behavior in robot toys and endow them with almost emotional responses to interactions.

### Robots

- [Female AILA Spices Up Robot Sausage Party](#) – AILA's a product of the German Research Center for Artificial Intelligence, and she's unusual in the typically masculine world of robotics as she's unashamedly female. She's humanoid and highly flexible with all the right degrees of limb freedom to emulate lifting/carrying maneuvers in the same way you or I might.
- [Soccer Robots Bend It Like Beckham](#) – Not only is robot soccer a real thing, but at least one researcher thinks robotic soccer competitions will determine the future of artificial intelligence and robot technology.
- [Football Playing Robots may Change the Way Rescue Ops are Conducted](#) – Scientists say that football playing robots could drive the development of artificial intelligence towards roles including search and rescue and home help.
- [Disembodied performance](#) – In September, the Opera of the Future Group at the MIT Media Lab will premiered *Death and the Powers*, an opera more than 10 years in the making. Featuring life-sized singing robots and a musical chandelier, the opera could redefine how technology can enhance live performance and help reestablish opera's

spirit of innovation.

- [Robots on TV: Five glimpses of future machines](#) – In this month's video special, the top five new robots are demonstrated. These machines are pushing the boundaries of artificial intelligence and are learning to interact with humans more naturally. Some could become the heroes of dangerous rescue missions, while others could be our future companions.

### [Search Engines](#)

- [ExpertMaker brings AI search tools to developers](#) (includes video) – Instead of using a keyword-based approach, the technology uses filters as its main input, which the company says offer high precision through taking into account one's preferences, feelings, and taste. It's easy to see how ExpertMaker's technology could be used to offer all types of recommendations — ranging from niches to broad topics like taste in music and movies.
- [Google CEO Schmidt Pitches Autonomous Search, Flirts with AI](#) – Google CEO Eric Schmidt said the symbiotic relationship between humans and computers is driving the search engine to work on autonomous search, where users receive search suggestions on their mobile phone without having to type any queries.

### [Sensors](#)

- [How the Internet of Things May be Used Against You](#) – While on the one hand, the idea of the "internet of things" (self-aware "social objects") is intriguing, especially when you examine use cases like the "social tennis racquet," there is a flip side. Social objects can tattle on you, reporting data you don't wish to share.
- [Credit Card with a Computer Inside](#) – A programmable credit card can display useful information, offer added security features, and even act as several different cards by rewriting its own magnetic strip.

- [Home's electrical wiring acts as antenna to receive low-power sensor data](#) -- Patel's team has devised a way to use copper electrical wiring as a giant antenna to receive wireless signals at a set frequency. A low-power sensor placed within 10 to 15 feet of electrical wiring can use the antenna to send data to a single base station plugged in anywhere in the home.

### [Speech Recognition](#)

- [Say it with me: Voice is ready for prime time](#) – In the future, we'll talk to our computers and they'll talk back. We know this is true because talking is the most natural way for human beings to communicate. The evolution of the human-machine interface always moves the workload of interaction from the person to the computer. The perfect UI would be a natural conversation, just like you have with other people. The primary hurdle may be cultural, not technological.

### [Virtual Reality](#)

- [Layar: Augmenting Reality via Smartphone](#) – Layar continues to set the standard for delivering augmented reality to mobile devices.
- [It's No Game: DOD Uses Virtual Reality to Treat PTSD](#) – Virtual reality therapy systems are being used to help treat Iraqi vets who suffer from post-traumatic stress disorder.
- [The worlds first augmented reality stamp](#) – (demo included) If you live in the UK, the next letter that lands on your doormat could be using one of the worlds first augmented reality enabled stamps. Information now can be embedded almost anywhere.
- [The world's first mobile Augmented Reality Special Magazine Edition](#) – Within a few years it will be common to use a mobile phone to interact with magazines in order to gain access to exclusive content. To give us a glimpse on what the future holds, Metaio has been working hard with SZ Magazine to give their readers an augmented reality

experience they'll never forget.

- [TagWhat](#) – (demo included) Tagwhat is an interesting augmented reality browser able to hold it's head up against the big boys. Interesting take away from the video is the content engine that will allow users to purchase 3D models that can be used in the browser.

## Web 2.0

- [Twitter unveils 'faster, richer' Twitter.com](#) – Though site redesigns are often underwhelming, the new Twitter.com is tantamount to a fundamental relaunch of the popular microblogging service's Web-based interface, mainly because it introduces a new interface build around a second viewing pane in which users will be able to see all kinds of content--from photos and videos to user profiles to geolocation information and more.
- ['Pre-crime' Comes to the HR Dept.](#) – Straight out of 'Minority Report' comes this application, mining social network traffic to see if you are worth hiring. The reports feature a visual snapshot of what kind of person you are, evaluating you in categories like "Poor Judgment," "Gangs," "Drugs and Drug Lingo" and "Demonstrating Potentially Violent Behavior." The company mines for rich nuggets of raw sewage in the form of racy photos, unguarded commentary about drugs and alcohol and much more.