
Emerging Trends in Information Technology

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The purpose of writing this paper is to make users of IT and public at large make aware of the recent upcoming technologies in ever changing world of IT. I am highlighting major changes in Information technology:

Portable Document Scanner Scan Snap

Fujitsu recently launched the ScanSnap S1100 document scanner, where it is touted to be one of the smallest in the world without compromising on performance and functionality. The new ultra-portable scanner will tip the scales at slightly more than 12 ounces, cramming inside enough technology to pay homage to its larger brethren in the series despite sporting a new sleek style that allows you to easily fit it into a briefcase or purse and digitizes your documents anywhere, and at any time. The ScanSnap S1100 was specially designed to see action with a PC or Mac, where it will rely on its innovative paper path system and fast front-side color scanning functionality to quickly scan anything ranging from contracts and long receipts to business cards and plastic IDs. A single USB cable is all it takes to power the ScanSnap S1100, where it will convert all scanned data into searchable PDF files while enabling you to quickly transform your paperwork into editable Word and Excel files. Apart from that, ScanSnap S1100 lets to scan documents directly to Evernote and Google Docs cloud services, making it a snap to store your paperwork and photos from just about anywhere as long as you're hooked to a decent Internet connection.



Concept Joggle Smartphone

Mobile phones must be more flexible, cheaper and more durable. Czech designer Ilya Tkach has come up with concept a Smartphone called the “Joggle” that encloses all electronics within an elastic material to fill the free space. The resilient material not only makes the Smartphone resistant to scratches and damages but also turns it into a waterproof device. Removing all brittle parts, such as glass, the Joggle uses electronics based on films to resist bumps or impacts.



Moreover, such materials can be recycled with ease to reduce the electronic waste piling up in bulk all across the world. Since the futuristic Smartphone sans all brittle parts, it can be kept in your back pocket, thanks to the flexible materials, without worrying about scratches or damages.

XO-3 Concept Tablet for 2012

Designer Yves Behar has unveiled his latest concept design for the now-aiming-for-\$75 vision, and it's all screen. Keeping with the newfound trend toward tablets, the XO-3 is an 8.5 x 11 touchscreen, coupled



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with a little folding ring in the corner for grip and a camera in the back. To keep things minimal the plan is to use Palm Pre-style induction charging, and less than a watt of power to keep an “8 gigahertz” processor and a Pixel Qi screen powered. At half the thickness of an iPhone, this vision is obviously banking heavily on presumed technology advances by 2012 (the projected release date), but it's not too hard to see somebody making this form factor happen by then. According to Nicholas Negroponte, there are two other variations of the XO headed our way before we see the XO-3. Nick says we'll see the XO-1.5 appear in January for around \$200 — an update to the current version. As we'd heard before, the 1.5 iteration will swap a VIA CPU for the current AMD one, and will double the speed as well as quadruple both the DRAM and Flash memory of the current version.

Wireless Keyboard Clean Keys

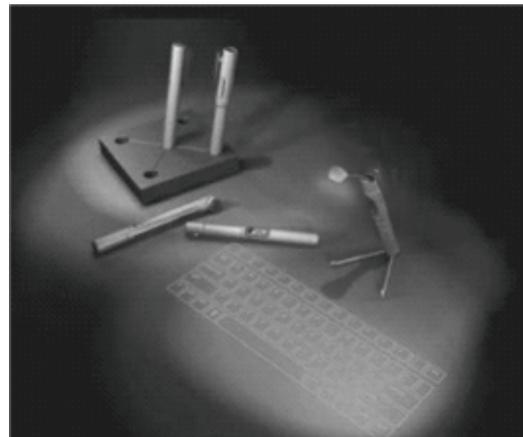
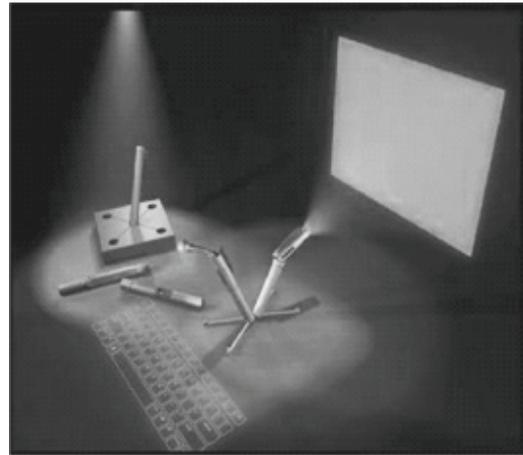
The wireless keyboard trades actual keys for touch-sensitive ones, so in exchange for a much more sanitary experience you'll be giving up that satisfying clickity-clack you've grown accustomed to. It's intended for use at hospitals where keyboard-germs are a serious issue, though I'd imagine it might pique the interest of regular old germaphobes too.

The Cleankeys keyboard includes a trackpad for clicking about and uses patent-pending technology to keep it from registering keystrokes when you're just resting your hands on the thing.



Amazing Japanese Technology – giving new definition to PC

Some of the smallest technology always gives away the biggest secrets! Whether you're looking at iPhone 4 deals or an LCD keyboard without knowing it has LCD capabilities, you're always going to get a big shock! So what could this be?? Something that will replace your Personal Computer (PC) in the near future looks like this :-



The few major emerging technologies are highlighted below with their status and potential applications:-

Emerging Technology	Status	Potentially Marginalized Technologies	Potential Applications	Related Articles
4G cellular communication	First commercial LTE networks deployed in Sweden December 2009; candidate systems LTE-advanced and IEEE 802.16m (Mobile WiMAX Release 2) in development	broadband	Pervasive computing	Mobile broadband, mobile TV, Interactive TV, 3D-TV, holographic cameras
Ambient intelligence	Theory			
Artificial brain	Research		Neurological disease's treatments, artificial intelligence	Blue Brain Project
Artificial intelligence	Theory, experiments; limited uses in specialized domains	Human decision, analysis, etc.	Creating intelligent devices	Progress in artificial intelligence, technological singularity, applications of artificial intelligence
Atomtronics	Theory			
Augmented Reality	Diffusion			
Cybermethodology				
Emerging memory technologies T-RAM, Z-RAM, TTRAM, CBRAM, SONOS, RRAM, Racetrack memory, NRAM, Millipede memory	In development	Current memory technologies		
Fourth-generation optical discs (3D optical data storage, Holographic data storage)	Research, prototyping	All other mass storage methods/ devices, magnetic tape data storage, optical data storage	Storing and archiving data previously erased for economic reasons	Holographic Disc stores Ultra HD big Electronic IT companies are interested in this technology it has bigger capacity than Blu-ray Disc 10x times more than optical storage
General-purpose computing on graphics processing units	Diffusion of non standardized methods	CPU for a few specialized uses	Order of magnitude faster processing of parallelizable algorithms	

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Machine augmented cognition, exocortices	Diffusion of primitive amplifications; working prototypes of more; theory, experiments on more substantial amplification	Libraries, schools, training, pocket calculators		
Machine translation	Diffusion	Human translation of natural languages, in areas where misunderstanding is non-critical and language is formalized	Easier and cheaper cross-cultural communication	
Machine vision	Research, prototyping, commercialization	Biotic vision and perception, including humans	Biometrics, controlling processes (e.g. in driverless car, automated guided vehicle), detecting events (e.g. in visual surveillance), interaction (e.g. in human-computer interaction), robot vision	Computer vision, pattern recognition, digital image processing
Mobile collaboration	Development, commercialization	Traditional video-conferencing systems	Extends the capabilities of video conferencing for use on hand-held mobile devices in real-time over secure networks. For use in diverse industries such as manufacturing, energy, healthcare.	
Optical computing	Theory, experiments; some components of integrated circuits have been developed	Many electronics devices, integrated circuits	Smaller, faster, lower power consuming computing	
Quantum computing	Theory, experiments, commercialization	Atomtronics, Electronic computing, optical computing, quantum clock	Much faster computing, for some kinds of problems, chemical modeling, new materials with programmed properties, theory of high-temperature superconductivity and superfluidity	

Emerging Technology	Status	Potentially Marginalized Technologies	Potential Applications	Related Articles
Quantum cryptography	Commercialization		Secure communications	
Radio-frequency identification	Diffusion of high cost	Barcode	Smartstores - RFID based self checkout(keeping track of all incoming and outgoing products), food packaging, smart shelves, smart carts. See: <i>potential uses</i>	
Semantic Web or <i>answer machine</i>	Theory, research	Search engines	Making the web machine-readable by annotating data on the web based on its meaning	
Speech recognition	Research, Development, Commercialization	Mechanical input devices		
Teledildonics	Diffusion	Conventional sex toys	Remote intercourse	
Three-dimensional integrated circuit	Development, commercialization	Conventional integrated circuit		
Virtual Reality	Diffusion	Television	Entertainment, education	