iPod

iPod is a brand of portable media players designed and marketed by Apple and launched on October 23, 2001. The line-up currently consists of the hard drive-based flagship iPod classic, the high-end touchscreen iPod touch, the mid-level video-capable iPod nano, and the entry-level screenless iPod shuffle. Former products include the compact iPod mini and the high-end spin-off iPod photo. iPod classic models store media on an internal hard drive, while all other models, aside from the Microdrive-based mini, use flash memory to enable their smaller size. As with many other digital music players, iPods can also serve as external data storage devices.

TECHVIEWS

Tech trends 2008

EDWARD APURBA SINGHA

TECHNOLOGY has become an integral part of our life. But people, by nature, tend to not stick to a particular technology for long. They are always looking for new age technologies that truly meet their hi-tech needs. This article mainly highlights some technologies that will dominate the year and at the same time points to some issues that local ICT industry needs to resolve in 2008.

Smartphone

A study says there would be a surge of smartphone users this year. The rapid advancement of handheld phones has enabled users to enjoy multimedia contents, videoconferencing and other bandwidth-incentive activities.

Allied Business Intelligence (ABI) said 406 million handsets were shipped in 2002 and about 15 percent of them had colour displays. This number is expected to jump to 97 percent by 2008. The reason for the increase is the emergence of 3G networks and the convergence between cell phone and PDA (personal digital assistant).

Cutting edge CPU architecture

Chipmakers like Intel and Advance Micro Devices (AMD) this year will focus on developing ultra high-speed, cutting-edge processors by adopting new processor architecture and using different manufacturing material. Intel is about to unveil its new Penryn processor. Recently the chipmaker has successfully manufactured the prototype of a processor fabricated on 45nm process.

In addition, both IBM and Intel have lately announced the development of a new "high-k" insulating material that will enable the two chipmakers to shrink CPU die size to 45nm without losing thermal and electrical efficiencies. Intel also claimed that the Penryn processor has dramatically increased performance and conserves better power as well.

AMD is also trying to win the microprocessor race. Some experts give more credit to AMD than Intel for its new innovation in CPU design known as heterogeneous processing. AMD says it is going to acquire graphics-chip maker ATI to produce new category processor code-named "Fusion" that mainly combines traditional CPUs and graphics processing units into a dual or quad core central processing unit.

This integration allows desktop PC, laptop or server to use a standard CPU core to perform standard PC/OS functions while remaining cores handle 3D graphics or floating point calculations.

Processors based on multiprocessing cores also throw challenges to software developers to develop applications that perfectly match with this new architecture. Programmers are now engrossed in developing multi-threaded applications because without this it is not possible to achieve optimum performance from multi-core processors.

Solid-state hard drive

Time has come to say good-bye to the conventional hard drives. Yes, nowadays several hard drive manufacturers have fallen in love with producing solid-state hard drive. This sort of storage device is lighter, faster, quicker and less power consuming than traditional hard drive used in notebooks.

Samsung first unveiled the 32GB NAND drive in 2006 and from then on several efforts were made to upgrade its technology. NAND is a type of flash memory technology that speeds up writing and erasing data from flash memory. NOR is another type of flash based storage and it is convenient for smaller devices like cell phones.

A recent report showed that solid-state hard drives are being built with data throughput capacity of up to 32MB/sec. It is nearly 100 times faster than traditional hard drives. SanDisk Corp has come up with a 32GB drive that is capable of achieving this speed. Due to their small size and lack of moving parts, NAND drives consumes less energy and produces small amount of heat compared to standard hard drives.

Ultra-wideband technology

Nowadays personal area network based on Bluetooth technology is not friendly enough to transfer wide amount of data. As a result, it prevents people from enjoying rich audio or video contents or transferring large files. In order to fix this problem, researchers are now considering a technology called ultra-wideband (UWB). This technology will wirelessly connect portable computer or PDA to multimedia projectors, play digital video from a camcorder onto an HDTV and transmit signal from PC to other portable devices.

UWB rapidly transfers data over 3.1-to-10.6 GHz frequency range and the data transfer rate is 500 Mbps whereas existing Bluetooth technology fixes at 2.1 Mbps. Another exciting feature of UWB is that it uses repeated data-rich pulse of energy in the radio spectrum to transmit data and cover distance up to 30 feet. It should be mentioned that most wireless system nowadays typically transmits data over a narrow band of frequencies.

Apple's iPhone

This year the hi-tech craze cannot gain momentum without Apple's iPhone. Apple has announced to release the iPhone to Asia Pacific region in 2008. Apple envisages that the introduction of iPhone in this region will have significant impact on cell-phone business. As iPhone comes with locked SIM, Apple will take measures against the retailers who sell hacked versions of the gadget.

IP telephony

In 2008 many companies will leave their private branch exchange (PBX) technology and migrate to IP telephony. More than 80 percent companies around the world are now on trail phase of IP telephony service. Gartner, a research firm, predicts that a majority of these companies will be using it within a couple of years.

Blade server technology

Blade sever technology will remain at the centre of talking in 2008. This sate-of-the art technology enables organisations to squeeze their existing IT installation by incorporating a server in their IT infrastructure. Blade server encompasses huge resources to run multiple OS and ensure security to resists interlopers.

Bangladesh in 2008

The new year holds the promise of strengthening the local ICT industry. According to experts, more people will be using internet in the country this year. Bangladesh Telecommunication and Regulatory Commission (BTRC) hopes that the government would be able to expedite the process by connecting us with the second submarine cable.

Bangladesh Telecentre Network (BTN) is also going on with its Mission 2011 strategy and has vowed to establish more telecentres and spread internet facilities in rural areas. Two more things can greatly influence the local tech industry -- WiMAX and 3G network.

WiMAX is invaluable for ISPs (Internet Service Providers) to establish long-haul data communication link and provide VoIP service. Considering cell phone penetration in the country, it is high time the government resolved frequency tangle and issued 3G licences to six cell phone carriers.

TECHNEWS

Intel quits One Laptop Per Child programme

AP, San Jose

CITING disagreements with the organisation, Intel Corp. said Thursday it has abandoned the One Laptop Per Child (OLPC) programme, dealing a big blow to the ambitious project seeking to bring millions of low-cost laptops to children in developing countries.

The fallout ends a long-simmering spat that began even before the Santa Clara-based chipmaker joined the OLPC board in July, agreeing to contribute money and technical expertise.

It also comes only a few days before the Consumer Electronics Show in Las Vegas, where a prototype of an OLPC-designed laptop using an Intel chip was slated to debut.

Intel decided to quit the nonprofit project and the OLPC board because the two reached a "philosophical impasse," Intel spokesman Chuck Mulloy said.

Meanwhile, Intel will continue with its own inexpensive laptop design called the Classmate PC, which it is marketing in some of the same emerging markets OLPC has targeted.

Both sides shared the objective of providing children around the world with the use of new technology, "but OLPC had asked Intel to end our support for non-OLPC platforms, including the Classmate PC, and to focus on the OLPC platform exclusively," Mulloy said. "At the end of the day, we decided we couldn't accommodate that request."

A spokesman for OLPC did not immediately return a request for comment.

The One Laptop programme was founded in 2005 by Nicholas Negroponte, former Media Lab director at the Massachusetts Institute of Technology. The original concept was to offer a "$100 laptop," but the green-and-white low-power "XO" computer now costs $188. It runs on a Linux operating system and a chip made by Intel rival Advanced Micro Devices Inc.

Negroponte told The Associated Press last fall that until OLPC had a machine using an Intel chip, he could understand why Intel wouldn't want to push an AMD machine to customers.

Mulloy said the use of AMD chips in the OLPC machines had nothing to do with Intel's decision to withdraw.

Intel believed all along that there is a need for multiple alternatives to meet the needs of children in poor countries, he said.

"It's unfortunate this happened, but at some point, you have to make a tough decision," he said.

TECHNEWS

Study: Drivers on cells clogging traffic

AP, Washington

DRIVERS talking on cell phones are probably making your commute even longer, concludes a new study.

Motorists yakking away, even with handsfree devices, crawl about 2 mph slower on computer-clogged roads than people not on the phone, and they just don't keep up with the flow of traffic, said study author David Strayer, a psychology professor at the University of Utah.

If you commute by car an hour a day, it could all add around 20 hours a year to your commute, Strayer said.

"The distracted driver tends to drive slower and have delayed reactions," said Strayer, whose study will be presented later this month to the Transportation Research Board of the National Academy of Sciences. "People kind of get stuck behind that person and it makes everyone pay the price of that distracted driver."

Strayer's study, based on three dozen students driving in simulators, found that drivers on cell phones are far more likely to stick behind a slow car in front of them and change lanes about 20 percent less often than drivers not on the phone.

Overall, cell phone drivers took about 3 percent longer to drive the same highly traffic-clogged route than people who were not on the phone.

It's simply a matter of brain overload. Your frontal cortex can handle only so many tasks at one time, so you slow down, Strayer said.

TECHNEWS

Huawei donates network gears to BUET

StarTech Desk

HUAWEI Technologies (Bangladesh) Limited has donated some network equipments and offered its technical assistance to BUET (Bangladesh University of Engineering and Technology) for the development of its data communication network lab and upgrade existing backbone network system. Huawei recognised this initiative as a part of their corporate social responsibility (CSR).

Huawei formally announced the contribution at an event on December 27, 2007 at a local hotel. At the occasion Sheikh Md Wahiduzzaman, secretary, Ministry of Science and ICT acknowledged this support and underscored the necessity of industry academia alliance to produce global standard manpower.

Dr AMM Safiullah, vice-chancellor, BUET expressed his gratitude to Huawei for its involvement in capacity building of the university. He also stated his desire to get more cooperation from Huawei in future endeavours.

It should be mentioned that Huawei has already awarded two scholarships titled 'Huawei Scholarship' to the students of level-3 of the Department of Electrical and Electronics Engineering (EEE), BUET based on their outstanding performance.

Wikipedia soon to face Google's 'knol'

AFP, San Francisco

GOOGLE is building its own version of communally-constructed online encyclopedia Wikipedia, which consistently ranks among the most visited websites in the world.

The internet search powerhouse is inviting chosen people to test a free service dubbed "knol," to indicate a unit of knowledge, vice president of engineering Udi Manber said last month in a posting at Google's website.

"Our goal is to encourage people who know a particular subject to write an authoritative article about it," Manber wrote.

"There are millions of people who possess useful knowledge that they would love to share, and there are billions of people who can benefit from it."

While Wikipedia lets visitors make changes to its online pages, trusting that people with accurate information will correct errors and misleading entries, Google is inviting folks to author their own articles.

Pictures of authors will be displayed on their knol web pages, according to a sample provided by Google.

"We believe that knowing who wrote what will significantly help users make better use of web content," Manber wrote.

"Books have authors' names right on the cover, news articles have bylines, scientific articles always have authors; but somehow the Web evolved without a strong standard to keep authors names highlighted."

Google hopes knols will be written on all conceivable topics and says it has no plans to edit or endorse content. Editorial responsibility will rest with authors, whose reputations will be at stake, according to Manber.

While Wikipedia merges topic entries in single articles, knols written on the same subjects will remain separate and "compete" for the attention of visitors, who will be able to give online feedback.

Knol authors will have the option of letting Google post ads on their pages and sharing in the revenues.

Google is the world's most used internet search engine and a proven master at mining revenue from online advertising targeted at those making queries and using its free Web-based services.

Luring Wikipedia users to its own community-created online encyclopedia promises to be another rich vein of ad income for the US internet search giant.

More than a third of US internet users consult Wikipedia, according to findings released earlier this year by The Pew Internet and American Life Project.

Wikipedia is consistently ranked among the world's top ten most popular websites by Internet research firms Hitwise and comScore.

PHOTOTECH

'SPEAK' THROUGH YOUR EAR

Japan's electronics giant Sanyo Electric unveils the earphone-microphone "E-mimi kun", which has earphone and microphone inside an earpiece and noise cancelling LSI to have conversations with clear voice under noisy circumstance such as factory and event site. Sanyo will put it on the market next April.

PHOTO: AFP