Internet changing consumer electronics world: Intel chief

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Intel Corporation President and CEO Paul Otellini today said the Internet will continue disrupting the consumer electronics and entertainment industries in new ways and described how the Internet's evolution will create business opportunities for "those who embrace it."

"We're now in the midst of the largest opportunity to redefine consumer electronics and entertainment since the introduction of the television," Otellini said during a keynote speech at the International Consumer Electronics Show. "Increasingly, computing and communications are coming together, bringing a new level of capabilities and intelligence to the Internet experience. The personal Internet of tomorrow will serve you – delivering the information you want, when you want it, how you want, wherever you are."

As phones, televisions and other CE devices connect to the Internet and take on more computing characteristics, microprocessors and the benefits of Moore's Law matter more than ever before, according to Otellini.

"When computing became personal, the industry changed – innovation, collaboration and standards drove growth beyond what anyone could imagine," Otellini said, drawing parallels between the early days of personal computing and the future of Internet computing. "I believe that the Internet is following the same path."

The Future of Internet Computing

Otellini highlighted a future where an American visiting Beijing could use a pocket-sized mobile Internet device to audibly and visually translate building signs, restaurant menus and conversations in real-time. The applications also showcased how the traveller could also prevent getting lost with step-by-step visual cues of landmarks to watch for appearing on the device's screen.

Otellini was also joined onstage by Steve Harwell, lead singer of the band Smash Mouth*, to demonstrate how the Internet will enable more natural social interactions and better shared experiences. They showcased a social networking Web site where musicians can play together to test new songs or hold virtual concerts, even when musicians are in different locations. They also showed what a future 3-D virtual world might look like using photo-realistic avatars controlled in real time by each person's physical movements versus using computer mice and keyboards.

Otellini described four obstacles that need to be overcome to make these applications possible on mainstream computing devices in the next 3 to 5 years. Microprocessors have to be even more powerful and consume less power to be the brains of smaller, multi-functional devices. Wireless broadband infrastructure needs to be more broadly deployed to make high-speed Internet available everywhere. The Internet must be more intelligent and proactive so finding information is no longer a hit or miss proposition. Lastly, more natural user interfaces need to be developed so people can use their voices and gestures to engage with the Internet.

Intel is working on microprocessors, wireless connectivity and other enabling technologies – such as visualization and gesture-based computing – to address these challenges.

"The opportunity lies in creating these next generation products, services and business models – but first we all need to overcome the obstacles I just listed," Otellini said, calling on the smartest minds across the CE, computing and communications industries to contribute to this transition.

Microprocessors Matter More than Ever

Moore's Law states that the number of transistors on a chip will double every 18 to 24 months. Otellini also described that an advantage of the additional transistors is the integration of new functions into a single chip and how it's creating business opportunities for CE companies and exciting benefits for consumers.

To prove his point, Otellini demonstrated for the first time Intel's first Intel Architecture-based system-on-a-chip product optimized for a new generation of set-top boxes, media players and TVs. It will enable easy migration of Internet applications and services to TVs, providing rich interactive experiences to complement traditional TV viewing. He described the product, codenamed "Canmore," as a "CE system and an Internet system."

Otellini announced that Canmore will be available in the second half of this year and will pair a powerful PC-class processor core with leading-edge, dedicated A/V processing that can play 1080p video with 7.1 surround sound, a 3-D graphics unit for cool user interfaces and online games, and technologies to enable broadcast TV.

"Packaging several important functions – such as computing, graphics and audio-video processing – into a single chip will help devices do more while taking up less space and energy," Otellini said.

The World is Going Ultra Mobile

Otellini said the world is "going ultra mobile" with smaller, more powerful, connected mobile devices that "deliver a no-compromise Web experience in an ultra low power device small enough to fit in your pocket or purse."

He predicted that mobile Internet devices will be the "next big thing in computing," and showed off potential uses for this new category of device, which allows users to stay connected, be entertained and have access to the full Internet while on the go. Using Adobe* AIR software to prove his point, he showed how people could use rich, dynamic social networking and user-generated content on these pocket-sized devices due to the flexible nature of Adobe AIR.

Intel plans to ship its first low power processor and chipset platform designed for mobile Internet devices in the first half of this year. Codenamed "Menlow," it is comprised of a chipset with a single chip design, codenamed "Poulsbo"; and a processor, codenamed "Silverthorne," which comes in a package that is five times smaller and consumes 10 times less power than ultra low voltage mobile processors introduced in 2006.

Otellini also touted the advantages of WiMAX compared to other wireless broadband technologies in delivering a global Internet network. While other wireless technologies are still in development, WiMAX is ready to be deployed today. He predicted that nearly 150 million people will be connected via WiMAX by the end of this year.

Source: Intel