

## **Delivering Entertainment to the Digital Home**

What does the digital home look like? Business forecasters predict that the digital home will be the ultimate nexus for internet access/news, entertainment, and personal/home management, complete with a vision of a singular console providing a simple, personalized interface. But how will this vision come about? Who will be the key players in this new battlefield—content providers, service providers, consumer electronic devices?

On January 18, the Tuck School's Center for Digital Strategies hosted a panel discussion on "Delivering Entertainment to the Digital Home." The panel capped a day-long Tech@Tuck event that examined how new technologies are transforming the home.

Moderator Bruce Leichtman, president and principal analyst at Leichtman Research Group, led a panel of senior executives representing the cable industry, consumer electronics, the software and PC industry, and content. The four executives—Glenn Britt, Time Warner Cable's chairman and CEO; Jim Sanduski, Samsung's SVP for Digital Video & Audio Product Marketing; Kevin Schofield, general manager of Strategy and Communications at Microsoft Research; and Russell Wolff, executive vice president at ESPN International—debated and discussed emerging trends, developments, and partnerships in the increasingly competitive home space.

#### Content in the digital age

With federal legislation pushing for the complete conversion of broadcasters to digital television by 2009, Leichtman asked the panel what this impending change means for their respective industries, and, more importantly, for the average American consumer.

For Britt and Time Warner Cable, digital broadcasting means giving their customers better access to content, and a better way of delivering that content. Britt said this rollout will be about more than just embracing new technology for technology's sake: "People like to get information and to communicate. Any technology that makes those activities better or easier or cheaper is going to win."

Samsung's Sanduski asserted that technology has already changed the way we consume information. Television viewing used to be primarily an appointment-based event, with programming schedules mainly determined by the content and cable providers. Now, with personal digital video recorders and video content available online, consumers can better dictate when they want to view a program and how.

However, with the number of digital programs consumers have to sift through continually increasing, good, branded content has become more important than ever. Britt remarked, "People don't watch television to watch plasma television—they watch to be entertained."

Sanduski agreed, saying that, in the digital home, devices will have to look beyond their technology to truly distinguish themselves, and mine potential content partnerships. He predicted that "hardware will have to align themselves with content providers to create a product that will take 1+1 and equal 3."

### Not getting "musicked"

These partnerships benefit the content providers as well. ESPN's Wolff said that by working together, content providers, distribution services (cable and the telcos), and device manufacturers can minimize the chances of video and the filmed entertainment industry from becoming "musicked"—referring to the music industry's challenges with piracy and not immediately embracing digital music and online downloads, which resulted in some consumer backlash.

The executives felt that the music industry's problem with piracy was that the industry was holding onto to its long-standing business model—promoting whole albums on CDs, to be sold in stores, online and offline—and that they hesitated too long in creating a new business model to meet the consumer demand for digital music, particularly "a la carte" purchasing. By saying "no" to digital downloading, the music industry not only lost a lot of revenue in a short period of time, but also now appeared out of touch with what today's consumers wanted.

When Leichtman offered that the music industry's challenge was appeasing consumers who wanted the music for free, Wolff acknowledged that "[consumers] don't mind getting [music] for free, but they also don't mind paying \$0.99 for it." He said the challenge was really to find the industry's next business model.

Britt commented that if a current business model is being challenged—as the music industry was by digital sharing applications and websites—and that industry does not act immediately to create something to replace it, they lose control of the content underlying. It has always been each industry's responsibility to anticipate what its consumers want, how they want it delivered, and then be quick to put that into effect.

The executives also noted that there are inherent differences between music and video in terms delivering the content. Britt noted that it's relatively inexpensive to produce audio content when compared to filmed entertainment. Not only does filmed entertainment usually require more hands to produce, but consumers also expect a higher production values from video than audio, and therefore are more likely to pay for that better, polished product.

"The more that the ability to have a quality product exists through better televisions, better delivery through broader pipe, and better content," continued Wolff, "the more people are going to want to see it and [be willing to] pay for it in its best available format."

Microsoft's Schofield added that ease-of-use will play a key role in this: "Most people would rather be honest and pay for something if it's as easy as, or easier than, pirating it."

# Convergence

In fact, the panel agreed that ease-of-use, along with interoperability among devices, is the biggest milestone to successfully establishing the digital home. Powerful recording, saving, and replication technology already exist in the marketplace, however across different devices, different brands, that don't necessarily talk to one another. The key objective is to make all of this technology easily accessible and appealing to the everyday consumer.

Sanduski pointed out that ten years ago most devices were stand-alone devices: "Each had its own remote control—very little interoperability, very little convergence." But as today's consumers are relying more on their devices to store personal information and content, inside and outside the home, they now want and expect to share this content across all of their devices.

Schofield said one leading concept of the digital home is a central hub, a network that contains all personal data in one place, which multiple devices can access. Microsoft's own Xbox 360 is marketing itself to be such a hub. The real question, Schofield continued, is "do you need a hub in your home? ... The answer isn't necessarily yes." He noted that there isn't one persona of the home consumer: some consumers are satisfied just having their set-top cable box and maybe a wireless connection for their computers, and the rest of their portable devices off-network. Others want that seamless connectivity. And different people within the same household may want different things.

"There is a lot of segmentation in the home," said Schofield. To adequately address the problem of interoperability, companies need to ask, "How do [consumers] want to use devices together? What different sets of things do people want to buy? What companies are they willing to buy from?"

Leichtman noted that many current products that demonstrate interoperability and seamlessness often are not easy-to-use for the average consumer, or else they are not fully aware of the options and capabilities of such devices. He said that 16 million people have an HD set, but only 7 million watch HD programming.

### **Educating the consumer**

"Who will educate the consumer?" he asked the panel. Is it the manufacturer's responsibility? The content providers? What incentive does, for example, the Circuit City or Best Buy floor person have to talk about these options?

Wolff said there is still a lot of "consumer confusion" out there: "People think they have HD TV because they have a big screen television, or because they have digital cable." The executives agreed that all of their industries need to work to educate the consumer.

For companies such as Microsoft and Samsung, this includes becoming involved in nonprofit alliances that include companies working together to establish standards across the industry, including the Intel-led Digital Living Network Alliance and the Samsung-led High-Definition Audio-Video Network Alliance. Another effort includes the Microsoft-led "PlaysForSure" campaign, which issues a universal logo on approved products that makes it easier for consumers to find devices that work together.

Many of the panelists agreed that part of the answer to consumer confusion will be through better product design. The iPod is an example of how simplicity in the interface captured the consumer imagination. Its uncomplicated, one-click design and great user-interface appeal to technology-phobic customers and make it easy for sellers to demonstrate in the store. In addition, the iTunes software makes it simple for owners to manage their libraries and to shop for new content.

Leichtman and the panelists acknowledged that Apple in the public view has been a leader of change and innovation, successfully demonstrating vertical integration, with products such as the iPod, which already marries content to device and extends the capability of the PC.

Companies no longer view devices and products individually, but as part of a community of devices, the combinations of which sometimes result in uses that exceed the original intent. For Microsoft, Schofield said these new applications of technology have led to a total change in the way his company develops products. Microsoft design teams are now built with more interdisciplinary mindset, including graphic designers, interaction designers, psychologists, anthropologists, sociologists, ethnographers, etc.

"As the software and the devices and the PCs [go] beyond work and single-user playthings and become communication and social tools," said Schofield, "... the field gets wider and wider of all the different disciplines that we need to understand to figure out how people are going to use these things—what's going to make them happy or unhappy."

#### Next steps ... trends

In wrapping up the discussion, Leichtman asked the panel what trends and changes they expect to see in the next five years. The panel expected:

- Increased capacity in devices and lower cost of storage, which will lead to consumers having more control over what media they want to download, and when they want to watch it.
- More wireless network deployment in the homes.
- Increased connectivity of devices to the internet, and to each other.

For more information about this panel and the other programs for Tech@Tuck, visit the Center for Digital Strategies' website at www.tuck.dartmouth.edu/digitalstrategies.