From the April 18, 2005 print edition

New technologies that disrupt the 'norm' foster innovation

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DURHAM - In 1864, a disruptive technology presented itself in the teaching world for the deaf.

Visible Speech is a phonetic system developed by Alexander Melville Bell that featured an alphabet of symbols that represented the positions of the lip, throat and tongue when producing certain sounds in speech. This system offered an alternative to the existing methods of lip reading and sign language.

Bell believed it to be a reliable guide for training the hearing impaired to speak intelligibly. In subsequent years, his son, Alexander Graham Bell, used the basis of Visible Speech to further study how to turn spoken signals into different frequency bands, also hoping to bring better methods of speech to the deaf.

Unfortunately for the Bells, Visible Speech didn't become the success they had hoped it would, although it was the precursor of today's International Phonetic Alphabet. And while it eventually led to Graham Bell's invention of the telephone, even this device created a gulf between those who could hear and those who could not, since the deaf were initially unable to communicate with it.

The lesson in the story, however, is that disruptive technologies such as a new speech system usually have a place in the world. What is necessary is for that place to be discovered.

Such disruption has been the norm over the years in the music industry, says Triangle entrepreneur Bill Glynn.

"There's been a lot of disruption within the marketplace," he says.

First came cassettes, which replaced vinyl records, and then came compact discs. Next was the advent of the Internet and software applications allowing music to be shared from computer to computer.

That sent the record companies into crisis mode. The International Federation of the Phonographic Industry estimated the potential revenue loss to record companies at $4.2 billion. But once the initial shock wore off, the record companies started seeking ways to incorporate disruptive technology.

Achieving this end is the topic Atlanta-based entertainment industry attorney Joel Katz will tackle during the North Carolina Technology Association's April 21 "CEO Conversation" event at Duke University.

Titled "Convergence - The Entertainment Industry Mobilizes," Katz's remarks are aimed at the decision makers of the information technology industry - those leaders often referred to as innovators of cutting-edge technologies, business developers and global visionaries.

Katz is no stranger to the dilemmas created by disruptive technologies. He's been representing music stars since receiving a phone call from an unknown Willie Nelson in the early 1970s, and he's frequently called upon to shed light on a business that seems to be continuously in the throes of change.

He has moderated the "State of the Industry" roundtable at the 2005 Media Summit sponsored by The McGraw-Hill Cos., where discussions included such topics as "Global Media + Technology Innovation + Communications Revolution." He also took part in an entertainment briefing in Savannah, Ga., as part of last summer's 2004 G-8 Summit, and he has been appointed to the Georgia Film, Video & Music Advisory Commission and lauded for his contributions.

Katz is widely acknowledged as one of the most knowledgeable people in the entertainment industry, says Glynn, who is Katz's partner and consultant, and he is particularly adept in looking at the future and the future of mobility technologies.

"For example, handsets are a business model and so a new medium of distribution," Glynn says. "There will one day be billions of people with handsets and iPods around the world."

Future communication will be conducted through what Katz has termed "companions."

"Handsets are 'companions' because they will go everywhere with us," says Glynn, noting people will talk, access the Internet, conduct personal financial business, listen to music, watch movies, take and store photographs, even play games on these handheld devices. "Children and adults will have their devices, their companions, with them at all times."

Like it or not, as the entertainment industry has found, modifications are a reality, Glynn says.

In fact, Sanford C. Bernstein and Co., a Wall Street investment, research and management firm, predicts that over the next five years, Internet advertising dollars will increase from $11.5 billion to $19.2 billion, cell phone and PDA subscriptions will rise from 199 million to 243 million, and the number of homes with personal video recorders will go from 12 million to 31 million.

Lest one think any trade is exempt, Glynn is quick to point out that disruptive technology - that which eventually changes the world - applies to all industries.

"I agree completely," says Lloyd S. Melnick, a co-founder of the interactive entertainment agency Octagon and director of its game publishing operation, Merscom. "We see a very similar trend in the game industry."

Calling the days when a game was put in a CD box and shipped to retailers "numbered," he says Octagon and other game publishers have had to look at a variety of solutions.

"Given that the content is digital to begin with," Melnick says, "if you think about it, the current distribution method is about as inefficient as you can get."

While many companies are content to sit back and wait for change, Merscom is looking at new technologies, he says.

"We have somebody focused on getting our games into as many of the ESD (electronic software distribution) channels as possible, even if the revenue model is not there," he says.

The company even has begun licensing games so users can download software files directly from a Web site.

"We don't look at it as something that will be profitable in the next year or so," Melnick says. "But we want to learn now so that when the game industry does shift, we know how to manage it."

The advantages of this distribution method, according to ESDNOW.com, an electronic commerce distributor based in the Netherlands, include

> more purchasing options
> providing customers with immediate access to products
> saving time and money by eliminating inventory
> elimating handling costs and shipping time, drawing customers to Web sites, and
> allowing "try before you buy" options.

In the software outsourcing business, disruptive technology comes in the guise of offshore outsourcing.

And that suits the business model of DataArt - an offshore software outsourcing company serving small to mid-sized clients in the United States and Europe - just fine.

With a focus in the development of network applications, corporate databases and business automation tools, including customer relations and content management systems, DataArt has offices spread around the world: Its New York headquarters staff handles sales and client communications, while development takes place in St. Petersburg, Russia, and project management is directed from regional offices in Chapel Hill, Jacksonville, Fla., San Francisco, and London.

"While outsourcing has always been a part of everyday life for every organization, it is only now that business has access to (a) multitude of vendors around the globe and are no longer limited to choices of their geographical neighbors and local pricing," says company President Eugene Goland.

Even in a business such as a medical ambulance service, new technology affects day-to-day operations.

Bob Maynard with TriStar Medical Transport in Raleigh says technology has precipitated changes in his ability to do everything from managing staff schedules and accounts payable to dispatching calls. Instead of sitting at the company's Capital Boulevard headquarters in the wee hours of the morning awaiting medical transport calls, he can switch the TriStar phones to his home number or his cell phone.

If he chooses to use his cell phone to take office calls, he can take his home phone to the office, plug it into a high speed Internet access line, and receive calls to his personal number.

Remote access software on both his personal and office computers, coupled with an Internet line, allow him to view the transport calls being logged by an office-based dispatcher or log them himself from home.

"And with the appropriate software on my computer at work, I can receive voice mail from my home number as an e-mail attachment," he says. "With this portability, I can even access my computer from home or the one from work with a laptop."