

# UNH research spinoff partnering with Sprint for mobile tunes

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Durham — When the time comes, and it will, when your teenager is racking up even higher cell phone bills by downloading the newest 50 Cent or Queens of the Stone Age song, you could blame the University of New Hampshire.

The technology that led to over-the-air downloads started five years ago in a cramped storage room of Thompson Hall on the UNH campus where UNH math professor Kevin Short was churning out computer code.

When Sprint announced its partnership this month with Massachusetts company Groove Mobile to offer cell phone music downloads in the United States, the telecom giant sought to corner a national market like those that have already spread through Europe, Hungary, the Czech Republic and Japan. For \$2.50 a song, the Sprint Music Store in the U.S. lets subscribers download songs directly to their cell phones via over-the-air files that travel to phones over the same routes that calls and text messages use.

Users in Asia, Norway and the United Kingdom have downloaded millions of songs through Groove Mobile's software and the American wireless download music market is expected to be worth more than \$1 billion in coming years, according to an MSNBC report.

Five years ago, the Thompson Hall operation did not resemble a business with a global reach.



KEVIN SHORT, UNH math professor. (BRIAN DEKONING)

"There wasn't much room up there at the time. There were a lot of boxes and things," Short said. Short scraped together funding for a computer and other materials and his work became the basis for Chaoticom, UNH's first commercial company to spin-off from faculty research.

Started in 2001, Chaoticom introduced data compression and encryption technology – meaning large files like songs and eventually movies or other data could be made smaller and passed securely over wireless networks.

"We decided very shortly after the company was started that getting music to cell phones was the sort of difficult thing to do that made it worth trying to build a business and it's become a very fast growing business around the world," Short said.

Dubbed Chaoticom because Short's initial work focused on understanding and manipulating seemingly random systems, the company started out of the gate as a for-profit with investors like George McQuilken of Portsmouth, Kodiak Venture Partners and "angel investors" from the E-Coast footing the bill for development, according to Bob Dalton, the director of UNH's Office for Research Partnerships and Commercialization.

It is Dalton's responsibility to find faculty research that has commercial potential.

"UNH has an equity share in Chaoticom," Dalton said. "At some point we hope that equity is converted in to dollars but we don't know how much or when that would be at this point. We just keep our fingers crossed."

Chaoticom has since evolved into the research and development wing of Groove Mobile, which calls itself "the leading mobile music provider."

If the school cashes out that equity in coming years, it could be worth more than any Jerry Azumah-donated workout room or Tyco endowment combined.

According to industry reports, Sprint's new service could threaten Apple's iPod dominance. Instead of downloading songs to a personal computer and then to an iPod, users of Sprint's and Groove

Mobile's service (and future competitors like it) could download and store all or most of their music on cell phones and satisfy on-the-go impulse urges for particular songs.

"It shows that the market is really maturing and shows that this is likely to become a very vibrant way that music is distributed in the future so it's still early days but there's so much interest around the world and it's making such a good beginning that I think it's reasonable to expect that people will be able to get music anywhere, anytime," Short said.

From Dalton's perspective, Chaoticom has been the perfect spin-off. Groove Mobile now has 47 employees and has remained in the area; 80 percent of faculty research spin-offs do that, nationally.

"When we spin out a company, it creates an opportunity for students to take what they've learned and apply it. There's an opportunity, when the company is successful, for them to come back and aid the university. The more students we have involved with spin-outs, the more likely they (those companies) are to stay within the region, which helps the overall economy."

While Chaoticom's and now Groove Mobile's success has been impressive, Short said he thought in the beginning stages that it might happen even sooner.

"We launched just before the NASDAQ crashed," Short said. "We survived some of the worst economic stretches, with September 11, and that long lag afterwards, in a long time."

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