

Using Speech

Is the Game Over for Speech Recognition?

By Robin Springer

Speech recognition is finding its way into video games, but not from an accessibility standpoint. Instead, speech is being integrated to enhance the experience for hard-core gamers. Manufacturers publicize speech recognition as a new game play option, not as a way for an individual with a disability to join his friends in a social activity.

Typical speech-enabled video games utilize speech for approximately 10 to 15 percent of game play; not enough to make a product accessible, but could it be enough to encourage manufacturers to start thinking about the disability market?

With video game sales exceeding \$18 billion worldwide in 2004, game manufacturers do not consider the disability community an untapped market even though estimates are that 10 to 20 percent of the population in any given country is disabled. Because we don't know how many of these people would play video games if they were accessible, developers are not willing to risk a product with a multi-million dollar budget on this type of unknown variable. In fact, improving accessibility may become more difficult because, with consoles getting so pricey, manufacturers may not be willing to increase their liability for what they believe is such a small market segment.

Michelle Hinn is chairperson of the Game Accessibility Special Interest Group of the International Game Developers Association. The SIG helps companies understand the needs of the disabled gamer community. Hinn says, "The biggest issue with regard to companies is not that they intend to exclude potential gamers, it's that they just don't know how to get started."

One manufacturer representative explained that not a lot of speech is being used because manufacturers look at the industry trends, which don't include speech. I was told speech needs to make sense in the context of the game and there is no need for speech, which is why the top 10 games don't incorporate it. How can saying "fire," not make sense in the context of an action game? That's cool for anyone, not just someone who is unable to play a video game because he cannot move his arms.

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Speech recognition may be implemented without a significant increase in the budget. For example, the SDK for Xbox includes Fonix's speech engine. No additional licensing fees are required, which means the only added cost is writing the code. For PlayStation 2 and the PC, the Fonix speech license would comprise significantly less than one percent of the budget.

Last year, Konami Digital released a product called LifeLine, which allowed players to control the main character through voice commands. Konami imple-

mented speech recognition because "it was a compelling technology" with which they wanted to experiment. LifeLine took approximately one year to develop, with six months of focus on the speech component. The speech-driven game play was approximately 50 percent. No numbers were available as to what percentage of the program's budget was allocated to speech or how sales were affected by adding speech, but it was clearly a bold effort - the first of its kind. The product is no longer available and the company does not currently manufacture a similar product that uses voice control although they do have a Karaoke game that integrates speech.

Tim Hong, VP of mobile, wireless & games at Fonix Corporation believes the place to start incorporating accessibility features is in casual games; games that are meant to be played in short stretches. This market is developing quickly and, while the average console game takes three or four years to develop with as many as 200 people on the development team, casual games are typically developed in two months with a team of three people. "Because the budget (for a casual game) is \$50,000 to \$100,000, it is conceivable a company can get the ROI, whereas for a console game it's hard to imagine a \$10 million return focused on such a small piece of the market."

Video games are a major source of entertainment in our society. They provide crucial socialization experiences for children, both with other kids and with their parents (nearly 70 percent of whom play video games with their kids because it is a good opportunity to socialize with them). But until the video game industry believes they are missing out on a vital and loyal customer base, accessibility cannot be expected to improve.



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