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Algorithm Judges Musical Hit Potential

Robert Lamb, HowStuffWorks.com



Detecting Hits | [Discovery News Video](#)

Oct. 27, 2009 -- Musicians intent on rock stardom can now turn to a simple file scan that uses an algorithm to improve odds at scoring a chart-topper.

That's the idea behind Music Intelligence Solutions' Hit Song Science (HSS) technology located on [uPlaya.com](#). The technology mathematically analyzes the underlying patterns in a track, including harmony, chord progression and lyrics.

The computer then compares the song's mathematical characteristics against past successful recordings from multiple genres and languages and maps the data on a multidimensional grid.

This matrix, dubbed the uPlaya Music Universe, is populated with "hit clusters," or compact constellations of popular tracks, as well as lone pinpoints of [musical](#) obscurity.

Music Intelligence Solutions CEO David Meredith insisted that the technology tends to elevate tracks that break free from established musical trends.

"The songs that score the best include a certain amount of unpredictability in the music," Meredith told Discovery News. "Norah Jones is a great example of an artist who pulled from jazz and pop to create a sound that was different from other artists at the time, but the underlying patterns of her music was strong and the music scored very well."

If a song scores a 7.00 or higher, its creator has a possible hit. Think of the technology as the artificial intelligence counterpart of Simon Cowell, except with more stats and less sarcasm.



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So far HSS programming boasts an 80 percent success rate, classifying tracks such as Outkast's "Hey Ya!" and t.A.T.u.'s "All the Things She Said" as potential hits, according to a 2006 study from Harvard Business School. That compares to a 10 percent success rate for songs promoted by record companies as singles, according to the study.

Meredith said his technology can benefit both ends of the musical spectrum -- producers looking to tweak tracks for maximum appeal and struggling artists trying to decide which song to send out as a career-launching demo.

"uPlaya democratizes the music industry, so that no great song goes unheard again," Meredith said. "There are over 12 million artists on the Web, and uPlaya helps them to get discovered in a unique and patent-protected way."

That's certainly a cause Internet sensation [Jonathan Coulton](#) supports. Known for his blend of folk music and geek culture, the former programmer likes the idea of connecting musicians and fans, but he's a little concerned about its creative applications.

"I think there's a danger on the creative side in thinking too much about what you're doing and whether it's going to please people," Coulton told Discovery News. "The stuff that always works best for me is the stuff that's honest and true and personal."

Technology doesn't have to be a bossy bedfellow. University of California at Santa Cruz Professor Emeritus of Music David Cope maintains that technology itself is an extension of human creativity.