

# How technology captures music's soothing power

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Senior Writer

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## The BIG idea

Most things lose their mystique if you look at them for long enough, and so it is proving with music, except you need to listen, not look.

The people at Pandora, an American internet radio service that recently set up shop in Australia, have been listening with intent for the past 13 years. Their big idea, trademarked as the Music Genome Project, is that every piece of music - from Beethoven's Ninth to viral sensation *What Does the Fox Say?*, by a couple of Norwegian comedians - can be grouped according to its component characteristics.

Pandora music analysts have spent 20 to 30 minutes on more than a million tracks to identify about 250 individual characteristics or "genes" per track. For each of the basics like melody, harmony, instrumentation, rhythm, vocals and lyrics, there are another 10 or more subcategories to be rated on a scale. Is the melody major or minor? Busy or sparse? Are the lyrics joyful or aggressive? Is the voice smooth or gravelly?

Pandora's business depends on the assumption that people who like a particular song or tune will also like others with shared characteristics, and will subscribe to a service that delivers music tailored to their individual tastes. The company claims it notched up 1.36 billion listener hours in the US in September, representing 7.7 per cent of the US radio audience.

In giving up its mysteries on another front, music is morphing into medicine. Studies show listening to it or even anticipating it affects the flow of brain chemicals which govern mood and action, such as dopamine, prolactin, cortisol and oxytocin. Canadian neuroscientist and musician Daniel Levitin and a colleague reviewed more than 400 scientific papers, finding evidence that music-induced changes to brain chemistry brought mental and physical health benefits in mood management, stress reduction, the immune system and social bonding. One study found music was more effective than an anti-anxiety drug in reducing stress in patients before surgery. An immune-boosting, anti-ageing effect has been documented for older people who participate in drumming circles.

So our prescribed playlists may one day be as important as our pills.

## Further reading:

[daniellevitin.com](http://daniellevitin.com)



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