

So you want to be a music producer? Just switch on your laptop

Free software puts artificial intelligence in the mix for music producers



Researchers at Birmingham City University are able to turn the complexity of a mixing board with its hundreds of dials and settings into a simple piece of software that takes minutes to install and understand. Photograph: Birmingham City University

Michel Destrade

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Budding and confirmed musicians alike will soon be able to produce professional-sounding recordings of their work using a piece of free software presented yesterday at the British [Science Festival](#) in Birmingham.

In [music](#), the path to perfection is a long and winding road, with years of practice before arriving at a memorable piece. After that, you have to pay a seasoned [music producer](#) a lot of money to mix it and take it to the next level. Or do you?

Not any more, according to Dr Ryan Stables, a lecturer in audio engineering and acoustics at [Birmingham City University](#). He has developed a free software package that will allow you to make your music sound “crunchy”, “saturated” or fit to any other acoustic style that takes your fancy.



The science behind people who die of a broken heart

Of course there are many digital audio workstations already available online, such as the popular Garageband for Apple computers. However, they come with predefined filters that are meant to apply across all musical genres.

In contrast, Dr Stable’s code is a “machine-learning” instrument, which trains computers to understand the language used by musicians. Its knowledge is based on the cumulative expertise of thousands of music producers

who are providing their own settings, sound arrangements and musical landscape descriptors.

Machine learning is a form of artificial intelligence based on pattern recognition in large datasets. For example, [Google Translate](#) does not really “speak” scores of languages. Instead, it sifts through millions of human-translated documents to identify sentences close to your translation request.

Similarly, Dr Stables’s software relies on an ever-expanding library of music and human perceptions of music. It will identify the musical genre of your guitar solo and then answer your request to make it sound “metallic” by drawing on and learning from its huge knowledge library.

“Music production should not necessarily cost a lot of money nor take years to learn,” says Dr Stables, who is a [musician](#) and a producer in his spare time. “Our project aims to give music production novices the ability to be creative with their music.”

It will do for music what smartphones, cameras and image-processing codes such as [Instagram](#) have done for photography, he predicts.

The code has been freely distributed to music producers around the globe for the last month and will soon be launched in a musician-friendly version.

Its current version is available at [semanticaudio.co.uk](#)

Prof Michel Destrade is head of applied mathematics at [NUI Galway](#) and is a media fellow at *The Irish Times*, on placement from the [British Science Association](#) and Science Foundation Ireland