

New applications of music separation for the music industry

Jessica Powell¹

¹ Audioshake

License

Authors of papers retain copyright and release the work under a Creative Commons Attribution 4.0 International License ([CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)).

In partnership with



Abstract

Recently on Twitter, an [ISMIR participant polled others in the community](#) about what they thought was the biggest application of source separation in the music industry. Remixing and sampling? Karaoke? Transcription?

Within the ISMIR community, we often focus our conversations around music source separation from a research and academic perspective. But how does our technology interact with the business world, and how can we think about using our knowledge to help the music industry?

This panel will discuss applications of music source separation within the music industry, with an emphasis on both current uses (e.g. remixes, sync licensing) as well as emerging areas (spatial audio, adaptive music, gaming, etc.). What are the challenges and opportunities in trying to bring source separation to the music industry? What areas of research appear the most fruitful? What is the tension between research and productization?

Moderated by Antoine Liutkus (INRIA), our panel will bring together a researcher (James Clarke, Abbey Road Studios), a start-up CEO (Jessica Powell, Audioshake, winner of the 2021 Demixing Challenge), and someone from the music industry (Mike Daly, Executive Director, A&R for Disney Music Group).

The goal is to provide the audience with more insight into what it's like to apply source separation to business use cases, and also hear from the industry perspective about how they think about AI, and where they think it can help.

Potential Questions

- How to think about building a business using source separation? How to think about transitioning from an academic perspective to a business one?
- What are the challenges and considerations in doing research within a business context?
- As a music recording studio, detail the process of how music separation is currently used to create remixes and enhanced versions of existing music?
- As a record label, how have you interacted with source separation? What are the opportunities? Any dangers? What areas in music AI and more specifically sound separation do you wish researchers would tackle?
- What are the next steps for music separation in the industry? Will universal music separation be possible and how would that impact the music industry?
- Source separation allows to recover separated stems. Is this perceived as a dangerous technology by catalogue owners? What is the appropriate way to present the technology in this context?
- There has been many attempts at developing “active listening” offers where users would interact with the music content, but none has received wide acceptance so far. Do you think there is a future for a wide audience use case of source separation? Which one?
- An obvious application of source separation is for music creation purposes where amateur musicians could modify or mix stems from existing songs. Is the music industry equipped

(legally/psychologically) for this move ?

- Audio engineering is often perceived as the art of producing a mixture from stems. Source separation may be perceived as a way to deconstruct mixtures, to generate new ones on the fly. Is this considered a dangerous technology from a sound engineering perspective ? What would be here again the correct way to present the technology to professionals ?
- Going even further than universal separation, let's assume that music demixing works fine. What would be the next holy grail ? What should we, as audio researchers, focus on to create impact for you ?