

Why	How	What
When mixing, remixing, or even inventing new music, musicians may struggle to find tracks based on like features. Specifically, most search algorithms sort by taste. A musician instead may be seeking music of a certain bpm. For instance, a DJ mixes tracks on the spot, drawing from a usb of personal tracks. For a novice DJ, sifting through their collection may be difficult.	We aim to assist individuals in this field by further enabling their creative process. Specifically, we wish to recommend tracks that compliment the piece being played.	We propose a tool that, through machine learning algorithms, may recommend “up next” pieces that <i>it</i> believes would mix well with the given track. This would provide an at-a-glance option, which could then be used or vetoed by the musician. In doing this, we hope to improve the workflow of DJs during live shows & also inspire at-home hobbyists as they mix tracks.

## Empathy map

### Mixing music at home

<div>Think &amp; Feel</div> <p>I could benefit from something to narrow down my search, without assuming full creative responsibility. I simply want to cut out the outliers as I seek a unique solution.</p> <p>My own tastes may be eliminating options. I may not see the full potential of a piece. However, I might realise this if I was told so.</p> <p>Then again, I trust my judgement, which is why I am able to mix artfully.</p> <p>For the most part, I can usually judge if a song will mix nicely - so long as I've worked with it often. Atleast, if it would mix nicely following my tastes/skill.</p>	<div>See</div> <p>I have a whole world of music, but cannot decide.</p> <p>I simply have too many options, and will likely default to tracks I'm familiar with.</p> <p>I may see a creative solution that others may not - and vice-versa. I may not always notice a creative opportunity among tracks.</p>
<div>Hear</div>	<div>Say &amp; Do</div>

<p>I need to listen to every song in my library, until I find one I like. Or, if I'm lucky, I can recall one by heart. But then, I may miss a better alternative as I invent new pieces.</p> <p>When I hear something I like, I will save it in hopes of re-inventing it with something else.</p> <p>I can imagine where I might mix two pieces. How it might sound.</p> <p>Like most people, I have my own defined taste in music.</p>	<p>I spend an innumerable amount of time sifting through tracks. That is, until I find a satisfactory piece</p> <p>I tend to keep a library of music, which I have grown very used to. It grows day by day, but I get used to incorporating the additions</p> <p>I will often grow my library, and try to explore new tastes as I try to create something unique.</p> <p>I may ask for second opinions, but in the end I can only work with what inspires me.</p>
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Pain	Gain
<p>I could really use something to spur inspiration &amp; possibly eliminate the tedium of the creative process.</p> <p>Sifting through my tracks can be a slog, especially on days when my ideas have come up dry.</p>	<p>I have all the time in the world, and can take my time in this creative process</p>

## Mixing music as a DJ - live

<div>Think &amp; Feel</div> <div> <p>I am working live, I cannot pause to stop &amp; think.</p> <p>I have to be one step ahead, strategizing as I lead into the next track, etc.</p> <p>There is a lot of pressure</p> </div>	<div>See</div> <div> <p>There is a lot to keep track of. I will often miss potential.</p> <p>I have a library of tracks that I am familiar with. While I may be able to draw from them instinctually, there's most certainly pieces I do not consider, which would have fit nicely at the time.</p> </div>
<div>Hear</div> <div> <p>I will likely be listening to multiple tracks - let alone the one being played. I must juggle the tracks I want to mix with the piece already playing &amp; in real time.</p> <p>I have my own tastes, and may not see the potential of a certain track at a given moment.</p> </div>	<div>Say &amp; Do</div> <div> <p>I need to keep my show flowing with the audience.</p> <p>I must be familiar with my playlist, so I can instinctually draw from it as needed.</p> </div>
<div>Pain</div> <div> <p>There is a lot of pressure and multitasking</p> <p>Being on stage, I cannot rely on a second opinion before working something up for the crowd. The audience provides feedback - but only after the deed is done.</p> </div>	<div>Gain</div> <div> <p>All my work is unique and unaided.</p> </div>

