Needfinding

Max Rodriguez, Vaishnav Garodia, Bryant Melchor, and Marcus Lintott

Meet the team

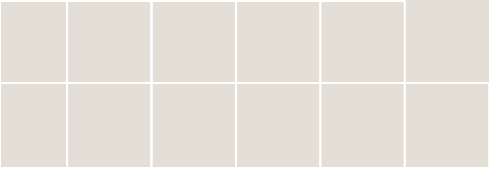Max Rodriguez

Vaishnav Garodia

Bryant Mendez
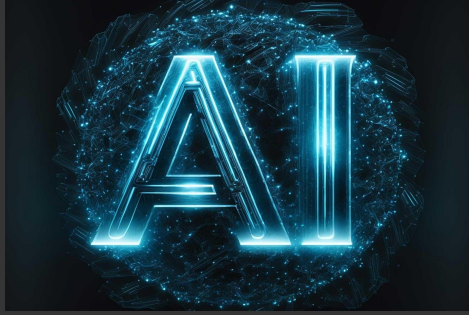

Marcus Lintott

Voice AI and Music: Why did we choose it?

Meet the Interviewees

Music teacher

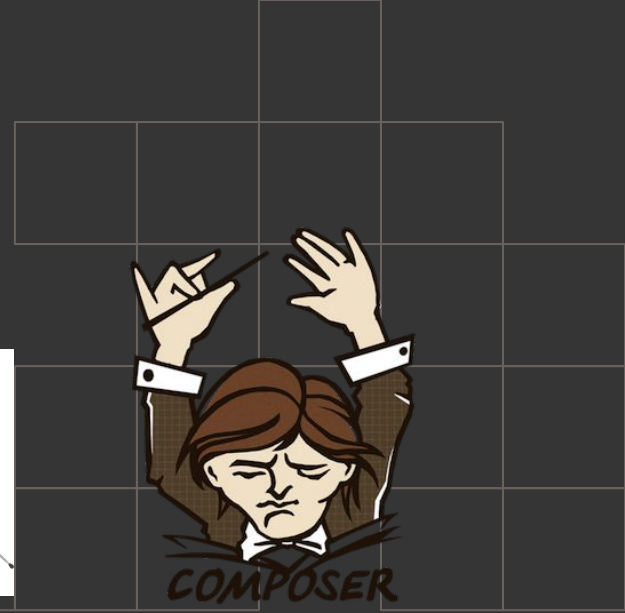Chosen for their expertise in music for a more non-technological perspective.

AI Educator and Singer

Chosen for their expertise in AI and knowledge of education and general musical ability

Drummer

Chosen an extreme user as they do not do vocal but do practice other music

Composer

Chosen for experiences in music both performing and creating and having taken vocal classes for a large part of their life
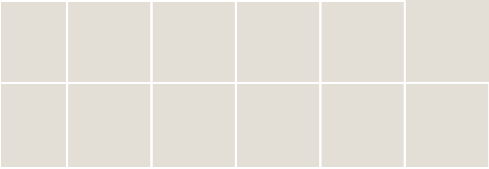
What did we ask?

- We asked about:
  - Music:
    - their relationship to music, etc
  - AI:
    - Use and viewpoints on voice AI
- Example questions:
  - What does music, and more specifically voice, mean to you?
  - Have you ever used any AI voice tools? If so, why did you choose to use them, and what was your experience like?
  - Many people feel discouraged to sing. Voice lessons are often expensive and inaccessible. What comes to mind when you hear about this issue?

Photos
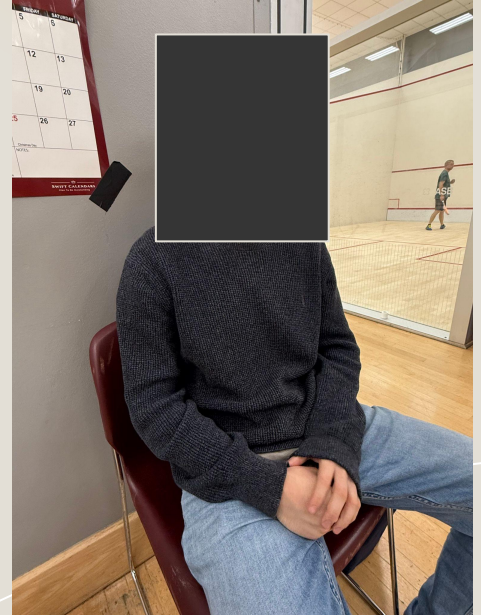
What did we see?

What were the main points made?

Music teacher

- Disliked AI in music
- Worried about discouragement seen in students when too critical
- Worried about over reliance of AI

AI Educator

- Mild discomfort in AI use in creative work, felt like AI should be a last choice option
- Felt uncomfortable with auditions and strong criticism about singing
- Self-taught singer

Musician

- Hadn't given much thought to AI in music
- Felt embarrassment and lack of confidence about singing
- Regret for not trying to sing

Composer

- Has felt weird about using AI for creative work
- Uses AI tools though that are industry standards
- Felt like quitting singing due to voice teacher's harsh criticisms

Empathy Map

Left Empathy Map

SAYS — Observations: What did this person SAY that surprised you?
- Avoided AI in music
- Views AI use only as last resort
- View points on AI voice is very nuanced
- Singing is a choice, very intimate
- Self taught musically

THINKS — Inferences: Based on what they SAY and DO, what might they be THINKING?
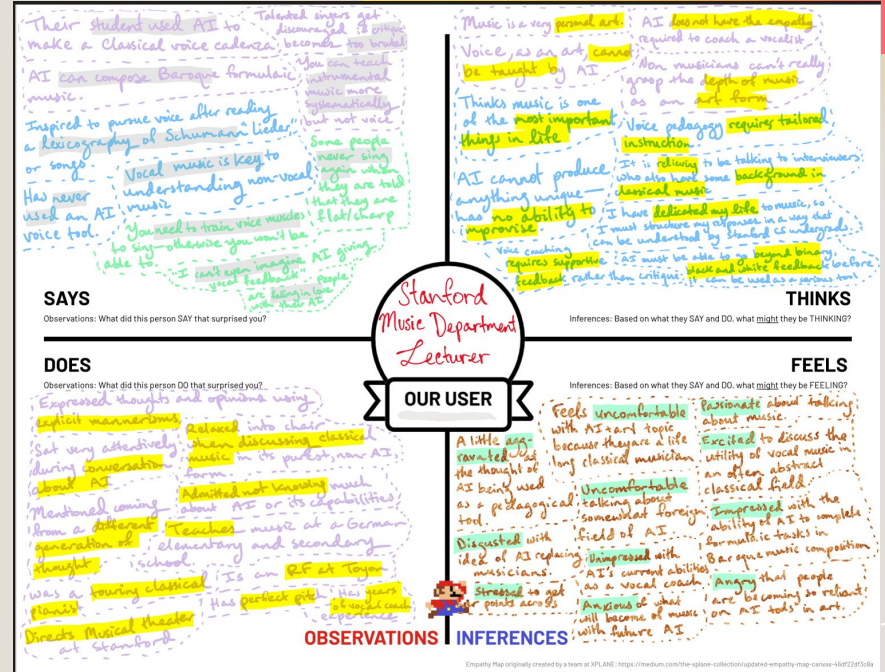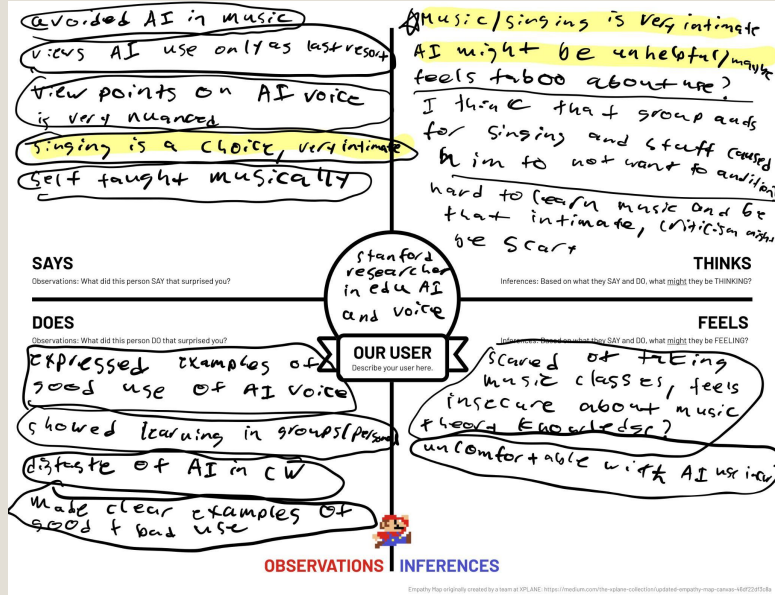- Music/singing is very intimate
- AI might be unhelpful/maybe feels taboo about use?
- I think that group auds for singing and stuff caused him to not want to audition
- Hard to learn music and be that intimate, criticism with be scary

OUR USER — Describe your user here.
Stanford researcher in edu AI and voice

DOES — Observations: What did this person DO that surprised you?
- Expressed examples of good use of AI voice
- Showed learning in groups/personal
- distaste of AI in CW
- Made clear examples of good + bad use

FEELS — Inferences: Based on what they SAY and DO, what might they be FEELING?
- Scared of feeling music classes, feels insecure about music theory knowledge?
- uncomfortable with AI use

OBSERVATIONS   INFERENCES

Right Empathy Map

SAYS — Observations: What did this person SAY that surprised you?
- Their student used AI to make a classical voice cadenza
- AI can compose Baroque formulaic music.
- Inspired to pursue voice after reading a lexicography of Schumann's Lieder or songs.
- Has never used an AI voice tool.
- Talented singers get discouraged if critiques becomes too brutal
- You can teach instrumental music more systematically but not voice
- Vocal music is key to understanding non-vocal music
- You need to train voice muscles to sing, otherwise you won't be able to...
- Some people never sing again unless they are told that they are flat/sharp
- "I can't even imagine AI giving feedback" people are being in love with AI

THINKS — Inferences: Based on what they SAY and DO, what might they be THINKING?
- Music is a very personal art
- Voice, as an art, cannot be taught by AI
- Thinks music is one of the most important things in life
- AI cannot produce anything unique — has no ability to improvise
- Voice coaching requires supportive feedback rather than critique
- AI does not have the empathy required to coach a vocalist
- Non musicians can't really grasp the depth of music as an art form
- Voice pedagogy requires tailored instruction
- It is relieving to be talking to interviewers who also have some background in classical music
- I have dedicated my life to music, so I must structure my responses in a way that can be understood by Stanford CS undergrads.
- AI must be able to go beyond binary, black and white feedback before it can be used as a serious tool

OUR USER
Stanford Music Department Lecturer

DOES — Observations: What did this person DO that surprised you?
- Expressed thoughts and opinions using explicit mannerisms.
- Sat very attentively during conversation about AI
- Mentioned coming from a different generation of thought
- Was a touring classical pianist
- Directs Musical theater at Stanford
- Relaxed into chair when discussing classical music in its purest, non AI form
- Admitted not knowing much about AI or its capabilities
- Teaches music at a German elementary and secondary school
- Is an RF at Tresor
- Has perfect pitch
- Has years of vocal coach experience

FEELS — Inferences: Based on what they SAY and DO, what might they be FEELING?
- A little aggravated at the thought of AI being used as a pedagogical tool.
- Disgusted with idea of AI replacing musicians.
- Stressed to get points across
- Feels uncomfortable with AI + art topic because they are a life long classical musician
- Uncomfortable talking about somewhat foreign field of AI.
- Unimpressed with AI's current abilities as a vocal coach.
- Anxious of what will become of music with future AI
- Passionate about talking about music.
- Excited to discuss the utility of vocal music in an often abstract classical field.
- Impressed with the ability of AI to complete formulaic tasks in Baroque music compositions
- Angry that people are becoming so reliant on AI tools in art.

OBSERVATIONS   INFERENCES

Key Insights

Insights

1 Intimate experience

2 Distaste in AI in creative worlds

3 Technology and Education

What does this mean or imply?

All had or seen struggles with music, mainly a certain form of shyness/embarrassment in skill or knowledge. They see singing as a very intimate art.

Our music teacher and AI expert had more so negative/critical views about the use of AI in music/creative works. The Composer actually uses AI tools especially for works but he mentions it is an industry standard
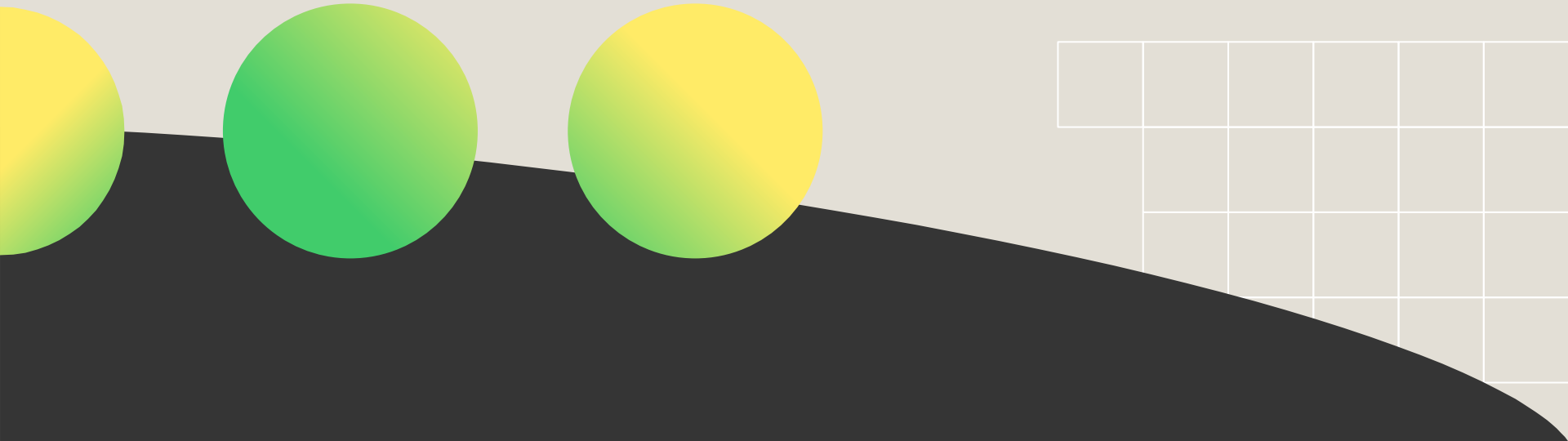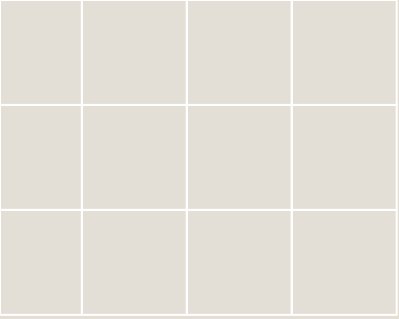
All wanted a less judgemental and more intimate space to practice without being overly criticized

Key Points

- Insecurity and intimacy with music
  - Regrets
  - Criticism
- Dislike/fear of AI with music
- What might come next?

Any questions?
Ask away!