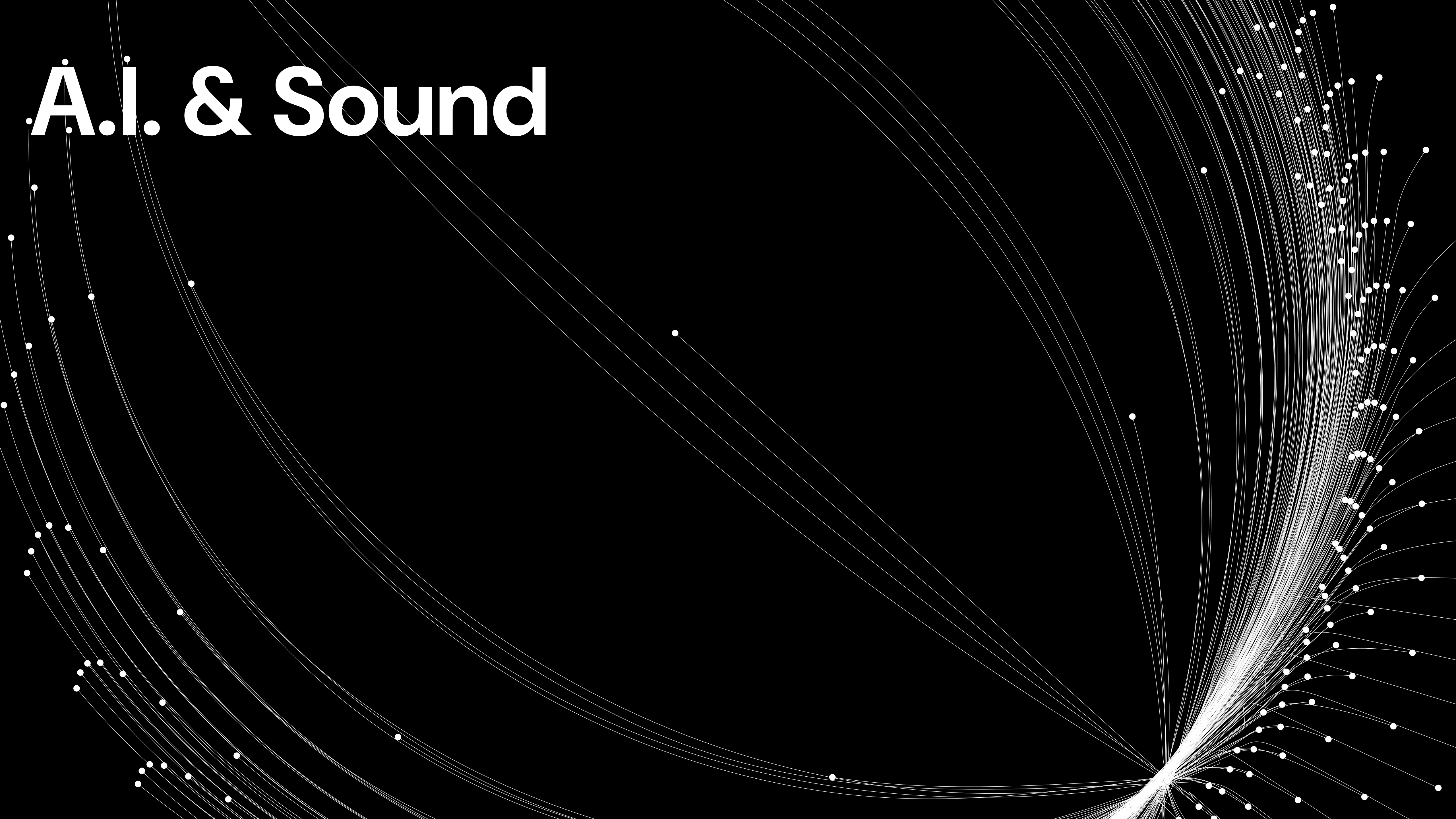
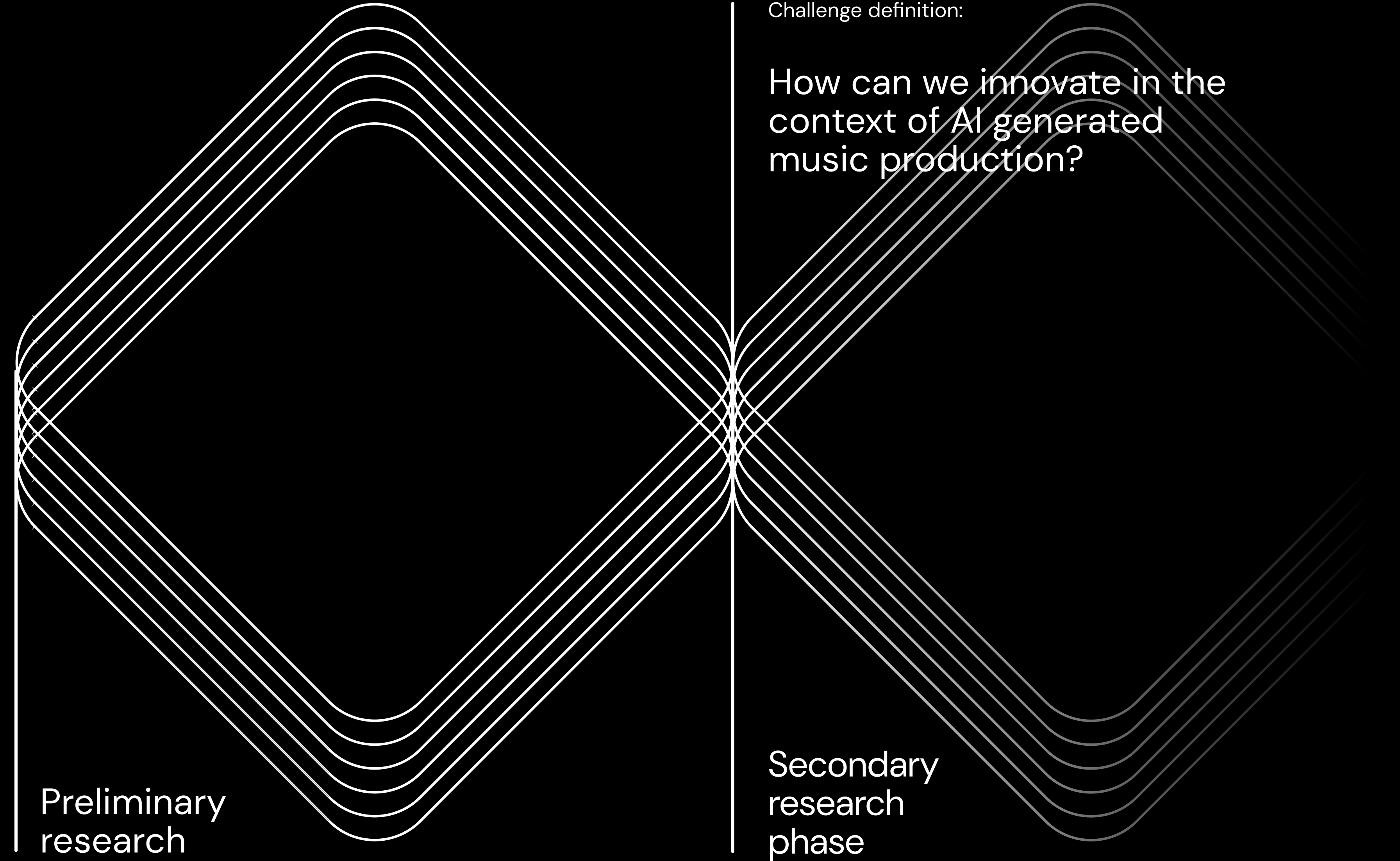




A.I. & Sound



Challenge definition:

How can we innovate in the
context of AI generated
music production?

Preliminary
research

Secondary
research
phase

Research process map



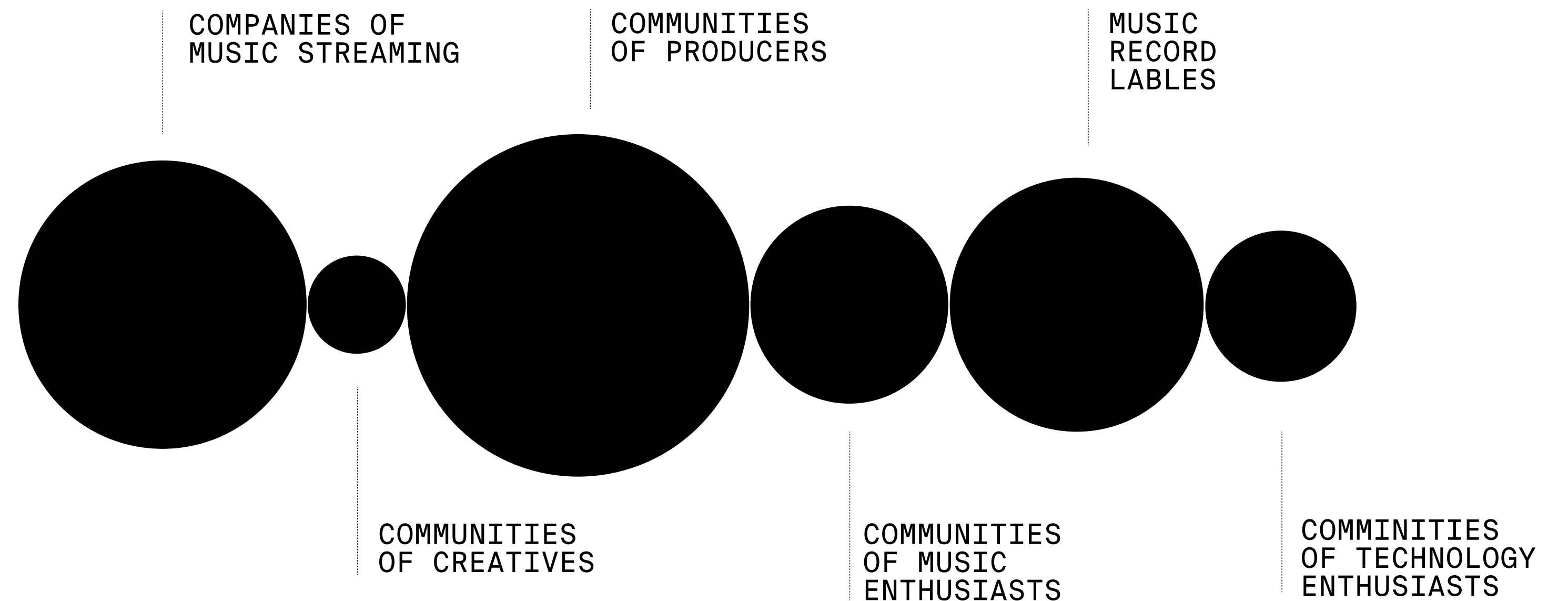
Who, Why, Where? / Analyzing the actors and the environments

The first step in the analysis and research process was to identify the actors who take part in the world of music production, understanding how they influence it, where they operate, how they engage in discussions, and why they feel the need to do so. The ultimate goal was to better understand the needs, concerns, and potential opportunities in the development and application of AI in the musical domain.

Who are the actors of the debate?

To examine the field of music generation using artificial intelligence, it was important to identify the key actors actively involved in the debate on this topic. This analysis has contributed to a better understanding of the needs of these "protagonists".

From the research, several categories of actors have emerged, including: communities of music producers, music streaming platforms, record labels, communities of music enthusiasts, communities of technology enthusiasts, and communities of creatives.



Why are they discussing?

Understanding the reasons why AI in music production and sound generation has become an highly discussed topic in recent times has been crucial for comprehending the needs, requirements, desires, and thoughts of the individuals effectively participating in the discussion.

The research highlights the need people have to share their thoughts about it and the need to define the limits and the potentialities of AI in order to determine the best role AI can play in the evolution of society and music culture.

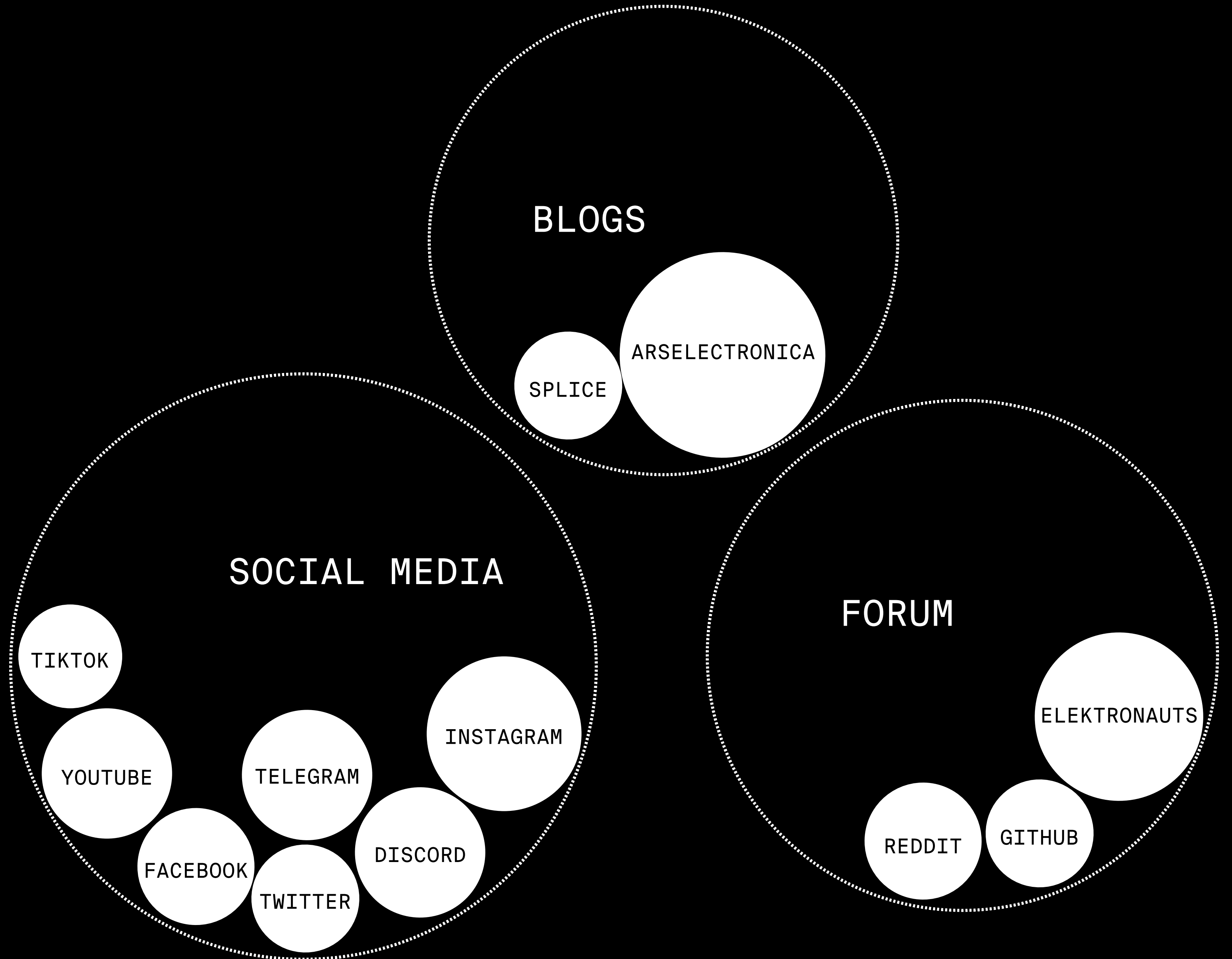
AI music is an hot topic in music production and sound generation

- The need to share different opinions in the AI generated music world
- The need to define limits and potentialities of the technology
- Define a role for AI in society and culture

Where do they discuss?

In the process of analysis, it was imperative to examine the platforms and channels where discussions on the subject take place. This analysis proved instrumental in identifying the primary venues for the dissemination of opinions, news, and information.

The main platforms identified were social media platforms such as Instagram, YouTube, TikTok, Telegram, Facebook, Twitter, and Discord. Additionally, blogs such as Splice and Ars Electronica, as well as forums including GitHub, Elektronauts, and Reddit, were found to be significant sources of discussion and engagement.

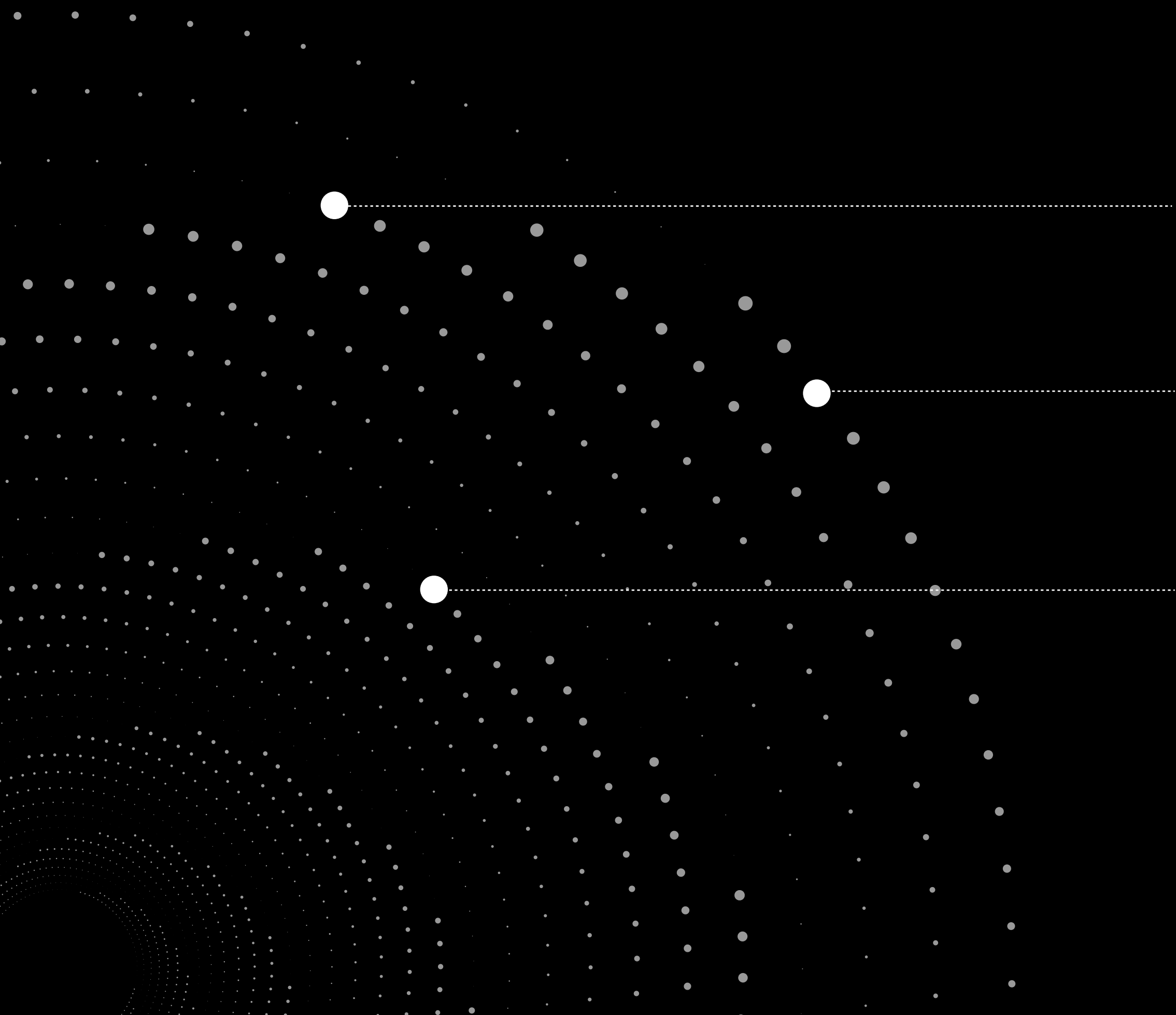


Methodology / Understanding what they are thinking

This second step is essential for gaining an in-depth understanding of the thoughts, opinions, and perceptions of a specific group of individuals or communities under investigation.

Through a combination of qualitative analytical methods, quantitative methods and x extraction, observed in their context of action, this research aims to explore the mental landscape of the subjects of interest, focusing on a particular topic or context.

Which are the most suitable tools?



SUBJECT

GOAL

TOOL

Who

Finding users,
communities

- Digital Ethnography
- Benchmarking

Where

Pages, forums,
conversations

- Digital Ethnography
- Scraping on Social media
- Scraping on forums/blogs

Why

Motivations,
values, needs

- Semi-structured Interviews
- Digital ethnography
- Literature review
- Scraping on digital environments

Desk research

SOURCES

Novice–AI Music Co–Creation via AI–Steering Tools for Deep Generative Models

<https://dl.acm.org/doi/abs/10.1145/3313831.3376739>

The Analysis of Generative Music Programs

<https://www.cambridge.org/core/journals/organised-sound/article/abs/analysis-of-generative-music-programs/6DC324OC1B1961E4553B9914CB71EC10>

Approaches in Intelligent Music Production

<https://www.mdpi.com/2076-0752/8/4/125>

A Demand–Driven Perspective on Generative Audio AI

<https://arxiv.org/pdf/2307.04292.pdf>

Will we see prompt–based music generation?

<https://thisisimportant.net/posts/prompt-based-music-generation/>

Deep learning for music generation: challenges and directions

<https://hal.sorbonne-universite.fr/hal-01840937/document>

INSIGHTS

Generative Ai methods for music production can frustrate people because of their uncontrollable outcome. This makes collaboration with it difficult.

Systems vary their outcome with each run, users and composers may wish for deeper insight into these program’s ontological status, mechanism, and creative potential.

We can think about different level of AI presence during the production process in order to offer more freedom to people that already know how to produce and a more automatic way to amateur songwriters.

Two questions taken from a case study in which we can observe the difficulties present in sound generation today and what are the preferred methods for conditioning the generation of music.

While it’s possible to use a diffusion model to build a music generator without extensive music metadata, a prompt-based music generator would need to use more curated datasets instead of audio files scraped off the internet in order to make the semantic connections between the text of a prompt and the expected audio features.

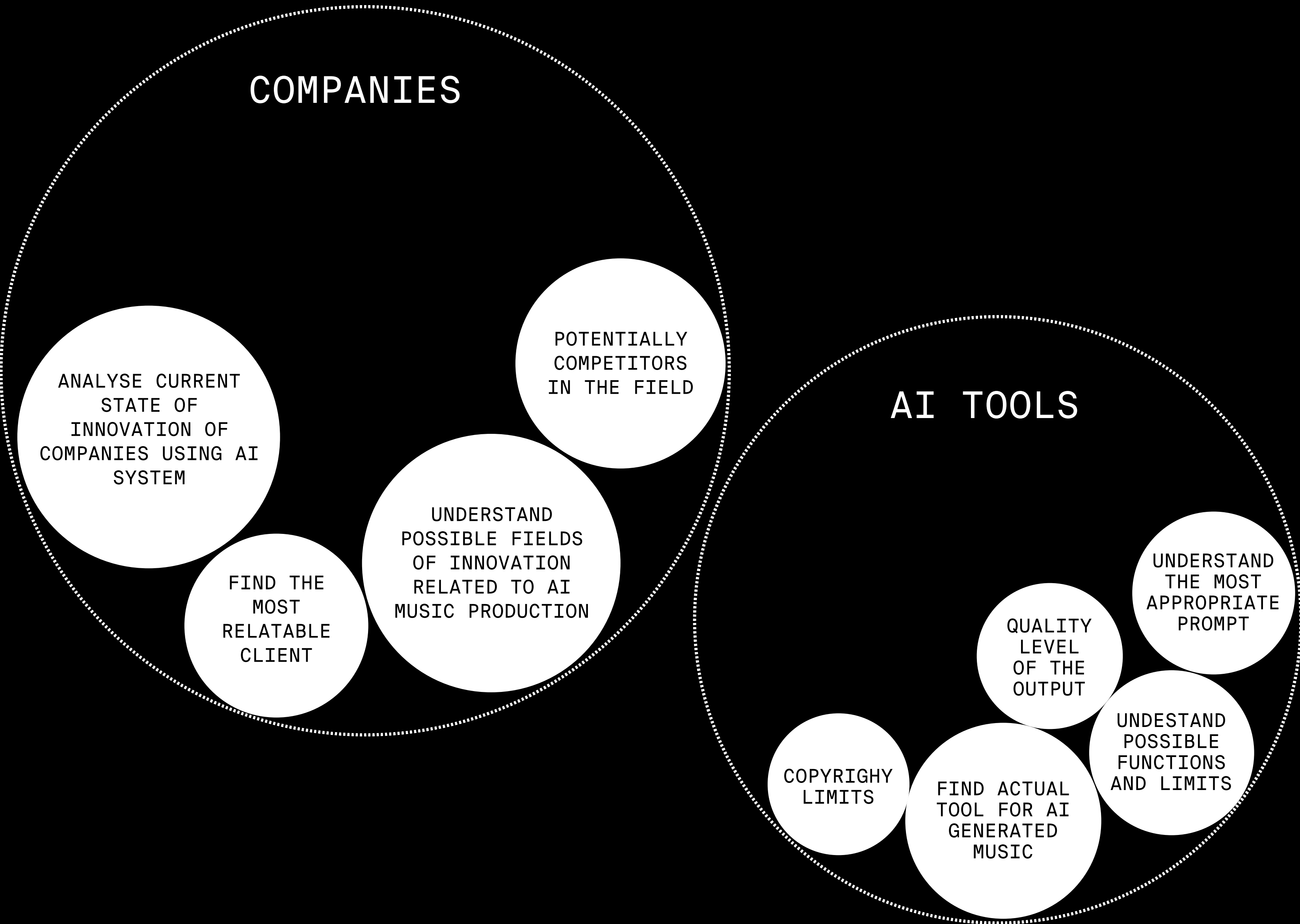
Deep learning for music generation is a burgeoning research field, but it faces challenges in control, structure, creativity, and interactivity. This article explores these challenges, proposes strategies to tackle them, and showcases real architecture examples. By analyzing these issues and potential solutions, this research aims to advance deep learning–based music generation.

Benchmarking

The benchmarking process reveals its usefulness in identifying the target customer. We conducted an analysis of the leading companies in the technology and music streaming services, as well as the most popular artificial intelligence (AI) tools accessible to users today.

The objective of the benchmarking was to carefully examine the different companies in order to identify a potential customer that fits our research needs, as well as to compare existing AI tools in order to highlight the most interesting features.

The result of this process was the choice of Apple as a benchmarking customer and its music streaming service Apple Music. This choice was motivated by the fact that Apple is a large technology company that already offers a music streaming service, but has not yet implemented AI within its business music service.



Companies

ACTORS

Streaming companies:

- **Spotify** (most common)
- **Soundcloud** (most amateur)
- **Qobuz** (niche service)

Streaming services:

- **Apple Music** (Apple)
- **Amazon Music** (Amazon)
- **Youtube Music** (Google)

Potential companies

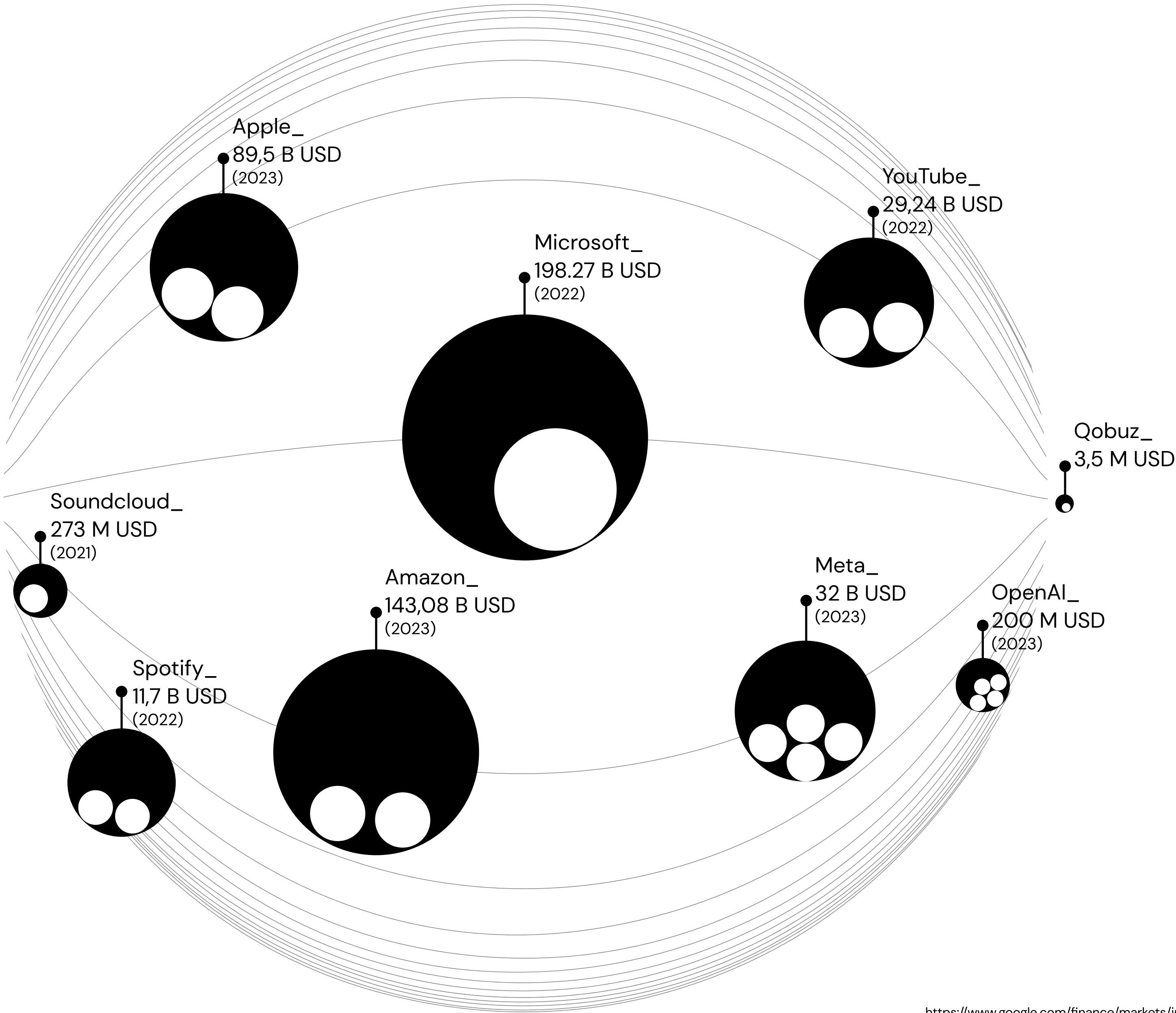
- **Meta** (music AI integration)
- **Microsoft** (interest in AI)
- **Open AI** (AI integration)

DESCRIPTORS

The total **REVENUE** of the companies, which refers to the total income generated from their operational activities, has been considered to provide an overview of their economic power.

The **USE OF AI** within the companies is considered in a general manner and does not specifically pertain to the music streaming service. The level of AI implementation is represented here according to the following categories:

- Low ● ○ ○ ○
- Medium ● ● ○ ○
- High ● ● ● ○
- Very high ● ● ● ●



AI tools

AI TOOL		TYPE OF SERVICE	PROMPTING	PRICING	OUTPUT CONTROL	DOWNLOAD	EASE OF USE
AIVA		beat generator	predefined choice	+	high	+	high
HOLLY PLUS		samples generator	audio file	-	low	+	high
AUDIOGEN		samples generator	text	-	medium	+	high
AUDIOCRAFT	AudioCraft	samples generator	text, audio file	+	medium	+	medium
BOOMY		beat generator	predefined choice	+	medium	-	low
MUSICLM	MusicLM	samples & music composer	artwork, text	-	medium	?	medium
SPLICE		beat generator	predefined choice	+	low	-	high

Digital ethnography

– Channels, communities, users

Within the realm of digital ethnography, an analysis was conducted to identify the channels, communities, and users who actively participate in the discourse surrounding music generation with AI.

This analytical process facilitated a meticulous selection of platforms where valuable insights and information relevant to this research could be found.



 **r/musicproduction** 

Music Production
A community for hobbyists, professional musicians, and enthusiasts to discuss music production-related topics, ask questions, collaborate, and share tips and tricks. Music creators from all walks of life are welcome here.

367.465 **Top 1%**
481  Classifica in base alla grandezza 
Membr  Online
bri e

 **r/AI_Music** 

AI_Music
Feel free to share the latest about AI and music.

284925 **Top 11%**
Membr  Online
i

 **r/WeAreTheMusicMakers** 

We Are The Music Makers
WATMM is a place for music makers to discuss the music-making process (and a few closely related endeavors)

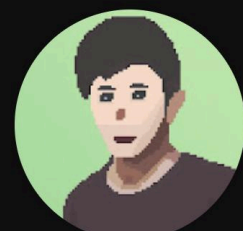
2,7690 **Top 1%**
MIn  Classifica in base alla grandezza 
Membr  Online
bri e

 **r/singularity** 

Singularity
Everything pertaining to the technological singularity and related topics, e.g. AI, human enhancement, etc.

1,6316 **Top 1%**
MIn **4**  Classifica in base alla grandezza 
Membr  Online
bri e





Oversampled 
@Oversampled · 166.000 iscritti · 325 video
Oversampled brings you fresh music production tutorials, sample packs, presets & other to... 
[oversampled.us](#) **e 2 altri link**

Iscriviti



Rick Beato 
@RickBeato · 3,78 Mio di iscritti · 1286 video
Everything Music 

Iscriviti



Mic The Snare 
@MicTheSnare · 268.000 iscritti · 214 video
Videos about music history and commentary. 
[micthesnare.com](#) **e 3 altri link**

Iscriviti

Digital ethnography – Shadowing: Conversations, Motivation, Value, Needs

Some of the most interesting conversations at the level of engagement generated in the identified channels were then observed and analyzed whithin their natural context, proceeding towards a more qualitative analysis.

The objective was to understand the general mood of the communities of music producers interested in the topic. The keywords extracted help interpret the discussions to gain a deeper understanding of the community's interests, concerns, and opinions.



REDDIT

 **r/singularity** · 6 mesi fa
proj_drk

Traduci

The current state of: AI Music Generation

AI

I wanted to take a moment to share some thoughts about the new development in AI-based music production: Google's MusicLM and the AI Test Kitchen.

For those who aren't aware, MusicLM is a project developed by Google that utilizes AI to generate 20 second previews of music via text prompts, similar to what Midjourney / Dall-E does to generate images.

First off, I have to admit that as a musician with over 15 years of experience in digital production, I find MusicLM to be an astonishing piece of tech... I'm actually amazed how effectively it can compose and produce beats that are on par with, if not better than, some human producers. That being said, I want to share something that really underscored the impressive capabilities of MusicLM for me...

I've put together a [SoundCloud](#) which features several beats that were generated by the AI then expanded on / looped up by myself into longer tracks.

Now, I know the audio quality isn't the greatest right now and it's highly unlikely that any of these tracks will be chart toppers anytime soon... but I hope that these songs can help display the capabilities that MusicLM already has within it with a bit of effort... despite only being in V0.01.

[Leggi di più](#)

 **[eliminato]** · 6 mesi fa

I haven't checked out MusicLM yet. But every other AI music generator sounds like electronic garbage. I still prefer to pay Pond5 for legit music.

4

Rispondi

Condividi

 **Unicorns_in_space** · 6 mesi fa

I feel the opposite. It's disappointing. Audio quality aside it's a fun toy but doesn't seem to have a good handle on style or nuance. On a recent thread someone was saying how much detail they go to to get a good out put, having to write a hundred words to generate something usable which kinda defeats the purpose for me. (I could have written the loop by then 🤔). It still feels to me like it is assembling sounds with no great sense of what it's output sounds like and even obvious prompts are occasionally wide of the mark: it can't make a 303, I asked for string quartet and it failed, same for vocal polyphony. I'm guessing it's trained on a fairly narrow selection??

6

Rispondi

Condividi

BAD QUALITY
DIFFICULT TO HANDLE
NO SENSE OF OUTPUT

 **r/ableton** · 6 mesi fa
ExAmerican

Traduci

What do you think about AI music tools? Would you use them for your own music?

[Question]

I'm an AI researcher working on generative music algorithms, which I guess has gotten a lot less attention recently compared to generative art applications. They may not be as well known as Midjourney and Stable Diffusion for images but there are several platforms/tools out there already for generating music with AI such as AIVA, Beatoven, Loudly, Mubert, Soundraw, Boomy, Riffusion, and probably many more currently in development.

Have you tried any of these similar tools already? What was your impression? Are they something you would be interested in using as part of your production workflow? Or some future improved version of them?

Chiuso · 818 voti totali

105	Tried and found them useful
124	Tried and found them disappointing
290	Haven't tried but would be interested
299	Not interested in using AI music tools

 **Cherlokoms** · 6 mesi fa

Music is my hobby. I don't want my hobby to become asking IA to do things. I'm sure that people are gonna make incredible things with that but that's just not how I want to do it.

5

Rispondi

Condividi

 **itwasbread** · 6 mesi fa

I think you would need to be more specfic.

Using it for basic organizational tasks (organizing a jumbled collection of lyrics into sections, helping sort through presets, separating stems on reference tracks, etc) is fine in my opinion.

But when you start using to actually compose songs, to create your lyrics, write your melodies, etc, that's a no-no for me.

At this point the space is too new and unregulated to be playing with fire like that. It's opening the door for greedy studios and labels to replace all the working musicians who make music for utilitarian purposes out of a job and replace them with garbage.

4

Rispondi

Condividi

MUSIC IS MY HOBBY, AI IS NOT
HELP WITH ORGANIZATIONAL TASKS
UNREGULATED

Digital ethnography – Shadowing: Conversations, Motivation, Value, Needs

The same methodology was applied in the comments section of four videos with an highly interaction from users discussing the topic of generative AI in the musical domain.



YOUTUBE

@Designed15 mesi fa

On one hand it's disgusting how labels are basically using AI to raise dead artists from the grave and cash in on their fame once again, basically disrespecting not only their family but also their fans

but on the other hand it's absolutely hilarious to hear the cast of Spongebob Squarepants cover Off the Grid by Kanye West so idk

530

Rispondi

3 risposte

@avedic5 mesi fa

But you DO know.
The fact such feats can be rendered at ALL....means they will happen. In a huge way.
Any time people are saying "this is scary....but also, WOW...look at THIS!"
Then you know that thing is the new....thing. I'm SO ambivalent about all of it. I'm not for or against. I'm curious and weirded out and watching....

26

Rispondi

@Designed15 mesi fa

@avedic actually you probably described my stance the best. I'm not in on it, just standing afar watching it unfold

12

Rispondi

@enderjed25235 mesi fa

As a musician, I'm definitely scared of AI when it's being used to replace the human.

When it's being used for memes though, I have no reason to be scared, as it's just comedy.

9

Rispondi

@thelastchannelonyoutube5 mesi fa

While I understand the fear of AI generated replications of artist's music, I feel like it's one lawsuit away of being forced into obscurity, even with some artists ecstatically giving permission.

319

Rispondi

18 risposte

@LynnHermione5 mesi fa

It should. stealing a person's identity is a violation of human rights. we have a right to our image and voice and it shouldn't be used without our consent

58

Rispondi

@avedic5 mesi fa

Sure
For maybe a year or two.
And then what?

7

Rispondi

@alicec15335 mesi fa

I am much more scared of the threat to creativity a legal precedent would create re: intellectual property, than I am of the threat of AI to creativity.

7

Rispondi

@Forcoy5 mesi fa

@LynnHermione That would also mean that "The beach that makes you old" is now illegal.

What is wrong with you.

4

Rispondi

@sebastiancarreira58325 mesi fa

People also said we were one lawsuit away from internet distributed music dying. Ask Lars Ulrich how hiw lawsuit went.

19

Rispondi

@agonzalez70955 mesi fa

wasn't there a US supreme court case that argued that you can't profit off art made by an AI or smth?

1

Rispondi

@thelastchannelonyoutube5 mesi fa

@agonzalez7095 That was for generative AI, I'm referring to voice imitators.

6

Rispondi

@shinj12645 mesi fa

Yea the internet doesn't really follow laws

@tamarobot69K5 mesi fa

Although streaming has given us access to wayyy more music than ever before wayyy easier, it has created a ridiculous expectation that we are supposed to be fed content 24/7. And that has a disastrous effect on us a society. It means that people are often rewarded handsomely for churning out predictable, safe slop. Chasing trends and feeding algorithms is far far far more lucrative than quietly and carefully crafting a unique product. AI simply accelerates all of these issues and rewards the music industry for their worst and greediest impulses. Unless there are clear and enforceable regulations, I dont see this getting better.

41

Rispondi

1 risposta

@happyendings_155 mesi fa (modificato)

This was honestly fascinating! (As is consistent with all your work but I digress.)

Some related thoughts: I thought I couldn't stand to be around anyone who doesn't keep up with current music, but then I realized that's both of my parents. And I guess it's not that sad of a life, but it is hard to imagine. Also circling back around to the whole "we like things we already know" was soooo good. I mean, it's ..

Leggi tutto

25

Rispondi

1 risposta

@differentbutsimilar78935 mesi fa (modificato)

I still hope never to be someone who's not keeping up with current music. I never wanna see myself losing touch with culture. As an artist I could never let myself lose sight of that sense of discovery, the horizon of another new sea. I think that eventually, people just look out over one such sea and decide it would be one sea too many. I never want it to be too many, because with that curiosity, goes your sense of creative inspiration. What good is a lifetime on an instrument you can never truly fully master if you stop and resign yourself to the same old in the end? Personally, the only reason I ever took an intere...

Leggi tutto

Rispondi

DESIRE TO INCREASE THE QUALITY OF CONTENT WITHOUT LOOSING THE HUMAN TOUCH

FEAR OF THE POSSIBILITY OF A HUMAN REPLACEMENT BY AI

Digital ethnography

– Shadowing: Conversations, Motivation, Value, Needs



YOUTUBE

@milesroth8732

6 mesi fa

Honestly if we're gonna be living in a world where actual musicians with emotion, passion, talent and hard work are replaced by something artificial with no meaning, and people even accept that, I won't want to live in it.

78

Rispondi

11 risposte

@IcePhixia2000

5 mesi fa

agree

3

Rispondi

@odessarepresentative

4 mesi fa

music = the soul made manifest.

15

Rispondi

@J-Real

4 mesi fa

The thing is... are those "talented" artists you talking about have charisma at all? Because to be really famous you don't need to be really amazing.. Its what sells and what people relate to and sing with easily not something extra or overdramatic.. What the collective conscious agree with one another everyday.

1

Rispondi

@mylesmeloed2270

4 mesi fa

@J-Real

Well having just worked the 'Bodyguard' at the Theatre today, I can say that people value an artist, their story and their life. Fandom is not just about music is it? It goes beyond that. It's a very powerful thing and the number one reason people go and see their favourite bands live. It's because they can actually get to connect with them in the flesh. Sure, there's a lot of trash out there musically, but even those trashy songs, mainstream stuff is consumed by the listener who then wants to learn more about its creator. I don't know anybody who cannot tell me a single fact about their favourite ...

Leggi tutto

9

Rispondi

@vanimapermai

3 mesi fa (modificato)

This will never happen whilst sure it's a neat trick to be able to switch out artists using the "AI" And sure we can bring back some dead artists using this tech someone has already produced a new Michael Jackson track it's called blumen But all these have something in common they need a base vocal track that was sung by a human But at the end of the day it will never replace humans and emulating people's voices with AI might even be made illegal...

Leggi tutto

2

Rispondi

@orellronnebeck

3 mesi fa

agree, many people work their asses off to become masters at their craft, just to get replaced by technology. If artist become irrelevant what kind of meaning does the world still have?

2

Rispondi



@FunnySongDay

6 mesi fa

I think that another effect of this is that a minority of people will value small local bands playing live even more. It's the human connection that will matter. They'll be the people who care.

3369

Rispondi

229 risposte

@mattmarket5642

6 mesi fa

True, and many artists will be using AI live in real time, which is already possible. AI will touch everything like computers did.

81

Rispondi

@czwimer

6 mesi fa

Lets hope

39

Rispondi

@markjlee918

6 mesi fa

Yes. That's my feeling too. People will search out the real from the fake, especially for live music. And soon there will be live vocal filters so that anyone can sound like anyone. But enough of us will still crave the human connections of playing live instruments together.

115

Rispondi

@martin-1965

6 mesi fa

Hey man, you know what? I think - or at least hope fervently - that you are right 🤔 I jumped ship from the music business in 2012 after 20 years as musician, songwriter, running an indie label, tour managing and then managing a top 5 album/single band. It was like someone flipped a switch and nothing made any sense unless you were a major label chewing on every piece of the artists income from streaming, through merch and into tour income (the final straw for me). With this AI development, the world - and music - is flipping over again BUT, while I agree with Rick that recorded music may not ...

Leggi tutto

147

Rispondi

@aaronkandlik

6 mesi fa

And even more so - I belove people will seek out acts that are demonstratively live and playing real instruments and singing. The "raw" aesthetic will be in.

49

Rispondi

@juanitaemerson7827

6 mesi fa

@martin-1965

Love this comment. Totally agree. I have no fear for the future of real music. There will always be enough of us humans who listen to real artists on VINYL and go to live gigs big and small our whole lives. Absolutely... rock n roll will never die! (Off to The Boss in Dublin tomorrow!) 🤘🔥🤘

Keep on rockin man!

25

Rispondi

@SRMoore1178

6 mesi fa

Why even use real singers? It would be entertaining to hear songs sung by Arnold or Stallone. Joe Pesci could sound great singing on a tune, who knows?

16

Rispondi

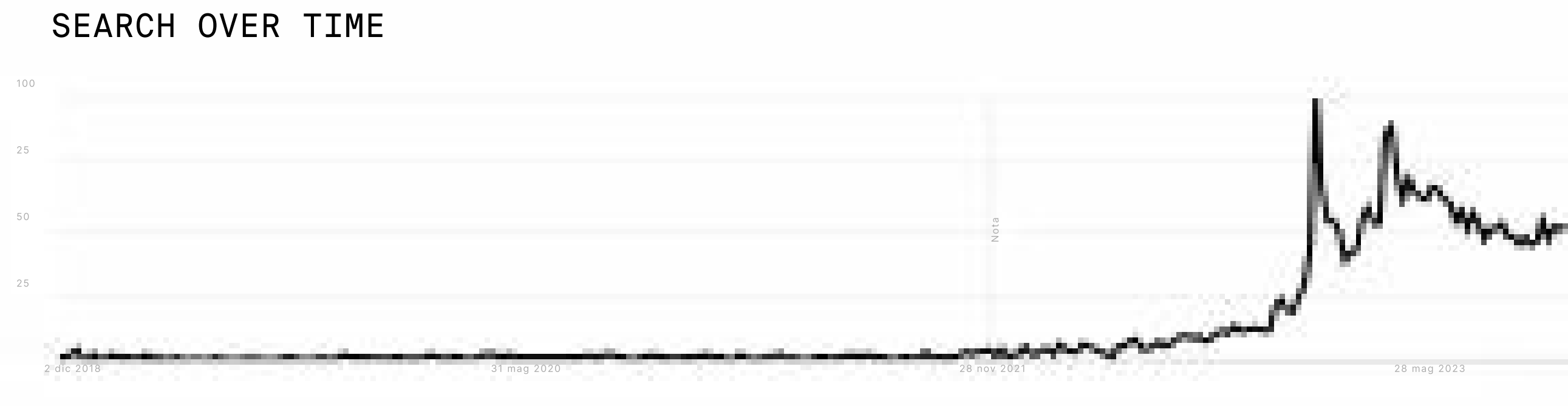
PEOPLE DON'T WANT AI TO REPLACE HUMAN TOUCH, ORIGINALITY AND AUTHENTICITY

HUMAN CONNECTION IN MUSIC, ESPECIALLY IN LIVE PERFORMANCES, WILL REMAIN THE MAIN FACTOR PEOPLE WILL VALUE

Digital ethnography

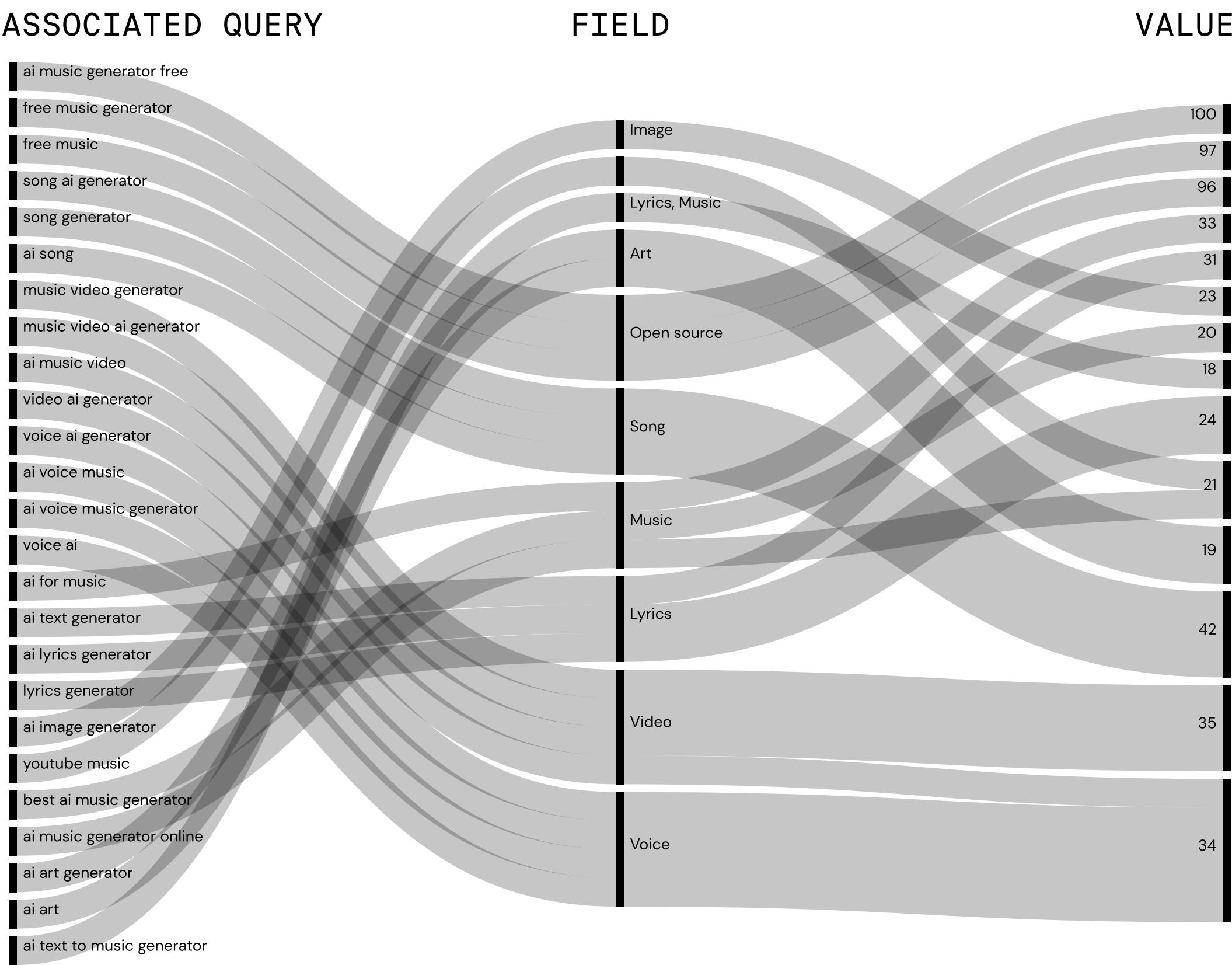
– Scraping, Query research

Q AI MUSIC GENERATOR



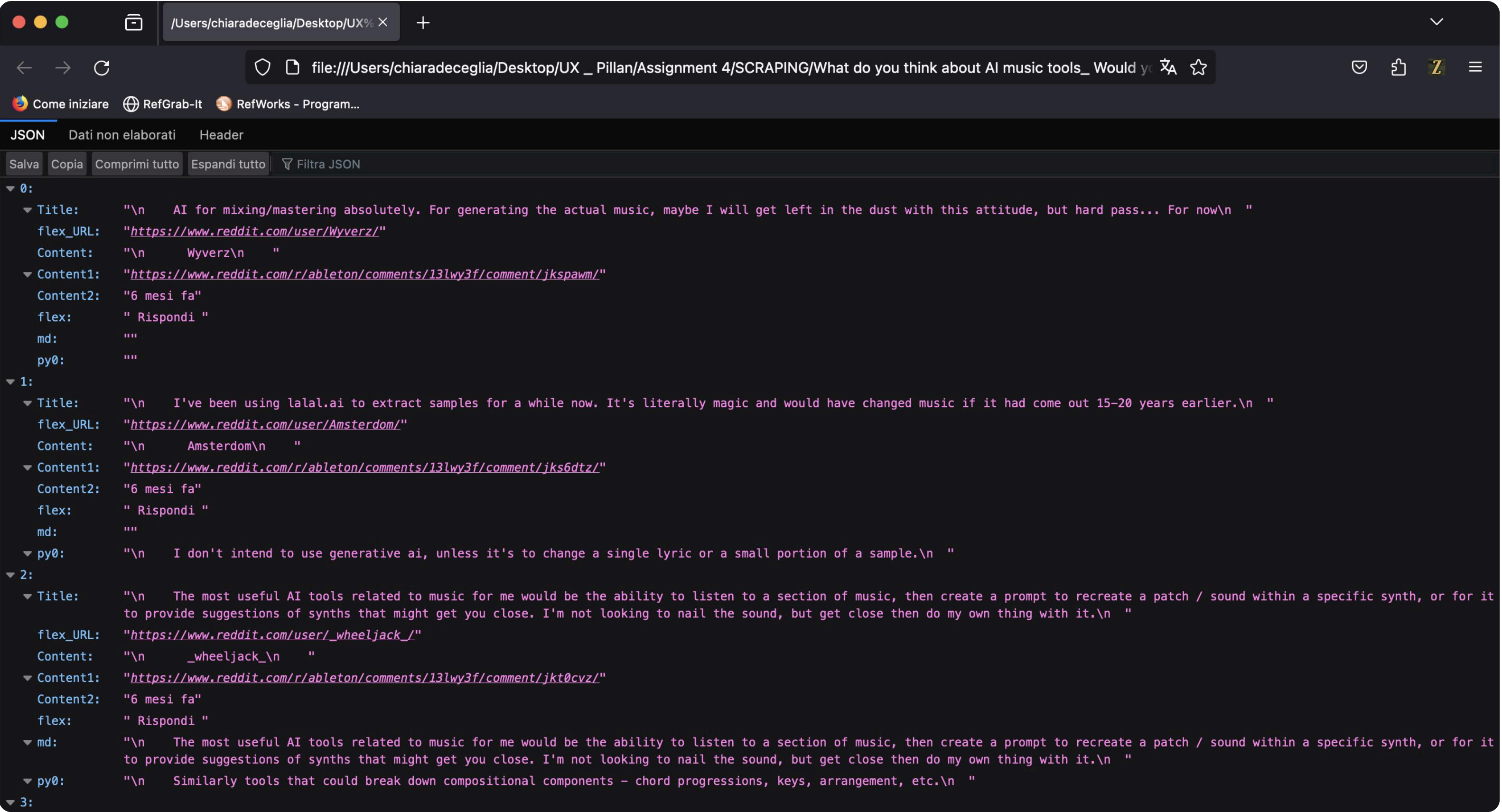
The use of AI for music generation has been analyzed over the course of the past 5 years. Subsequently, a more detailed analysis was conducted on the related queries to extract the associated fields.

This comprehensive examination provided valuable insights into the evolving landscape of AI-driven music generation and yielded a deeper understanding of the specific contexts and applications surrounding these queries.



Digital ethnography – Scraping, Data collection

The first step in proceeding towards the quantitative analysis of the phenomenon was data collection. Several conversations were selected, and data was gathered using data collection software. Subsequently, the obtained file was converted into CSV format to ensure a greater readability and data management.



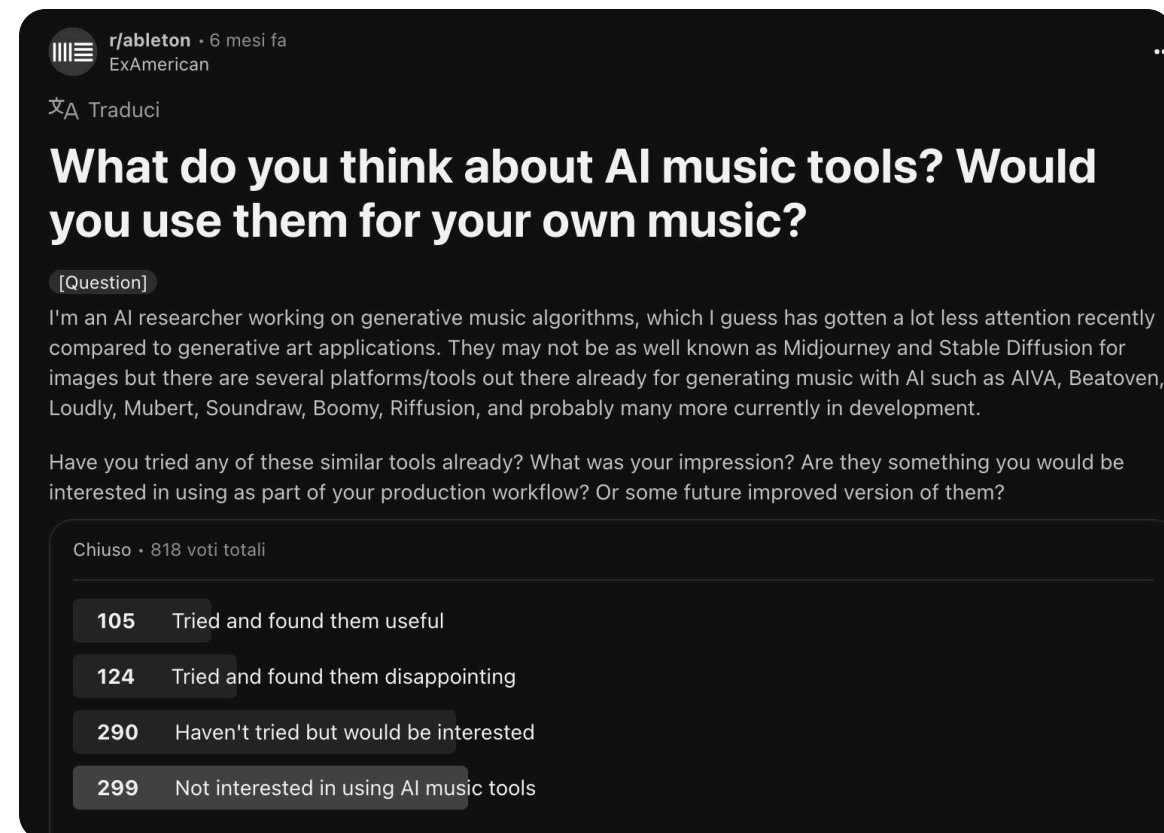
Digital ethnography – Scrapping, Data cleaning

The next step involved cleaning and selecting the relevant data contained within the file.

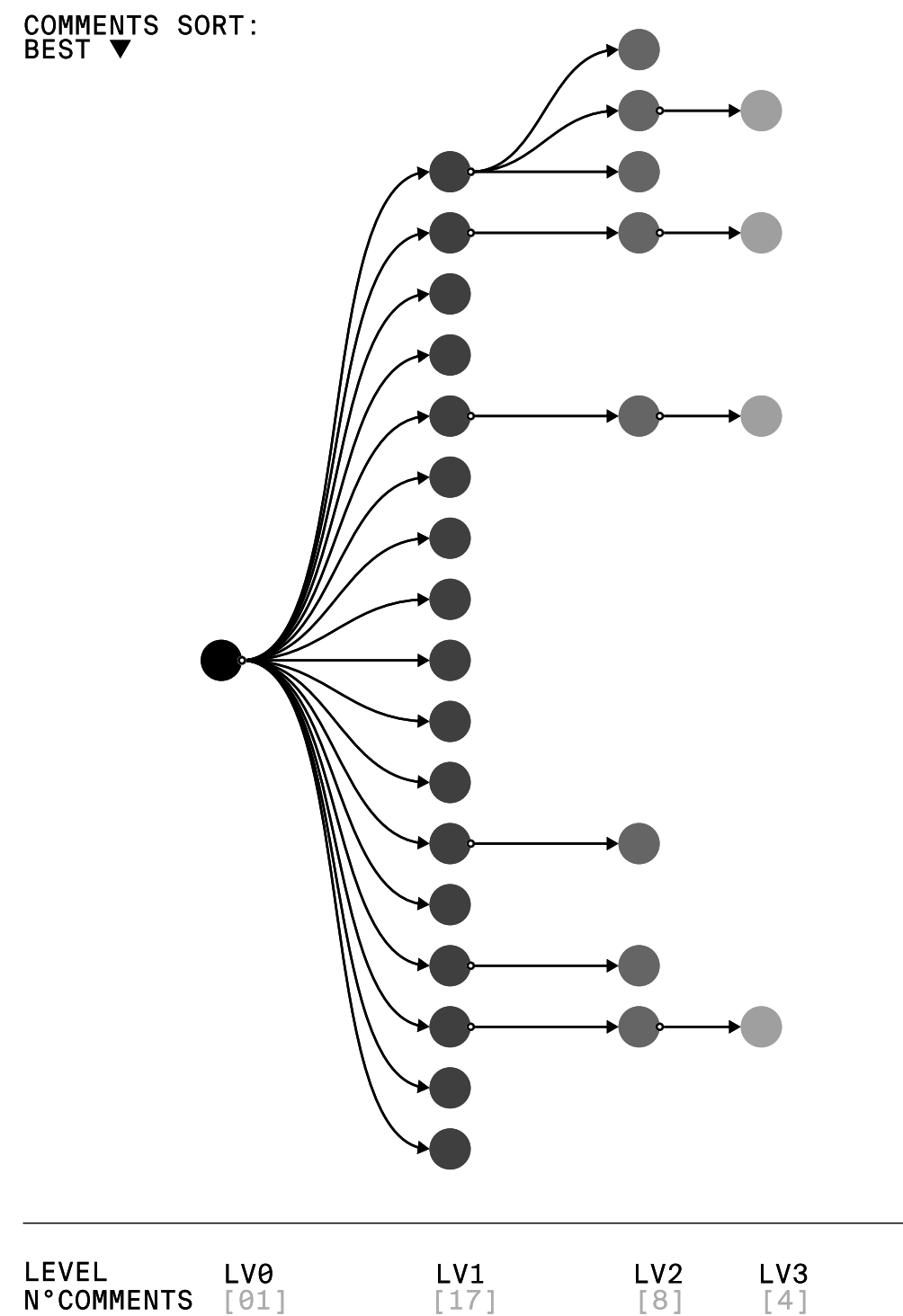
Digital ethnography – Scraping, Data visualization

DIGITAL ENVIRONMENT: YOUTUBE

CONVERSATION 01



STRUCTURE OF THE COMMENTS OF THE CONVERSATION



WORD ANALYSIS



Digital ethnography – Scraping, Data visualization

DIGITAL ENVIRONMENT: YOUTUBE

VIDEO 01



VIDEO 02

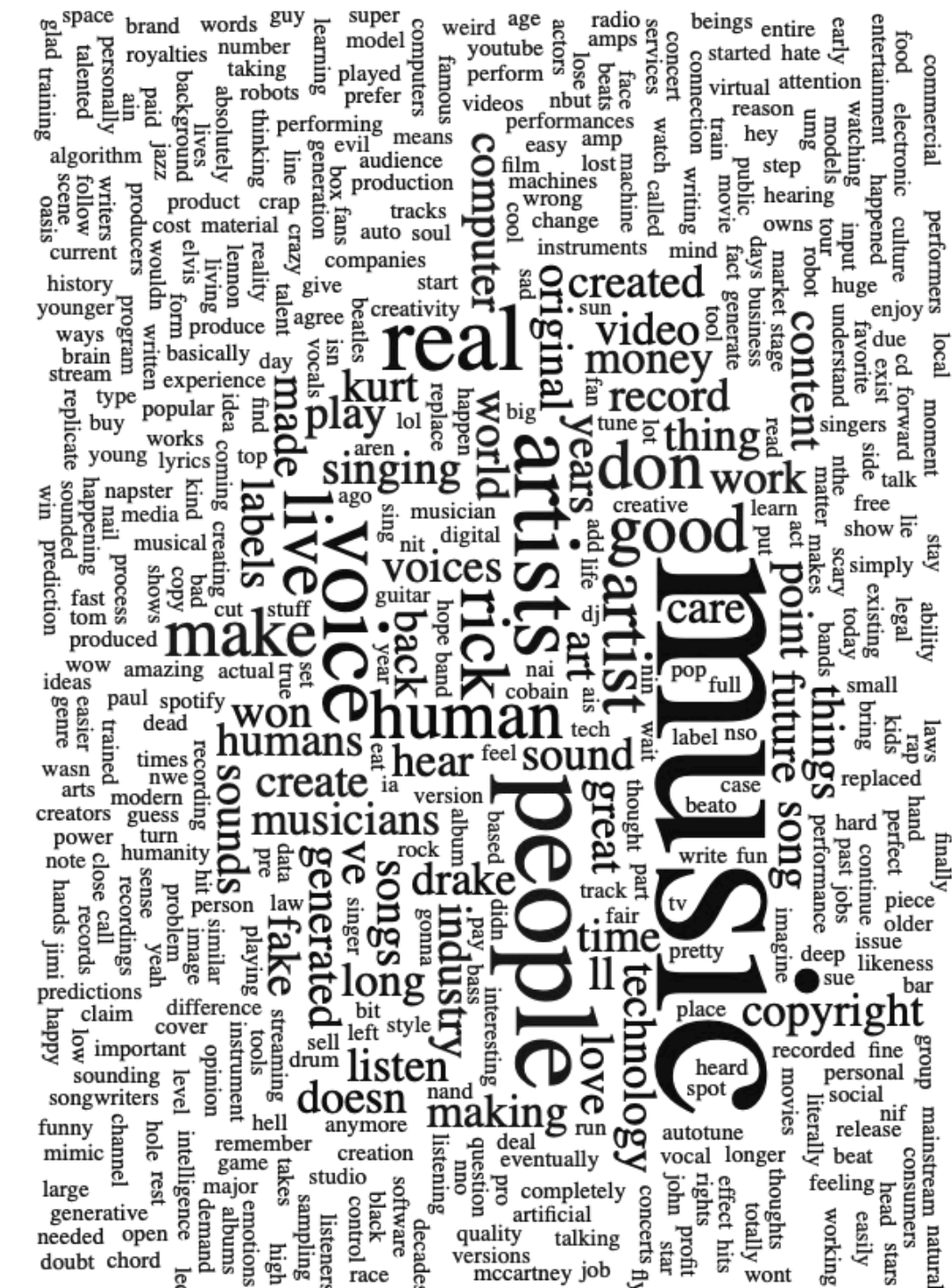


WORD ANALYSIS COMPARISON

WORD 01



WORD 02



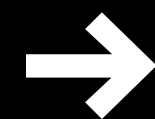
Interviews methodology

GOAL

Through web scraping, we obtained quantitative data. It seemed appropriate to expand this investigation from the digital world to the real world, considering some potential users, different from each other but related with the research topic.

The goal is to understand the creative process involved in composing a song, in its various stages, and to investigate the actual use of AI in music production, along with any potential weaknesses in the production process that could be improved through the use of AI.

We interviewed four users, categorizable as "singers-producers" and "industry experts", in order to analyze the theme of music production through AI from two different perspectives: one more practical and one more theoretical.



INTERVIEW'S STRUCTURE

PART 01 - THE CREATIVE PROCESS

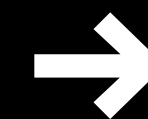
Questions related to the creative process and the steps taken in the generation of a song.

PART 02 - WEAKNESSES

Questions concerning the weaknesses of the creative process and the implementation of AI to solve the problem.

PART 03 - FUTURE SCENARIOS

Questions related to the use of AI in music production and possible future scenarios, useful for the interviewed user.



QUALITATIVE DATAS

Interviews

Practical perspective



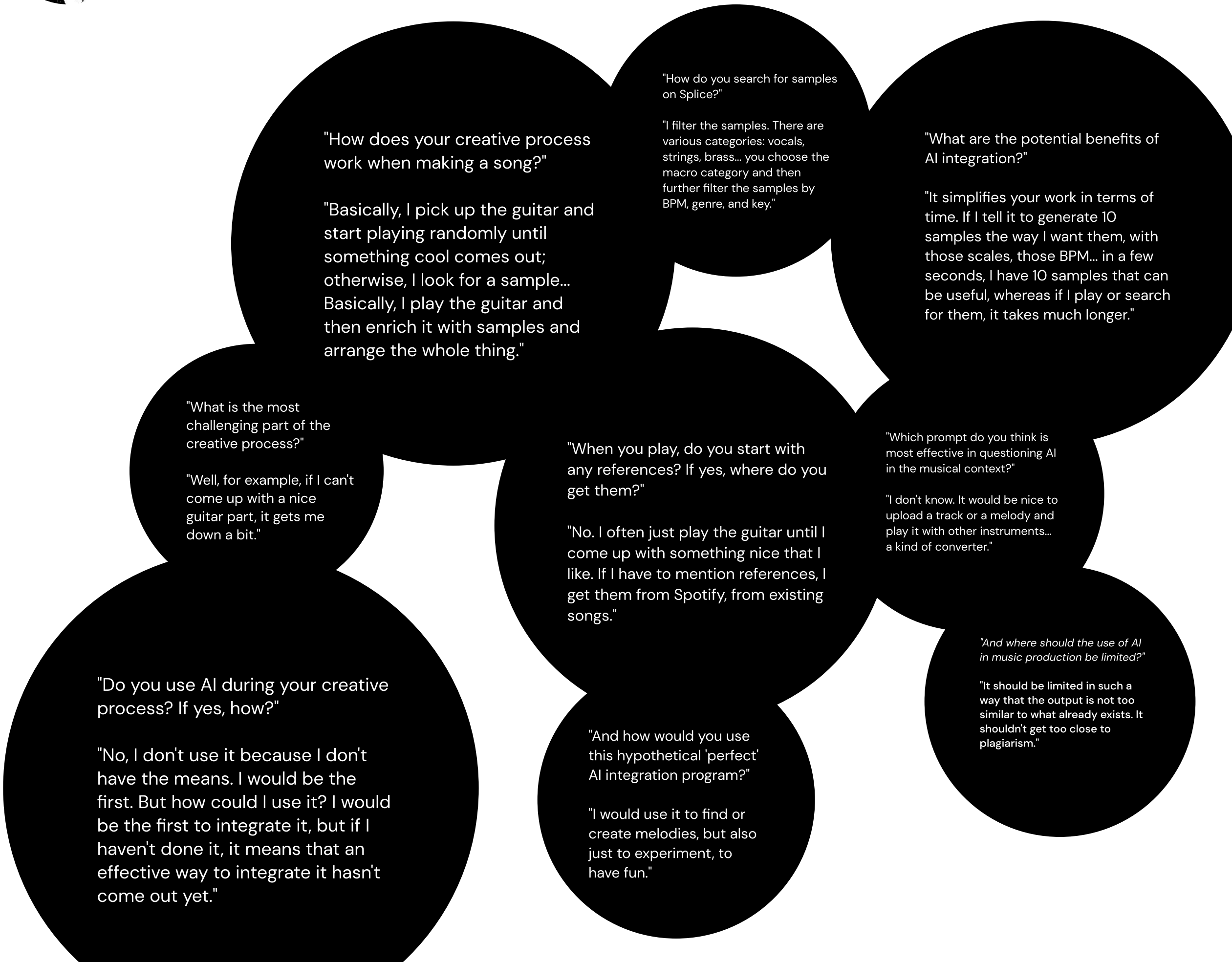
VALCO

SINGER - PRODUCER



44MOCA

SINGER - PRODUCER - GUITARIST



Interviews

Industry expert



BEATRICE
AUDIO ENGINEER

Do you use samples?

"Yes, I sometimes use samples, to which I typically add effects or manipulate by cutting, copying, and pasting in various ways."

Do you use AI? Have you ever integrated AI into your production/creation?

"I do not use AI by integrating it into production or mixing because I have never found the need, and also because I want to leverage my creative skills and potential without relying on it. The only occasional use I make of AI is to clean up certain audio using the RX plugin by iZotope."

"I typically create tracks in the studio, the process often begins with someone's idea, and we experiment with various instruments, effects, and opinions until the basic structure of the song emerges."

In your opinion, what are the potentialities of AI?

"The potential of AI is certainly to streamline processes that can be challenging and time-consuming, but it limits creativity and the beauty of achieving excellent results independently. It also hinders both technical and musical learning, consequently leading to mental inertia."

"For me, there's nothing cumbersome in the creative process, but perhaps the most challenging part is translating emotions into sound while avoiding being cliché."

"My creative process is based on two approaches: finding inspiration in everyday life and personal experiences, capturing specific emotions, and drawing influence from films, art exhibitions, and books. In the studio, I mentally recreate these experiences to translate them into sound. Collaborating with other producers and artists is crucial, where ideas take shape through experimentation and the sharing of opinions."

"The programs I mostly use are Logic Pro, Pro Tools, and Ableton."

On which platforms/places do you stay informed or find inspiration?

"I stay informed in a variety of places. Speaking of platforms, I would say Spotify, Instagram, SoundCloud, Bandcamp, and Discogs. I discover a lot of music on the web using well-known music sites like Pitchfork, and for engineering, I rely on Sound on Sound (SOS) magazine. I often visit record stores and attend live music events. Additionally, discussing music with friends and people in the industry I work in greatly helps in discovering new things."

What software or websites have you used? Or can you mention any related to music production that you've heard of?

"Another AI-related plugin from iZotope is dedicated to mastering, which I have tried. It's very useful and functional, but as mentioned earlier, I prefer learning and using my creative abilities to achieve the same, if not better, results. I find that this plugin tends to make the final master of tracks too bright."



MANUEL
SOUND DESIGNER - AUDIO ENGINEER

Why did you integrate AI into production? What were the reasons behind this decision?

"Always look to the future; otherwise, there's no progress. It's pointless to keep producing things that have already been seen in different ways, so always aim to experiment with something new."

Have you used AI in your creative process?

"Yes, especially in sampling using text-to-music technology. This allows me to describe a sound, and AI generates a corresponding composition. It's a powerful tool for creating unique and surreal compositions, like a choir of whales and monkeys in a bathroom. However, there are artistic limitations, such as short and monophonic samples, requiring additional work for the human. AI serves as a valuable input, offering a starting point and an additional creative tool."

So, do you see AI as an extension of ourselves, enhancing our abilities without entirely replacing human functions?

"I'm unsure; I'm conflicted. It might replace us entirely—imagine an intelligence like yours, but with infinite memory, operating ten times faster, performing calculations billions of times quicker, and never forgetting what it learns."

Which software/websites have you used for sound generation?

"In addition to the most well-known ones like Audiocraft and Audiogen, for sound generation, I can think of Synplant, which is a plugin. Its training is based on genetic models of how plants develop, and it uses them to generate melodies, rhythms, and sounds based on the input you provide."

Do you use AI?

"Let's say that from a musical perspective, they are still emerging, so I've used them very little for now. However, I believe they have untapped potential."

What types of prompts do you think would be most useful for sound creation?

"Imagine an AI that translates smells into sounds, offering a unique perspective on how the sense of smell, a distinctly human aspect, could be interpreted by a machine."

What perspectives do you see in the music field when it comes to AI?

"I can envision the creation of entirely artificially generated bands that will likely replace today's pop stars. This is already a significantly different frontier compared to the pop scene of the 1980s."

"The musical features are still lacking, especially in terms of timbre and dynamics. However, interesting results can be achieved, particularly from a semantic perspective: through words, you can convey what you desire and create truly innovative combinations."

"I think the realm of AI sampling is kind of old-fashioned. AI should be employed in a "wrong" way: for instance, glitches arise because the equipment was malfunctioning, and someone innovatively decided to use that inherently flawed sound, born out of an error, to later discover a musical significance. So, we should break AI to get really interesting results, not use it in a simple or expected way."

"It's interesting to note that, despite the initial idea that art would be immune to replacement by machines, AI has already begun to influence language, content creation, and images. Speaking in the context of art and design, AI could lead to radical changes that are currently challenging to predict."

Insights / Gathered informations

By observing and analyzing the conversations in their natural context, the research has sought to provide valuable insights into the general mood and mindset of the individuals or communities being studied. This chapter's findings will contribute to a deeper understanding of their thoughts, which can inform decision-making, strategies, and future research in the field.

DESK RESEARCH

BETTER
OUTPUT
CONTROL

IMPLEMENTATION
OF AI SUPPORT
IN MUSIC
PRODUCTION

RELIABLE
PROMPT
ENGINEERING

DIGITAL ETHNOGRAPHY

BETTER
OUTPUT
CONTROL

FEAR OF AI
AS A HUMAN
REPLACEMENT

RELIABLE
PROMPT
ENGINEERING

HUMAN
CONNECTION
STILL THE MOST
VALUABLE
FACTOR IN
MUSIC

INTERVIEW

AI GENERATED
SAMPLES FOR
INSPIRATION
OR MELODIES
PRODUCTION

AI MUSIC
GENERATED
SIMPLIFIES
WORK IN TERMS
OF TIME

AI WILL
ALLOW EVERYONE
TO MAKE MUSIC

RELIABLE
PROMPT
ENGINEERING

BETTER
OUTPUT
CONTROL

ORIGINALITY
OF GENERATED
SAMPLES

BENCHMARK

BETTER
OUTPUT
CONTROL

APPLE DIDN'T
OFFICIALLY
INTEGRATED
AI IN ITS
PRODUCTS OR
SERVICES

BIG TECH
COMPANIES HAS
LATELY
UNDERSTAND
AI POTENTIAL

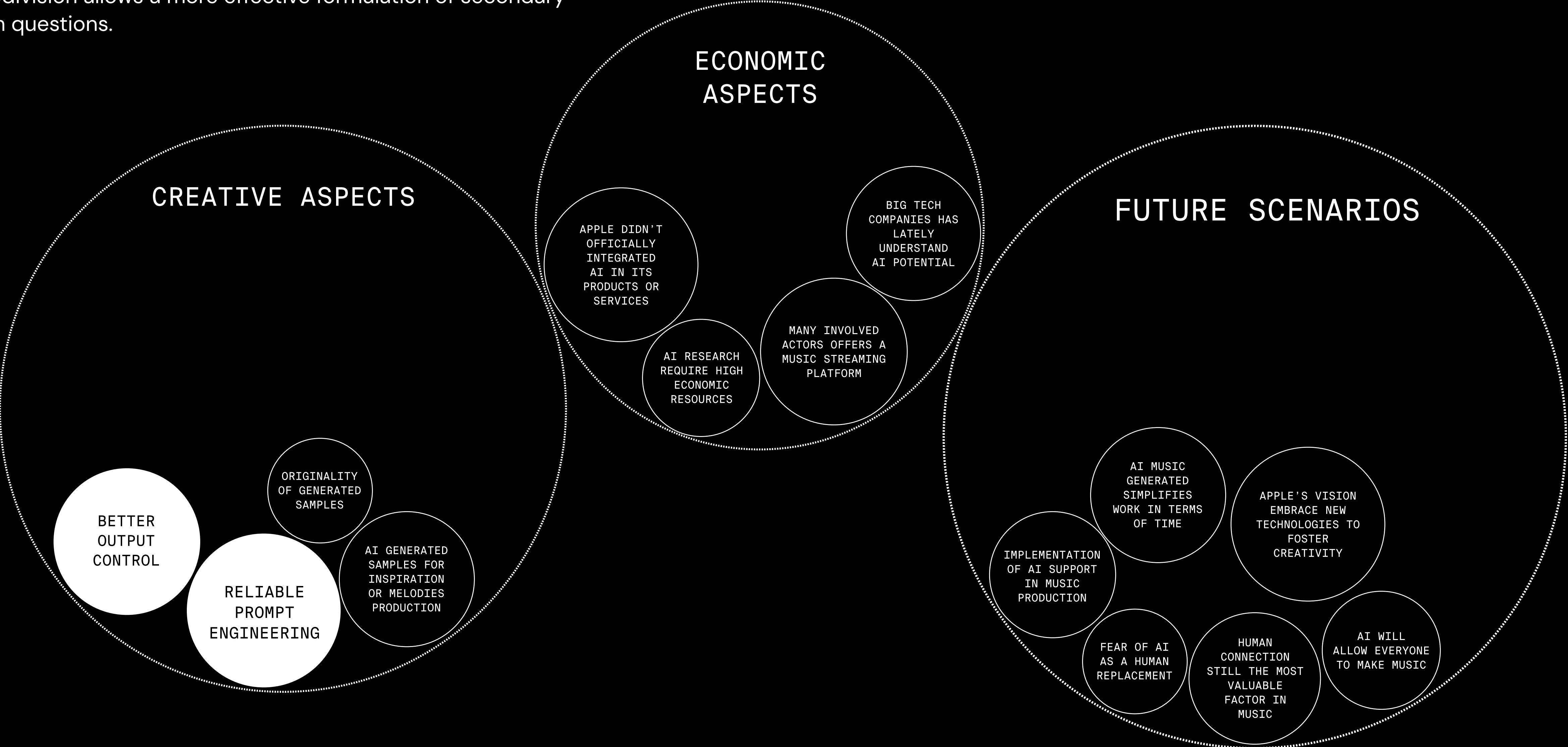
MANY INVOLVED
ACTORS OFFERS A
MUSIC STREAMING
PLATFORM

RELIABLE
PROMPT
ENGINEERING

APPLE'S VISION
EMBRACE NEW
TECHNOLOGIES TO
FOSTER
CREATIVITY

AI RESEARCH
REQUIRE HIGH
ECONOMIC
RESOURCES

Division of insights into different domains (creative, economic, and future scenarios). The identified domains appeared to be the most suitable for guiding and structuring the subsequent research. This subdivision allows a more effective formulation of secondary research questions.



New questions / creative and economic aspects, future scenarios

By delving into these new questions, the research seeks to understand better the dynamic interplay between creativity and economic factors, and their potential implications for future developments in the market. It investigates how creative industries and economic landscapes could intersect and shape innovative solutions in the face of changing trends, technologies, and society's mental models.

CREATIVE ASPECT

How can we take advantage of AI music while respecting artistic originality?

How can AI assist artists in overcoming creative blocks and exploring new musical fields as a source of inspiration?

What is the threshold at which we consider AI responsible for music creation? Should the AI itself or the user who inputs the data be considered the 'creator' of the musical product?

What types of prompts are most effective in communicating ideas for music and sound generation to an AI computing system?

ECONOMIC ASPECT

How can AI-generated music be seamlessly implemented into existing music streaming platforms?

How can a platform use to differentiate itself from competitors and provide unique value to users?

How can AI-generated music production enhance user engagement and desirability for a music streaming platform?

Which unique AI music production service could be developed on a music streaming platform?

FUTURE SCENARIOS

What specific tools or technologies could be developed to enable more effective collaboration between artists and AI?

How technologies related to music production are evolving?

How will AI impact the job market in the creative and technical music industry?

Which are potential new scenarios for interaction and communication between the human mind and AI in the context of artistic expression?

Final Brief & Client /

CLIENT SELECTED

Apple

FINAL BRIEF

What do I have to do to innovate in the context of AI generated music production?

Introducing within existing streaming platforms a system deeply rooted in the realm of generative music production.

The system's aim is to engage users across varying levels of musical expertise, broadening the scope of individuals involved in music generation. It seeks to accompany individuals, offering support throughout their creative journey or serving as a wellspring of inspiration.

Central to the design process is the development of a tool focused on assisting users in their creative endeavors. This tool will enable them to explore and experiment with diverse prompts beyond traditional text-based ones.

The goal is to facilitate the generation of high-quality outputs that resonate closely with the diverse forms through which creative ideas manifest in the human mind.

Moreover, the design will prioritize the creation of a system that empowers users with precise and user-friendly control throughout the creative process and over the final output. This system will require no specialized technical knowledge in IT or musicology, ensuring accessibility and ease of use for all users.

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