

**A Critical Investigation of Spotify's
Podcasters AI Translation Pilot**

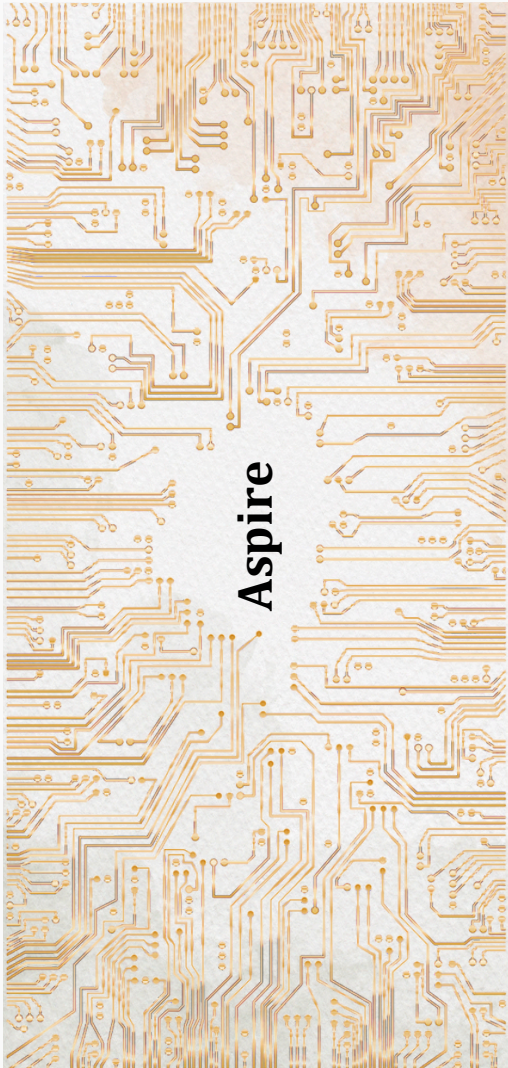
Case: No. 26-04-2024
By Milica Hinic

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acknowledgements

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Aspire

“Artificial intelligence is not a substitute for human intelligence; it is a tool to amplify human creativity and ingenuity.”

- Fei-Fei Li



About

I am an MA student in Communications and New Media, at McMaster University. My research interests include academic podcasting and knowledge mobilization. During my podcast research, I found accessibility in higher education teaching and learning to be a common topic.

Here, the agency of language and oral storytelling begins to take shape. Siobhán McHugh examines voice in today's contexts as being inclusive, diverse and equitable [1]. From this perspective, sharing international voices through podcasting breaks language barriers. Excellent! **BUT WAIT!** There are some considerations to bear in mind when artificial intelligence (AI) is cloning your voice. For this reason, I am reporting on an AI-critical investigation of Spotify's AI language translation Pilot.



The **Zine's** purpose is to provide podcasters and listeners with awareness about **voice(s) as data** and **AI language accessibility**.

Operation Aspire reports on social impacts and why podcast infrastructural balance matters. The Zine is meant to reveal the

hidden, misrepresented data and future possibilities. It is also a unique space to generate **multimodal conversations**. In other words, the zine demonstrates how knowledge sharing could happen in

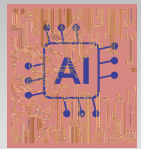
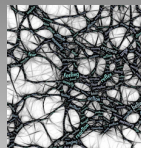
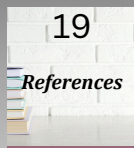
both the digital space and through an analog medium like this zine. For this reason, I have created Operation Aspire to generate **hope for balancing podcast power-knowledge structures**. Specifically, using voice(s) as data to **mobilize care** with sociotechnological futures.

Mission

- Provide contextual data to Spotify users (podcasters and listeners)
- Identify the socio-technical design of artificial intelligence (AI) language translation. How it works!
- How data voice(s) are being synthesized and translated
- Future maintenance and care strategies

~ Let us Aspire.





Zine Playlist



Case Summary

Spotify is a music, podcast, and audiobook streaming platform. The media organization is always looking for ways to improve its services for target audiences. With the recent advancements in AI technology (OpenAI's ChatGPT), Spotify developed an AI language translation app [2]. On SEPTEMBER 25, 2023, Spotify released a podcast pilot which would impact voices worldwide.

What does this mean?

The pilot is like a test or trial where only a select few creator's episodes will be translated into Spanish, French and German. The translation involves artificial intelligence (AI) that will translate the podcasts using the podcaster's voice. [2]

Lex Freidman's podcast

Armchair Expert

The Diary of a CEO with Steven Barlett



Once audience and creator feedback is gathered and analyzed, the rollout will extend to other creator's podcasts.

Voice Translations Hub: You can view and listen to the AI episodes currently available on the Voice Translation Hub.

Complaint Filed:

Hello, I have been a dedicated listener of Spotify. Why isn't my favourite podcast being translated into...

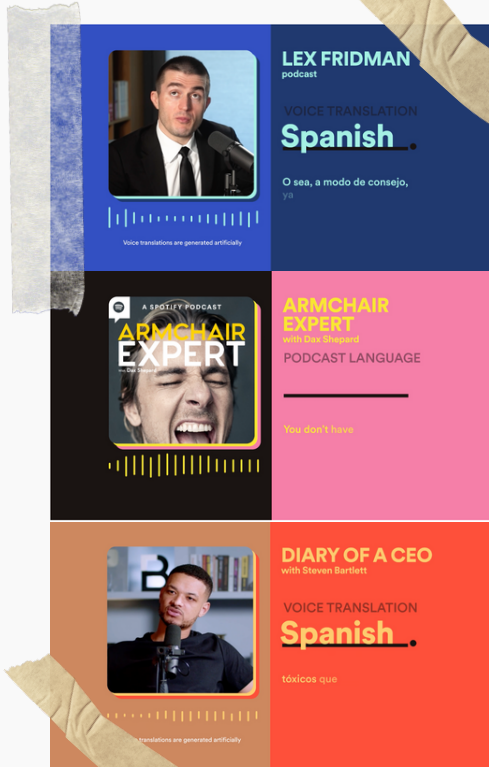
"العربية" "Kiswahili" "ਪੰਜਾਬੀ" "српски" "翻译中文"

How does the AI voice replication work? Is it safe?



Primary Investigator: Milica Hinic
Type of Case: AI language translation

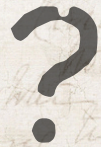
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Spotify AI Translation Pilot

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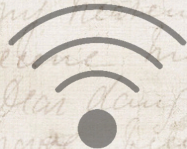




In what ways does Spotify's pilot project have sociotechnical influence?



How can we address some of the AI voice as data tensions?



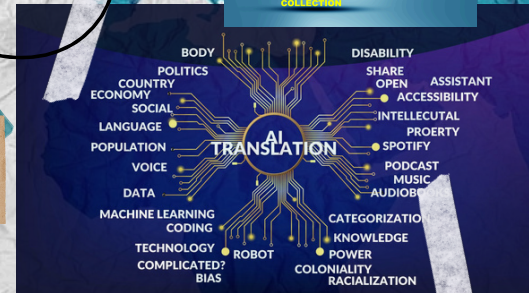
Research Question(s)

EVIDENCE AGAINST

A research group at Roskilde University, Denmark provides a detailed account of how Spotify's AI translation works.

They argue that the model is **data-driven** and is based on **surveillance capitalism**. Here, the sociotechnical **patented design** seeks to **extract human behaviours** [3].

-> users's emotional state, accent, gender, physical environment, etc.



COMMODIFY?
CONTROL?
HARM?

The software then further analyzes accents replicates, translates, and transcribes language into sound/text. Does this mean Spotify will have **control and power** over these **"voiceprints"**? [3].

Business / By Camillo Quifano / February

Top Beneficial Owners	Ordinary Shares Number	Percent
Daniel Ek	30,056,376	15.3%
Martin Lorentzen	21,476,145	10.9%
Balise Clifford & Co	21,657,094	12.0%
Tencent	16,631,969	8.4%

Accessibility is the company's goal, however, misrepresentation and misuse are a public concern. Who are the powerful players? Why are only certain voices being replicated? And who does this impact the most?

Identification of taste attributes from an audio signal

Patent number: 10891948

Abstract: A system, method and computer product are provided for processing audio signals. An audio signal of a voice and background noise is input, and speech recognition is performed to retrieve speech content of the voice. There is retrieval of content metadata corresponding to the speech content, and environmental metadata corresponding to the background noise. There is a determination of preferences for media content corresponding to the content metadata and the environmental metadata, and an output is provided corresponding to the preferences.

Type: Grant
Filed: February 21, 2018
Date of Patent: January 12, 2021
Assignee: SPOTIFY AB
Inventor: Stéphanie Hulud

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#AI_IS_NOT_NEW SYNTAX
(URL= SPOTIFY, X= AI, Y= YOU;
);
Spotify DJ;
Discover Weekly;
= Spotify Wrapped;
AI-Powered Recommendations;
AI-Powered "Daylists";
Case "trial": Podcast Voice Translation;
Natural Language Search;
(https://www.marketinginstitute.com/blog/spotify-artificial-intelligence)
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"I'm not an inventor. I just want to make things better."

Daniel Ek

DEFENCE

Spotify defends its socio-technical design through the use of OpenAI technology and its approved patent.

How it works: The tool automatically matches the AI-generated voice to the speaker's tone and style. This means a podcast host can record an episode in English, and then the program can translate it into other languages in the podcaster's voice [4]. -> A genius!

Artificial intelligence is not new to our organization. Our AI is what makes our streaming platform a success. We have been using AI tools for **content personalization** [5].

The AI translation feature provides listeners content in their preferred language without losing the original voice's authenticity. Who wouldn't want that? "It's like having a universal remote for Spotify podcasts"[6].

Spotify's **backend labour (AI + humans)** continues to innovate and enhance the listening experiences of our audiences.



How AI Translation Works



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Spotify's new AI language translations are like podcaster-approved deepfakes

The company is testing its tech in partnership with popular podcast hosts, including Armchair Expert's Dan Shephard and The Ringer's Bill Simmons.

Spotify is going to clone podcasters' voices - and translate them to other languages / A partnership with OpenAI will let podcasters replicate their voices to automatically create foreign-language versions of their shows.

Spotify AI Voice Translation: Bridging the Global Podcast Divide

Spotify's AI Chief Wants to Remix Our Relationship With Discovery

Podcasters Unite Globally: Spotify's Voice Translation Pilot

EVIDENCE AGAINST

Audra Simpson's concepts of **ethnographic refusal** discuss historical accounts of language translations being exchanged and categorized by militarized territory, ethnically defined, and primarily understood through the lens of the Colonized [7]. We question: Does AI translate these perceptions? Spotify's initial release was intended for Spanish, French and German. Do they continue to be the **voice of the dominant culture** or **Empire**? Or if we examine this concern from a capitalistic **framing** [3] Operation Aspire asks where are our voice data? Who has the power?

...
"harvesting voice data from their users"
(Bek et al.2021)

DEFENCE

The **user-generated data** prompts which language is most dominant based on listeners' demographics. We are only giving listeners what they want [4]. The AI-language translation tool identifies these needs and does its job, it translates.

Similarly, other companies are personalizing podcasts. A multilingual podcast production company **Studio Ochenta** based in Paris helps edit, consult and produce podcasts and/or audiobooks for creators [8]. Like us, they enhance the global listening experience and tailor content to specific **target audiences**. In this case, the model works in a similar way where Spanish and French are the dominant languages of translation. (Note: We cannot speak to AI use in their translations).

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VOICE (s) as DATA
Power-Knowledge

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WHAT NOW

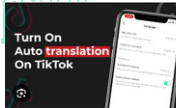
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HOW DO WE ENSURE SPOTIFY'S AI TRANSLATION is accessible, fair and safe?

Operation Aspire has considered all the evidence of the **VISIBLE** and invisible



Since the pilot was launched, there have been **no research updates** on the Spotify for Podcasters web page [9]. Also, a lack of Spotify AI translation reporting was found within mainstream media. Meanwhile, **social media content creators are experimenting with language translation apps.**



What we do know

AI language translation IMPACTS

Universal assumptions

ways of knowing

socio-technological design

voices as data



Closing Statements

In closing, the Spotify AI translation pilot is still under investigation as the data is further being collected, analyzed and sent out for processing through human and non-human means. In the meantime...

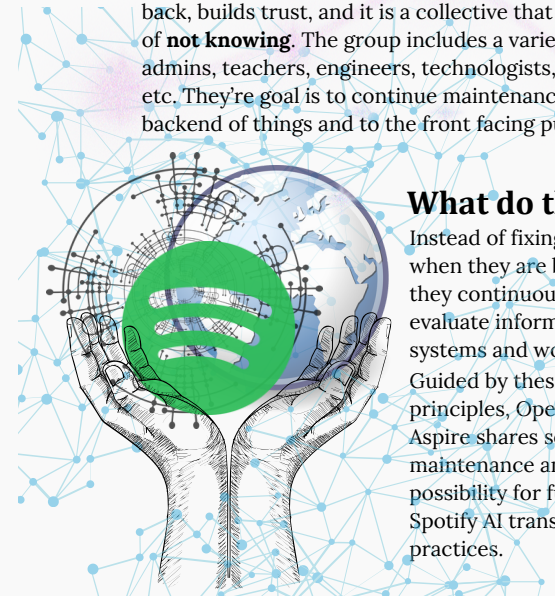
invisible

visible

A collective practice

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Like a community, this framework is built on sharing and working together. Here the **information maintainers** support bodies of information [10]. It is honest, it gives back, builds trust, and it is a collective that is isn't afraid of **not knowing**. The group includes a variety of folks - admins, teachers, engineers, technologists, storytellers, etc. They're goal is to continue maintenance from the backend of things and to the front facing public end.



What do they do?

Instead of fixing things when they are broken, they continuously evaluate information systems and work flows. Guided by these principles, Operation Aspire shares some maintenance and care possibility for future Spotify AI translation practices.

"Care is a human trouble, but this does not make of care a human-only matter".

de la Bellacasa

time & patience for self, and others (including AI)
Openness to the many ways of knowing
Care with AI translation data engagements
Hope for fair socio-technological futures

AI Maintenance and Care

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A podcast about Zines!

