

Title: Echo Chamber

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1. PROGRAM NOTES

We live in an age of simulacra, where versions of ourselves are copied, multiplied, transformed and remixed, often without our knowledge or consent. Text-to-music generative AI have sparked frenzied debate about human and machine creativity, as well as ethical concerns about musicians' rights and job security. *Echo Chamber* is a participatory sound installation that invites you to experience multiple AI-generated versions of your own piano-playing through embodied and tactile experience, so that you may come to your own critical reflections on the ethics of data scraping, AI's role in amplifying bias against underrepresented musical cultures and the creation of socio-cultural echo chambers. We use a keyboard interface, itself a symbol and tool of cultural dominance.

2. PROJECT DESCRIPTION

Echo Chamber is a participatory sound installation using MusicGen audio generative AI[1]. Participants play a short melody on a piano or keyboard interface, which is then used as a reference for MusicGen to generate multiple versions of itself. These evolving echoes of the original are played back through a multi-channel speaker installation. The work alludes to concerns about generative AI generating a monoculture through a feedback cycle of data scraping, copying and regenerating. By deliberately engaging with (and simultaneously serving as a critique of) MusicGen's innate tendency to stay within predictable melodic and harmonic structures, we can layer and loop multiple versions of the AI-generated audio while staying musically coherent. The layering of multiple samples also allows us to produce a real-time participatory work despite the time required for the AI generations (which currently take longer to generate than the length of the audio sample generated).

A piano was chosen as the interface through which an audio reference is created by participants, as it plays on the familiarity and ubiquity of the instrument, which has become both a symbol and a tool of colonisation [2][3]. Not only has the keyboard become a dominant interface for music-making, the equal-tempered scale has become pervasive across the globe in most popular music cultures,

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relegating other modes and scales to the fringe – a pattern repeated by generative AI’s amplification of what is already amplified.

3. PERFORMANCE NOTES

Figure 1 sets out the schematics diagram of *Echo Chamber*. It requires an indoor installation with one piano or keyboard (although acoustic is preferred in order to emphasise the historical dominance and heritage of the piano, as well as lending an analog counterpoint to the digital). The original installation of this work at the Grainger Museum in Melbourne used 16 speakers, but 4-8 is sufficient.

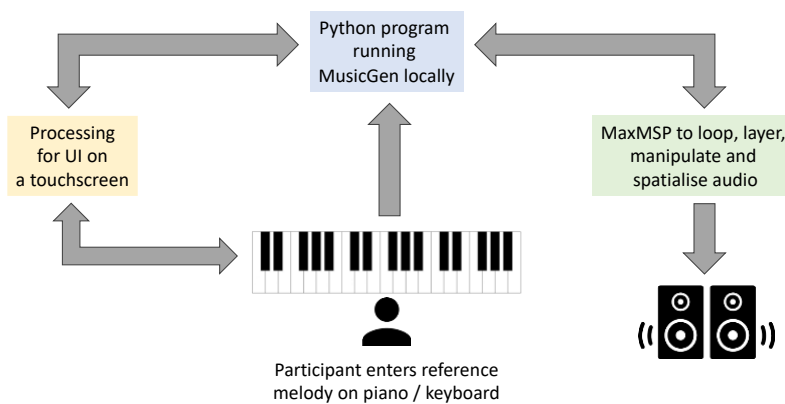


Fig. 1. Schematics Diagram of Echo Chamber

4. MEDIA LINK(S)

- Video: <https://vimeo.com/938949011?share=copy>

ACKNOWLEDGMENTS

The authors would like to thank Dr Antony Chacon and Allen Mare Pilares for their assistance. This work was supported by the Grainger Museum, the School of Computing and Information Systems and the Faculty of Fine Arts and Music at the University of Melbourne.

ETHICAL STANDARDS

Funding for this work was provided by the Grainger Museum and the University of Melbourne Faculty Graduate Researcher Fund. The work utilises Meta’s MusicGen Generative AI model. According to Meta, the data sources used to train the model are licensed internal datasets (Meta Music Initiative Sound Collection), Shutterstock and Pond5 music data. The participants’ input and the generated audio files from their input are processed locally on our computer and are erased after each participant experience. They are not individually identifiable.

REFERENCES

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