



NTNU | Nõörjen teknihkeles-  
eatnemedaejremes universiteete

# What is Music Technology?

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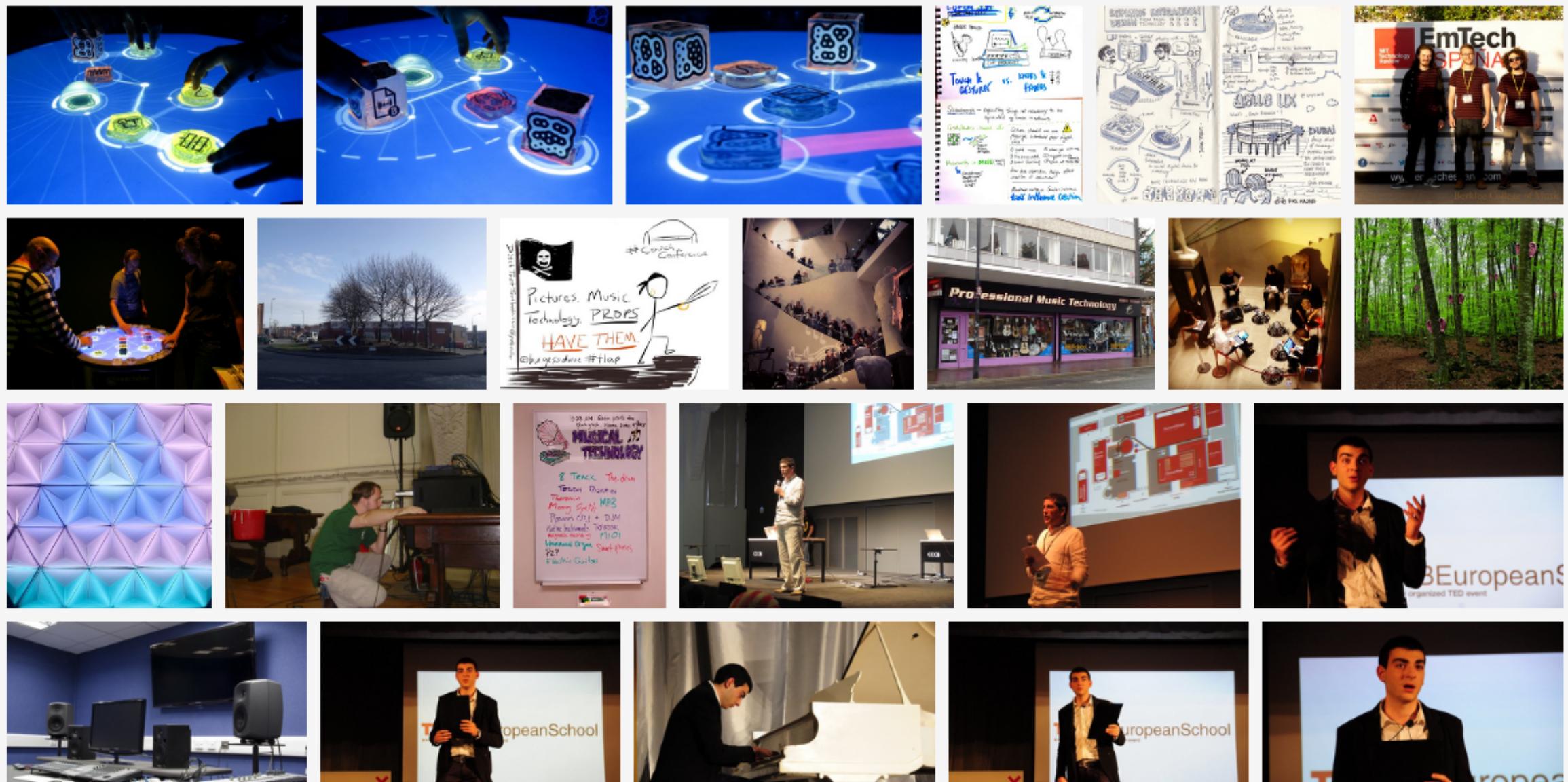
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- Smithsonian Institution: National Museum of African American History and Culture
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 music technology

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Over 10,000 images

Image source: <https://search.creativecommons.org/search?q=music%20technology>



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future



classroom



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creative



tech



art



wallpaper



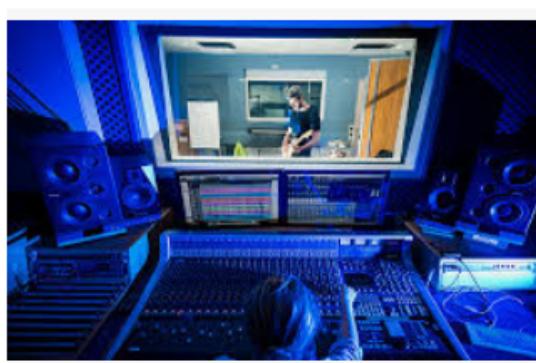
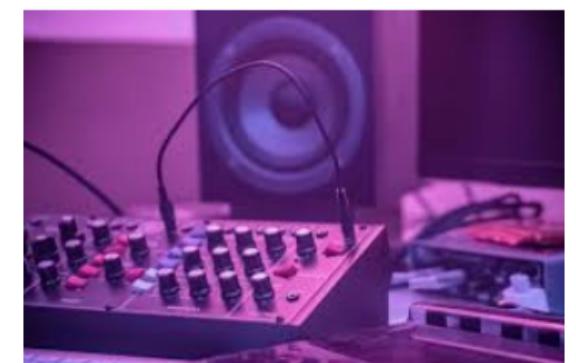
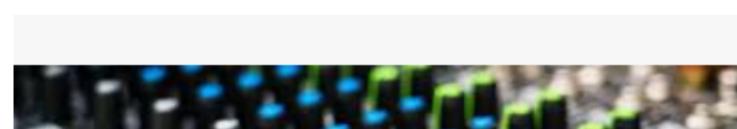
new



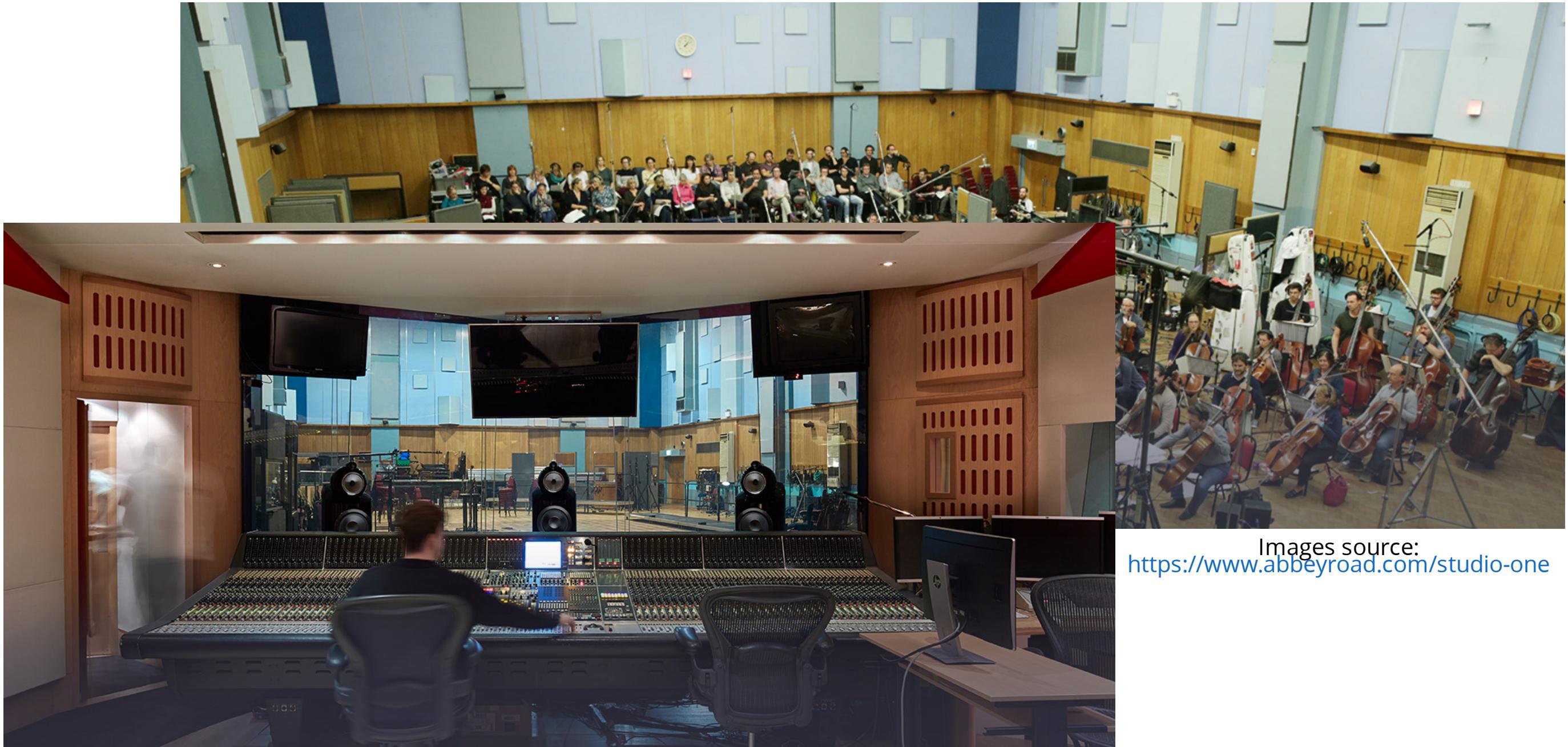
futuristic



electronic

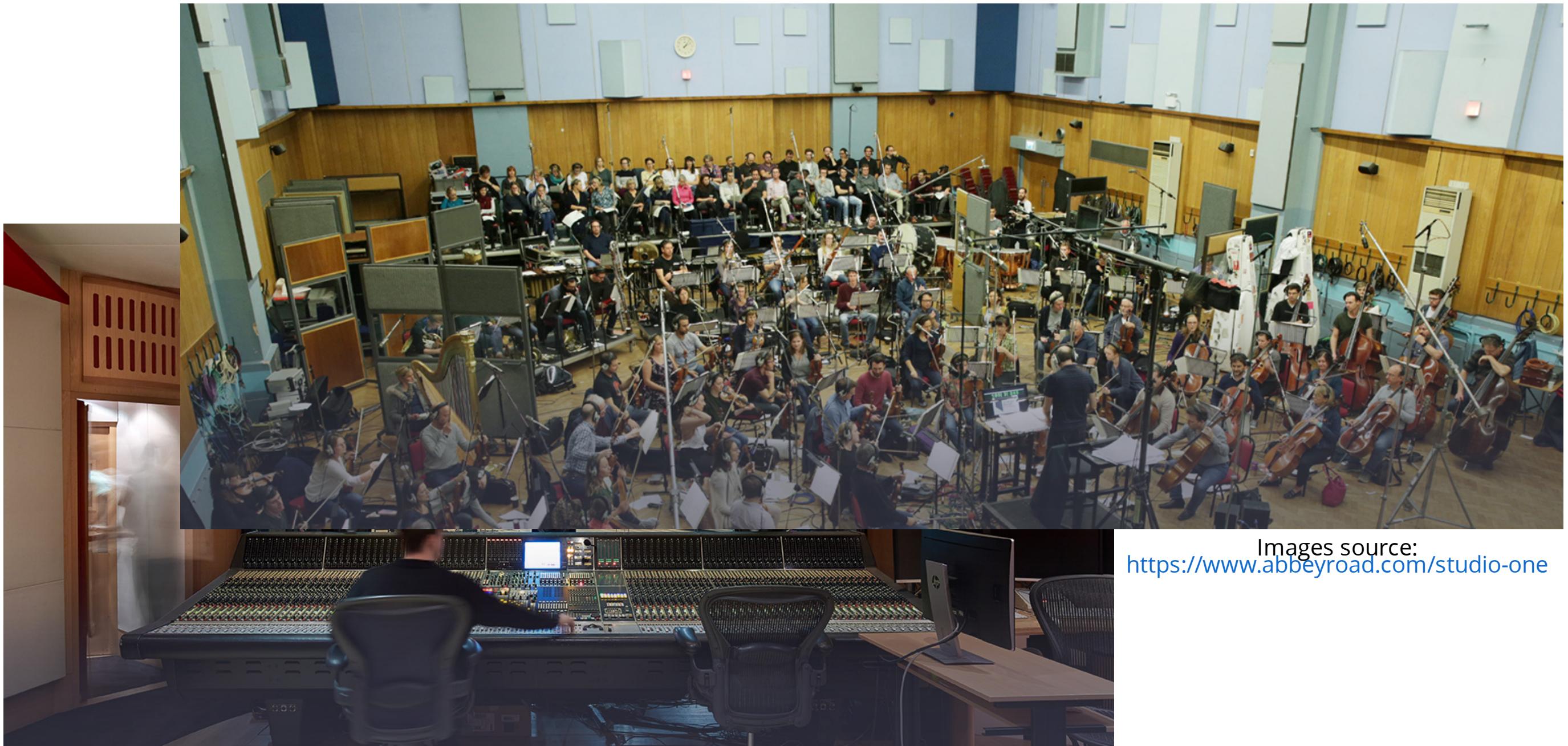
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icmp.ac.ukImage source: <https://www.google.com/search?q=music+technology>

# music recording



Images source:  
<https://www.abbeyroad.com/studio-one>

# music recording



Images source:  
<https://www.abbeyroad.com/studio-one>

# music production



Image source: <https://tileyardnorth.co.uk/>

# music composition

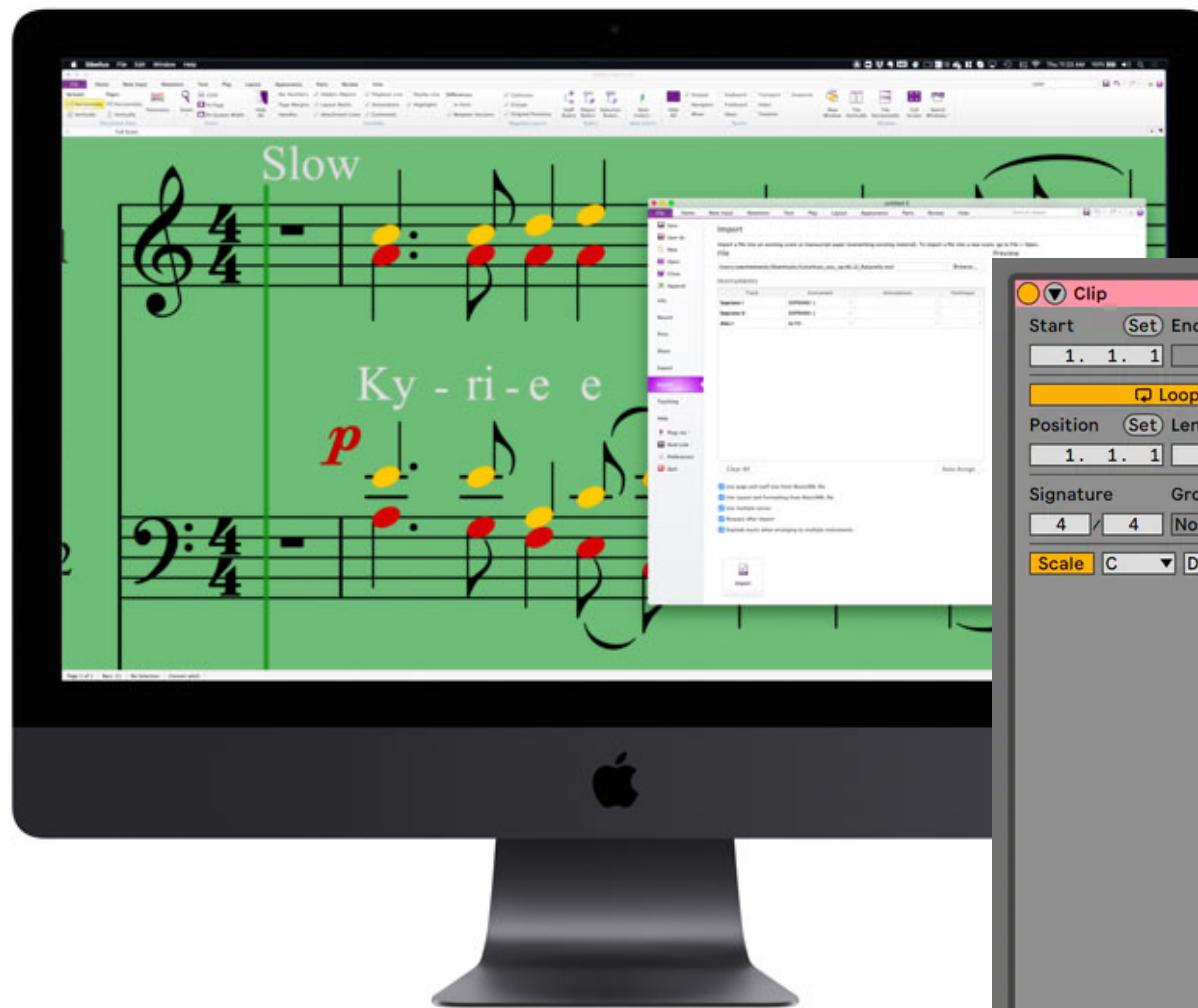


Image source: <https://www.avid.com/sibelius>

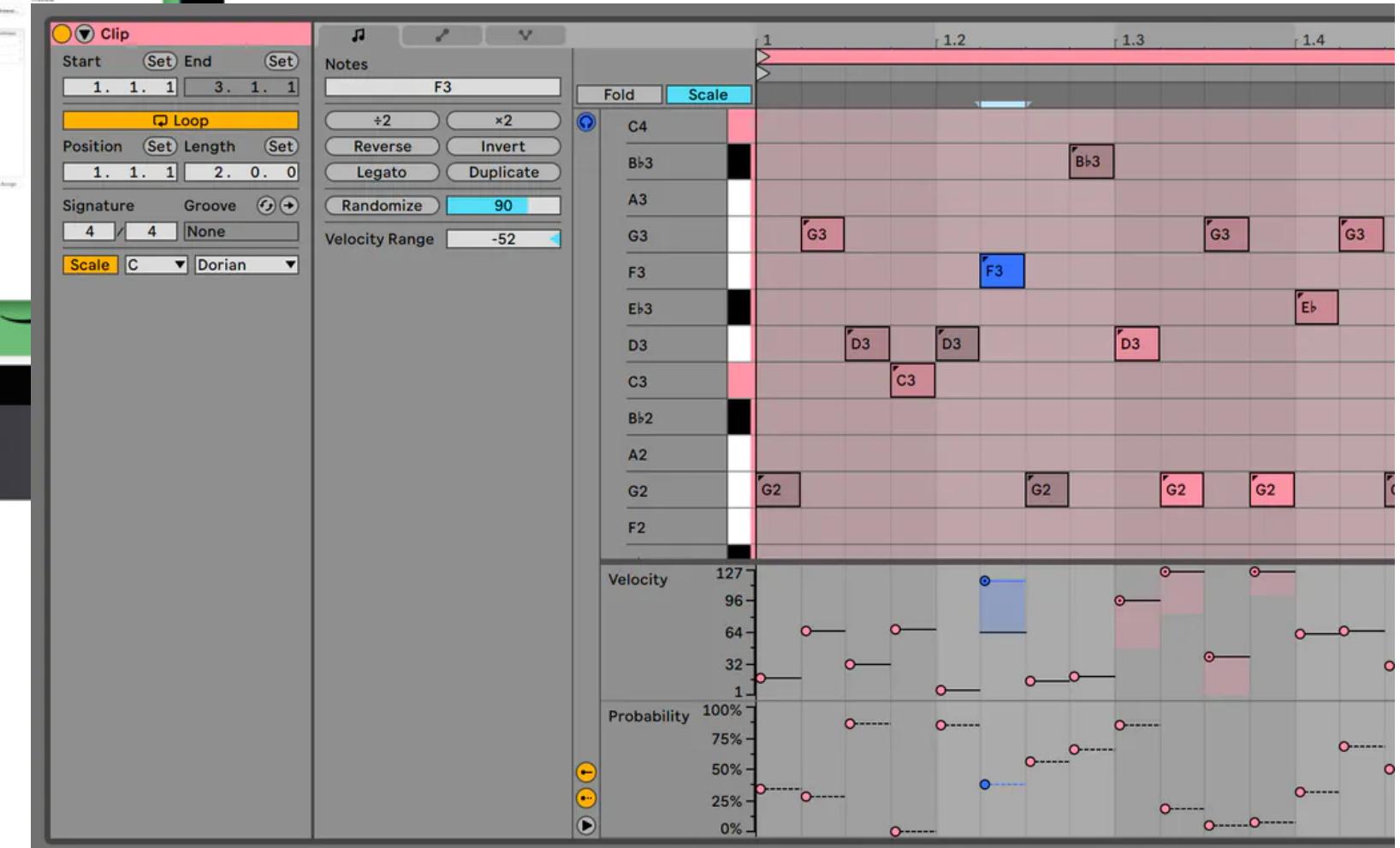


Image source: <https://www.ableton.com/en/>

# music composition

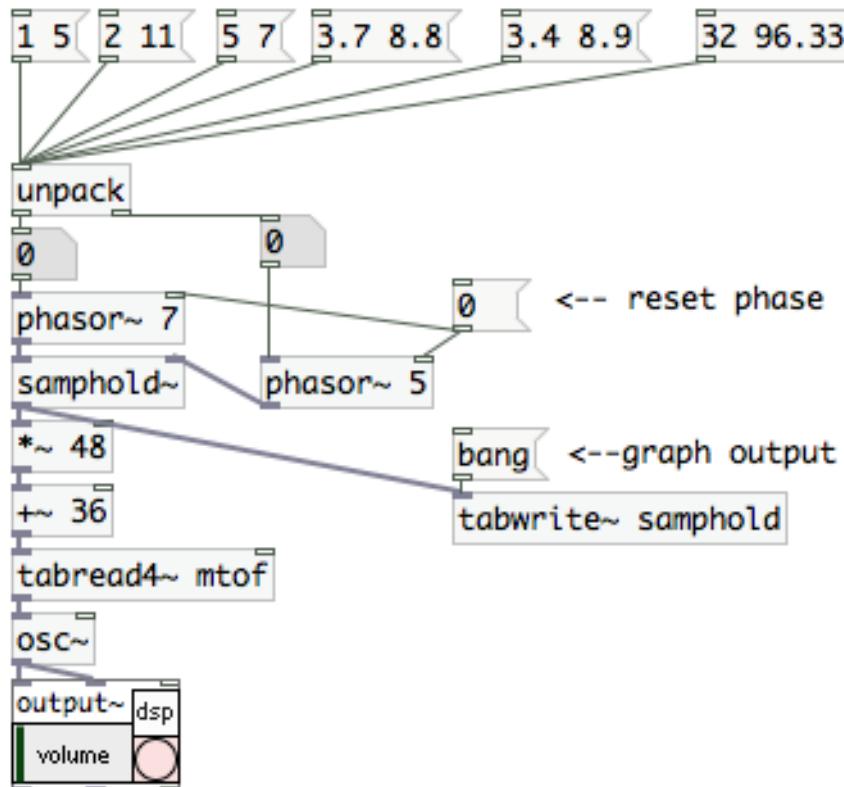


Image source: <http://puredata.info/>

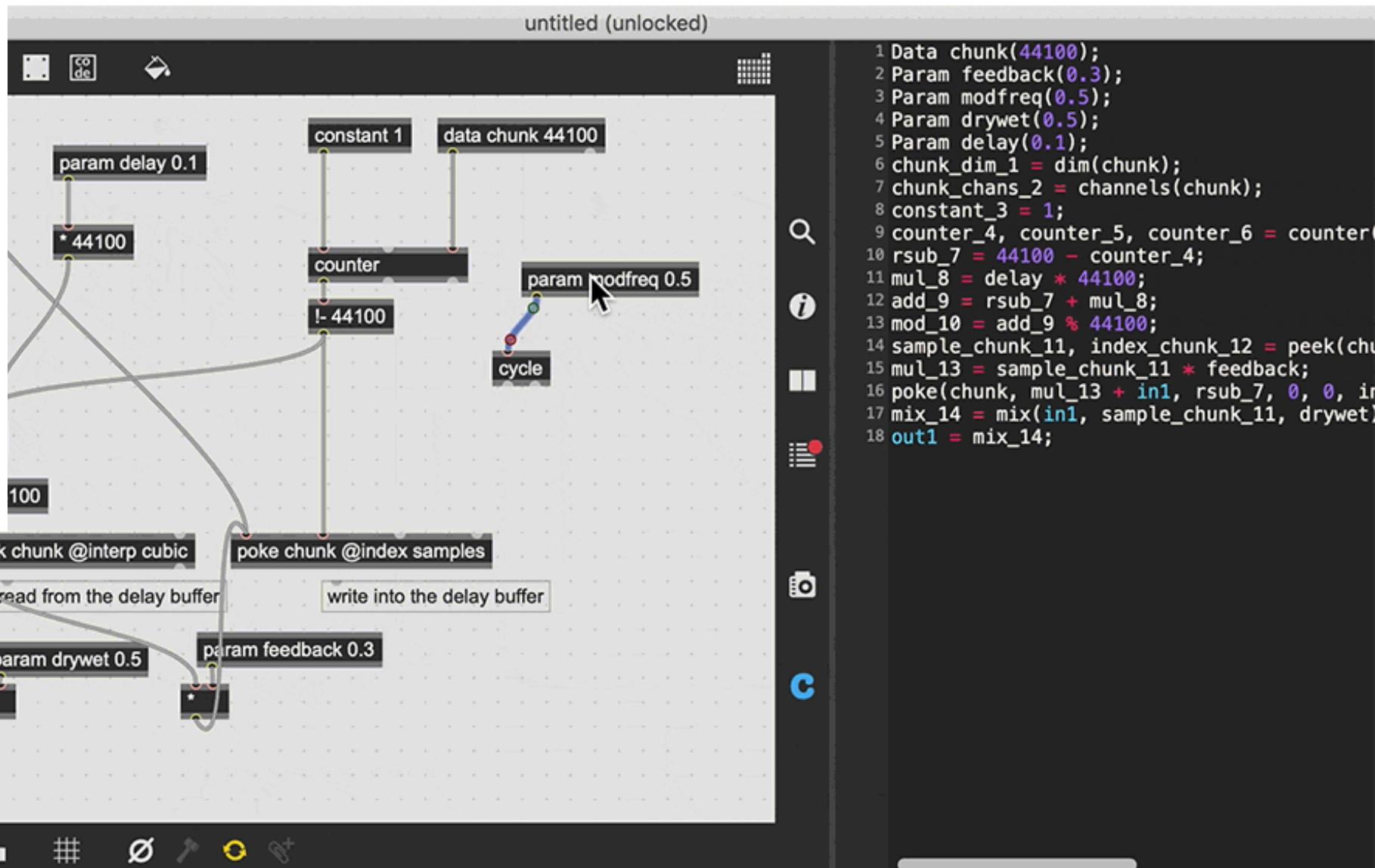


Image source: <https://cycling74.com/products/max>

# music performance

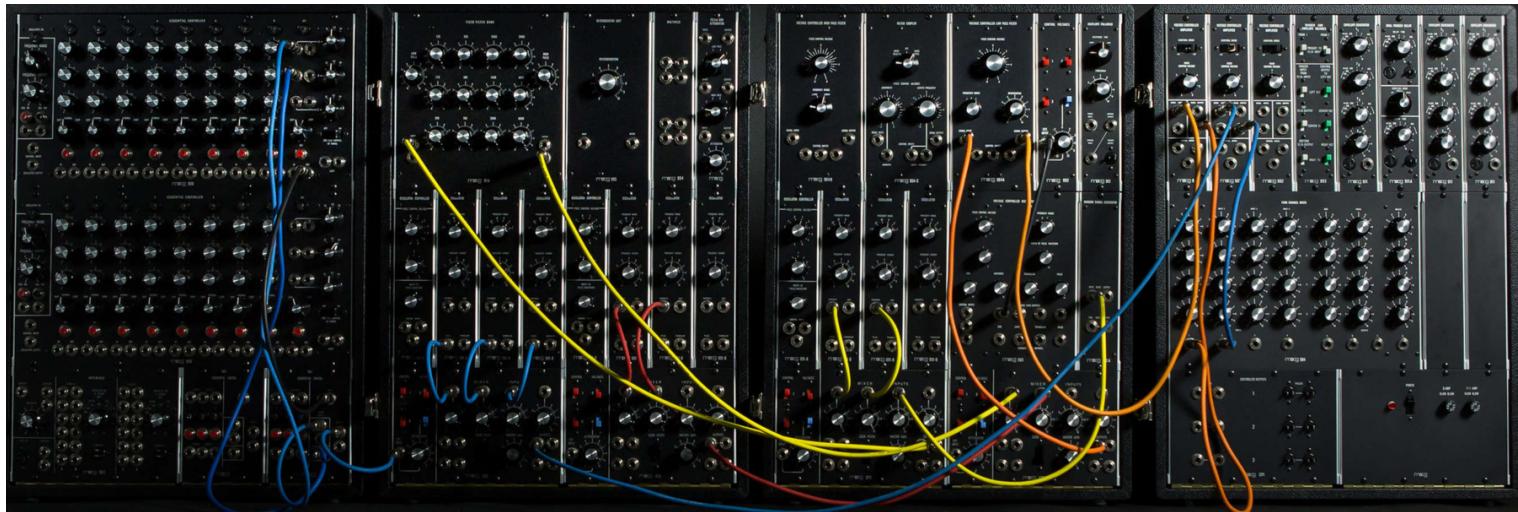


Image source: <https://www.moogmusic.com>



"Home Recording Studio Setup"  
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Image source: <https://www.nordkeyboards.com/>

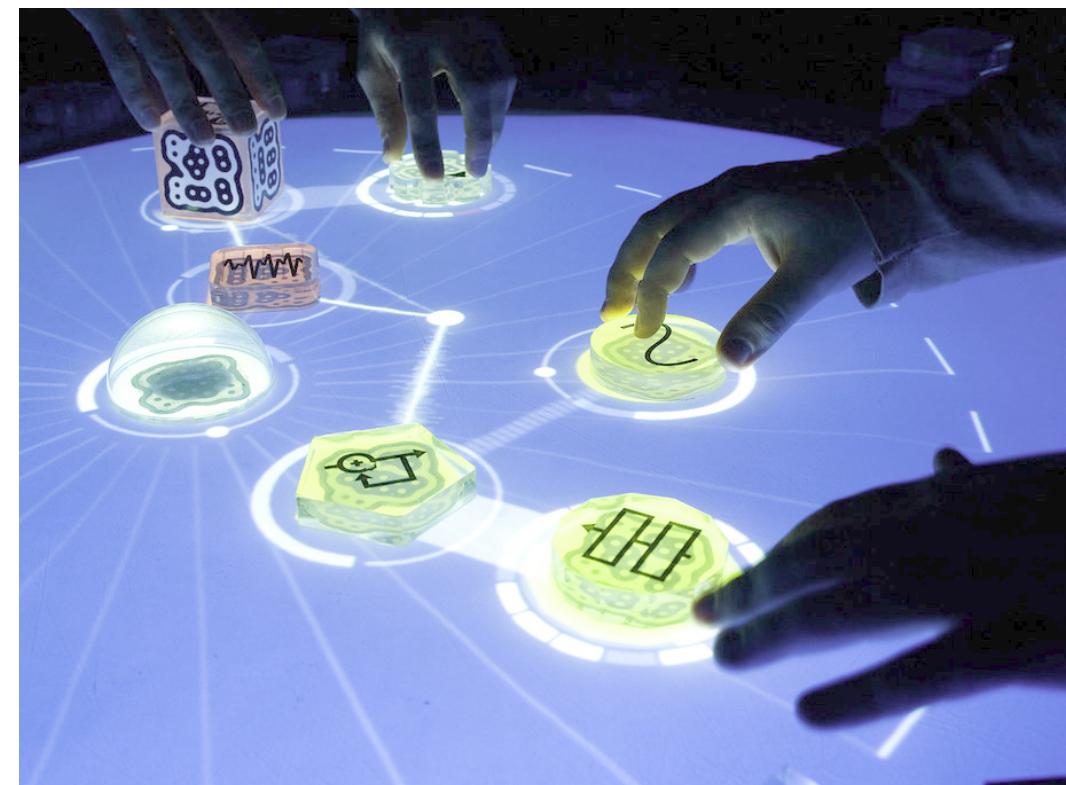


Image source:  
<https://reactable.com/>

# instruments



Video source: <https://youtu.be/8n-bEy9ISpM?t=5>

# instruments



Video source: <https://youtu.be/NnU0ATg24dU?t=13>

# instruments

**What are the  
similarities and differences  
between the two instruments?**

# interaction design (IxD)



Video source: <https://youtu.be/8n-bEy9ISpM>

Video source: <https://youtu.be/NnU0ATg24dU?t=13>

# interaction design (IxD)



Video source: <https://youtu.be/s8OT7EFKE78>

# interaction design (IxD)



Video source: <https://youtu.be/tTYUbqV-2Oc>

# interaction design (IxD)



Video source: <https://youtu.be/gYu4Za-1E48>

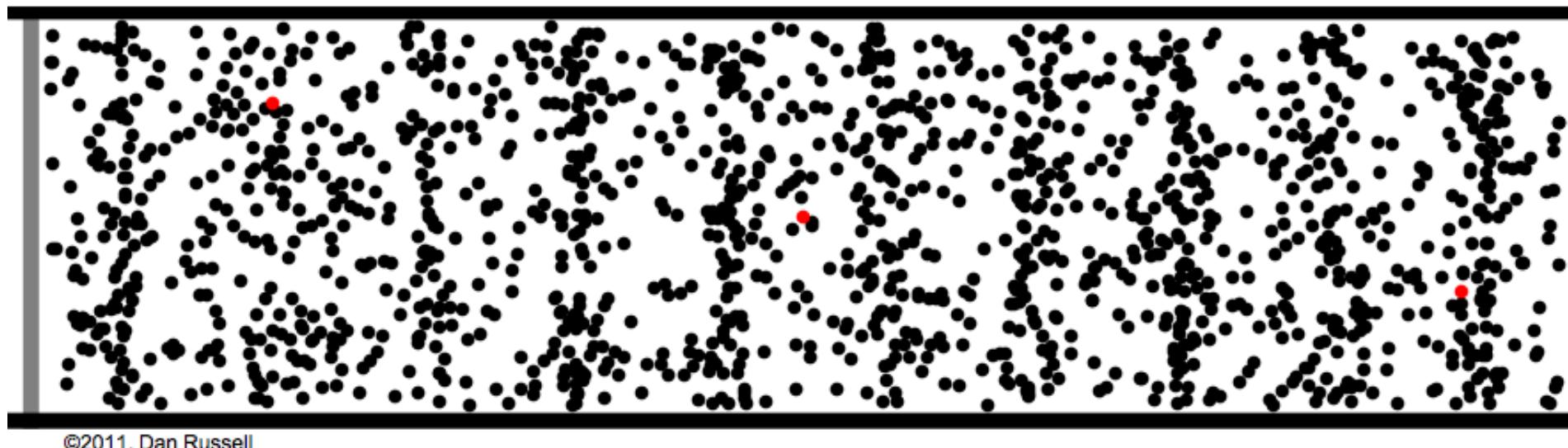
Part of the HaroCI project  
Di Donato (2017)

# acousmonium

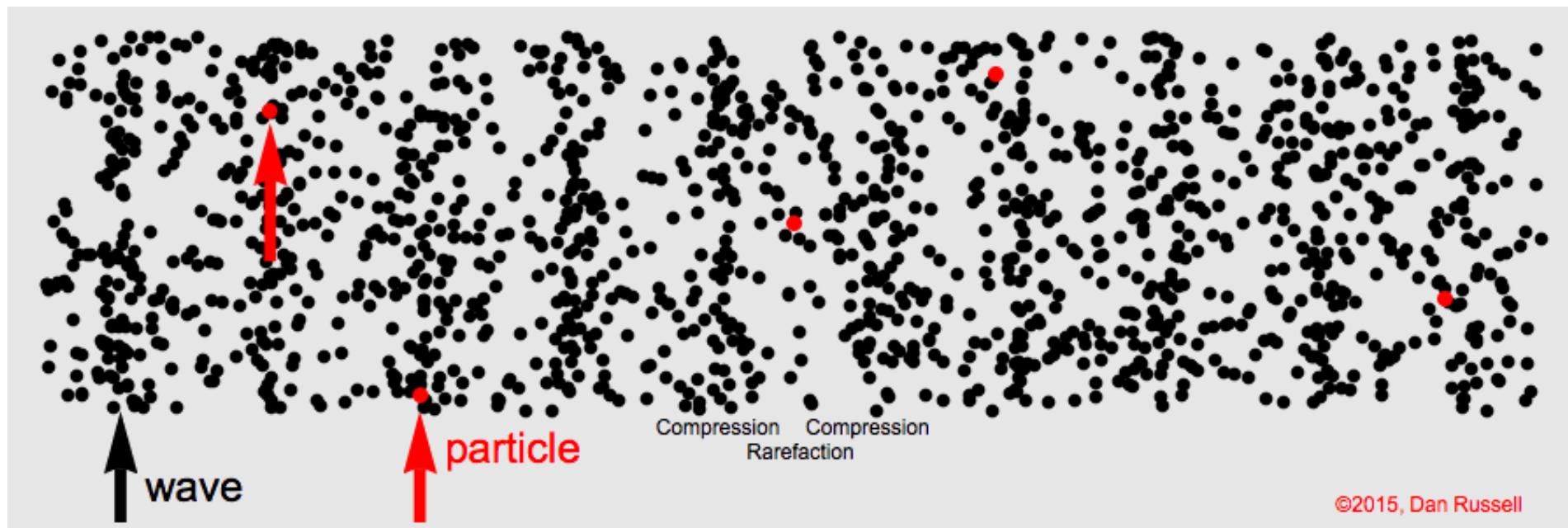


Images source: <https://www.acousmonium.info>

# what is a sound wave?



©2011, Dan Russell



Images source: <https://www.acs.psu.edu/drussell/Demos/waves/wavemotion.html>

# How behave sound waves?

Applet source: <https://www.falstad.com/ripple/>

← Please, click on the link  
to view the ripple applet

# sound art installations



Janet Cardiff (2001) The Forty Part Motet, Fonadation d'entreprise Hermès, Tokyo, 2009. Photo by Atsushi Nakamichi / Nacása & Partners Inc.  
Courtesy of the Fondation d'entreprise Hermès, 2009. Image source: <https://cardiffmiller.com/installations/the-forty-part-motet/>

# sound art installations



Curtin Rivera and Di Donato (2021) Within Us, Interactive Season, LCB Depot, Leicester, United Kingdom

<https://www.balandinodidonato.com/soundart/installations/withinus/>



Di Donato and Curtin Rivera (2019) Inner, Biennale ArteScienza, Rome, Italy  
<https://www.balandinodidonato.com/soundart/installations/inner/>

# societal challenges

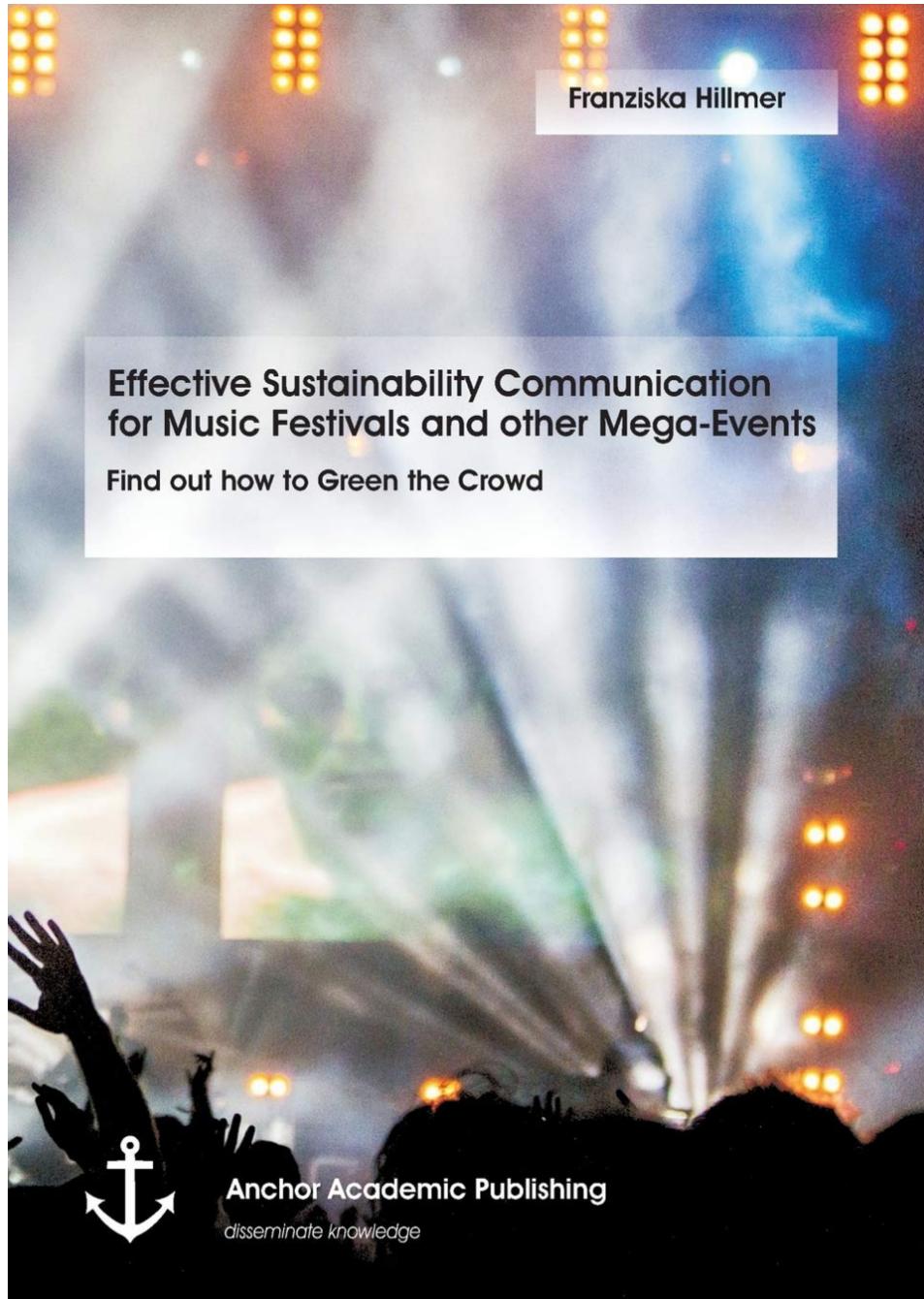


Image source: <https://www.routledge.com/Current-Directions-in-Ecomusicology-Music-Culture-Nature/Allen-Dawe/p/book/978138062498>

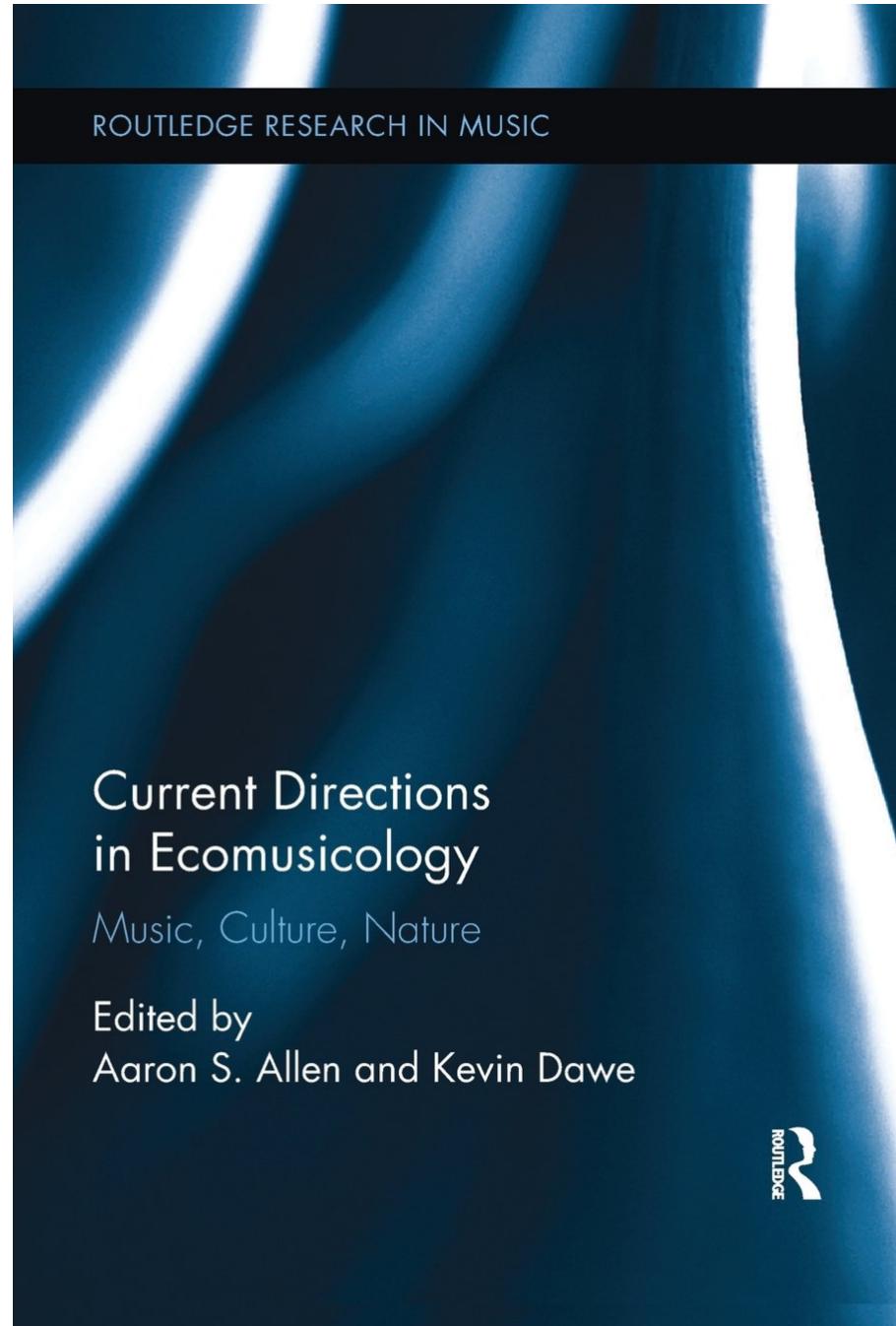


Image source: <https://www.routledge.com/Current-Directions-in-Ecomusicology-Music-Culture-Nature/Allen-Dawe/p/book/978138062498>

# accessibility & inclusivity



Image source: <https://mct-master.github.io/applied-project/2020/05/02/MotionComposer.html>



Logo and image source: <http://motioncomposer.de/>

# accessibility & inclusivity



Video source: [https://youtu.be/4aDj7Ma\\_HkE](https://youtu.be/4aDj7Ma_HkE)

# aural diversity

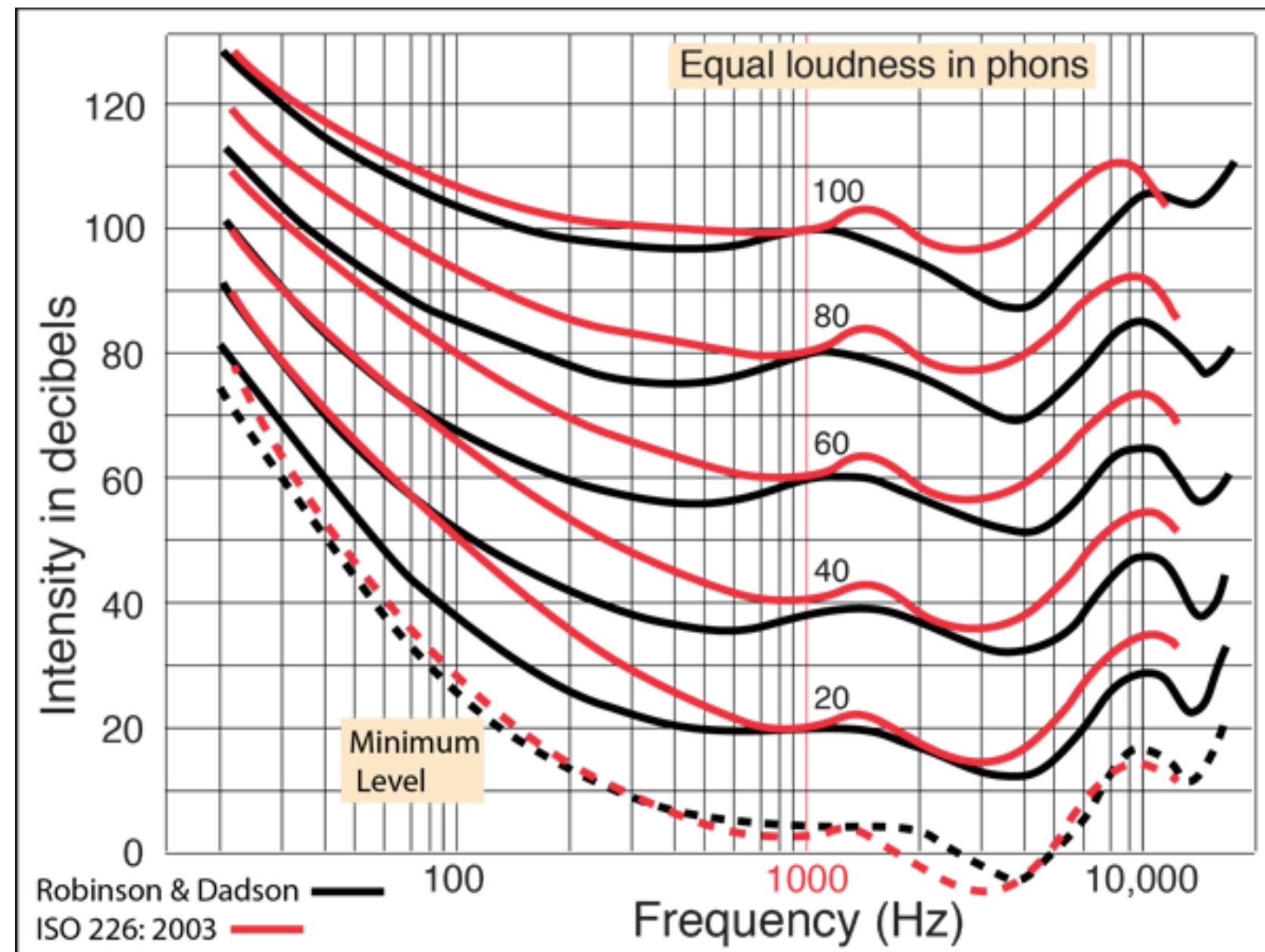


Image source: <http://hyperphysics.phy-astr.gsu.edu/hbase/Sound/eqloud.html#c1>

# aural diversity

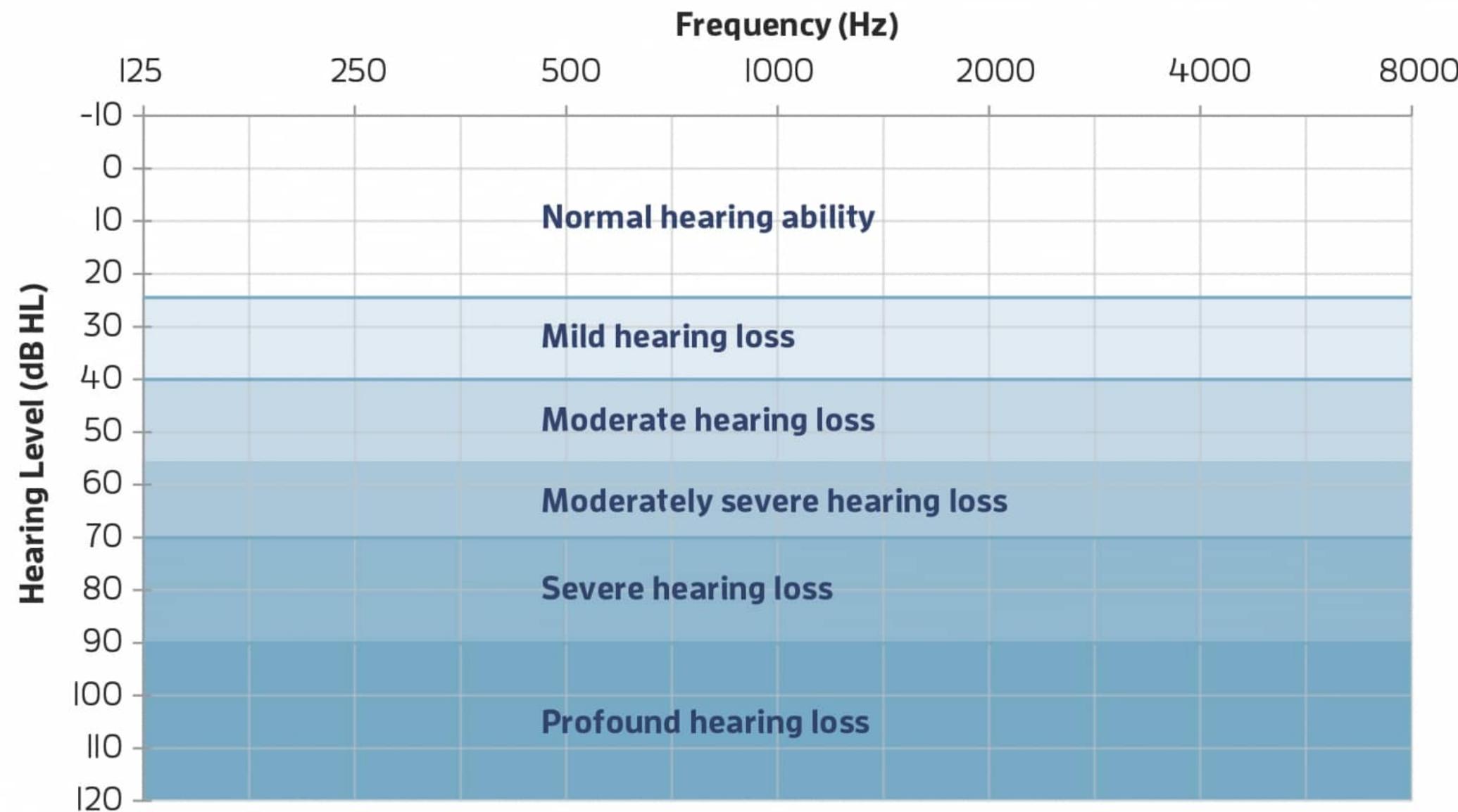
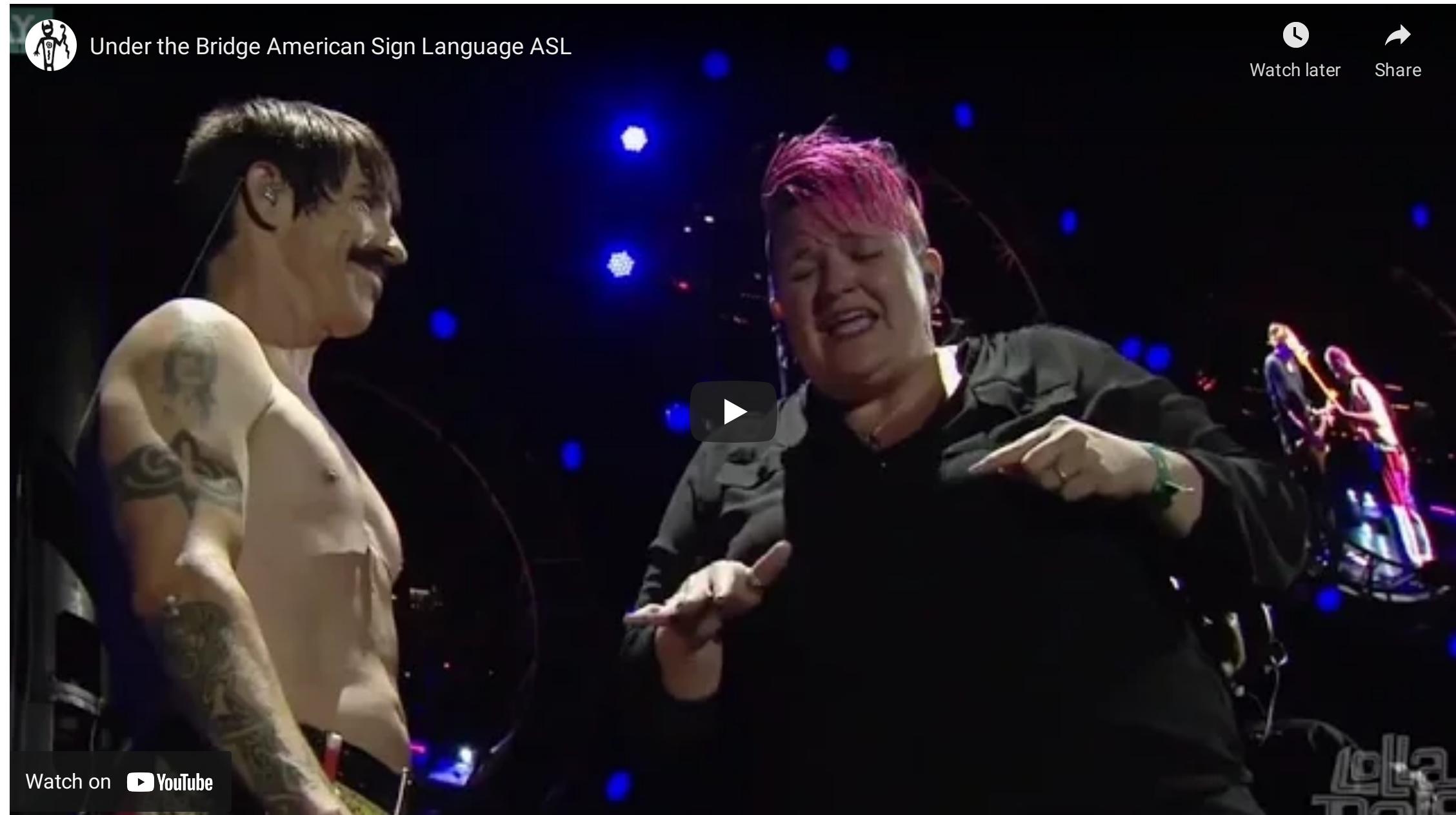


Image source: <https://www.healthyhearing.com/report/41775-Degrees-of-hearing-loss>

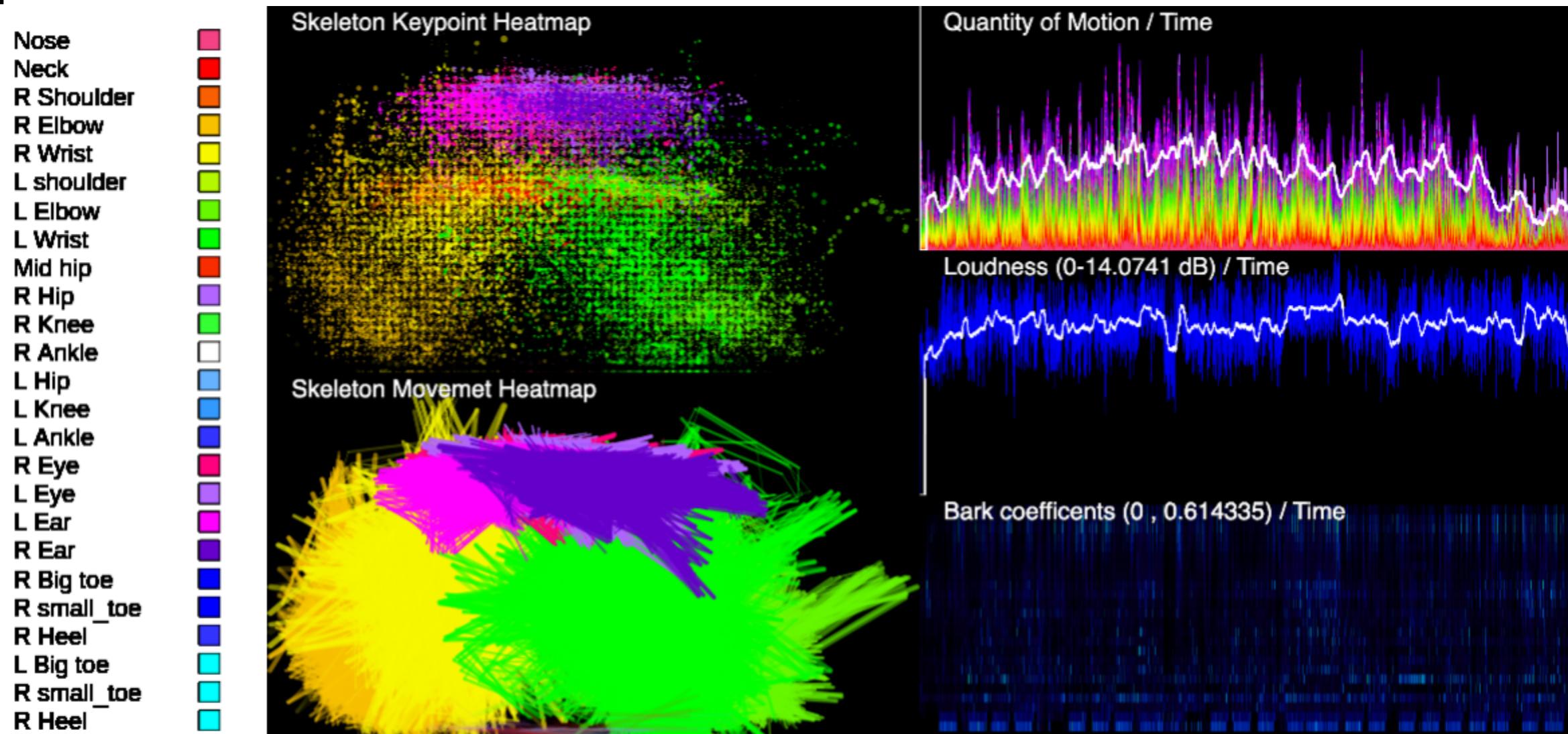
# aural diversity



Video source: <https://youtu.be/MGRWeKeh9NE?t=150>

# aural diversity

Example of motion and audio features data of ASL translated music.

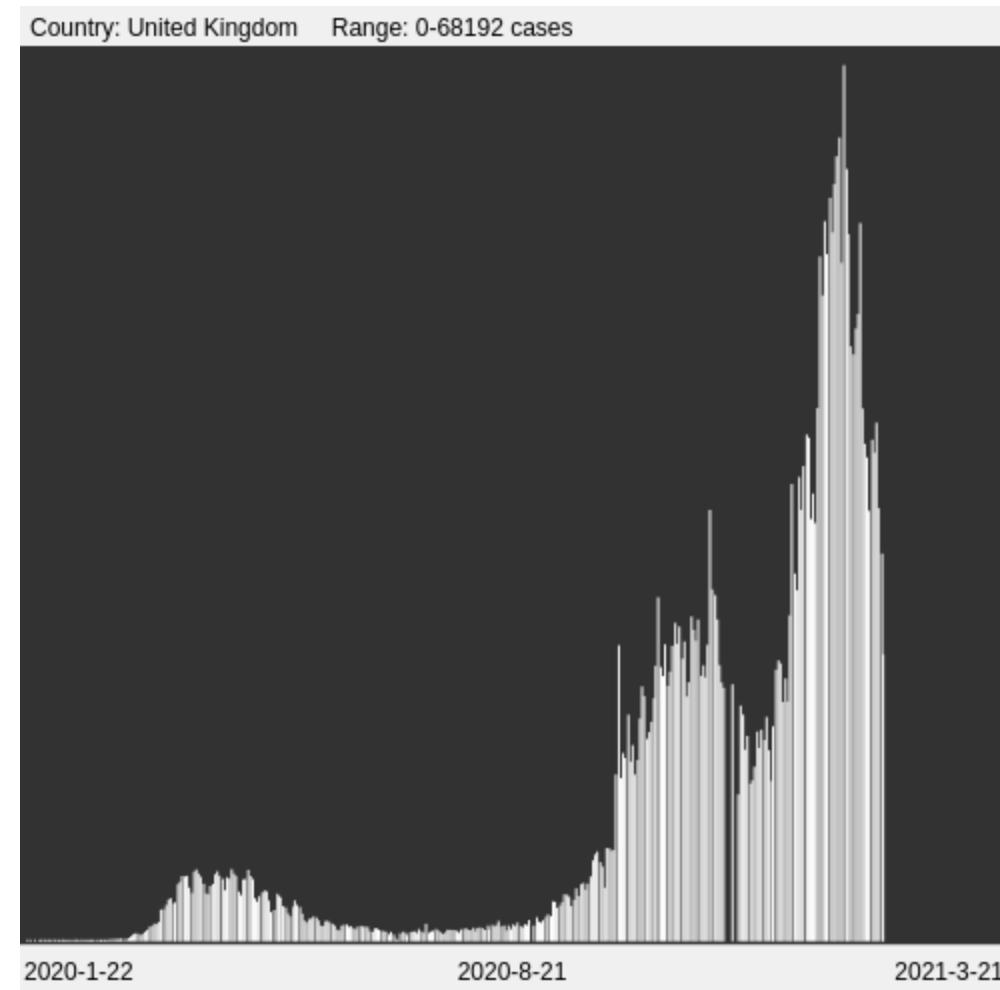


Part of the HSI project. Di Donato (2021)

# sonification

Sonification of Covid-19 daily cases from 22/01/2020 to today.

Country:  Submit Audio:



Di Donato (2021)

# communication



Image source: <https://avt.co.za/the-different-types-of-video-conferencing>

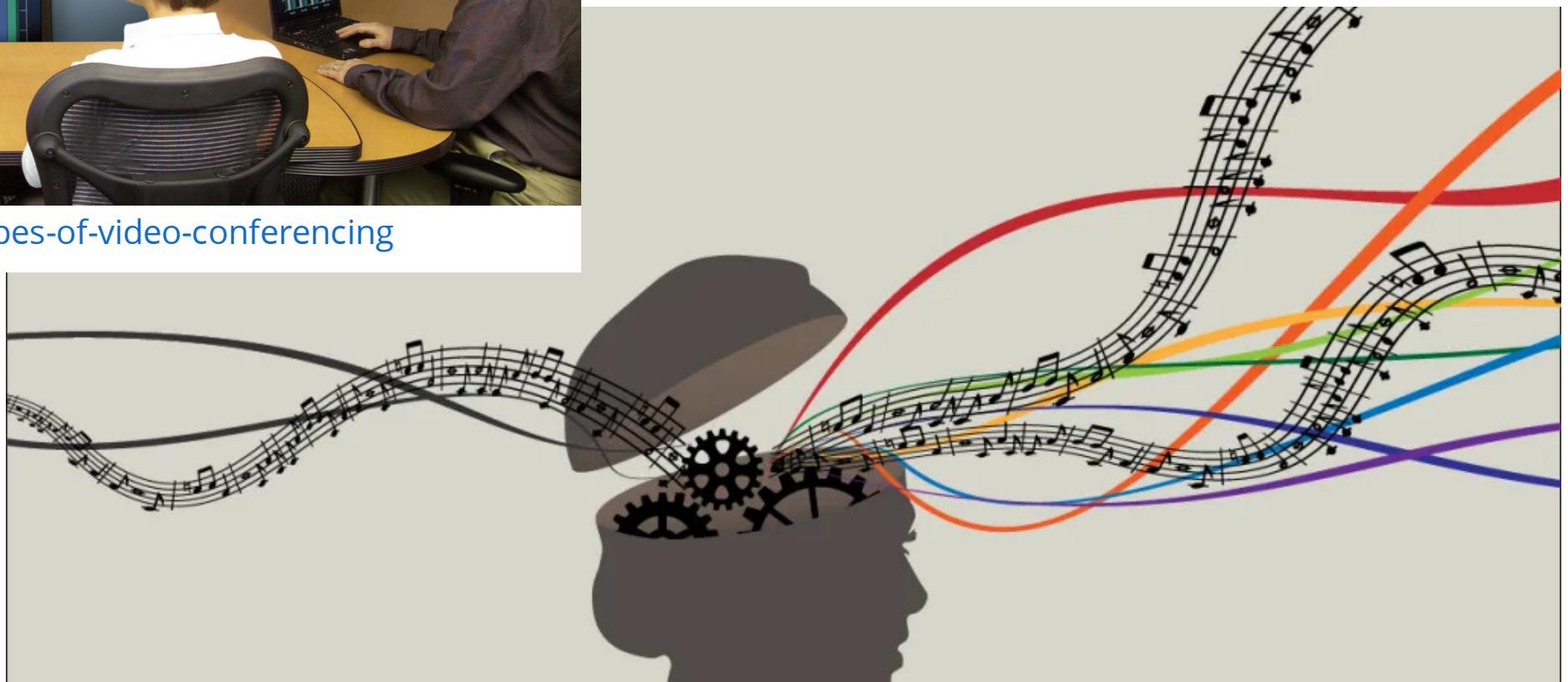


Image source: <https://knowingneurons.com/2019/02/28/music-for-the-mind-how-music-nurtures-cognitive-development/>

# communication



Video source: <https://youtu.be/gQEyezu7G20>

# so ... , music technology "is"...

- Music recording
- Music production
- Music composition
- Music performance
- Instruments (playing/building)
- Interaction design
- Sound installations
- Acoustic,
- Psychoacoustic
- Accessibility
- Sonification
- Communication
- ...
- ...



NTNU | Norwegian University of  
Science and Technology

# Takk for at du lyttet!

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