

Progressive programming: Haptic technology.

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Workshop Overview

- **Discuss accessibility for people who are d/Deaf, disabled or neurodiverse to music festivals**
- **Introduce haptic ICT**
- **Consider the LAAA Projects**
- **Share on-going research AND hopefully inspire you to consider programming haptic technologies ...**

Disability in the UK

“An individual can be classified as disabled if they have a physical or mental impairment that has a ‘substantial’ and ‘long-term’ negative effect on [their] ability to do normal daily activities.” (Equality Act, 2010)

In 2020/21, **24 percent of the UK population** (16 million people) had a “physical or mental health condition or illness that has lasted or is expected to last 12 months or more.”

(House of Commons Library 2023:1)

“More than a quarter of UK residents will be aged 65 years or over within the next 50 years.”

(Office for National Statistics, 2018)

Some music context...

Music festivals can be conceived of as “**social field configuring events**” ...capable of advancing the global accessibility movement.

(Duignan 2023:3)

The music industry is exclusive, it **discriminates** against pretty much all the protected characteristics of the Equality Act **and** poverty

“73% of disabled respondents felt they had to compromise their health or wellbeing to do their job (vs 52%)”

UK Music Diversity report (2024)

Accessibility refers to “**measures put in place to address participation by those with impairments**”

Finkel, Sharp & Sweeney (2019:2)

Workshop Questions

In your group please:

- **Work together to compile a list of accessibility measures you can implement for audience members at festivals**
- **Share any experience you have of using accessible digital technologies for audience members at festivals**

Accessible digital futures

Existing ICT augmentations can increase access

Hearing loops which deliver a wireless signal for hearing aids
(Hearing Link Services, 2023)

Time synchronised text in the form of **closed captioning**
(Mahoney 2023)

Sign language interpretation on a big video screen

and...Haptic technologies?

Haptic technologies?

Turn sounds into felt vibrations

In your group please:

- Consider how haptics might be deployed at festivals
- Share any experience you have of using haptic technologies at festivals

The sense of touch

- Touch is one of the **“big five”** senses (Sensory Trust 2020:3)
- Identified by Robertson et al (2015:580) as a likely element of future audience experiences at music festivals.
- **“Deep-seated correlations”** between the senses of hearing and touch (Jack et al 2015)
- Haptic ICT deploys tactile sensations to **“stimulate the sense of touch in a user experience”** (Mass Challenge 2021)
- Dance floors, benches, gloves, sneakers ... **Vests**

Initial Work: BEAT BLOCKS & DEAF RAVE

- Live Audience Accessibility & Augmentation ('LAAA') Project
- 5 Live public performances
- 2 DEAF RAVE DJ Workshops
- BEAT BLOCKS Floor installed
- 255 attendees
- 17 businesses + 2 schools support
- 1 Royal Visit



IMAGE: LAAA Royal visit



IMAGE: LAAA 80 Raves Poster

LAAA Project Images



Image: Attendees at LAAA Project using BEAT BLOCK haptic floor CREDIT Matt Jessop



IMAGE: Attendees at LAAA Project DEAF RAVE DJ Workshops CREDIT: Matt Jessop

Live Audience Accessibility & Augmentation Festivals 2 Project



IMAGE: Audience at Deaf Rave Festival 2023
– credit Adrian Bossey



IMAGE: Attendees at Boomtown Fair 2023
Deaf Rave takeover – credit Adrian Bossey

Live Audience Accessibility & Augmentation 2 Beat Blocks Project



IMAGE: National Star attendees on Beat Blocks floor at Cheltenham Jazz Festival – credit Sara Tink



IMAGE: Mother and child on haptic floor during DJ Countryman set at Tropical Pressure – credit Tropical Pressure

On-going research



IMAGE: Collecting questionnaire responses at Meltdown during Les Amazones d'Afrique – credit Kirk Davies



IMAGE: Haptic dancefloor at Tropical Pressure – credit Steve Tanner

Findings

- Writing-up journal article
- Overwhelmingly positive feedback to using the vests
- No significant difference in responses re age / gender
- Most noticeable variance from neurodivergent respondents
- More research required on different haptic formats



Image: Poster for Deaf Rave Festival – credit DEAF RAVE

Thank You

- **Do you have any questions?**
- Special thanks to Mandy Curtis, Adam Jones, Helen Worthington and all our lovely Falmouth University student research assistants



IMAGE: 'Backstage' at Boomtown Fair during Deaf Rave takeover – credit Adrian Bossey

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