

# Live Audience Accessibility & Augmentation – Exploring Accessible Haptic Futures for Music Festivals

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# Overview

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- Disability in the UK
- Music Context
- Haptic ICT
- LAAA Projects
- On-going research



IMAGE: Backstage Pass from Carter USM at Avalon, Boston. CREDIT: Adrian Bossey

# 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)

# Accessible digital futures

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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?

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- Haptic ICT deploys tactile sensations to ***“stimulate the sense of touch in a user experience”*** (Mass Challenge 2021)
- 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)
- Benches, gloves, sneakers, **dance floors, Vests**

# Live Audience Accessibility & Augmentation Projects

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**The LAAA project(s) explored music festival audience's perceptions of liveness, haptic dancefloors and haptic vests regarding accessibility, disability and neurodivergence**

# 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



# Live Audience Accessibility & Augmentation ('LAAA') Project



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 BEATBLOCKS 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



# Engaging Students

- Nineteen Student Research Assistant roles, supported field tests
- Ten student performers gained experience of performing to public audiences with haptics
- Over three hundred student audience members have experienced the haptic technologies (so far)



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

# Research-based learning

- ***“Designed around inquiry-based activities”*** (Griffiths 2004:722)
- Students collected data and facilitating research activities
- *“It definitely helped me plan my dissertation research”*
- *“this event has changed something (and) within me it’s changed my insight ...”*



IMAGE: Student research assistants at Cheltenham Jazz Festival – credit Adrian Bossey

# Research outputs

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- Three journal articles submitted for review
- Two journal articles being written-up
- Seven conference presentations delivered and two planned
- Developing new projects
- One student access consultancy start-up and possible future policy impacts ...



IMAGE: Baroness Thangam Debbonaire experiencing the Haptic dancefloor – credit Adrian Bossey

# Case Study

- Teaching case study published
- **Bossey, A** (2023) *Do you think ICT enhanced performances are really 'live' music*. In: Routledge International Case Studies in Event Management. Routledge  
<https://repository.falmouth.ac.uk/id/eprint/4954>
- Please feel free to check it out ...

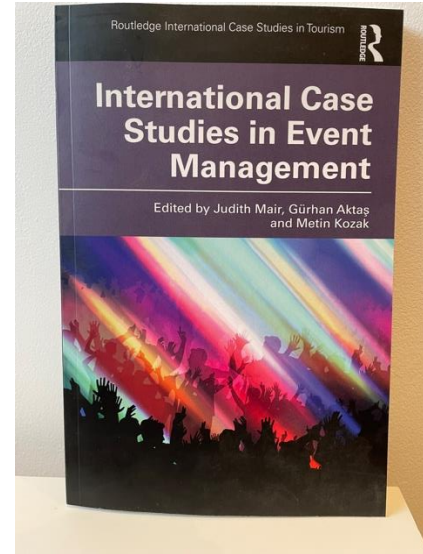


IMAGE: cover of  
International Case Studies in  
Event Management – credit  
Adrian Bossey

# On-going research

- Short Film
  - Liveness Scale
  - Policy paper
  - Music You Can Touch Project
  - Potential Exhibition
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- AND I'm starting to wonder about other senses ....



IMAGE: Liveness Scale icons – credit Matt Grocutt



# Thank You

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- Special thanks to Dr Mandy Curtis & Dr Adam Jones from the University of Brighton  
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**University of Brighton**



IMAGE: Haptic dancefloor at Tropical Pressure – credit Steve Tanner

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