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WHO MAKES MUSIC SOFTWARE ACCESSIBLE?

The Qualities of Convivial Tools and Their Relevance to Music Software Accessibility

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QUEEN'S UNIVERSITY BELFAST

SARC: CENTRE FOR INTERDISCIPLINARY RESEARCH IN SOUND AND MUSIC

DESIGN IS SPECULATION



- Usability studies are small and narrow in scope (Nielsen 2000; Schmettow 2012)
- We cannot fully anticipate how an artefact will be used until it is in use (Maceli & Atwood 2011)

How do blind and visually impaired sound creatives achieve access to DAWs, and what should design practice learn from this?

METHOD

1. **20 blind and visually impaired sound creatives** in 9 countries, recruited through online communities
2. **Two-hour remote sessions:** semi-structured interview, then contextual enquiry on a task each participant chose
3. **Reflexive thematic analysis** (Braun & Clarke 2021), led by three authors, one visually impaired, using screen-reader-accessible tools

THREE GAPS



"There is a lot of goodwill without the backup. Educators just don't know what's feasible"

COMMUNITIES OF PRACTICE

- Knowledge is co-constituted and kept current
- Peripheral participation counts (Lave & Wenger 1991)
- Ad hoc channels: mailing lists, WhatsApp voice notes
- Members mentor, advocate and build tools (OSARA)

> "The community in general has been very positive on my workflow, because there’ve been numerous things that have changed the way I work now because of a workaround or a little demo someone’s (showed) me"
>
> Rudy Willi

A DAW is often accessible only with the community's knowledge and labour.

Access is interdependent (Bennett et al. 2018) and access work largely invisible (Branham & Kane 2015). Sighted users never have to do this work.

ILLICH: TOOLS FOR CONVIVIALITY

Convivial tools (Priavolou & Niaros 2019) are:

1. Learnable through use
2. Used when and where **you** choose
3. Adaptable to **you**

...and rooted in community.



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CONVIVIAL ACCESSIBILITY DESIGN GUIDELINES

GUIDELINE 1

Build accessible ecosystems

Tutorials and manuals without visual cues

GUIDELINE 2

Embrace interdependent access

Recognise, credit and signpost community work

GUIDELINE 3

Design for designers

Open extension points, as with Reaper's SDK

Tools must be malleable in use, and communities supported to change them.

WCAG is necessary but not sufficient. "Nothing about us without us", where **us** is an interdependent community of practice.

THANK YOU!

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Slides and script
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part is injected, so the scripts live there; the slide app loads afterwards, as a deferred module. The first time presenter view opens in a browser, give the script more room: Slidev's second layout (script in a full-height left column), the column at ~55% of the screen, and text 1.4x larger. Runs once per browser and address; after that, whatever you set with the layout button, drag handle and A+/A- is kept. Also: browsers block the slide app's scripts on file:// pages, which would leave a blank screen; this says why and points to versions that do work. -->