

Opportunities to Support Communal Experiences of Deaf and Hard-of-hearing People in Live Popular Music Concerts

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Problem

Communal experience is one of the reasons people attend live music concerts.

Musical experience



Listening



Accessible stimuli



Synchronized visual artifacts



Synchronized vibrotactile vest

Communal experiences



Group dancing



Fan chanting



No tools to support communal experiences

Interview Study

Recruited five Deaf and Hard-of-hearing (D/HH) concertgoers from USA and Korea

RQ1: What are their **current practices & challenges** in communal experiences in live music concerts?

RQ2: What **technological support** they want for better communal experiences in live music concerts?

Results & Implications

(RQ1) Current practice:

Visually Recognizable Communal Activities

"When people shake their light sticks or do an audience wave, I can visually tell what's going on. Then I join the movements." [P2]



(RQ1) Challenges:

Recognizing Auditory Group Activities

"It's frustrating that I cannot take part in those communal experiences since I **cannot sense auditory context**." [P1]



(RQ2) Providing Contextual Information

"Since I had no idea which part of the songs that audiences were singing together, I had no choice but to be waving my light stick." [P2]



Google AR Glasses

- Real-time subtitles
- Sign language translation

(RQ2) Delivering Artists' Emotions in Music

"I once tried on a vibrating vest. It felt great to feel the rhythm. But I wish it could **convey the artists' emotions infused within songs**." [P4]



- Colors of visual stimuli
- Temperatures of the vibrotactile vest