UX RESEARCH PORTFOLIO

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ABOUT ME

ABIR SAHA

QUALITATIVE USER RESEARCHER

I am a qualitative user researcher specializing in inclusive and accessible digital experiences for people with diverse needs and abilities.

I am a PhD candidate in Technology & Social Behavior (dual degree in Computer Science & Communication) at Northwestern University.

RESEARCH METHODS

I choose research methods based on my research questions and goals as well as time, budget, and logistical constraints. Here are some of the methods I've used.

INTERVIEWS

ONLINE CONTENT ANALYSIS

CONTEXTUAL INQUIRY + OBSERVATIONS

THEMATIC ANALYSIS

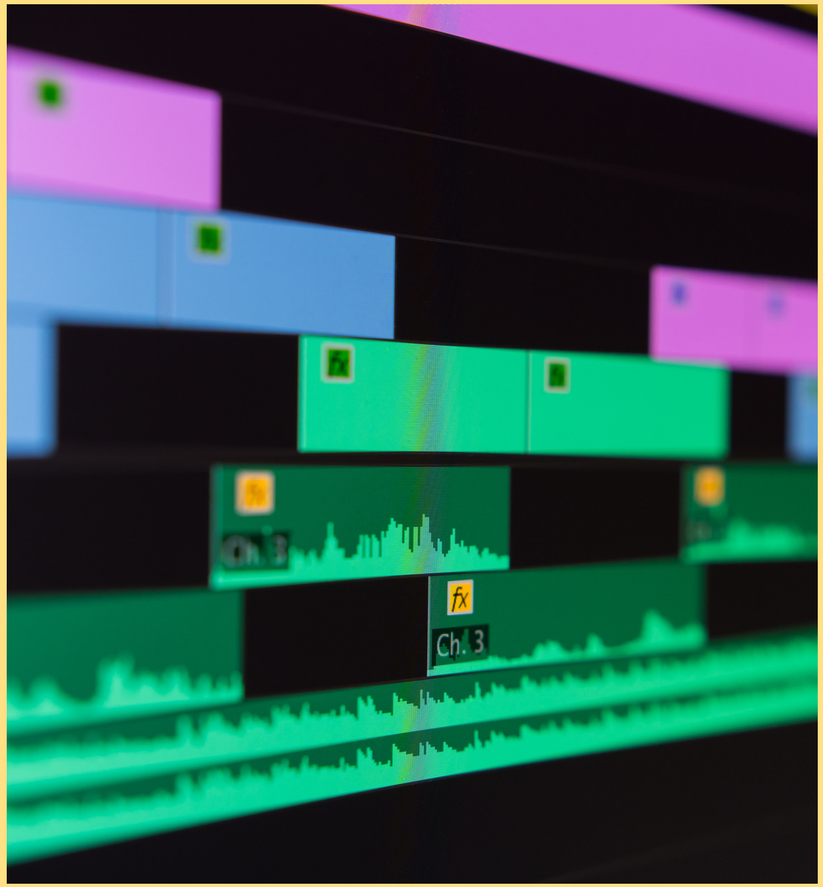
USABILITY TESTING

SURVEY DESIGN

CASE STUDY 1

COMPLETED APRIL 2020

How might we improve accessibility of audio production tools for blind and visually impaired users?



CASE STUDY 1

CONTEXT

Content creators widely use digital tools, like ProTools, for creating audio content such as music, podcasts, etc.

BUT...

Digital audio production tools are graphics-heavy and likely inaccessible to blind and visually impaired users who use assistive technologies (e.g., screen readers)

SO...

I conducted a qualitative research study to understand:

What challenges do blind users face while using digital audio production tools?

How might we design new accessible tools and services for audio content production?

STRUCTURING MY INVESTIGATION

This was a formative research focused on understanding the needs of a hard-to-reach niche population.

BROADENING RECRUITMENT

I decided to broaden my scope to conduct research with participants within and outside the USA.

DIVERSE RECRUITMENT STRATEGIES

Identifying and contacting potential participants through their podcasts/YouTube/Twitter, leveraging prior research contacts, snowball sampling, etc.

DATA COLLECTION

CONTEXTUAL INQUIRY

Who?

Blind audio professionals and hobbyists based in Chicago

How?

In-person contextual inquiry sessions with 4 participants at their regular workspace, each lasting ~1.5 hrs

REMOTE INTERVIEWS

Who?

Blind audio professionals and hobbyists based outside Chicago

How?

Semi-structured interviews with 14 participants over Zoom, each lasting ~1 hr

INTERVIEW DESIGN

I generated a semi-structured interview protocol of # questions, including:

What software tool do you use for your work with audio? (Probe: What are your thoughts on the accessibility of this software?)

Do you use any additional accessibility extensions or screen reader scripts? (Probe: why are they important to your work?)

Think back to when you were first learning audio production. What were the biggest challenges you faced as a screen reader user?

KEY INSIGHTS

NEED FOR SPEED

Even accessible features may not be usable if they are time-consuming to use through screen readers. For blind audio producers, speed of work = money & reputation!

LACK OF LEARNING MATERIALS

Scarcity of screen reader friendly learning materials (e.g., tutorials, guides) make the learning curve of audio production steeper for blind people.

COMMUNITY EFFORTS

Online communities of blind audio producers have taken it upon themselves to improve accessibility through community-developed accessibility extensions and tutorials.

CASE STUDY 1

DESIGN OPPORTUNITIES

Design accessible features that are not only screen reader friendly but can also speed up workflow of blind users.

Make learning materials for screen reader users easily accessible.

Incorporate the accessible extensions and tutorials created by blind audio producers - these are already designed to best suit blind users' needs!

CASE STUDY 1

IMPACT

I shared preliminary findings with developers of a industry-leading audio production software via remote meeting.

My findings **inspired the design of an automated instrument recognition tool** that can speed up the labeling of audio tracks in a multitrack project for blind audio producers.

This research study **received a Best Paper Nomination** at a premier academic conference on accessibility and assistive technology.

CASE STUDY 2

COMPLETED SEPTEMBER 2022

How might we enhance accessible tutorial creation and playback experiences among blind audio producers?

DETAILS OF THIS STUDY WILL BE ADDED SOON!

THANK YOU!

Do you have any questions? Let's Talk!

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