Title page: your name, name of project

Dr. Sean McGrath, “The User Experience of Music”

Background

First Class Hons BSc

PhD in HCI/UX

Musician, producer and software engineer.

Previously worked with: BBC, Omnifone, QMUL, Oxford, Abbey Road Studios, Nottingham MRL, Manchester Met, Brighton, Cambridge, Goldsmiths.

Research interest in the user experience (UX) of interactive music production, performance and interactive engagement.

Research papers relevant to the core concept:

Relevant Publications

Understanding social media and sound (DMRN+10 2015)

The Dbox (ACM DIS 2016)

GeoTracks (ACM Multimedia 2016)

The Rough Mile (ACM DIS 2017 & ACM AM 2017)

Making Music Together (ACM AM 2016)

The Grime Scene (ACM AM 2016)

An Ethnographic Exploration of Studio Production Practice (AES 2016)

The User Experience of Mobile Music Making (CIHB 2017)

Aim:

UX Scenario

*Q. How can we **improve** the music listening experience?*

Research: interviewed people

How can we improve the music listening experience?

Emergent themes (120 suggestions) from initial workshop. Thematic analysis enables us to 'fold' data into related categories:

Increased utility
Adaptability
Automatability
Usability
Accessibility
Reliability
Ubiquity

User-Centered Design

- Workshop highlights some key themes and anecdotal evidence of user requirements.
- We now need to refine our research agenda.
- To propose a design/hypothesis we first need to understand **who** we are designing for.
- As such, previous work in interaction design, implications for design and listening studies can be used to inform our work (literature.)
- Iterations of design/development guided through real world usage scenarios.

Choosing the target market segment:

Scenario:

Multitrack Mobile Music Mixing for the Masses

Three user groups have been identified

- **Passive listeners** – no interest in engaging with music other than listening "passively." Possibly non-technical. Possibly non-technological.
- **Non-passive listeners** – desire to interact with music. Either technical (musically) or technological but not both.
- **Engineers** – Existing workflow of engaging with production tools and technologies. Both technical and technological.

Who to design for?

...chose non-passive listeners:

Design Rationale:

Three user groups have been identified

Passive listeners – Building a system for people who have no desire to use it might not be the best idea.

Non-passive listeners – desire to interact with music but **limited** technical/technological **skillset** to do so.

Engineers – Have optimised, very complex/complicated systems with well defined workflows. Perhaps best left for an expert (or an infinite number of monkeys with a copy of visual basic.)

Considerations

Understanding ***interactions*** involves knowing:

- What they are **composed** of.
  - Pausing, skipping, volume are all 'selection' oriented interactions.
- What they are **motivated** by.
  - To listen or not to listen.
- How existing interactions could be **improved**.
  - **To engage with and listen interactively. <-** defines our research agenda

Implications for design extend beyond interactivity. What else must we consider?

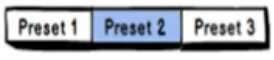
Conclusion so far: do more research:

Music Interaction – Workshop 2 Discussion

Interaction is mostly with familiar components (play, pause, stop, rewind, fast forward, increase volume, skip.)

Some users may engage with "safe" digital signal processing tools such as pre-defined equalisers (EQ) e.g. rock, bass, vocal.

Interaction beyond the familiar is tentative and "risky." Users tend to focus on template EQ in order to "not break" the composition.



Sampling - 'Non-passive'

How do we identify our target group?

How do we build a 'one size fits all' toolkit?

What type of data do we need to collect?

Sampling - 'Non-passive listeners'

How do we identify our target group?

All shapes and sizes. Design must be inclusive and not exclusive.

Must consider how existing systems are used social, engaging, interactive, useful, accessible, reliable.) **Scenario based**.

How do we build a 'one size fits all' toolkit?

Focus on individual feature that is **familiar** (volume) and create ways to **explore** using this is a control.

What type of data do we need to collect?

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The subtle interactions and motivations for interactions

- Rich **accounts of use**
- Smaller sample size, more engaging, reflective, user-driven.
- Observations of use, 'thinking aloud', social scenarios, interviews could help us to better understand the research questions of **'how'** and **'why.'**

- Qualitative data most important/valuable in this context.

Group	Setting	Type	Size	Listening
A	Home	Family	7	Personal and social
B	Home	Parent	1	Personal
C	Home	Flat share	3	Personal, selective social
D	Driving	Multi drop delivery	4	Personal and social
E	Travel	Students	6	Personal, selective social
F	Office	Admin staff	5	Personal

Individual instrument controls (tracks)

- Simple, pre mixed, pre mastered composition split across multiple tracks.
- Visualised with independent volume controls (horizontal) and a master volume control (vertical.)
- Play and stop buttons on master control only.

Emergent themes

Utility and interaction

More control is good. Limiting the amount of control is also good. Minimising clutter by not having 'mute,' 'solo,' etc.

Control and access

Perceived value in access of new genres by minimising "unpleasant sound."

Pervasive audio

Afford opportunities for interaction and further minimisation for better "focus" and "clarity."

Social implications

Enables people to "create," "discover" and "explore."

Breaking the chains and promoting chaos (AKA V2.0)

Design challenge of encouraging users to interact with the tool **beyond** levels of comfortable, **passive** control.

Taking a pre-optimised mix and **randomising** the tracks

- Promotes problems like four identical compositions (ouch!)
- Offers constraints and challenges to encourage creative solutions.
- Promotes a sense of ownership and control (“my mix.”)
- Breaks conventional interactions.
- Mimics real world. “Some pop music is terrible!” How can we fix it?

Value

✔ Sense of achievement when “fixing” the composition.

Some people embraced the chaos and even enjoyed it!

Unintended consequence of tracks falling out of synchronisation and users trying to “catch up.”

Limited control enables possibilities, but there is room for further utility in this scenario, albeit with a new set of design challenges from both a UI and UX perspective.