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Report 2: On Sound Technologies

Introduction

Communication Technology has been a foundational in developing our information age.

Everything is currently on demand. Different modalities have been reinvented in shaping how we consume media and interact with each other (like the screen, AR, VR, XR), however there has always been a constant - sound. We had a point where we couldn't capture sound until the creation of phonographs and from there the evolution of sound technology seems to have reached the end of its cycle. As a designer that focuses on creating the best experience possible using digital interfaces as their modality, I have taken an interest in the role that sound plays in the microinteraction level of mobile devices.

Device: The mobile phone

Before the mobile phone, mobile devices' like "pagers" only relay information to their prospective users was audio. Then after many, many advancements the devices were upgraded by the introduction of haptics and visual systems like flash indicators and screens. The mobile phone - like the pager before it - has always had a relationship with sound. The indication of a call or text message was always accompanied by a ringtone. The type of ring tone was also very personalized and reflected the personality of the recipient. I know when I hear someone else's ringtone, I am entertained for a moment - entertained because some ringtones are comical, or give context for conversation, whether the call is sent from a lover, acquaintance or a coworker. I am then struck with a bit of relief when I realize that It's not my ringtone, and that I'm not summoned or asked to communicate.

The design of audio within mobile devices (click link for Apple Human Interface Guidelines):

Apple has curated a document that charts the expectations humans have when it comes to interacting with mobile devices. This section of their design system is special because it focuses on an aspect of experience design that becomes often overlooked - the development of the audio system in relation with the visual system.

[Google also has a foundational system](#) that is dedicated to the use of sound within the user interface in relation to the look, feel and aesthetic of a brand.

The systems differ in their core tenants. Apple uses sound as a guide of information and tries to limit interruptions of the flow of sound in context with the goals of the user. An example of this is when your music or podcast is playing, the audio will be turned down by a few decibels to “make room” for the notification audio. So a user is able to continue their audio consumption while also receiving the important contextual information that they have a notification that requires an action of some sort. While google tends to use audio as a brand tool rather than an experiential differentiator. Google introduces “skeuomorphic” and “abstract” sounds to distinguish use cases of sounds to facilitate information and confirmation.

Audio also plays a crucial role in the accessibility of mobile phones. Screen readers that help visually impaired users rely on working speakers to transmit content of the UI to users who otherwise would have had trouble navigating a UI.

How has this changed our cultural understanding of Sound?

Because information is so closely tied to our devices, the evolution of how sound is used to facilitate information and feedback is paramount to the success of the medium. I can't imagine using a phone effectively without the use of sound. While sound had always been a way to transmit information, it is now finally being used as a UX brand differentiator, which is very huge in the tech world.