SOUNDSTORM

COLLABORATIVE IDEATION FOR SOUND-DRIVEN DESIGN

SOUND-DRIVEN DESIGN

Sound-driven design, is a design approach to product sounds. It merges human-centered design, collaborative design, and sound design. This approach takes a shift in perspective, designing for the listening experience rather than focusing solely on the sound itself. For product sounds, the listening experience can be viewed through four lenses. These are the modes of listening. A significant challenge in sound-driven design is the semantic gap, the difference between describing and embodying sound. The temporal and context-dependent nature of sound makes typical design approaches more difficult. Bridging this gap is essential, and sound designers, along with tools like sonic lexicons and accessible sound concept tools, play a vital role. This project explores collaborative ideation for sound-driven design.

COLLABORATIVE CARD GAME

Soundstorm is a 3-minute card game, in which players work together to score points. The game starts by drawing one product card, which is the subject of that game. These are typical household items, that have a mix of consequential and intentional sounds. Players then take turns drawing a Sound card, which can be of five categories. The player must complete the task on the card, by expressing a sonic idea that matches the product of that round. By doing this, players practice their sound skills, but it also engages their creative cognition. By forcing the player to complete their turn, they engage their Persistence cognition, and by matching the prompt to the product they engage their Flexible cognition.

FOUR STAKEHOLDERS FRAMEWORK

The core tenet of sound-driven design is to include all parties relevant to the sound throughout the design process. These parties are separated into four stakeholder categories. These are Sound Designers, Acoustic Engineers, Design Researchers, and Expert Users. This is a summary of how these stakeholders relate to sound and design for sound and listening.

SOUND DESIGNER

Overall, the working methodology of a sound designer bears many similarities to interaction design. The difference lay in the solitary nature of the sound embodiment, and the linear creative process employed. As far as skillsets go, sound designers are very good at shaping sounds to get desired experiences. Part of the challenges for sound-driven design is incorporating them earlier in the process.

DESIGN RESEARCHER

The design research is experienced in doing design, and in guiding other stakeholders through this design process as well. They are well-equipped to integrate the various needs of stakeholders during a design, focussing extra on user needs. The tools design researchers use are visual. They are also inexperienced in the sound domain. This makes them currently ill-equipped to manage the complexity of sound-driven design.

ACOUSTIC ENGINEER

The acoustic engineer is focused on eliminating or reducing sound. They do this in a systematic approach, using the source path receiver framework. The acoustic engineer is trained as a mechanical engineer. They are solution-oriented, focussing on solving the task at hand.

EXPERT USER

Expert Users are well attuned to the context for which is to be designed. This is always relevant when designing, but especially important for sound. They have no standardized method of designing, and they need to be guided and involved in the design process.

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