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Authors:	Klaus Genuit, Andre Fiebig
Title:	Sound Design of Electric Vehicles - Challenges and Risks
Short title:	Sound Design of EV

Abstract:

Sound quality depends on cognitively processed features referenced to an assigned set of expectations. It describes the perception of suitability and desirability of a sound attached to a certain product. However, since experiences of electric vehicle technology and established expectations rarely exist, several questions remain unanswered. What are the references customers use to evaluate sound quality of electric vehicles? How to meet customers' needs without established targets? Is it possible to simply set sound quality standards, where customers will increasingly adapt to?

Experiments and interviews are needed to answer reliably these questions. It is evident that successful sound design of electric vehicles depends on several aspects. Besides customer preferences, technology image, strategies of car manufacturers, economic and ecological factors, the social discussion of electric vehicle technology will contribute to the acceptance or rejection of sound design concepts. In fact, expectations are socially shaped and the impact of public discourse on expectations must be considered.

The paper will present results gained in test drives, where subjects drove electric vehicles and commented different sound concepts. Moreover, the experimental results will be discussed from a broader contextual perspective.

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