

# The impact of Sensory Evaluation of Sound - past, present and future.

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Whilst the roots of sensory evaluation and allied fields are strongly associated with the food, beverage and perfume industries, the application of the techniques in other domains has been gaining momentum over recent years. One area that has been gaining traction with such methods is the domain of Sound and Sound reproduction (e.g. Audio).

In this paper, I will present a short history of perceptual evaluation of sound, as a means to illustrate the recent progress in the various fields of audio, (tele)communications and other areas. Based upon this review, a brief analysis will be performed of the impact and different perceptual evaluation techniques such as preference metrics, attribute techniques, preference mapping, etc. in the various fields.

It will become evident that whilst strong progress has been made in the application, adaptation and development of sensory evaluation and associated techniques, there is much progress still to be made. By reviewing the development over the last 10-15 years in various subdomains of audio, some interesting patterns emerge regarding the successful, and unsuccessful, application and adoption of different techniques, which provide some enlightenment. For example, the domain of audio codec evaluation standardized Mean Opinion Score (MOS) evaluation techniques more than a decade ago and continue to be satisfied with the approach. By contrast the field of speech codec assessment is progressing from MOS techniques and making inroads into the application and standardization of attribute based techniques. By strong contrast other domains such as audiology and sonic branding are being progressive in seeking more novel approaches for to the analysis of the perceived impression of fruits of their industries.

Based upon this review, some observations are made regarding the impact of different kinds of sensory evaluation approaches, leading to some speculation regarding potential future directions.

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