

**Subject:** TC PSEAS Meeting

**Date:** June 2, 2021, 9:00 AM -10:06 AM (PST)

**Attendees:**

Sean Olive, HARMAN

Rafael Kassier, HARMAN

Todd Welti, HARMAN

Darlene Williamson, HARMAN

Steve Hutt, Consultant, T

Dave Prince

Jan Berg, Luleå University

**Minutes:** No one attending the meeting had attended the previous virtual TC so we could not discuss the previous minutes.

**Current Topics:** Some discussion about PSEAS papers at the AES Convention just held the prior week. Papers by Delta (e.g. Nick Zacharov et al.) on headphone listening tests using panels with different degrees of hearing loss and using machine learning to predict their headphone preferences. A successful tutorial was given by Darlene Williamson (HARMAN) on statistical analysis of A/B listening tests.

Some discussion about a recent presentation given by Facebook at the Detroit AES on doing evaluation of headphone externalization and perception of spatial audio using remote listening tests (available here: <http://aes-detroit.org/news/13-recap-virtual-meeting-thursday-april-15th-7pm-est.html>). The video is here with the presentation beginning at 9:04:

<https://www.facebook.com/3rdEar/videos/10224943446871009>

The topic of remote listening is of general interest to many people because of the pandemic but also to solve ongoing trends of doing more work remotely to save time, money and be environmentally responsible.

Another trend is using machine learning and AI for many audio tasks. Steve Hutt noted there is a newly formed TC focused on Machine Learning and AI (see <https://www.aes.org/technical/mlai/>). Predicting listener subjective responses to audio signals based on demographics, physiological features, acoustic features of the sound field/device and all aspects of music creation/recording/editing of sound. For example, recent AES events:

- <https://aesshowspring2021.sched.com/event/j84T/partner-presentation-ai-assisted-audio-editing-with-descript>
- <https://aesshowspring2021.sched.com/event/j82L/ai-in-audio?linkback=grid&iframe=no>
- More information about the Google Project headed by Shemon Burman can be found here

- <https://magenta.tensorflow.org/>

**Future Activity:**

- We propose putting together a workshop at the October AES convention in Las Vegas on Remote Listening Tests. Sean will contact potential participants to see what can be organized in time for the event. The panel would include someone from Facebook who seem to be working in this area, possibly someone from Automotive Audio working on remote vehicle tuning /evaluation. This was a topic at the most recent SenseLab tutorial.
- Darlene Williamson (HARMAN “Listening Test Data Analysis for Everyone: The A/B Test”. This would be repeat of a tutorial she gave at the recent AES Convention.