

(19) **United States**

(12) **Patent Application Publication**
STEFFENSEN et al.

(10) **Pub. No.: US 2024/0213943 A1**

(43) **Pub. Date: Jun. 27, 2024**

(54) **DYNAMIC AUDIO PLAYBACK
EQUALIZATION USING SEMANTIC
FEATURES**

(71) Applicant: **Moodagent A/S**, Copenhagen K (DK)

(72) Inventors: **Peter Berg STEFFENSEN**,
Copenhagen K (DK); **Mikael
HENDERSON**, Copenhagen K (DK);
Nick Jensen, Copenhagen (DK)

(73) Assignee: **Moodagent A/S**, Copenhagen K (DK)

(21) Appl. No.: **18/569,946**

(22) PCT Filed: **Mar. 26, 2021**

(86) PCT No.: **PCT/EP2021/057969**
§ 371 (c)(1),
(2) Date: **Dec. 13, 2023**

(30) **Foreign Application Priority Data**
Mar. 31, 2020 (EP) 20167281.3

Publication Classification

(51) **Int. Cl.**
H03G 5/16 (2006.01)
G06F 3/16 (2006.01)
H04R 3/04 (2006.01)

(52) **U.S. Cl.**
CPC **H03G 5/165** (2013.01); **G06F 3/162**
(2013.01); **G06F 3/165** (2013.01); **H04R 3/04**
(2013.01)

(57) **ABSTRACT**

A method and system for optimizing audio playback by dynamically equalizing an audio signal, using an associated high-level feature vector with high-level feature values representing semantic characteristics of the audio signal, for determining a frequency response profile and applying the frequency response profile to the audio signal to produce an equalized audio signal for playback through an audio interface.

