Informatics Institute of Technology

In Collaboration with

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"Listener 1.0"

Music Analysis and Classification System

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Abstract

Listening to music is one of the most common activities that can be seen today. While music is mainly used for entertainment purposes, it often used for scenarios such as mood regulation as well. Among the variety of music and genres present today, there are certain types of music that can be deemed as negative, aggressive or sad with lyrics of similar nature. Studies indicate that listening to such types of music can be harmful for certain kinds of individuals.

As a solution for this issue Listener 1.0 was developed. The primary purposes of this system is to monitor the nature of songs that are listened by the user and determine the overall type of music listened that is listened. This system was developed by the use of music information retrieval techniques and natural language processing. A machine learning audio classifier was developed by use of an existing dataset containing songs and respective moods. Each song that is listened will be obtained by the system and its audio and lyric features will extracted. With the extracted features the mood of the respective song will be determined using the trained classifier. The final outcome of the system is an evaluation of the type of music that has been listened by the user.

The test results of the functionalities and the performance is included, followed by evaluations conducted on this system. The conclusion chapter will summarize the final outcome of this projects and the factors that can be improved in the future.

Keywords:

 Music Information Retrieval, Natural Language Processing, Machine Learning