Investigation of Efficient Information Retrieval for Audio Music Data

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Audio is the second most popular form of multimedia on the web. Most of the current search engines in websites that distribute audio on the web are still textual metalabel based. Searching by textual queries is cumbersome for a normal user who may not have any knowledge about the content he is searching for. The tendency is to use various querying methods i.e. Query By Humming (QBH), Query By Example (QBE), Query By Beat Boxing (QBB), and Query By Tapping (QBT) etc. In these systems, user gives an input signal (in various possible modes depending on the system) as a query and the system retrieves audio that is similar in some sense, to the query input. Most of the currently available systems work on the MIDI (Musical Instruments Digital Interface) audio format. All the above querying systems ………. except for the QBE mode of MIRS. Considerable as well as interested area in survey is algorithms and method used for audio information retrieval. Matching algorithms and indexing methods are briefly presented.

Two main groups of MIR systems for content-based searching can be distinguished, systems for searching audio data and systems for searching notated music: a symbolic description of notes in order to search a database of notated music. Set-based methods for polyphonic music, Audio Fingerprinting Probabilistic Matching, Geometric representation, String representation, matching their rhythms, Arminion, Speech / Music Discriminator, etc are also utilized.

At present, there are many songs those are the different versions of the same song. Main differences between cover and original are timbre, tempo, structure, key, arrangement, or language of the vocals. Identify cover songs in a given music collection is a complex task. Cover versions normally retain the melody and the lyrics, but may differ from other features. Investigating a more or-less radically different interpretation of a song in pop music is the main purpose of recording a cover songs. There are few types of cover songs like Instrumental, Live performance, Acoustic, Demo, Duet and Remix. Some of the main characteristics that might change in a cover song are timbre, tempo, timing, structure, key, harmonization, lyrics and noise.

*Key word*s: *Audio, Fingerprinting, Music, Retrieval, Searching.*