Arabic Spoken Language Identification System

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Contents

Chapter 2

Chapter 2: Literature Review

In this chapter, the steps taken by the researcher in studying and selecting research samples and the principles he followed in applying the research in its practical framework are reviewed. And previous studies that are related to the research topic, which number four research

2.1 introduction(محمد ال عبدالهادي)

in section 2.2 will talk about the application are similar to our application, and also in section 2.3 will talk about algorithm are used in Identification who speakers and also in section 2.4 will talk about what tools are used in Features extraction and also in section 2.5 will talk determine the proposal system are solve the problem and also in section 2.6 will be compared between similar to our application, in finally the chapter will write conclusion.

2.2 application(محمد ال عبدالهادي)

In this section, we will talk about the applications that are similar to our applications, and we will explore each application and its features

2.2.1 Soundhound(محمد ال عبدالهادي)

SoundHound: has applied audio processing and machine learning on millions of songs to extract features that are characteristic of each song,this is used to identify who speakers,the application works with natural language understanding technology.

Features of the SoundHound App

- Immediately identifies the song.
- Extract words from audio.
- Getting to know the Quran reciter but not well

Disadvantages of the SoundHound app

- Doesn't always play the correct song
- Has a slight learning curve.
- Does not recognize the sound in Arabic well

2.2.2 Shazam(إبراهيم السيف)

Definition of Shazam application:-

Shazam is an application that can identify music, movies, TV shows and clips in general by taking a sample of the audio clip, and this is done using the device's microphone.

Who are the users of the application?:-

Users of the Shazam application are the ones who want to find the name of the music or audio track that was searched, the Shazam application allows them to find the name of the music or audio track that they want.

Shazam application advantages and disadvantages:-

- **Advantages:**
  - ❖ easy to use.
  - ❖ Easy to discover music.
  - ❖ Recognizes the voice in ten second.

- **Disadvantages**:
  - ❖ The user can not sing the song and search for it.
  - ❖ It is not easy to recognize the reader.

Technology used in Shazam application:-

The Shazam application uses the microphone of the mobile phone or the device in which the application is located to identify the audio clip, and Shazam uses fingerprint technology to puts it in a graph through which the audio clip is fragmented and searched in databases.

2.2.3 MusixMatch(زياد الحوطي)

How does the program work and howdoes it work?

A program that can use some algorithms to obtain music through the microphone, after which it is read and extracted the results from the sounds of the Qur'an, poem or music in general.

Who is using the app or who needs it?

Those who use the app or who need it are people who have some music and want to know more about it.

Features and Disadvantages:
-Some of the features

- Some words can be captured in offline mode.
- Tracking the fast download feature of the subscribed user.
- Can read static characters from within a page.

-Some of the Disadvantages

- Sometimes the lyrics are not accurate.
- Classical music instruments cannot be read.
- It may not be possible to get all the lyrics correctly.

2.2.4 Rateel (محمد ال عبدالهادي)

Rateel : Application to identify the reader of the Qur'an,use the Application who want to search for the voice of the reciter of the Qur'an..

Features of the Rateel App

- Get to know the reciter of the Qur'an

Disadvantages of the Rateel app

- Does not recognize the reader in the short voice

- It takes a long time to get to know the reader

- Has a slight learning curve.

2.3 Algorithms

2.4 Features extraction

2.5 Proposal System

This system aims to identify and know the voice of the reciters in the Qur'an and make this application recognize quickly and correctly and make the application learn to help identify the new reader

2.6 Comparison of the Research

	SoundHound	Shazam	MusixMatch	Rateel
recognition speed	✔	✔	✔	
Arabic speaker recognition	✔	✔	✔	✔
Often recognized correctly		✔	✔	
recognition the reader of the Qur'an	✔	✔	✔	✔
high learning curve		✔		
easy to use.	✔	✔	✔	

2.7 Conclusion