Deep Learning and its Applications Project Presentation on Animated News Anchor

Group-15

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Problem Statement

There has been a lot of advancements in technology till date. For most of the things we do, there is already an automated tool to do those things. But still there are some fields where we need humans to do any particular job. You must have seen robots to carry out some jobs. You must have seen them talking. But have you seen any robot talking and syncing his lips in the same way as humans? Reading out loud something with the same lip movement as humans is still a topic to be researched about. If one can achieve this, this would be a whole new revolution in this era of technology.

Motivation

As this is a very generalized problem, we can see its application in various fields.

1. **Unbaised news**
2. **No need of human for news reading**
3. **Dubbing Movies and Anime**
4. **Animated Character for News Anchoring**

Challenges

Challenges which we can face in this project when we go further are :-

1. **Extracting news data from different mediums**
2. **Classifying the data and translating them into English**
3. **A proper dataset on which we need to train our model**
4. **The network where the training will happen**
5. **The algorithm from which the training will be done**
6. **Creating a dummy animated character and analysing its lip movement**

Work Done

We read many research paper regarding these topic. Their are many work has been done and those are efficient too, they mainly used RNN as their algorithm.

Dataset Approach

Our approach for dataset relies on the following pipeline:

During Training

1. **Collecting videos from different sources**
2. **Tokenize the video into words**
3. **Analyze the movement of the lips according to words**

During Testing

1. **Extracting news from different sources**
2. **Translating the data(news) in English**
3. **Implementing the trained model over the data extracted now**

Proposed Methodology

Our approach for methodology relies on the following pipeline:

1. **Extracting video from various sources**
2. **Tokenization of video**
3. **Labeling the word with its lips movement**
4. **Implementing the algorithm over the dataset**
5. **Training the model**