Research Article

Educore-The Mobile App

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Abstract

In the Information and Communication Technology (ICT) age, the ability to learn "anywhere and anytime" is no longer limited. Mobile learning is considered as one of the most interesting and effective forms of learning due to the rapid spread and development of mobile technologies. The use of technology has increased in the present day when it comes to the educational system, the process of acquiring knowledge, skills, values, beliefs, and habits; as technology has advanced, it has become part of the core of the educational system, but since the Covid-19 pandemic things have changed in the way things used to be in the educational system of the country. Affected by the Corona virus Disease (COVID-19) pandemic, almost all students have to study online at home. In the wake of the Covid-19 pandemic, schools across the country closed almost immediately. Schools and colleges have a different pattern of education where students cannot physically attend classes but must attend them virtually, creating a new problem. Here we will analyze some issues like virtual classes like taking attendance manually, interruption of unknown person into the classes, seeking other mobile apps for the other works includes homework or assignment submission and so on., To solve the problems, Students encountered during their virtual classes we created the educational mobile app Educore.

Keywords: *ict, covid 19, educore.*

Introduction

In this pandemic situation, the schools were shut down. So; the virtual classrooms play a vital role in education platforms. But every technology had some flaws like a coin with two sides. For that, we created and tested an app to enrich the education manifesto. We added the Features like Virtual Classes, Mood detection, Work submission Portal and Attendance Management. No need to Aid Other Applications / websites to take attendance.

Methodology

Android Studio helped us to develop EDUCORE app in a more productive way at scale. Android Studio provides the fastest tools for building apps on every Android device. Code faster than ever. Creating the best code. Build rich experiences. Eliminate tiresome tasks.

Features included

We added the Features like Virtual Classes, Mood detection, Work submission Portal and Attendance Management. No need to Aid Other Applications / websites to take attendance.

Facial recognition attendance

The regular attendance system continued in the educational system where the instructor called out every single student's name and marked their attendance, wasting time during online classes. As a consequence, this process became increasingly time-consuming, especially when the number of students in a class is exceptionally large during virtual classes additionally, handling the attendance information of a large gathering can be difficult. One of the disadvantages of the current system is that students can use fake attendance stamps during their virtual classes (Swamy kutti *et al.,* 2000). So, to solve those issues we developed an app with automatic facial attendance system. The app (EDUCORE) itself marks attendance automatically once the students face been trained and stored in database.

Mood detection of students

Teachers always judge students' attentiveness in class by their facial expressions which show their interest in the class. But when we look at present, due to COVID-19, students are learning totally on online platform. During these classes, teachers can see students only through their video cameras and it is difficult to know level of understanding of students, therefore they can be judged by their various emotions such as happy, sad, disinterested, frustration, neutral, confusion, anger, disgust, surprise and learning. It becomes compulsory for educators to identify the state of mind of students during online class by their emotion recognition (Al-Ajlan, *et al., 2007,* Jaspreet Kaur *et al.,*).

As a result of social media sharing, students' instant emotional states have frequently changed in the modern era. Students' motivation as well as the learning process is greatly affected by this situation. Observing a student's emotional state is not always enough for an educator. Therefore, an automatic system is needed that can detect and analyze the emotional states of students in their virtual classroom. Student's faces will be captured either through image or live. Students' application will display our emotions in percentages once it has captured student's faces (Sathishkumar, *et al.,*). For mood detection, we used the Tensor Flow framework which is developed by Google researchers.

With the help of Computer vision and deep learning techniques this is identified by tool in which student's image is captured by video camera and further applying feature extraction and classification techniques. This results in benefitting to both students and faculty for easy execution of online classes. Implementation results shows that emotions recognized through image classification can make better learning outcomes for students.

Chat Facility

Technology disruptions couldn't be avoided, and they could be in the form of the connection and other things such as class preparation and management. The new form of learning caused quite some hassle that pushed teachers and students to cooperate and adapt to it. Teachers have a hard time motivating their students to keep going and keep their learning spirit. This, however, caused teachers to spend extra time preparing for materials, searching for the best class management method also affecting their teaching motivation and spirit. For these issues we included chat facility in our app (EDUCORE). Through that teacher can able to build a strong relationship with the students and they can motivate the students without consuming time (Conceicao, *et al.,* 2011).

Work Submission portal

For the teachers and students' convenience we added work submission portal in this app (EDUCORE). It is an easy method for the student and the lecturer who will receive and evaluate the student work; also, it gives the ability for the student to submit the assignment from different locations served by internet. The proposed model is based on identifying the user functionality that must exist in the OAS. The expected result from this model is to show the result of function test from the teacher side in e-learning process.

Conclusion

In recent decades and years classroom teaching has been influenced by the appearance of digital devices and the pervasiveness of the internet. In recent years robots started appearing in learning environments. Even though classroom presentations improved considerably, interaction between students and teachers has not improved greatly. And also, Students showed up by logging in, and leaving their devices behind. Despite being a great idea, insincere students showed up by logging in and leaving their devices. We propose a new way of using virtual classroom (EDUCORE) to make the classroom experience more interactive. The students posted questions and opinions on this app. So EDUCORE made an interactive session in every class.

Fig: Educore

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