Modern Computer Assisted Education System

Dudekula Dastagiri, Ganthi Sourabh Sai, Devarala Chandra Sekhar

School of Engineering, Presidency University Bengaluru, Karnataka, India
DOI: https://doi.org/10.55248/gengpi.2022.3.6.27

ABSTRACT :

Education plays a very crucial role in every one's life. Over the years, Students are attending classes in Classrooms. Which had not been changed for hundreds of years. So, recently few start-ups started changing the classroom education system by using the internet. The Internet had changed the entire world. Everyone made their life easier by using the internet like, ordering food to doorstep, booking a cab, shopping clothes for door steps etc, the same way few companies like BYJU'S, VEDANTU, etc are trying to change the education system to online. Where we can sit at home and learn everything in a better and more comfortable way. But, those companies have not much changed the systems. Because, even today many students prefer offline classes instead of online. So, by using INFORMATION RETRIEVAL we are gonna improve everyone's online class experience and student satisfaction.

Introduction

A modern computer-assisted Education system will help us in many aspects of education. We already have a few start-ups in this computer-assisted education system. But, they are failing to attract many users or students to focus on computer-assisted education instead of offline colleges. Even though we have many advantages and benefits of implementing computer-assisted education, we are unable to utilize it properly. So, in this paper, we are going to discuss in detail, the advantages and challenges of using the modern computer education system. We also mentioned, "how can we use Information Retrieval" in this computer-assisted education and can take more advantage of it.

Advantages of the online education system

You can watch or attend classes during your flexible times. So, that you can manage your other courses or businesses.

You can rewind all the classes and watch them many times until you understand it perfectly. This will be helpful to recall as well, When we do not have interest to attend the class we can reschedule the class to their comfortable time.

They can attend classes from their comfortable places. So, they don't need to cancel their personal planes because of their class timings and classroom place.

They can reduce travel expenses.

Education institutions can also reduce their lots of investment on infrastructure. Instead, they can focus on quality education by hiring more qualified staff and focusing on digital creators to manage video quality and audio quality for online classes.

If they get any doubt in class they can stop the video and can google there itself and can understand better.

Even teachers will get advantages of online education. As their work will get easy . since they will get to record a lecture video once and they will keep repeating the same video and at the remaining time will be interacting with students to clear their doubts.

Students will have the freedom to choose their staff or teacher for their subjects. Which will be very helpful. Since few students do not like few staff teaching techniques and they might be liking the other faculty style.

Parents can monitor the child and they also will take care of their child and to those parents who wanted their child to study well and get selected into IIT or NEET they can monitor their child specially in their home and they can also hire special home tutors for their child in the home.

Challenges to handle with the online education system

Students cannot watch digital screens for longer period. Their eyes will get strained.
So, We should provide students with digital glasses to students so that their eyes won't be strain much.

Many students will not be having access to smart devices.
So,We can provide them with a new device like tablet or smartphone or laptop depending on their package.

Students might open some other applications other than educational applications.
So, we should install firewalls and should give access to only subject related websites,videos, etc

Students might get distracted from classes in online since no one will monitor them.
So,We should take their camera accesses while they are attending online classes. we should make that compulsion to switch on their camera and they have to sit in front of the camera and we should be sending warnings if they are not focusing on the classes for more than 30seconds(or accordingly) or if they sleep, or even when using mobile while attending class. We should keep that as optional according to their plan and what they have chosen while taking the course.

Students will be having access to many courses. They might choose new and different course. To understand such topics they need to be known few basics of that topic earlier.
Now, we can suggest them besides that particular video with the basic videos or basic topics required to understand the new topic.

Students might not concentrate on class.
 We have to make students to be more interactive in the chat box we should give them to do some assignments in the middle of the classes or we have to take the attendance in the middle of the classes randomly.
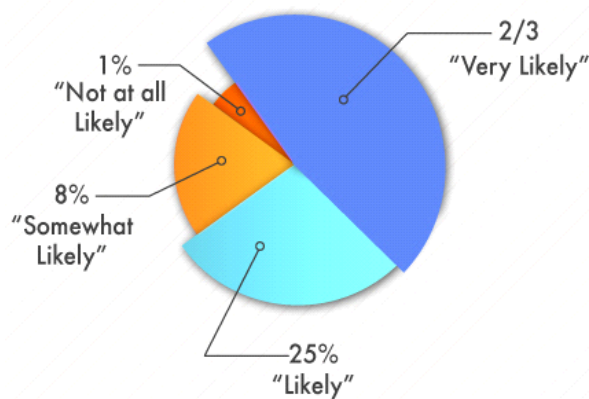

Students might not listen the class and will skip to next lecture.

We should be keeping the quiz after every class they complete and we should not promote them to the next video or lecture until they pass the previous quiz or test.

 How we can use Information retrieval and improve online education

To use information retrieval we need the data of many students. Who have previously taken the courses and scored better. After we have enough data So, here we can categorize the students according to their previous percentage or we can conduct them a basic test. Where we will be checking their subject knowledge in different areas or in different subjects or even in different topics, and chapters as well. Once, we categorize the students according to their test results. Now, we can check the data to match the previous students. who has the same problem in the same subjects.

We can refer to which course or lecture did that previous student has chosen. After taking that particular course, How much percentage did that previous student improved and we can show the data to the new student so, that he can co-relate himself and he will get some clarity to choosing the course. Companies can attract student's parents by showing these exact statistics of their students and if they take this course your child will improve this much percentage by taking the course. Companies can show customized ads to the targeted students with data available.

CONCLUSION:

As the world is changing completely into the internet and smart devices and more modern technologies, since, they are making our lives much easier. But, we are not much utilizing the same internet world for our better education or learning purposes. As we have a lot of advantages of using Modern computer-assisted education system, we have to implement this new education system. But, here we have to take care of the above mentioned challenges. If we can overcome those challenges, then this modern computer assisted education system is going to help a lot of students and users to make their learning easy and more accessible.

REFERENCES:

1. https://www.allisonacademy.com/students/education/technology-in-education/advantages-and-disadvantages-of-technology-in-education/

2. https://www.bairesdev.com/blog/computer-assisted-learning-pros-and-cons/