MICRO LEARNING VIDEO ANNOTATION IN CLOUD

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Abstract—***Advancements in distance learning led to the rapid growth in digital data due to the development in information technology. Currently, YouTube is the global way for sharing the videos. It has certain limitations such as, inactivity in online learning. This project is based on active video-based learning approaches that support ubiquitous learning to propose an easy way of learning through multiple terminals. The system combines video annotation, clustering analysis and other technologies. The learner can access micro lecture videos and other high-quality resources wherever and whenever they like since the videos are stored in cloud. Teachers can obtain statistical reports to provide valuable feedback and thus it forms an effective communication platform.***

Index Terms- ***micro lecture, multiplatform, active learning, annotation, cluster analysis.***

I. Introduction

Statistics quote 98.9 per cent of the population is now using mobile phones and 84 per cent of those with mobile phones use them to access the internet. Gartner has predicted that by 2021, businesses will support a workforce using tablets, and by 2024 almost all businesses will enhance the supply of corporate data through smart-phone applications.

Students can study on a variety of platforms via mobile communication networks or wireless local area networks (LANs). Learners can get the information they need, at anytime, anywhere, achieving the aspect of autonomous learning. The main idea presented here is to give quality education through micro learning. The data processing ability has grown to a great extent nowadays. The micro lecture

videos are up to the required point and saves time for the learner. It also prevents dragging and delaying of videos which creates a lack of interest for the users. Micro learning yields its best as the learners can, at any time or place, conveniently study through the application.

II. Related Work

Investigation on these publications were done in terms of learning domain, context of mobile learning, and the type of mobile devices adopted. At the end of the research, it has been reported that micro learning has a lot of promise for the future in terms of raising interest and motivation towards learning and increasing academic success for the learners. Micro learning is used both in formal and informal education. Providing an up-to-date information could be very informative and helpful for the users in educational regulations, funding agencies and researchers in the field.

Previous work in e-learning has macro lecture resources still being used. They also provide documents for further reference which results in learner content interaction.

DEMERITS:

i. Difficult to ask the exact doubting position in that video tutorial.
ii. Interpretation of the observational data should be improved.
iii. It needed an external storage for the downloaded videos to store and replay later.
iv. It mainly focused on learner-content interactions rather than social interactions between learners.

III. Literature Survey

A SOCIAL COGNITIVE SELF-REGULATED ACADEMIC LEARNING

This definition assumes the importance of 3 elements: self learning, self-efficacy of the student and commitment to academic goals.
Exams and quizzes required recognition of information although the students were not allowed to refer to their textbooks.

SOCIAL PRESENCE IN ONLINE DISCUSSION FOR ACADEMICS

Social presence defines the students' ability to engage socially with an online learning community.

The results of a multiple regression analysis showed significant predictors that was difficult to handle.

THE MEASUREMENT OF LEARNERS' SELF-REGULATED METACOGNITIVE PROCESSES

In an attempt to handle increasing class sizes educators were dependent more upon computer based learning. It includes hypertext, hypermedia, intelligent tutoring systems (ITS), virtual worlds, simulations etc. that use some type of technology to deliver instructions.

BRIDGING THE GAP FROM KNOWLEDGE TO ACTION

This paper details the progress in mining Management System data and translating these data into an EWS for academic mentors. They focus on the role of mentors and advisors, and
elaborate their importance in learning analytics-based interventions developed for higher education. It is aimed at increasing academic success and retention of students.

IV. Proposed Technology

The proposed system uses a full-text search engine based on Lucene technology. Full-text search solves the failed lookup situation when the search word does not exactly match the database. Moreover, full-text search offers

higher performance than simple query search. First, the platform uses Lucene to establish a

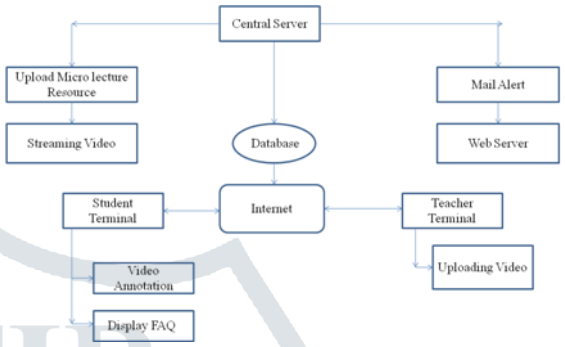
database index for the video resources, then it segments the search key text into words. It then uses Lucene to read the index and do an advanced search for the index keywords.

V. Working Principle

The micro lecture system consists of 3 parts: the student terminal, the teacher terminal, and the Cloud environment. Teachers and students uses Web platforms to log in.

In addition to general functions like video upload and playback, further features include video annotation technology, video and correlate label text display, Lucene full-text search technology are employed. Students can access micro lecture resources in 3 levels: Basic , Intermediate and Advanced and also make video annotations and ask questions while learning. Teachers receive Mail alerts when students ask questions and can reply through the interactive platform. This platform uses a cluster analysis algorithm to calculate the appropriate quality of video resources in the cloud and then intelligently pushes the results to the learner's interface. The central Web server indexes micro lecture resources to improve the learners' recall ratio and precision of searching.

VI. Block Diagram



VII. Mechanism

The User ID and password to both teacher and student were given by the institution. Teacher profile and student profile information were stored in the server. The homepage for student and teacher are same. The homepage consists of Menu button, search bar, and advanced search button followed by the videos.

Teachers can upload micro lecture resources to the central server. While uploading video, teacher will select the respective subject, unit and topic then they will upload the video to server. Teachers department will automatically detected from the teacher profile by the system. The uploaded video will be delivered to the students who are currently studying the subjects. The students will get the push notification when a video is uploaded in their subjects. Once the video uploaded to the server then the students will get the notification from the server.

Students can view the video and also can pause and play the entire content. Here the students will be posting the question to the teachers at same point where they feel the doubt arises or clarity is needed. The students will get the alert once they click the video and the video will be automatically paused and the text box will open for the students to raise the questions and doubts with the teachers. Once the questions are uploaded in the server then the students will get the notification from the server and also they can view at which point the questions were raised and also what kind of questions were already asked by other students.

Once the answers are uploaded by the staff in the in the server then the students will get the notification from the server and also they can view answers in mail and also once they login into the system. Similarly once the questions are uploaded by the students in the server then the teachers will get the notification from the server and they can view questions in mail and also once they login into the system , they can easily start playing the video from where they have raised the questions. Since this approached saves the time of the user and as well as their energy to not go through the

entire video at once or every time when the question is being asked.

VIII. Conclusion

The ultimate AIM is to provide quality education through micro learning. It correlates annotation text with micro lecture video and displays them together, which makes it convenient for users to retrieve video resources. It uses data mining techniques such as cluster to analyze popularity, then intelligently pushes the result to learners, making the platform initiative and intelligent.

IX. Future Enhancements

Micro learning enhances the ability of the learner to connect, communicate, collaborate, Research and development has been ongoing for the past three years and many learners have been trying these approaches and contributing to their development.

It is not meant for schools and universities only, it is becoming a part of the workplace training experience. It is an excellent source of reference information that a student encounters in an unfamiliar situation. Increased use of digital notes and online materials have made e-learning achieve its peak. The movement to cloud computing and online classrooms will undoubtedly bring new meaning to education as well as new possibilities to learning strategies.

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