

Unveiling The Virtual Classroom: An In-Depth Analysis Of The Online Education System

3. Literature Survey

Mishra et al, have investigated the online teaching-learning in higher education during lockdown period of COVID-19 pandemic. In this study, the online teaching-learning strategies used by the Mizoram University for the teaching-learning process and ensuing semester exams are described. In addition to highlighting the deployment of online teaching-learning modes, the paper uses both quantitative and qualitative methods to investigate how teachers' and students' perspectives of these modes compare.

Gupta et al. have suggested a deep learning-based method for identifying online learners' real-time involvement using facial expressions. Throughout the online learning session, they have evaluated the students' facial expressions to categorize their emotions. The engagement index (EI), which predicts two engagement states: "Engaged" and "Disengaged" is calculated using the face emotion recognition data. The best predictive classification model for real-time engagement detection was determined by evaluating and comparing various deep learning models, including Inception-V3, VGG19, and ResNet-50. Different benchmarked datasets, including FER-2013, CK+, and RAF-DB, were utilized to evaluate the system's overall performance and accuracy.

Safarov et al, have proposed a Deep Neural Network (DNN) approach that combines synchronous sequences and heterogeneous features to produce candidates in e-learning platforms that are faced with an exponential rise in the number of accessible online educational courses and students more accurately. Additionally, during the modeling, the cold-start issue of the learners was mitigated. They have started with grouping of learners in the first phase, and then combine the heterogeneous data and sequence as embeddings into recommendations using deep neural networks.

Selvaraj et al, have presented the effect of pandemic based online education on teaching and learning system. The purpose of this study was to evaluate how well Indian teachers and students responded to online instruction. Additionally, it made an effort to comprehend the obstacles that this style of education presents as well as the experience of the users. The study discussed the advantages and disadvantages of online education versus traditional classes from the participant's perspective. It includes further information on how to enhance technology so that they can be used more effectively. Additionally, this study provided a suitable foundation

for modifying or developing educational policies, legislation, and programs to ensure that everyone has equitable access to resources.

Zhang et al, have presented the key factors affecting college students' adoption of the e-learning system in mandatory blended learning environments. They have proposed the Unified Technology Acceptance and System Success (UTASS) model, a method integrating self-reported and system log data was implemented. Self-reported questionnaires were distributed in the e-learning system and a total of 287 valid questionnaires were collected, meanwhile system log was collected to record students' actual behaviour online. Their results suggested that male college students are more susceptible to the impact of system quality and social influence.

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