



CLOUD COMPUTING TECHNOLOGY: A NEW AGE LEARNING

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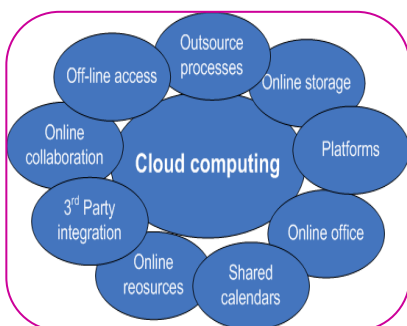
ABSTRACT

Emerging technologies like e-learning and cloud computing has been increasingly and widely used in the field of education. The learning process is conducted through e-Learning system, which makes it possible for students to be able to join learning from anywhere, anytime with the internet connection. Virtual class feature can help simulation for students to solve problem in learning. Effective class can be used for practicum lessons. Cloud computing in education is mainly concentrated on five areas: conceptual and pedagogical aspects, educational applications, processing of information and resources, pros and cons of cloud computing in education, and database management system integrated with cloud-based services and also it provides a comprehensive discussion of the impact of cloud computing in these areas. The 'Classroom of the Future', a new interactive entry formed by Hope Education that discovers a way in which schools could determine the abilities of today's children as intense adopters of technology. The government faces in providing education is the lack of structure and if it is accessible, it should be preserved properly and other issue are obtaining and upholding a wide range of hardware and software which is adequate, constantspeculation and the skills of the students.

KEYWORDS: Cloud Computing, Education, Technology, Future Classroom, Skills.

INTRODUCTION

The immediate growth in the accessibility of computers and other technologies in schools have made important changes in the education system. The teacher's role changes to that of a trainer, guide or instructor. Technology makes opportunities for students to work systematized, such as group projects in which students exchange ideas about the project and about how to use technology for answer their questions. Learning e-content makes the entire classroom active and attentive with multimedia packages. Learning through cloud computing is not an entirely new concept, and it has difficult connection to other associated technologies such as efficacy computing, cluster computing, and distributed systems. The term cloud enabled classroom was stimulated by the cloud graphic that seen as an image for the Internet, as cloud computing depend on the use of computing resources and applications that are delivered as a service over the Internet and make use of students.



E-LEARNING ENVIRONMENT

E-learning environments permit the users to develop online learning resources and courses. Online courses and resources deliver 24/7 availability for the learners to read the course materials and to download the courseware easily. Online resource portal contains a set of user-oriented, content oriented and application oriented. These

features are platform dependent, software modules and plug-ins available in the platform. There are numerous content creation platforms available for online learning creation purpose. Specific platforms are openly access.

Learning can be enhanced by utilizing e-learning, because it offers:

- ❖ Removal of time and space barriers compared to traditional classes.
- ❖ Self-regulated learning is provided.
- ❖ Effective and interactive teaching and learning strategies are allowed for individualized learning based on personal needs and the possibility of project-based teaching.
- ❖ Diverse educational information and services.
- ❖ High assurance of information accuracy.
- ❖ Interactivity in the process of communication.
- ❖ Cost effectiveness compared to traditional classroom-based teaching and learning.

TECHNOLOGY ENHANCED LEARNING

E-Learning is a form of technology anywhere learning material is delivered digitally through the Internet that stimulates learning by removing time, distance and socio-economic barriers. It is also a supportive learning tool to be used in a traditional class room. An effective e-learning system involves the development and adoption of learning standards. Many factors affect the learning: students' background knowledge, their motivation and interests, their learning strategies and goals, and overall learning context. The system must be a dynamic interactive representation, where learners can manipulate and take part in a particular activity within the discipline. Learners must be considered as not passive recipients of information, but engaged with the material that is responsive to their actions. Interactivity results in deeper learning because learners can test their understanding and learn by mistakes.

E-Learning sometimes referred to as;

- ❖ Online learning
- ❖ Web-based learning
- ❖ Distance learning
- ❖ Technology-based learning

E-learning is the only method of learning, where two distinct learning styles of auditory learners and visual learners are incorporated. In e-learning, content is delivered via the Internet, intranet/extranet, audio or video tape, satellite TV, and CD-ROM whereas online learning is done by only with the help of Internet and Intranet. In this method of learning students have to take more effort (self-motivation) because there is no face to face interaction between students and tutors or peers. These can describe learning content in a better way than sole text;it does not provide interactivity, which is essential to gain skill and experience in the Internet. To solve this and make the online curriculum more interactive, Virtual Reality has been introduced.

The importance of online education and e-content creation platforms are becoming increasingly recognized in many organizations in general and educational system in particular. It summarizesby knowledge and tool to develop E-learning tutorials. It has importance in all lifestyles – health, commerce, economy, and education. The development and maintainability of e-content in any academic environment represents the critical edge of knowledge and its administration is mostimperative. Online education is more important for teachers, students, and administrators. E-learning solutions can formed more quickly, have great flexibility, and enhance the performance of learners compared to face-to-face learning methods.

CONCEPTS OF CLOUD COMPUTING

A cloud refers to a distinct IT environment that is designed for the purpose of remotely provisioning scalable and measured IT resources. The term originated as a symbol for the Internet which is, in essence, a network of networks providing remote access to a set of decentralized IT resources.Cloud computing is a

type of computing that trusts on *sharing computing resources* rather than having local servers or personal devices to handle applications.

ADVANTAGES OF CLOUD COMPUTING

The Cloud Computing does not have supplementary carrying around devices, such as thumb drives or CDs. You don't need to worry about losing the device, breaking the CD, or not having your information load properly. Cloud Computing have several merits for teaching learning process like;

- ❖ Easy access
- ❖ Stability
- ❖ Security
- ❖ Shareability
- ❖ Trackability
- ❖ Collaboration

DISADVANTAGES OF CLOUD COMPUTING

Cloud Computing have some disadvantages like;

- ❖ Downtime
- ❖ Security and privacy
- ❖ Weakness to attack
- ❖ Limited control and flexibility
- ❖ Cloud computing platform dependencies
- ❖ Cloud computing costs.

FUTURE CLASSROOM

The classroom is one of the privileged environments aiming knowledge structure and the creation of social relationships as well as of cultural exchanges. Studies regarding classroom environment, focusing the pedagogical approaches, are countless; but, studies regarding the classroom environment as the physical space are significantly fewer. A new classroom physical space – the Future Classroom Lab (FCL) - has been developed for 21st Century digital skills. The Information and Communications Technology (ICT) advent and the ICT-based emergent pedagogical approaches contributed to the increase of studies concerning the physical classroom environment, as the classroom space and layout became no slower the most suitable. But are these new spaces appropriate for the Education.

FEATURES OF FUTURE CLASSROOMS

- ❖ Programming work spaces – Coding will prove to be a valuable skill for pupils in the future; some say it will be a necessity. These work spaces will provide an essential area from which to learn these skills.
- ❖ Interactive walls - The removal of the whiteboard from the classroom of the future is inevitable. Our classroom of the future demonstrates a full interactive wall as its replacement.
- ❖ Interactive desks - Pupils' desks will evolve into interactive devices, similar to larger class screens. All work will be submitted from this desktop to The Cloud, where class teachers can access and provide feedback.
- ❖ Solar windows – Installed in classrooms to help reduce the building's carbon footprint and save money.
- ❖ Holograms– Imagine being able to show a class full of inquisitive pupils a cross-section of the Earth or the solar system? Well, this will become the norm in the classroom of the future.
- ❖ Learning through Multimedia like audio, video, images, text, animation, graphics
- ❖ Content based learning environment anywhere and anytime learning situations for all type of learners in the classroom.

SMART EDUCATION

Smart education consists of:

- ❖ E-Learning
- ❖ Personalized Learning
- ❖ Virtual Classroom
- ❖ Smart room
- ❖ System that provides information related to the classroom that is being used.

CONCLUSION

The cloud computing technology can be adopted in all areas of society and in terms of education the e-learning solutions based on the cloud promote a new age of learning, in which the teaching and learning based on cloud platform through virtualization. A different knowledge can be made available to the teachers and students through cloud-based services and these services can be accessed anytime, anywhere and on any device. It also provides educational services through cloud computing technology enable them to acquire the skills needed in the global information society.

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