

Role of Information Technology and Multimedia in Distance Education

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ABSTRACT: Information technology, and multimedia play a tremendous role in distance education in today's era. Distance education can also provide a broader method of communication within the realm of education. With the many tools and programs that technological advancements have to offer, communication appears to increase in distance education amongst students and their professors, as well as students and their classmates. The distance educational increase in communication, particularly communication amongst students and their classmates is an improvement that has been made to provide distance education students with as many of the opportunities as possible as they would receive in in-person education. The improvement being made in distance education is growing in tandem with the constant technological advancements. Present-day the role of Information Technology and Multimedia help in online communication allows students to associate with accredited schools and programs throughout the world that are out of reach for in-person learning.

KEYWORDS: Distance Education, e- Learning, Information and Communication Technology

I. INTRODUCTION

As online learning continues to gain widespread attention and thrive as a legitimate alternative to classroom instruction, educational institutions and online instructors face the challenge of building and sustaining student trust in online learning environments.¹ The first distance education course in the modern sense was provided by Sir Isaac Pitman in the 1840s, who taught a system of shorthand by mailing texts transcribed into shorthand on postcards and receiving transcriptions from his students in return for correction - the element of student feedback was a crucial innovation of Pitman's system.² This scheme was made possible by the introduction of uniform postage rates across England from 1840.³ This early beginning proved extremely successful, and the Phonographic Correspondence Society was founded three years later to establish these courses on a more formal basis. The Society paved the way for the later formation of Sir Isaac Pitman Colleges across the country.⁴ Distance education will be very easy education, if it gets the support of Information Technology and Multimedia. My focus in this paper is how to simplify education, it is possible in collaboration with Information Technology and Multimedia ,this kind of education is known as Distance Education, one can also get the formal degree through the Open Universities.

II.METHODOLOGY AND DISCUSSION

Distance learning can expand access to education and training for both general populace and businesses since its flexible scheduling structure lessens the effects of the many time-constraints imposed by personal responsibilities and commitments.⁵ Devolving some activities off-site alleviates institutional capacity constraints arising from the traditional demand on institutional buildings and infrastructure.⁵ Furthermore, there is the potential for increased access to more experts in the field and to other students from diverse geographical, social, cultural, economic, and experiential backgrounds.⁶ As the population at large becomes more involved in lifelong learning beyond the normal schooling age,

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institutions can benefit financially, and adult learning business courses may be particularly lucrative.⁵ Distance education programs can act as a catalyst for institutional innovation⁵ and are at least as effective as face-to-face learning programs,⁷⁻⁸ especially if the instructor is knowledgeable and skilled.⁹ By having the opportunity to be involved in global institutions via distance education, a diverse array of thought is presented to students through communication with their classmates. This is beneficial because students have the opportunity to "combine new opinions with their own, and develop a solid foundation for learning."¹⁰ It has been shown through research that "as learners become aware of the variations in interpretation and construction of meaning among a range of people construct an individual meaning," which can help students become knowledgeable of a wide array of viewpoints in education.¹⁰ To increase the likelihood that students will build effective ties with one another during the course, instructors should use similar assignments for students across different locations to overcome the influence of co-location on relationship building.¹¹ The high cost of education affects students in higher education, to which distance education may be an alternative in order to provide some relief. Distance education has been a more cost-effective form of learning, and can sometimes save students a significant amount of money as opposed to traditional education. Distance education may be able to help to save students a considerable amount financially by removing the cost of transportation.¹² In addition; distance education may be able to save students from the economic burden of high-priced course textbooks. Many textbooks are now available as electronic textbooks, known as e-textbooks, which can offer digital textbooks for a reduced price in comparison to traditional textbooks. Also, the increasing improvements in technology have resulted in many school libraries having a partnership with digital publishers that offer course materials for free, which can help students significantly with educational costs.¹² Within the class, students are able to learn in ways that traditional classrooms would not be able to provide. It is able to promote good learning experiences and therefore, allow students to obtain higher satisfaction with their online learning.¹³ For example, students can review their lessons more than once according to their need. Students can then manipulate the coursework to fit their learning by focusing more on their weaker topics while breezing through concepts that they already have or can easily grasp.¹³ When course design and the learning environment are at their optimal conditions, distance education can lead students to higher satisfaction with their learning experiences.¹⁴ Studies have shown that high satisfaction correlates to increased learning. Students who are enrolled in distance education with high satisfaction in their online coursework are then motivated intrinsically to learn, which often means that their performance in class will improve.¹⁴ For those in a healthcare or mental health distance learning program, online-based interactions have the potential to foster deeper reflections and discussions of client issues¹⁵ as well as a quicker response to client issues, since supervision happens on a regular basis and is not limited to a weekly supervision meeting.¹⁶ This also may contribute to the students feeling a greater sense of support, since they have ongoing and regular access to their instructors and other students.¹⁵⁻¹⁶ Distance learning may enable students who are unable to attend a traditional school setting, due to disability or illness such as decreased mobility and immune system suppression, to get a good education.¹⁷ Distance education may provide equal access regardless of socioeconomic status or income, area of residence, gender, race, age, or cost per student.¹⁸ Applying universal design strategies to distance learning courses as they are being developed (rather than instituting accommodations for specific students on an as-needed basis) can increase the accessibility of such courses to students with a range of abilities, disabilities, learning styles, and native languages.¹⁹ Distance education graduates, who would have never have been associated with the school under a traditional system, may donate money to the school.²⁰ Distance Learning may also offer a final opportunity for adolescences that are no longer permitted in the General Education population due to behavior disorders. Instead of these students having no other academic opportunities, they may continue their education from their homes and earn their diplomas, offering them another chance to be an integral part of society. Barriers to effective distance education include obstacles such as domestic distractions and unreliable technology,²¹ as well as students' program costs, adequate contact with teachers and support services, and a need for more experience.²² Some students attempt to participate in distance education without proper training of the tools needed to be successful in the program. Students must be provided with training on each tool that is used throughout the program. The lack of advanced technology skills can lead to an unsuccessful experience. Schools have a responsibility to adopt a proactive policy for managing technology barriers.²³ The results of a study of Washington state community college students showed that distance learning students tended to drop out more often than their traditional

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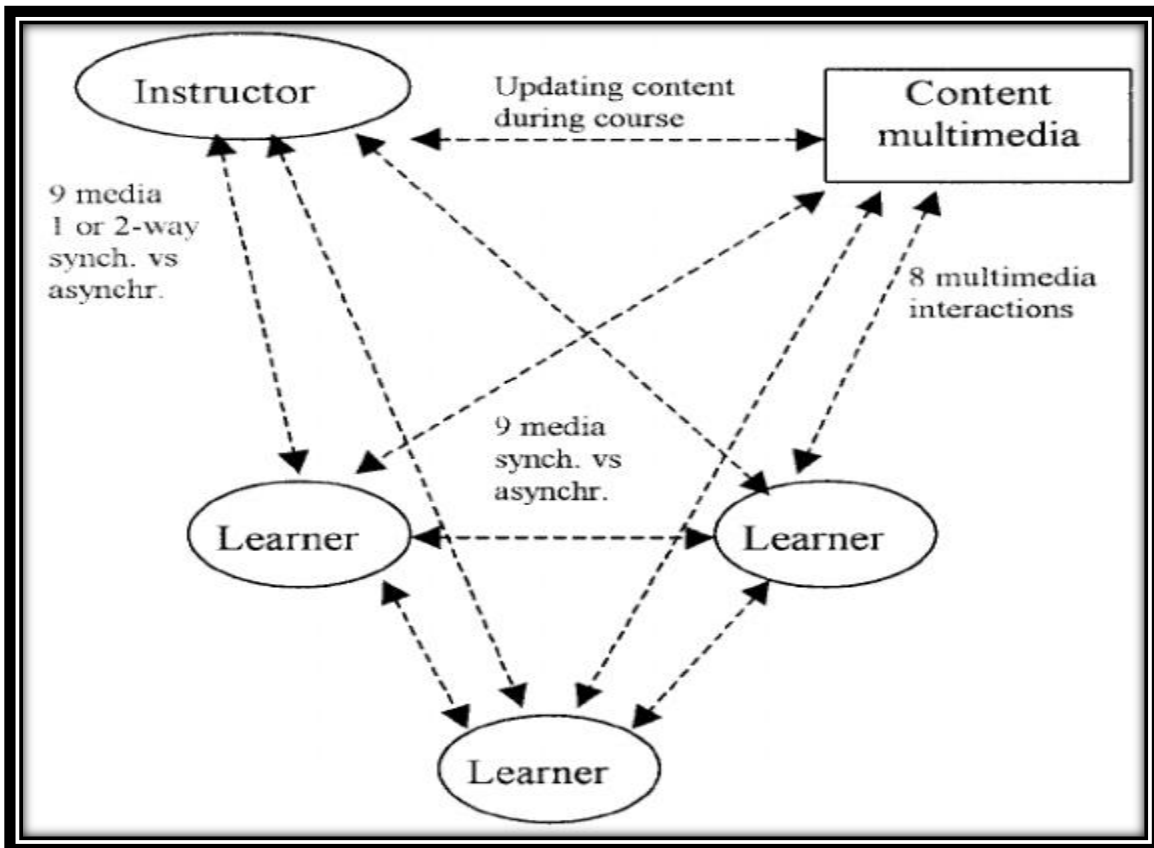
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counterparts due to difficulties in language, time management, and study skills.²⁴ Distance Learning benefits may outweigh the disadvantages for students in such a technology driven society however before indulging into e-learning a few more disadvantages should be considered. Some say a negative to distance education is the lack of social interaction. Not all courses required to complete a degree may be offered online. Health care profession programs in particular, require some sort of patient interaction through field work before a student may graduate.²⁵ Studies have also shown that students pursuing a medical professional graduate degree, who are participating in distance education courses, favor face to face communication over professor-mediated chat rooms and/or independent studies. However, this is little to correlation between student performances when comparing the previous different distance learning strategies.²⁶ Distance Education cannot be effective without Information Technology and Multimedia, through ICT and multimedia topic can be understood in many ways.

III.RESULT

In any type of education system, the role of instructor and learner is very important. The role of multimedia is also becomes very important in Distance Education System. In given figure Synchr. Stands for Synchronous communication and Asynchr. Stands for Asynchronous communication. Synchr. basically means that you can only execute one thing at a time. Asynchr. means that you can execute multiple things at a time and you don't have to finish executing the current thing in order to move on to next one. Multimedia resources offer an opportunity to innovate and improve teaching and learning environment.



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Finally, there may also be institutional challenges. Distance learning is new enough that it may be a challenge to gain support for these programs in a traditional brick-and-mortar academic learning environment.¹⁵ Furthermore, it may be more difficult for the instructor to organize and plan a distance learning program,¹⁶ especially since many are new programs and their organizational needs are different from a traditional learning program. Distance Learning, is the combination of Distance Education and e-Learning which is characterized by the extensive use of Information and Communications Technology (ICT) in the delivery of education and instruction and the use of synchronous and asynchronous online communication in an interactive learning environment or virtual communities, in lieu of a physical classroom, to bridge the gap in temporal or spatial constraints. Distance e-Learning combines the strengths and advantages of Distance Education and e-Learning. "The focus is shifted to the education transaction in the form of virtual community of learners sustainable across time."²⁷ So the ICT is a tool to elaborate and enhance the distance education environment.

IV.CONCLUSION

The Distance Education model has its traditional focus on content delivery or correspondence, and emphasis on independent learning. Distance e-Learning has its roots on computer conferencing and collaborative constructivist learning approach; it encourages collaboration in an interactive learning environment. Distance e-Learning is also different from e-Learning. Distance e-Learning goes beyond the use of ICT as tools to access information which primarily characterizes e-Learning use in classroom teaching or in the residential setting. The increase in utilization of ICT, particularly the Internet, ushered in a new era in course design and delivery of instruction in ways never before experienced in the mainstream model of Distance Education and traditional education paradigms. The marriage of the two concepts, Distance Education and e-Learning, marked a new strategy in delivering courseware for academic programs and other learning resources developed by Open Universities and conventional educational institutions. Hence the summary is that, the level of Distance education is not low, if the Distance Education gets the support of ICT and multimedia, then it is not to be underestimated.

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