Use of Multimedia in Educational Setting

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Abstract – In the current scenario of educational institutions, multimedia has dig up its own kind of space in some or the other way as a tool of educational technology. Multimedia has overcome the barriers of time and space and provides evidence to be accepted as an anytime and anywhere tool for educating multi-disciplinary masses. Multimedia is used to present information in many exciting ways by combining hypermedia techniques with instruction. Good presentations can be created when they are based on cognitive objectives that focus on the learning of topics at different levels of comprehension. Interactive multimedia has the potential to create high quality learning environments which actively engage the learner, thereby promoting deep learning. However there is growing evidence that the potential of Interactive Multimedia enables designers to choose from a range of media elements to convey a particular message, whether that is text to display simple instructions or moving images to represent a process. Multimedia technology empowers the educational process by means of increased interaction between teachers and the students. In this Article, we overviewed the Concept of Multimedia usage in Educational Settings in detail.

Keywords: Multimedia, Development Communication, Learning Environment etc.

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I. INTRODUCTION

Apart from the fact that multimedia can provide educators and students with endless possibilities of quality teaching and learning, taking vital considerations of the pedagogical strengths and limitations of Multimedia, it can be used to its fullest potency, and reach the eminence of 'New Educational Technology tool'. Multimedia can support multiple representations of the same piece of information in a variety of formats. This has several implications for learning. Learners are not a homogenous group. Some learners prefer to represent information verbally when thinking (verbalizes) and others visually (imagers). Education encounters, in modern times, challenges in all aspects of social, economic & cultural life; the most important of which are over-population, over-knowledge, education philosophy development & the change of teacher's role, the spread of illiteracy, lack of the staff & the technological development & mass media. Instructors in higher education are under pressure to provide their students with more effective and efficient learning environments and educational experiences. Instructional systems and educational technology have been receiving great attention from educators in order to enhance students' learning. Educational technologies such as multimedia presentations are becoming commonplace.

Multimedia is a melody sung in harmony with multi-channel and multi-modal bits of knowledge and creation. Sometimes it is as small as a rotating globe used as logo in an amateur's website or is as huge as Xbox 360 games or DreamWorks' Shrek series. Its ultimate role is to inform, educate and/or entertain all. Multimedia is all-pervading, thrilling and involving method of info-edutainment with multiple facets and long lasting approbation. Mainstreaming the technological media within what is called "Multimedia" is the pattern which led to infinite applications of computer technologies. The concept of this technology came into being with the appearance of sound cards, then compact disks, then came the use of digital camera, then the video which made computer an essential educational tool. Nowadays, multimedia expanded to become a field on its own.

II. TECHNOLOGY IN DEVELOPMENT COMMUNICATION

Mass media and technology should be extensively and tactfully used for development purpose. It should be kept in mind that it is a weapon in the hands of the government for positive developmental purpose. When the media is used for developmental purpose, develop communicator has to keep in mind that the usage should be extensive. And for this purpose the mass media structure should be planned and efforts should be

made to reach out to maximum number of people every time. Daniel Lerner in 1958, while discussing the relation of development with that of any mass media said that: —the greater the communication facilities, the greater or even faster is modernization. Media in developing and under developed countries strive to bring in developmental change, through its message to the mass. Mass media through interpretation, analysis and discussion point out the drawbacks of the society and core areas of development. The message should be such that it should create an urge for change and development among the common men. The media in its aim to developmental changes shall function as a decision maker and teacher.

Media in development can be divided into three parts i.e. (i) to participate (ii) to inform and (iii) to instruct:

To participate: Voluntary and steady participation of the citizen of the country is necessary for its overall development. Such participation is possible in a liberal society. Such awareness is possible through debate, conflict and discussion. Discussions and debate helps people to know current issues, participate in developmental programme and bring a change in the standard of living of the society.

To inform: for the development of the society, correct social, political and economic influence is the main criteria. This information should be both national and international. People should be aware of the areas or facts which hamper the development process.

To instruct: Mass literacy is an essential criterion to development. This is possible by imbibing basic skills among the people. Mass media plays an important role in this. Mass media can instruct people and educate them. Projects like Educational Television and Gyan Darshan are few such examples where media is used to instruct people, educate them and teach them basic skills. These basic skills help people to develop their standard of living.

A. *Use of Computer in Education*

Education, being a social institution serving the needs of society, is indispensable for society to survive and thrive. It should be not only comprehensive, sustainable, and superb, but must continuously evolve to meet the challenges of the fast-changing and unpredictable globalized world. This evolution must be systemic, consistent, and scalable; therefore, school teachers, college professors, administrators, researchers, and policy makers are expected to innovate the theory and practice of teaching and learning, as well as all other aspects of this complex organization to ensure quality preparation of all students to life and work.

It is one of the obligatory syllabi provided to the students of the Faculty of Education by King Saud University with two credit hours. This curriculum is designed especially for male and female teacher students and for all those who want to use the computer applications in the teaching process. It is considered a practical entry to the use of computer and software in education. It focuses on mainstreaming the modern computer applications (like the text editing software programs, presentation programs, Excel & internet) and computer technology within the educational fields on the one hand, and how to use them in learning and education processes. The need for educational innovations has become acute. "It is widely believed that countries' social and economic well-being will depend to an ever greater extent on the quality of their citizens' education: the emergence of the so-called 'knowledge society', the transformation of information and the media, and increasing specialization on the part of organizations all call for high skill profiles and levels of knowledge. Today's education systems are required to be both effective and efficient, or in other words, to reach the goals set for them while making the best use of available resources". According to an Organization for Economic Cooperation and Development (OECD) report, "the pressure to increase equity and improve educational outcomes for students is growing around the world". In the USA, underlying pressure to innovate comes from political, economic, demographic, and technological forces from both inside and outside the nation.

III. LEARNING ENVIRONMENT IN MULTIMEDIA

The interactive nature of multimedia provides the room to enhance traditional "chalk-and-talk" method of teaching with more flexibility to learners to adapt to individual learning strategy. Multimedia provides a technology based constructivist learning environment where students are able to solve a problem by means of self-explorations, collaboration and active participation. Simulations, models and media rich study materials like still and animated graphics, video and audio integrated in a structured manner facilitate the learning of new knowledge much more effectively. It enables both the educators and learners to work together in an informal setting. The role of educators and learners are extended. Furthermore, it encourages and enhances peer learning as well as individual creativity and innovation.
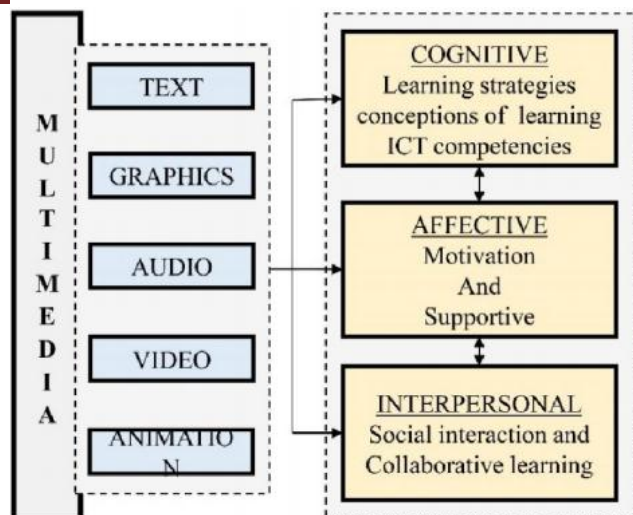
Figure 1: Learning with Multimedia

Multimedia technology empowers the educational process by means of increased interaction between teachers, students, and courseware also innovative ways to make learning more dynamic, longer lasting, and more applicable to the world outside the classroom. Throughout the 1980s and 1990s, the concept of multimedia took on a new meaning and plays as a good tool in educational technology. Furthermore the satellite, computers, audio, and video converged to create new media with enormous potential combined with the advances in hardware and software, these technologies were able to provide enhanced learning facility and with attention to the specific needs of individual users.

A. *Academic Strengths of Multimedia*

Multimedia Technology is used and experimented by various educational institutions of all levels all over the world in their own designed modes. Multimedia facilitates mastering basic skills of a student by means of drill and practice. It helps in problem solving by means of learning by doing, understanding abstract concepts, provide enhanced access for teachers and students in remote locations, facilitate individualized and cooperative learning, helps in management and administration of classroom activities and learning content, and simulate real life problem handling environments.

here are two ways, multimedia education is imparted to the students by various universities / institutions: a)Teaching methodologies of multimedia content creation, which include imparting hands-on skills of software packages used for creation and authoring of multimedia content, and b) Employing interactive multimedia content and technology for effective teaching, which include the various methods of engaged learning like multimodal interactive information delivery; and personalized and enhanced anytime-anywhere access of the content.

IV. MULTIMEDIA TECHNOLOGY USAGE IN CLASSROOMS

The academic world is no exception. Students and teachers everywhere are discovering exciting and innovative ways to make learning more dynamic, longer lasting, and more applicable to the world outside the classroom. Technology continues to change the world around us. Table 1 presents some multimedia software from Sony Creative Software, that you can incorporate audio, music, and video, into your existing curriculum.

Multimedia	Advantages
Multimedia portfolios	Show off a student work in a fresh, new way. For example to create a slideshow featuring their best work.
Convert lessons to MP3	Students can listen to material more than once
Group video report	Foster team building and provide hands-on experience with new technology. Assign three to five students to a team and let each team choose a topic about which they can make a short video.
Slideshow presentation	Can be used for almost any subject and are easy to create using Sony video editing software. You can use slideshows to enhance your lessons, or ask students to deliver reports in slideshow format.
Enhance the school website	Enhancing with streaming video content. For example, students could create a video tour of the school complete with host/narrator and subtitles.
Podcasting	Is a method of communication allowing anyone to create audio files and post them on the internet for others to download?

V. CONCLUSION

The changing role of education is currently being reinforced with the integration multimedia technology and this has led a new paradigm in education and the evolution of new concepts in content development and a number of innovative methods in which information can be communicated to the learner. We should reconceive the roles and fundamentals of architectural design, as we discover new approaches to incorporate computation and multimedia packages in design teaching and learning. In conjunction with the study of usefulness multimedia in different educational scenarios, the important point for future research is that the time to come will surely promise the availability of multimedia technology to one and all, but its usage should be limited to and in consideration with its pedagogical strengths, also given high importance of multimedia from different fields of researchers backgrounds, divers view-points, and varying procedural methods. This technology driven change, reflects changes in the

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public order as well as our civilization is taken over by digital age. Hence the multimedia community seems to be the perfect platform for bringing all those researchers and educators with different backgrounds together in order to help improve multimedia based education and therefore teaching and learning in general.

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