

“The Interface of Technology and Medical Education in India: Current Trends and Scope.”

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Abstract:

The application of computer based technology in medical education system is being both the rewarding and challenging. The introduction of different material based learning aids including computer applications in the form of various softwares , use of Lcd projectors ,internet and telecommunications has the potential of changing the face of medical education. In India, an application of technology in medical education is on the way to rise. Every medical teacher should know these newer trends and changes in technology. Role of medical education technology unit is really vital in this changing century.

Innovative medical learning technology is essential for helping medical students for their future. Institutions should pay attention towards these changing modes like arrival of 3G internet services in India, also setting up of Wi-Fi campus will really help the students. In future, the scope of technology applications in the medical education system in India will really make dramatic changes at every level.

Keywords: Medical education technology unit, Medical education.

Keynotes: Role of MET units in medical education, current trends in medical education.

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Introduction:

The application of computer based technology in medical education system is being both the rewarding and challenging. ¹ The introduction of different material based learning aids including computer based various softwares, use of Lcd projectors,

internet and telecommunications has the potential of changing the face of medical education. ² The medical education system, in which the students are the input, process includes teaching and the output is the degree

obtained by the student.³

The goals of medical education should be student oriented in which the student development should be along with knowledge, skills and attitude.⁴ Learning is the active process going on inside the student's mind and teachers main role is to facilitate this learning process.⁵ In India, an application of technology in medical education is on the way to rise.

Current trends:

Extensive development and growth of Information technology has made vast changes in recent years in medical education system in India at both the teaching level as well as research level. Availability of 3 G internet services made data transfer very easy, time saving and convenient. Application of animation technology is slowly progressing in Indian medical education system.

Application of practicing different aids in teaching as well as in research: But the use of technology by using only animation modules, Microsoft PowerPoint applications, presentation aids in the audio-visual form, preparation of research work by using computer, laser jet printers, LCD projectors and all readymade applications available on internet in the form of full text articles as well as images for references are just

enough? Organization of routine continuing medical education programs as well as workshops, attending the conferences are just enough? What are the current trends in developed countries? Every medical teacher should be aware of and think regarding it.

Medical teacher – student relationship: What is the present status of Medical teacher- student relationship in India? Is it being more professional? Or the aids like Google search or other search engines making the students run away from teachers? Is the usage of mobile phone internet (for purpose of social networking sites like facebook, orkut etc.) by students during classroom worth? Young teachers should be very conscious regarding it. The work of medical technology unit is not only to promote technology but also for its proper application and counselling of the students.

Role of medical education technology unit: Scope:

Faculty Development: Teachers need to be trained, selecting appropriate teaching learning methods and proper evaluation methodologies applicable in assessments of students during examinations at departmental level as well as at the university levels. They should be competent and should encourage the students regarding it. Regular workshops should be arranged for teachers to update them regarding technology advances and its proper implementation.

Basic Research development and publications at Institutional level: This could be in the form of inquiry driven strategies in various aspects of medical education. Interdisciplinary approach is must in developing research at institutional level. Medical PhD and other programs should be preferably arranged on the interdisciplinary basis. Teachers should be promoted either by promotion or by cash rewards for such activities.

Resource Center: These units should work as resource centre both for personnel and materials.

Continuing Medical Education and workshops: These should be arranged in such way that teachers as well as practioners jointly should take active participation. Hands on trainings on various machines like EMG, EEG and USG etc. should be promoted.

Developing International Communication

Links: The Indian institutions should make tie up with universities in other countries advanced in technologies like UK, Australia etc.

Online education: MET units should able to promote and develop programs regarding online updates in education both for students as well as for faculties.

Online test: Nowadays various institutions are working on online test applications in

India. Medical education technology units should work on its development and application by faculties. **Social Awareness Campaigns:** Medical education technology is not only means computer and Internet but medical students should be encouraged for active leadership in the society. Unfortunately in India, the majority of medical education institutions are not promoting medical teachers in the administrative level work in any form.

Online Publications and Websites: This trend is born recently in Indian medical education system. The MET cell should be competent for handling these newer software applications independently.

Tele-communications: This dynamic resource allows residents and fellows to participate in courses, grand rounds, seminars and other programs. This will be very helpful for connecting the institutions at remote places.

E- Learning: In many ways e-learning can be seen as supporting learning using current technology. Requirements of e-learners need to acquire sufficient competencies to be able to work in technology mediated education environments. Communication skills are as important in an online environment as they are in face to face learning. E-learners are best sustained by enabling them to support themselves providing a well designed, structural and flexible learning environment enhanced with regular and effective feedback.⁶

Placement of proper faculties: The MET cell

should be run by competent persons not just on the basis of seniority.

Conclusion and Recommendations:

Innovative medical technology is essential for helping medical students for their future. Institutions should pay attention towards these changing modes like arrival of 3G internet services in India, set up of Wi-Fi campus will really helpful for students.

Innovative medical technology & health education is essential for helping not only the students but also patients so that diseases can be cured rather than be managed. This is also true for prevention of various diseases related to hygiene, communicable diseases, addiction related diseases like lung cancer, oral cancer, liver cirrhosis etc.

In future the scope of technology applications in the medical education system in India will really make dramatic changes at every level.

Abbreviations:

MET: Medical education technology.

3 G: third generation mobile services.

EMG: Electromyography.

EEG: Electroencephalography.

USG: Ultrasonography.

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