

Web 2.0 and Medical Education: Are we utilizing the resource effectively?

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Since the introduction of the internet and its subsequent development as a multimedia platform a wide range of educational activities were developed using this media. Initially only Web 1.0 was available which was based on static publishing model as only the developer creates the site and reader can only read. However with the introduction of Web 2.0 (also called the social web) the whole concept of web publishing has changed and a wide range of Web 2.0 technologies have become very popular in the 21st century. These applications include social networking sites (e.g., Facebook™, Twitter™), media-sharing sites (e.g., Flickr™, YouTube™), blogs, wikis, and podcasts, among others.¹ The most commonly used web 2.0 application in our country is social networking sites like facebook and twitter. A major reason has been that they require little or no technical expertise, allowing users to easily create their own content and to actively share information; opinion and support across networks of users.² The popularity of these applications are increasing as they are expanding onto mobile phones and Internet hand held devices. A recent paper about medical education related Apple applications showed that more than 350 applications are available related to one platform only.³ Most of these activities are social but the educational potential is increasingly being recognized worldwide (commonly known as e-learning).⁴

Medical students these days belong to a generation called "Millennials" or the "Net Generation".^{5,6} Due to their high level of technological literacy, they are much more enlightened and knowledgeable. A National School Boards Association survey revealed that 96% of the student respondents with online access used social networking technologies such as chatting, text messaging, blogging, and visiting online commu-

nities such as Facebook and MySpace; 71% used social networking tools weekly.⁷ Social networking is also common amongst physicians-in-training, with 39.8% of residents and 69.5% of medical students maintaining Facebook accounts.⁸ In the 21st century students enjoy learning with new technology through discovery, by experiencing and experimenting with it. They are less fond of reading and are more comfortable in multimedia-rich environments than with formal text.⁹

E-learning offer advantages in clinical education, like overcoming physical limitations of time and space, supporting teaching methods that are difficult to accomplish using formal textbooks and reaching a larger number of students in real time without increasing resource utilization. However, every picture has two faces and this medium is not without some drawbacks. For example initial set-up costs, lack of engagement compared to face-to-face interaction and technical problems that can spoil users' overall learning and teaching experiences.¹⁰ There is wide range of literature available about its use in medical education from the West^{1,11} but unfortunately we are far behind in this instance and yet to date relatively few educational health care organizations have started utilizing the tools and strategic advantages offered by Web 2.0 in Pakistan. Some of the reasons why it is not used to its full potential are lack of interest, lack of resources and awareness beside faculty development.

The potential benefits of Web 2.0 technologies in health care education should not be underestimated, particularly for countries with financial constraints where many working days were not utilized because of law and order situation. If we work in a proper way we can easily adopt this new technology to impart education to the students within their own boundaries during these times as well to make them a good health care provider. We don't have any baseline studies about its use among our students (undergraduate or postgraduate) and faculty members. In today's world of evidence based medicine the first step is not the general perceptions but evidence that

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how many of our users are utilizing these technologies and what are their perceptions. Are they really ready to use this technology for medical education since use of this medium just for the sake of technology is not the answer. Before making some investment in money, time and energy some homework is always advisable.

Personal observation shows that medical students not only use facebook for social networking but also for sharing exams important topics, radiographs and instruments pictures. Once students were communicated important information for their professional exam about ultrasound picture interpretation in OSCE which could not be provided to them in classroom on time.

Even after exams it is an important tool to have feedback from the students. This is just the tip of an iceberg by which one can interact and use this technology in medical education. Many postgraduate students save the lectures with their iPods to consult them later. A huge range of podcasts are already available freely on net for learners to use. Yet there is need to use this medium much more formally.¹²

Since many universities are currently busy in revising their curriculum and regulatory authorities are now open to constructive suggestions, it is high time that the potential of web 2.0 should be explored in our own setup according to our requirements so that this medium can be used in undergraduate and postgraduate education.

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