Chapter 10
Cutting-Edge Technology Adoption for Building Holistic Patient Experience

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ABSTRACT
Internet acceptance has exponentially risen globally in the last decade with the advent of collaborative and interactive Web technologies. E-learning techniques are extensively used by medical educators to impart learning to their patients and caregivers. E-Learning 2.0 has appeared as amalgamation of traditional e-learning model and capabilities of Web 2.0. It is a supplement to treatment provided by doctors, used for educating patient and equipping them to handle preventive and disease-specific conditions resulting in affirmative patient experience. The contemporary medical practices emphasizes building patient experience and not restricting patient treatment. This chapter explains the need of shifting e-learning focus from the software product design to service design and drawing the comparative model between the two. It reviews existing E-Learning 2.0 practices being used in medical education and recent state-of-the-art technologies including webcasting, virtual learning environment, mobile technology, etc. The focal point of the chapter is how to use technology to promote patient-centered culture.

INTRODUCTION
The patient experience is gained from what he has observed, encountered or undergone. The holistic approach to build patient experience is not only limited to his personal encounters but also includes patient education, care and guidance provided by the medical practitioner, doctor or physical therapist. For building affirmative patient experience education is a critical factor. Building a patient experience value adds to the patient’s personal healthcare. This results in social transformation with respect to advice, monitoring and patient treatment. The education to the patient could be in the form of preventive education and disease or condition specific education. In preventive education a patient gets exposed to the chances
of occurrence of a disease. Medical fitness maintenance level is emphasized in adults through preventive education. Lifesaving preventive measures are helpful in controlling occurrence of disease in future. The disease and condition specific is physician directed chunk of patient education.

The medical practitioners can connect directly with the patient for recommendations and directions for the treatment. There is a communication disconnect between doctor and patient. Doctor being a prime resource has limited time to cater to the complete needs of the patient. Healing and wellness is a continuous cycle of efforts from the part of doctor and patient. To expedite patient education physicians have embraced the use of technology and gadgets. The technology is extensively used in creative way to impart patient education. The technology further is used to prepare patients for pre and post-surgical operations.

Medicine has long been considered as a practice unreasonable to teach online. The complexity of the human organism and the intricacies of the patient-doctor interaction appear beyond the influence of soulless technology. A concise glance at novel advancement in medical education reveals a distinct picture. The aging population demands increasing attention from medical personnel, resulting in a reduction in the time that can be devoted to teaching activities. The recent trend towards decreasing lengths of patients’ stays in hospitals reduces the possibilities for medical students to observe the patient’s treatment and recover process. It is in this context that harnessing computers to support the learning process by simulation of clinical scenarios may be very helpful, especially in the case of rare conditions.

The hospitals and healthcare bodies employ Information and Communication Technology (ICT) to facilitate learning processes and for disseminating digital healthcare content worldwide. To educate patients multiple tools and technologies are used by professionals.

Several recommendations originating from the Institute of Medicine and analysis reports are encouraging towards the improvement of healthcare professional education (Greiner & Knebel, 2003). Multiple facets of hybrid e-learning, includes on-line digital content, multi-media training CD, supplemental learning content, on-line discussion and live broadcasting that could be blended with conventional patient education (Teng, Bonk & Kim, 2009).

**BACKGROUND**

It has been mentioned that healthcare education is converting into a competency based approach. There is rise in usage of e-learning technologies relevant to competencies through emerging improved e-learning standards (Hersh, Bhupatiraju, Greene, Smother & Cohen, 2006). E-Learning provides the learners with tremendous autonomy in the sense of choice of the time, the content and the method they learn, consequently providing on-demand learning and eliminating the challenges of time and distance (Tavangarian, Leypold, Nöltting & Röser, 2004). Improvement in standards of Web and emergence of Web 2.0 has opened numerous possibilities to e-learning. The education of the healthcare professionals is depended on 100 year apprenticeship model exemplified by the phrase “see one, do one, teach one” (Gorman, Meier, Rawn, Krummel 2000).