Application of Technology in the Healthcare Industry

Name

Course Name

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Date

**Introduction**

The health industry is a very essential sector in the community for survival. However the increasing cost of providing healthcare services to the society is a major challenge to the healthcare industry. This is brought about by the tremendous changes experienced in the industry as a result of new disease outbreaks, accidents and many other chronic diseases. This means many people are unable to access the best healthcare services when need arises. In this regard therefore, there is need to apply Information Technology (IT) in order to boost service delivery and lower the costs. IT plays a key role in the healthcare industry, be it from provision of quality services, keeping patient records, scanning, etc. With the application of IT, the healthcare services provision can be manageable, predictable and stable.

**A} New Technology Requirements in the Healthcare Industry**

There is need to adopt a technology which is consistent with the current healthcare requirements in the face of innovations experienced in the healthcare industry, there are some basic requirements that need to be looked at in order to achieve the intended value of such innovations (Hennington and Jenz, 2007). The technology applicable in the healthcare industry should be safe and free of side effects. The health sector should be well controlled in order to ensure that those who offer health services are professionals and are not driven by the need to make profits with disregard to the general health of their patients. We have seen cases in the past where patients are lied upon and minced of their money in search of good health only to end up worse than they were before.

Patient privacy should be at the fore-front in the new technology in the healthcare sector. In as much as technology is such a good thing, sometimes we find that it is hard to ensure the privacy of patient records. The shared resources over the internet may pose a very big threat to the privacy of the patient information. Once patient’s records are made public, this may jeopardize their security and make them vulnerable to threats from unknown people who may want to blackmail them. Therefore, there is need to secure systems to ensure that they are not accessed by outsiders who may want to misuse such information.

**B} Basic technology underlying Healthcare Information Systems**

The most basic technology underlying information systems in the healthcare industry is the electronic Health Record (EHRs) concept. For an effective healthcare system, information must be recorded; records stored in an organized manner, easily retrievable and easy to share among the various stakeholders. This way, the information can be used by the future generation to better the services and avoid discrepancies. Hospital Information Systems have as a core component; admission, discharge and transfer system that manages census and the demographic composition of their patients (Collen and Detmer, 2015). Billing and accounting also make part of the core components of the information technology in hospitals.

The integration of various departments through IT is another major factor. Initially departments such as pharmacy, laboratories etc used to operate independently but due to the interconnection of these departments to the main clinical functions have made it easy for doctors and nurses to coordinate well with the laboratory attendants and the pharmacists thus offering good services while cutting on costs. The modern era of clinical services is driven by the need for quality, patient safety and reduced costs to patients.

Both clinicians and the end users always want more and faster information. This is clearly the most pressing need in the modern healthcare technology. In this regard therefore there is a greater need to integrate systems for easy retrieval of patient data for corrective action when need arises. For example in the current quest to discover the cure for cancer, more and faster information should be available to researchers to enable them to compare from, so that they can be able to determine the causes of cancer. With this information, they can be able to analyze it and be able to come up with preventive measures and their respective cures.

**C} Basic Technology Underlying Healthcare Information Systems**

I would recommend telemedicine. Telemedicine is the use of ICT to increase access to health information by patients. This is a constantly changing science it adopts new advancements in technology and the changing health needs and social changes. The purpose of telemedicine is to provide support, improve health, and overcome geographical barriers. Telemedicine involves use of television, internet, radio etc to facilitate consultations between stakeholders. Consultations can be between health-to-professionals or involving health-professional-patient.

 The increasing advancements and use of ICT, by the public has increased the use of telemedicine especially in areas that are underserved and understaffed. This has reduced the costs of travelling to other places to seek medical treatment thus improving healthcare delivery. One health provider can serve more than one patient at ago by sending them a pre-recorded data and diagnosis through email. Also through telemedicine, a doctor can consult another doctor regarding a certain prescription and diagnosis he/she is not familiar with. By doing so, this can save the patient time and money which they could have used to travel to a different hospital to seek another opinion.

 Telemedicine has the potential of minimizing the inconsistency of diagnoses and improve clinical administration and delivery of health care services globally by enhancing ease of access, efficiency, quality and cost effectiveness (Huston J and Huston L, 2000). Telemedicine can particularly help communities with few health providers and remote areas by overcoming the barriers of time and distance and bringing healthcare services to the comfort of the patients and other stakeholders.

**D} Key actions of the Senior Healthcare Leadership to Push the Boundaries of Information technology management**

 Hospitals and other health service centers should be made to adopt IT solutions by the government in their service provision. This can be achieved by subsidizing this technology in the healthcare sector to make it cheaper and easily accessible. The growing need for healthcare services means that there should be a lot of information available between different stakeholders to share and access data in more geographical locations and departments. In the current state of health where new diseases are emerging and the existing ones are becoming more drug-resistant, information technology is the best way to go. This will ensure that information is well shared among stakeholders so that appropriate action can be taken.

The adoption of electronic health records can help safe on costs and improved patient health safety. This is because patient files are kept in databases that are accessible from anywhere within such facilities. This will safe not only on time but also results in better data coordination and management. This also will make diagnostics easier and more accurate by allowing technicians and physicians to examine the anatomy of patients without using invasive procedures.

References

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