

Technology in the healthcare industry and its impact

[Business](#), [Industries](#)



I. Technology in the healthcare industry today and its impact The state of technology in the healthcare industry is that it is developing very rapidly. 10 or 20 years ago, you wouldn't be able to find very many computers or technology at a typical doctor's office. Most of the stuff was done with analog equipment and manual paperwork. Now, if you go into a doctor's office, you will find it laden with advanced technical equipment and computer technology. You may not even find a pen or pad on the doctor's desk!

Technology has the ability to change the face of the whole healthcare delivery system and improve the quality of health and healthcare. Although there are many challenges that it represents, overcoming these challenges will lead to a more effective and better quality healthcare system in general. First of all, the use of technology in managing the healthcare system is currently in the stages of being implemented to a great extent. There is a big push to standardize medical records, for example, in an electronic format.

The government is currently offering incentives for those who convert over to and put in use some form of electronic medical records system (Versel, 2011). They are also putting into place penalties for those who do not by 2015 (U. S. Department of Health & Human Services, 2011). In terms of the actual impact on the healthcare system, this shift to electronic records will not only reduce our premiums for insurance, but also streamline and speed up healthcare delivery twofold. It also cuts administrative costs for healthcare organizations and increases space, as they will no longer have to store bulky files or paperwork.

They can replace all of that with digital records. In the long term, this transition to digital records will benefit everyone involved in the healthcare industry; however, in the short term there will be increased costs for all of us. The reason why is because there will be associated costs in developing and buying the systems to house the medical records. Not only that, but the training associated with getting everyone up to speed on how to use the new medical records system is an effort that will take both time and money.

There will likely be some resistance to the change, but overall, this is a development in technology in the healthcare industry that stands to benefit all parties involved once it gets up to speed. Another way that technology is making an impact on the healthcare industry is in the treatment of patients. Complex microsurgeries and drug administration are a thing of the past. Now, a lot of the new facilities have specialized information systems and technology that utilize robots to administer medication and perform surgeries with a much higher level of accuracy than humans could do (Feder, 2008).

Not only that, but technology and information systems are improving the treatment and diagnosis of patients for various diseases. We use technology to analyze blood and tissue samples, and also to take a look at internal parts of the body that normally would have required invasive surgery to diagnose and treat. This is clearly a move in the right direction for the healthcare industry in that the quality of care will improve without teaching human resources how to improve. We simply have to teach the human resources how to use the equipment and analyze the results.

Unfortunately, not every facility has the latest and greatest technology. The drawback to this improvement technology has brought is that not all facilities will be able to afford the new equipment straight away. There are even places in other countries that really need the equipment the most, but don't have the ability or the resources to afford them. Often at times, patients will need to be transported to other facilities to get the treatment that they need, and end up worsening in condition or dying along the way.

The technology that drives the healthcare industry does have the power to save lives, however, it will take some time before the rest of the world is up to speed. II. Challenges in implementing technology In addition to the improvements technology is making in the healthcare industry, technology in general also poses some major challenges. For one thing, it does have a major impact on the delivery of healthcare services and their experience. For example, one of the positive points for many people in going to the doctor is the non-clinical aspect of talking and having an open forum in getting diagnosis and treatment.

With the implementation of technology, however, there is an increasing concern that visits will become "less personal" and more about the diagnosis and treatment than the actual experience. According to an article in the McKinsey Quarterly, commercially insured patients tend to focus on the non-clinical aspects of a visit rather than the clinical (Grote, Newman, & Sutaria, 2007). However, a lot of the patients on Medicare and those that are uninsured tend to care more about the cost of delivery rather than the actual experience.

Based on this, there is a concern that the shift towards more technological means will alienate one group of patients whereas they will welcome another. The shift to technological means will certainly mean a decreased cost in delivery. That is for certain. However, the shift to technological solutions won't necessarily mean a decrease in the quality of the visit. More doctors will continue to use technology to drive their treatment methods, but overall it is up to the doctor to make a connection with the patient as the customer relations part of the job.

In fact, I feel it will be more about customer relations than the actual treatment once technology has been fully developed. Doctors will spend less time writing down and crunching numbers on the computer and focus more on interacting with the patient and utilizing technology to drive a diagnosis and treatment. Technology will also make diagnosis more transparent as medical imaging devices will make things more visible to both the patient and the doctor. Overall, the shift to technological means will certainly bring on challenges in implementation.

Doctors will at first have a hard time in getting up to speed on the new technologies and balancing that with the way they are used to doing things, and integrating it into their daily visits. However, as time goes on this will be less and less of an issue once doctors and patients accept new ways of treatment and technology in general. III. Technology in the development of medicine Technology has always had a place in the development of medicinal treatments and medical devices. Clinical trials are conducted all around the world with the promise of new and better treatments that will cure

illnesses and increase life and quality of life. The use of technology in clinical trials is helping to not only get safer and better drugs to the market faster, but also to ensure that there are no problems long term. It used to be that clinical trials were conducted on paper, but now technology is used to ensure both quality of data entry and also the monitoring of subjects in a trial. Technology is also used to develop tests and experiments more efficiently than they were ever done on paper.

The shift to technological means is definitely one of the mainstays in the development of medicine, and is a welcome addition that presents few challenges aside from the training of resources. In terms of development, technology has also helped to make processes more efficiently and easily to allow newer drugs to be developed at a lower cost than older traditional methods of conducting trials (ICON, 2011). Budgeting and analysis can be used to efficiently allocate supplies and funds, and the actual trial data can be run through information systems in order to analyze the data from a bird's eye view and make decisions on its development.

The impact of this is likely to be decreased costs for the consumer for drugs and medical products. IV. Recommended plans for the adoption of technology in healthcare organizations As mentioned above, there are likely to be some growing pains in the adoption of technology in the healthcare industry. Doctors will likely have a hard time with the shift to more technological means, and their staff will also likely suffer the same hardships. Ensuring a proper plan to implement a technological solution in a

healthcare organization is therefore essential, and ensuring a smooth transition so that the customer is not affected in the process.

Therefore, the following are my recommendations for a smooth transition: 1. Identify the technological solution to implement, and assess what modules of the business this will impact. 2. Notify the staff of what will be implemented, and create a training plan to bring everyone up to speed in advance of the implementation so that no one is taken by surprise. 3. Develop a plan to ensure smooth integration into the organization, so that delivery is not compromised. This may include implementing it in part so that the new technology is used alongside the old process that was used to perform the same function. . Develop a timeline for the actual implementation to be complete. This is so that the employees do not continue to follow old methods as a crutch for not getting used to the new technology, and so they know when the new process will be followed. The above 4 items will be absolutely critical in ensuring a smooth transition for any healthcare organization to technological means. The reason why these steps will aid technology implementation is because it ensures that there is enough time to train resources and integrate the technology into the organization.

The reason why many organizations have a problem integrating technology is an ineffective change management plan. By introducing it slowly and getting all the required resources up to speed, there should not be an issue in change management. V. Final Thoughts Overall, technology is continuing to make an impact on the healthcare industry in a big way. Right now, there

is increasing shift towards using technology to speed up services delivery and management of services.

As the world becomes more technologically advanced, there will be an ever-increasing shift towards technological means. The key to implementing technology in any healthcare organization is a change management plan that gets everyone up to speed before the actual technology is implemented, and the communication of this change to all stakeholders involved. Once the change is communicated, steps will need to be taken to ensure training of resources and integration of the technology in the business practices. In terms of using technology in the healthcare industry, technology will always continue to impact healthcare in development of products and delivery of services. Technology is always going to be used to develop the Healthcare organizations need to focus on change management and integration of technology rather than just implementation. Works Cited U. S. Department of Health & Human Services. (2011, April 20). CMS EHR Meaningful Use Overview. Retrieved June 6, 2011, from U. S. Department of Health & Human Services Web Page: https://www.cms.gov/EHRIncentivePrograms/30_Meaningful_Use.asp

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