

## Health and Information Technology

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**Abstract:** The healthcare industry continues to grow to meet demands of a changing environment and a growing number of people. Moreover, the Information Technology space continues to expand to meet customer's needs and the continuing desire of people and companies to be the most technologically advanced. In order to allow the healthcare industry [or any industry] to continue to grow, it has to allow itself to expand with technology to help serve its customers more effectively. Through this partnership, it is possible for healthcare to become something more to its customers through more efficient and effective healthcare management.

### INTRODUCTION

A growing trend shown in many larger companies is empowering the employee (or individual) to manage their own healthcare with support from other resources. The biggest, and probably most significant change, is the ability for the individual to manage their health by leveraging technology. With the substantial advancements in online access to an enormous amount of information, individuals now can start using technology as a basis for their health care management. As shown with other various online activities such as online banking, shopping, and even social networking; it only encourages the fact that healthcare can operate in the same way.

### Empowering the Individual

If we emulate what some corporations have done by allowing their employees to manage their healthcare, primarily their "health stats" online, it achieves multiple objectives. First, with information being accessible online by the individual, it allows them to stay more engaged with their on-going health. In addition, the ability to access that information easily makes the user more likely to stay engaged as opposed to a "once and done" attitude that many people take with annual screenings. Another opportunity is the growing trend for an all-inclusive site that houses related information. It is this particular point that could add the most value. Considering the many sites that allow people to manage their various online banking accounts via one site, such as *my247* or *Discover Card*, we can see the powerful nature of such a site that can draw the individual's interest to manage things online.

As many of us have experienced, the on-going acceptance of I.T.-related advancements can be sporadic and even fail because of the ability for the individuals to understand the benefits or the technology. If we think about the number of passwords that one individual has to remember to access all of their online accounts, it is easy to see why having one more online account (such as healthcare) might not be widely accepted. However, if we can move towards a single repository for information that the individual can access and manage [with restrictions to information updated by hospitals or professionals], then we open up the ability to start leveraging technology to advance the healthcare field even further.

Let us imagine a time where an individual can have access to the aforementioned information. A time where someone can say, "when was my last check-up" or "what was my blood pressure back in April" and be able to access that information through a health portal. Technology in 2011 has the ability to allow individuals to have such access and be able to manage their lives more efficiently. As with any technology, there would be an acceptance period and a learning curve, but as the business sector has shown us, people like to have access to this information. Let us take one particular example where a business has taken online access to make an individual's life easier. PNC bank has recently released a revamped website that leverages technology to help individuals manage their finances more effectively. They are using calendars and analysis tools to allow people to track their expenses and income and then sort by the day and by type, transaction, or even amount. Many other companies are using such online tools

because they recognize there is a demand for it and that it helps people manage themselves more effectively. Technology can help us apply this same concept to more health-related information.

### **Caregiver Visibility**

It is a tragic situation when someone needs 24/7 care in a hospital or in their own house for many different reasons. Caregivers, especially those in Hospice, have a special role in not only taking care of the individual but the family as well. If technology can help the caregiver provide more support to the individuals involved, then healthcare can advance with new opportunities.

When an individual is getting around-the-clock care, there are many family members and friends that are interested in the progress of the individual and would also like periodic updates. If technology can empower the caregiver to update online information that allows friends and family [with secured access] to get updates on their loved-ones, then maybe the caregiver can be even more effective. Although situations can be traumatic, having a “scorecard” or some kind of graph that shows the person’s progress could help friends and family keep up-to-date without actually being at the location. With increased travel and more remote meetings, it would make sense that healthcare have the ability to operate in the same way. If we then couple the updates with places for people to blog or write notes to the individual, then technology is not just helping the caregiver and loved-ones, but the patient as well.

Certainly online updates can be a two-way street; they can be as used or unused as individuals see fit. The most important part is that technology can provide that option or access to allow people to decide on how to be involved. It is this type of technology that empowers that gets the highest rate of acceptance from people. In this way, healthcare can then transform into something more than just help but support to anyone that chooses it.

### **Analysis in Healthcare**

Although it may already exist in some form now, the ability for doctors, hospitals, and even individuals to analyze trends in diseases, check-ups, and even information is limited at best. With the advancements in the business intelligence space, there are opportunities for the healthcare industry and the private sector to start analyzing data to discover trends.

Preparation is always the best precursor to any big activity but the information to help preparation is not always available or accurate. By leveraging technology, hospitals and doctors can begin collecting data to help analyze emerging trends in the local or regional environment. If these entities had an efficient, easy-to-use way of collecting, analyzing, and using this data, they can try to get ahead of pandemics or other outbreaks. Although this idea is already in place at a lower level, it is not necessarily tied to a particular area, hospital, or even region. As we try to prepare for the future, having the ability to recognize a growing trend in a particular disease or virus could potentially help limit the environment’s exposure to it.

With all of the new programs and tools that are available for analyzing data and trends, the ability for local hospitals, doctors, and individuals to understand emerging trends should be easier than it was in the past. In many cases, when leveraging business intelligent software, there is very little, if any interaction from the user; other than reading the report. Technology can help make the data that is collected more valuable while still providing value to those people that want to leverage it. As the environment grows in a particular area, the ability to handle and understand the increased data becomes that more important. If we utilize technology to its potential, we can help achieve these objectives while still providing superior service to our customers.

### **Final Thought**

The healthcare industry is constantly growing and advancing in order to help people and sustain the environment. Technology can present a unique opportunity for the healthcare industry to become even more efficient than they are

now. Although there is more technology available that could ever be used by any industry, the ability for technology to impact healthcare from many levels makes it a strategic-need rather than a nice-to-have.

By leveraging technology and some of the ideas mentioned above, any healthcare industry, from a local doctor's office to a large regional hospital, can help treat their patients and customers more effectively while still maintaining a high level of service. Just as businesses need to grow and stay current to survive, the healthcare industry needs to evolve as much [if not more] to adequately meet the demands of the environment. As long as the impact of the technology does not deter from the spirit of the industry, it can become a very effective symbiotic relationship that can help drive more effective and efficient process. This, at the end of the day, is why we choose to advance in the first place.