Least Impactful Technology for the Future of Healthcare

Health & Fitness apps requiring manual feeding of data

Technology today affects every single aspect of modern society. In fact, there isn't an industry out there that hasn't been affected by the hi-tech revolution. Whether we are talking about transportation, communication, security, banking or healthcare, they all rely on technology in one way or another. But nowhere is this immense impact more apparent than in the field of medicine and healthcare. Technological breakthroughs are revolutionizing the way healthcare is being delivered. Modern technology has changed the structure and organization of the entire medical field. From widespread adoption of electronic medical records, to advances in bio-medical engineering and technology, modern healthcare and its delivery methods are changing at an ever-increasing rate.

The implementation of these Health Information Technology strategies has had more pros than cons, namely, improve efficiency, supports decision making and personalized medicine, empower patients, protect against cyber threats and data breaches and improves remote health monitoring to name a few. Improvisation of these technologies with each passing day has catapulted the healthcare field from what it was 100 years ago. With this being said, there are also certain technologies whose impact may not be as strong as it was or is in today's scenario. With the use of artificial intelligence and virtual reality, many healthcare technologies are evolving leading to the redundancy of few others.

The investment of time and money into certain technologies that have proven efficient in the current setup would eventually lose its shine over time. This could be said for health applications that require the patient or customer to manually feed in data on a day-to-day basis to better their lifestyle and health status. This technology from the time its onset has made a huge impact. Bringing people to understand the importance of maintaining a healthy lifestyle and better eating habits. Of the 3,195,204 active mobile apps available in the iTunes app store and the 3,612,250 active apps in the Google Play store, 95,851 and 105,912, respectively, were categorized as Health and Fitness.[1] With being cost-effective for the patient or customer, the popularity of these applications

grew in a very short duration. Advancements in this field of technology has come very far off since the time of manual data feeding. But these continue to survive. There are many reasons why these applications could not really be the most impactful in the future run.

These applications require the user to put in data, there could be an inaccuracy of data leading to results which could either make the user feel great about themselves or could make them lose motivation to continue using it. The inaccuracy in data will play a vital role in a bigger picture when these applications are made available to the user's physician. The health care world recently has become enthralled with wearables. These are sensor driven devices or clothes that make mobile applications look primitive. With accessibility to these wearables, the accuracy of data can be better trusted to make better decisions by the user. They can transmit huge amounts of data ranging from blood pressure to heart rhythms.

Technology adoption among users differs greatly and also affects the way an application is used. A study published in May 2016 (Mobile Health Apps to Facilitate Self-Care: A Qualitative Study of User Experiences) by Kevin Anderson, Oksana Burford, Lynne Emmerton included fitness apps enabled participants with chronic conditions such as obesity, diabetes and high blood pressure to elaborate on their experiences without restricting them to disease-specific apps. The analysis of the data was reduced to four dominant themes: engagement in use of the app; technical functionality of the app; ease of use and design features; and management of consumers' data. Most were used approximately weekly for several minutes per session, and prior to meeting initial milestones, with significantly decreased usage thereafter.[2]

Another aspect to understand while designing applications for the human body is that health behavior is too complex and multi-faceted. While a wearable would collect data without the interference of a human, a mobile health application could reach that phase to be able to collect data with extensive research but for now they do not stand at par with the wearables. Initially health applications and wearables were centered on step counters, digital workout coaches and heart-rate trackers. But the extent to which technology has advanced in the game of

wearables is beyond compare. For example, NeoMano robotic glove which is a special glove that helps those with spinal cord injuries perform everyday tasks using their hands.

Undoubtedly, Health and Fitness applications is the area of technology is where lesser investments could be made. Based on today's rapid pace of development and public enthusiasm for the technology marketplace, wearables, and sensors will soon become integral to our patients' quests of good health. Focus will have to be set into the following streams for best utilization: Engagement, Functionality, Information Management and Ease of Use. Through clinical stewardship and partnership with patients, physicians can use their expertise and experience to guide the growth of innovations into mainstream health care.

References

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