

IoMT: A Boon in Healthcare Sector

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Editorial

In this era of transforming healthcare, the healthcare industry is adapting novel ways to promote an ecosystem of connected high-end facilities, wearable technologies, clinical systems, and up-to-date management information systems to keep a track of patient data. Taking a leap with this trend, the healthcare industry is dedicated to focus on Internet of Things (IoT) that connects high-throughput medical devices with the network to transfer the data, and then connected with the wearable devices or sensors thus making the data processing faster and easier to access. "The Internet of Medical Things" (IoMT) is the amalgamation of medical devices and applications that collect data which is then provided to healthcare IT systems through online computer networks. For example, IoMT enables easy tracking of patients who are far away from the hospital with continual or long-time period conditions; tracking the affected person's medication orders and the and sufferers' wearable mHealth gadgets, which can send facts to caregivers. Infusion pumps that connect to analytics dashboards and health facility beds rigged with sensors that measure patients' important signs are medical gadgets that can be converted to or deployed as IoMT technology.

According to Gartner, there will be nearly 26 billion devices on the IoT by 2020. Just a little glimpse about the rising awareness and its expanding adaptation by the healthcare organizations, recently in Lucknow, Indian railways has installed two Health "ATMs". The concept of health ATM revolves around about getting your health checkup anytime at anyplace and the reports are immediately accessible by the user. YOLO Health ATM provides 16 health check-ups for Rs 50-100. The report is delivered instantly to the email or smartphone of the user. There are many applications of IoT

in healthcare and how it is turning the industry efficient in a cost-effective manner. Presently, IoMT solutions offered by various organizations include clinical efficiency, infant monitoring, brain sensors, and neural technology, etc.

As per the literature data available, it is noticeable that IoMT increases work force productivity by 57%, saves cost by 57%, creates new business model (37%), and improves collaborations with colleagues and patients (27%). This is the most important and debatable topic in the world right now but still we are not able to imply this concept in India to a greater extent even after so much of the research on this topic. There are numerous realities that have enabled this dramatic growth together with the accessibility of wearable gadgets and the decreasing expenses of sensor technology. Now that maximum patron mobile gadgets are prepared with near field communication (NFC) and radio frequency identification (RFID) tags, they can talk with IT systems.

In addition, the charges of persistent sicknesses are on the upward thrust and the call for better treatment options and lower healthcare costs makes it more attractive to dabble with newer innovations that could provide better healthcare results with great efficiencies. High-speed net growth and access, in addition to favorable government regulatory policies, have also contributed to the increase of IoMT adoption. IoMT can provide better ways to take care of our aged generation and has an extraordinary potential to help address the rising expenses of care. IoMT gadgets can assist to track vitals and heart performance, screen glucose and other body systems, and interest and snoozing levels. Seniors often forget to take their prescribed medicine on time, and IoMT gadgets can help remind them to take it and

document what time they took it. The advantages of IoMT are greater accuracy, richer data sets, improved protocol compliance, greater flexibility with user inputs, connection between all stakeholders, real time study tracking, patient and caregiver engagement, simple virtual visit less trials, reduced cost, shorter development times, medication adherence, personalized treatment, enhanced safety, remote and continuous monitoring, and faster enrolment. However, IoT-related security breach, malwares, human errors, etc. pose the biggest challenges in the adoption of IoMT.

India spends 4.6% of the budget and 1.3% of the GDP in healthcare which is again the challenge posed which will affect the probability of implementing IoMTs in India. Indian government needs to focus on increasing the health expenditure towards IoT and promote and generate the awareness for the same. The cost of the setup is relatively high and it needs awareness and short sessions to make it user-friendly and to make the people understand that how it is useful. This will help people to relate and gravitate towards IoMT. It definitely requires lot of efforts but as soon as people get oriented, things will eventually start falling in place.