

It trends

Technology, Information Technology



IT Trends IT Trends Technology is advancing in such a rapid phase that people would have to keep up with the trends. These new trends have produced advanced mobile communications that is to address the higher demands in our lives. A smartphone, for instance, is a device that works like a mobile phone but has also added features that follows a personal digital assistant (PDA) or computer. It is built on a mobile operating system (OS) that allows a more advanced connectivity and computing capacity. It has increased functionality as it also combines the functions of portable media players, digital cameras and web browsers that display mobile-optimized sites. It also has high speed data access connectivity through Wi-Fi and Mobile broadband. (Mashable, 2012).

The main incentive of using a smartphone is its convenience and portability. As it combines advanced mobile phone features with a personal computing machine, it can easily be compared to a PC or laptop without the unnecessary bulk and weight. Its duality allows the owner flexibility by being able to access emails and Office documents. It is a hand-held device that is easy to be carried around and used at any point of contact. It bridges connections between more people and locations at anytime. With the increased adoption of several applications, information has become easier to access and share.

Recent years have seen health professionals increase their use of this new technology that facilitates mobile computing at the point of care. As the healthcare system is highly mobile in nature, it necessitates several interactions with multiple locations like clinics, laboratories, emergency departments among others. The adoption of the smartphones by health

professionals demonstrates the opportunity for improved clinical communication, access to information and clinical tools at the point of care, or anywhere at any time (Mosa, Yoo, & Sheets, 2012)

Healthcare Information Management is not easy task as it entails large amounts of data in both paper-based and electronic versions. Paper-based medical records are generated by healthcare centers and encounter several challenges relating to processing, storage and retrieval. These are compounded with the need to compile diagnostic data and test results usually ordered by the medical doctors. These results to more hours dedicated to administrative tasks than actual patient care. The ongoing initiative to shift to Electronic Health Record (EHR) or Electronic Medical Record System (EMR) will make medical records management easier and more comprehensive and can include patient information to diagnostic care to prescription data.

The benefits of using smartphone-based healthcare applications allow not only advanced mobile clinical applications for the medical personnel but also provide remote access to real-time monitoring systems and EMR systems for improved patient care. It also presents various up-to-date, evidenced-based clinical resources that they can access and verify at their convenience. EMR is now being used in a variety of purposes which includes obtaining several opinions on diagnostic care and treatment, assessing preventive measures for a variety of illness and for reviewing clinical trial outcomes and research (Telegenisys, 2008)

This trend brings forth whole new regulatory legal and technological

considerations for the management of health records. Healthcare organizations would have to indicate strict policies that outline the conditions and acceptable uses of mobile devices that capture and store clinical information as a part of the patient's health record. There should also be a review of all information contained in the healthcare applications.

Organizations must move forward with this new trend by initiating a peer-review of all health-related applications to assure of its applicability and accuracy.

The challenges of the smartphone-based healthcare also includes potentially erroneous data input, computer viruses including spyware, magnetic interference with other medical devices, potentially inefficient patient-physician interactions, loss or theft and breaches of privacy and security.

The emergence of anti-virus applications for mobile devices is a strong signal that there exists a potential for misuse of such sensitive information as medical and health records. The privacy and security concerns of storing or communicating patient data with a smartphone should be addressed with caution. Security features must be kept in place like data backup, encryption of stored patient data, remote deletion of all data on a device in case of loss or theft and securely encrypting wireless data transmission over Wi-Fi. These measures do not only protect the patients' privacy and security but the medical personnel as well from possible litigation.

In conclusion, the smart-phone based healthcare applications have patients and doctors as their primary beneficiaries. It strives to allow an improved quality of medical care and treatment for patients and reduced operational workloads for healthcare professionals as it saves them productive time by

making information and collaboration ready at the point of care. However, as in many new developments, a corresponding study must ensue to provide guidance and analysis of its applicability and effectivity. As we continue to search for faster and easier ways, we might be neglecting the ethical considerations that should never be compromised.

References

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