

Technology Trends Worksheet

**Imagine** you work for a health care organization and have been asked to develop a proposal on how the organization might adopt a technology trend to improve the quality of the health care delivered to organization members.

**Select** and **research** two technology trends. Examples of technology trends:

* Telemedicine
* Optical imagery for diagnosing disease
* Electronic health records
* Telehealth
* Video translation services
* Dictation services (e.g., Dragon NaturallySpeaking)
* Medical equipment
* Health care robots
* Neural engineering
* Intelligent mobile devices
* National health care information network
* A technology trend approved by your faculty

**Complete** the table below by explaining the trend’s use, the effect of the trend on the health care industry, the benefits of adopting the selected trend, and how the selected trend will improve the quality of health care delivered.

| Technology Trend | Explain its Use (50 to 150 words) | Explain its Effect on the Health Care Industry(50 to 150 words) | Explain the Benefits of Adapting the Selected Trend and How the Selected Trend Will Improve the Quality of Health Care Delivered (50 to 150 words) |
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| Electronic Health Records (EHRs) | The Electronic Health Records (EHRs) provide a digital paperless service in which the paper chart health records are digitally recorded into the system and are easily accessible at the convenience of health care professionals (Fernández-Alemán et al., 2013). EHRs are used in the healthcare organizations to ascertain that patients are provided adequate care and that their health information is secured from unauthorized individuals. “The EHRs can store information related to the demographics, family history, patient information, lab data, and radiology reports in addition to the previous medical history and can incorporate information from any source where the patient has had his or her medical condition treated” (MSG, 2019).EHRs also ensure that patient information is instantly available apart from being secured. It often utilized to ensure there is security when sharing patient information with the patient and other clinicians. It is also used to improve patient, and provider interaction and communication and health care convince. It is also used by practitioners to ascertain there is safer and more reliable prescription. Through the use of EHRs, it has helped health care professionals reduce medical errors and to ensure there is safe care.  | The effect of EHRs on the healthcare industry has been something to note since the cost related to EHRs are restrictive. EHRs has led to the supplier of the technology to pay for the technology hardware and software, and this has also led to a healthcare organization to engage in investing for the setup, preservation, training, and participating in a systematic review of the technology (Carayon et al., 2015). Organizations that do not encounter an increase in revenue the cost of implementing the technology is often very high which hinders a healthcare organization from ascertaining security of their patient medical information. “Healthcare systems need to be redesigned to provide care that is safe, effective and efficient, and meets the multiple needs of patients” (Xie, A., 2016). The other effect of EHR in the healthcare industry is that it provides the practitioners the opportunity to provide a patient desired care based on the patient health information in EHRs. | The benefits of a healthcare organization towards adapting EHRs is that it will ensure efficiency and competency of the practitioners removing any margin for error. Through EHRs it will benefit an organization since it will not engage in filling out the patient information records on a paper which often consume time; thus, the trend will lead to improvement in the delivery of healthcare through streamlining workflows. The other benefit is that the selected trend allows a comprehensive view of the patient through providing a holistic view of the overall health of the patient leading to ensuring that the patient is provided with quality health care (Fernández-Alemán et al., 2013). EHRs are also beneficial as it enables sharing of information across specialist, hospitals, practitioners, and pharmacies allowing better and more timely decision making, especially in critical situations leading to improvement in the quality of healthcare, delivered. |
| Telemedicine | Telemedicine is the remote diagnosis and treatment of patients through the use of different telecommunications technology. The use of telecommunication is to ensure that healthcare providers can evaluate, diagnose and treat a patient through using technology such as video conferencing (Ekeland, Bowes & Flottorp, 2010). Telemedicine is used in healthcare organization to increase patient access to value patient care. Through the use of telemedicine, it has helped in the reduction of healthcare expenditures that patients often encounter. The use of telemedicine has also made it easier for patient's relatives and sponsors to follow-up their patients' treatment and ascertain that everything is conducted effectively. | The effect of telemedicine in the healthcare industry is that it has ensured that healthcare providers that engage in providing telemedicine services adhere to patient confidentiality which has been established by HIPAA. Engaging in online communication especially through the internet has its adverse effects primarily due to the hacking of communication, therefore, enabling the authorized individual to access patient medical information (Russo, McCool & Davies, 2016). Creating an effective telemedicine environment is not an easy task as it requires maximum training and building an effective telemedicine program that will support the practitioner's endeavors. Telemedicine can also affect an organization especially when patient information is compromised when the practitioners are engaging in online interaction when providing treatment to a patient. | The benefits of an organization that adapts to telemedicine are that it increases patient engagement with their practitioners and this leads to a reduction of costs translating to improved health of a patient and delivery of quality medical care. The other benefit of telemedicine is that it provides high quality healthcare services to those patients that live in rural areas; therefore, transporting them to a hospital is often very difficult. Telemedicine is also beneficial and leads to the delivery of quality healthcare by enabling healthcare practices to cater to the broader set of patients rather than those who can access medical services (Ekeland, Bowes & Flottorp, 2010. Telecommunication is also beneficial to patients as it brings medical care into the homes of the patients where they can receive primary care and urgent medical needs. Telemedicine is beneficial as it ensures delivery of adequate and quality delivery of medical care without indulging in hassle to communicate and seek appointments with doctors. |
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References

Xie, A. (2016). A systematic review of Human Factors and Ergonomics (HFE)-based healthcare system redesign for quality of care and patient safety. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4297241/>

Carayon, P., Wetterneck, T. B., Alyousef, B., Brown, R. L., Cartmill, R. S., McGuire, K., ... & Weinger, M. B. (2015). Impact of electronic health record technology on the work and workflow of physicians in the intensive care unit. *International journal of medical informatics*, *84*(8), 578-594.

Ekeland, A. G., Bowes, A., & Flottorp, S. (2010). Effectiveness of telemedicine: a systematic review of reviews. *International journal of medical informatics*, *79*(11), 736-771.

Fernández-Alemán, J. L., Señor, I. C., Lozoya, P. Á. O., & Toval, A. (2013). Security and privacy in electronic health records: A systematic literature review. *Journal of biomedical informatics*, *46*(3), 541-562.

MSG. (2019). The Role of Electronic Healthcare Records in the Healthcare Sector. Retrieved from <https://www.managementstudyguide.com/role-of-electronic-healthcare-records.htm>

Russo, J. E., McCool, R. R., & Davies, L. (2016). VA telemedicine: an analysis of cost and time savings. *Telemedicine and e-Health*, *22*(3), 209-215.