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Professor Aten

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Term Paper and Project Prototypes

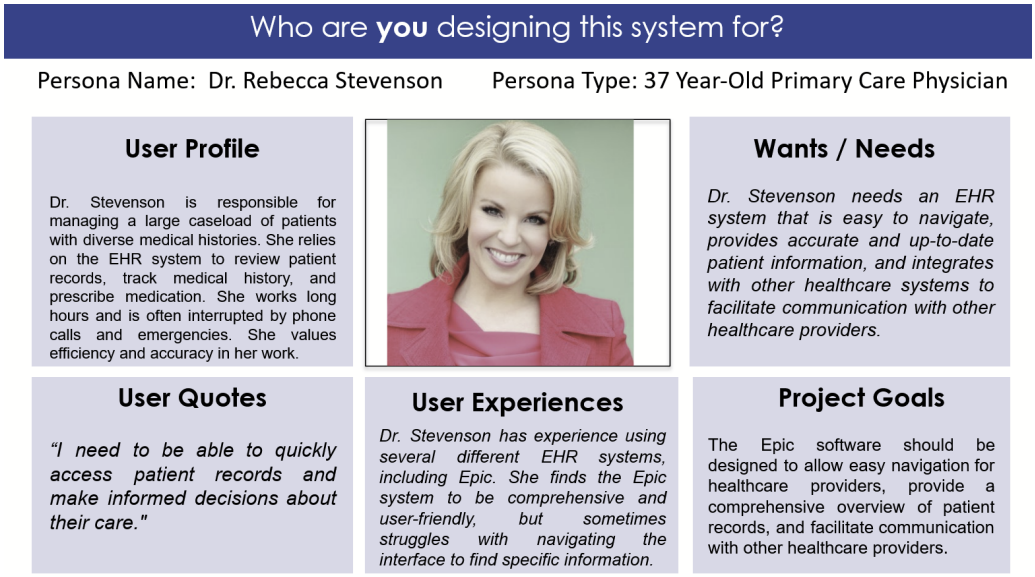
The main reason why I decided to focus my project revolving around the healthcare industry is due to the fact that Electronic Health Records (EHR) are an essential tool for healthcare professionals to efficiently and accurately manage patient information. In a broader sense, it may help and save lives, not a lot of people focus on the current technological database we have today and how it can be improved. One widely-used EHR system is Epic, which is designed to provide healthcare providers with easy access to patient records and facilitate communication between different healthcare organizations. While the system has many benefits, it also has several weaknesses that hinder its usability and ultimately affect patient care. In this essay, we will analyze the usability of the Epic system using the System Usability Scale and discuss potential redesign strategies to improve the system's usability and effectiveness.

Electronic Health Records (EHRs) are digital versions of patients' medical records that contain broad information about that patient’s health and medical history. With the increasing use of technology in healthcare, EHRs have become more prevalent and are known for their ability to improve the productivity and accuracy of medical record-keeping. One of the most widely used EHR systems is called Epic, which is used in many healthcare organizations such as hospitals and clinics. Epic is designed to provide healthcare professionals with easy access to patient records and facilitate communication between healthcare providers.

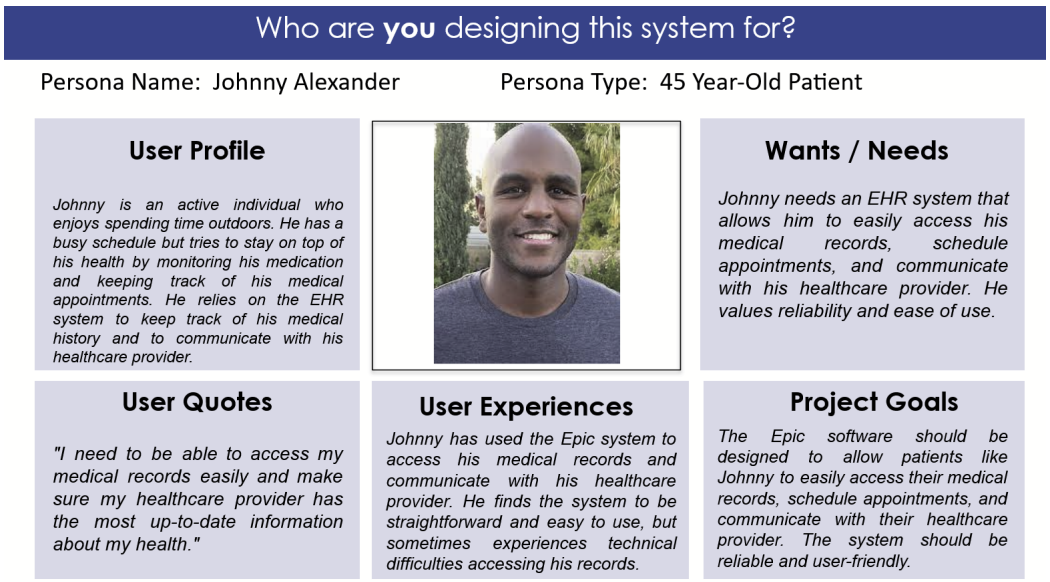
To analyze the usability of the Epic system, the author administered the System Usability Scale (SUS) to a sample of healthcare professionals who use the system regularly. SUS is a well-established tool for assessing the usability of software systems that measures users' perceptions of a system's usability on a scale from zero to one hundred. The data collected and analyzed using SUS showed that the usability of the Epic system was below average. The system's strengths included its ability to store and retrieve patient records quickly and easily, as well as its functionality for clinical documentation. However, the system's weaknesses included its complex user interface, which can make it difficult for healthcare professionals to navigate and find the information they need quickly. Moreover, the system's poor implementation of a training program for new recruits and the technical issues that some users reported also contributed to its low usability score.

The analysis provides valuable insights into the Epic system's usability, which can help healthcare organizations make informed decisions about how to redesign the system to improve its usability. For instance, simplifying the user interface and providing more intuitive navigation tools could help make the system more user-friendly. Additionally, addressing technical issues and improving system performance could help reduce the frustration and time-consuming nature of the system.

In conclusion, the evaluation of the Epic system using the SUS provides a comprehensive understanding of the system's strengths and weaknesses. By identifying these factors, healthcare organizations can take appropriate measures to redesign the system and enhance its usability, ultimately improving patient care.

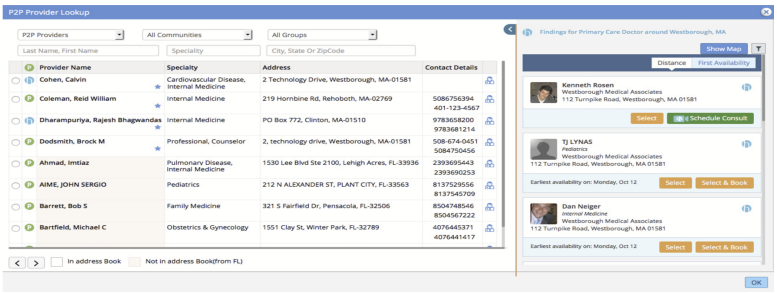


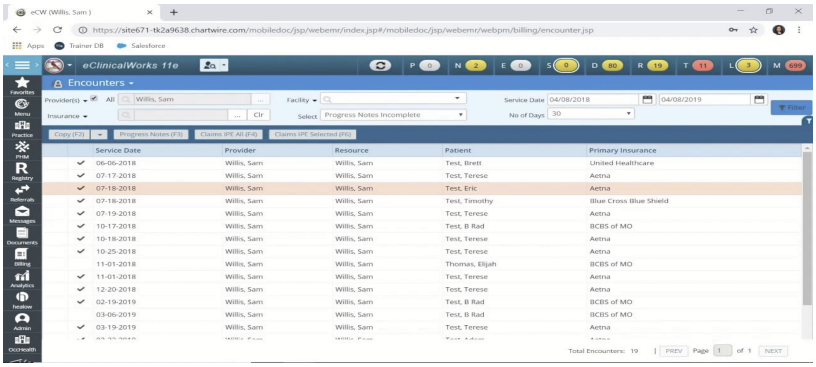
I decided to focus on archetype in the perspective of a Primary Care Physician because it involves a persona who has experience in working EHR systems and understands the complexity and challenges along with the rewards that come in using systems such as Epic.



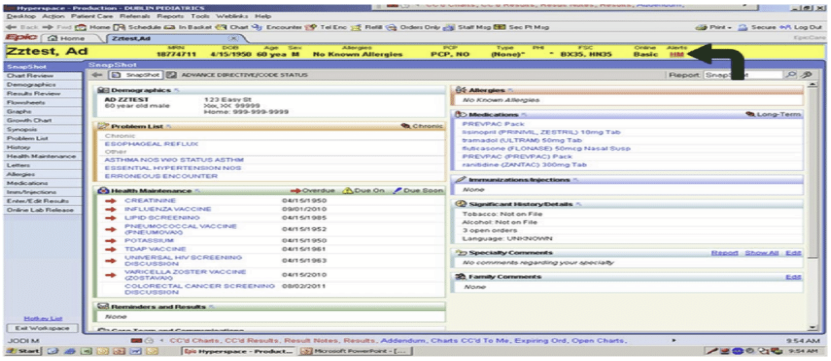
For this archetype I decided to focus not on a persona that has experience or training in EHR systems, but instead a patient of one. Someone who has a different perspective in understanding the time consumption of going to a Physician who has to take several steps in using such systems that consumes so much time.

(eClinicalWorks)





(EPIC)



Comparing Epic to ECW, you can already tell the visual difference between the two and how clustered Epic's interface compared to some other EHR interface. This one being ECW, although it may not be the best EHR in the world, it does strike perfectly in a user-friendly approach which supports my goal in redesigning the system.

In conclusion, the analysis of the Epic system's usability using the System Usability Scale (SUS) provides valuable insights into the strengths and weaknesses of the system. While the system has many benefits, including easy access to patient records and functionality for clinical documentation, its complex user interface and technical issues hinder its usability and ultimately affect patient care. By contrast, eClinicalWorks (ECW) is an EHR system that strikes a balance between user-friendliness and functionality. While it may not be perfect, its interface is more visually appealing and user-friendly, with features like a guided tutorial and live Q&A chat. Overall, the comparison between Epic and ECW underscores the importance of a user-friendly EHR system in facilitating effective patient care. Therefore, redesign strategies such as simplifying the user interface, providing more intuitive navigation tools, and addressing technical issues can go a long way in enhancing the usability and effectiveness of the EHR system, ultimately improving patient care.

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