

McKesson

Final Project
Topic: Alexa

Deep Azure

Problem Statement

Consumers are making a tectonic shift away from “Brick-and-Mortar” stores to online shopping using various technologies: Intelligent Personal Assistants, Web Apps, Phone Apps, etc. At the same time, these consumers are expecting quicker and easier ordering with faster delivery of their products; even expecting same-day delivery in some cases. Pharmacies have been lagging in this new frontier and are beginning to understand that it is no longer a question of if their industry will be transformed but it is a question of who will lead this transformation and when it will happen. Pharmacies are on the verge of being overhauled due to pharmaceutical demand, pricing pressure, consumer habits, and the rise of disruptive technologies such as A.I., Drones, Autonomous Vehicles, and Robotics and must adapt or become extinct.

In this project, we will leverage Alexa as an interactive assistant to a Pharmacy Management System hosted in Azure to automate the process of filling prescriptions for consumers.

Overview of Technology

Alexa is an intelligent personal assistant developed by Amazon. It is used on Amazon devices such as Echo, Show, and the Alexa smart phone app. Google Home (Ok Google) and Apple Homepod (Siri) are competitors in the same space. With Alexa, you can invoke a skill which has a concept of an utterance which specifies the intent of the user. This skill can then be integrated with Azure App Services without having to host and manage infrastructure.

Enter PharmAid: a cloud-based Alexa-Enabled Pharmacy front-end

PharmAid is my answer to this problem. Consumers can interact with Alexa when it comes to ordering their prescriptions. This technology can reduce pharmacy workloads and increase customer satisfaction. These prescriptions can be electronically verified, filled via automated dispensing, and delivered automatically all without the need for human intervention.

In 2016, patients who are currently ages 35 to 54 years old will begin hitting the age range where many will be filling two or more medications per year. This demographic is also the age range that is currently responsible for 47% of the total purchases made online in 2014. In approximately five to 10 years, these patients will become the ideal candidates for the online/mail-order pharmacy.

Through data gathering and analysis the results are clear. The generation that is most comfortable with Internet use, online shopping, and relying on packages mailed to their house is about to intersect with the perfect demographic of patients that are filling two or more medications per month. – modernmedicine.com

Amazon accounted for 4% of US retail sales and 44% of US e-commerce sales in 2017, according to a study from One Click Retail. – businessinsider.com

As of January 2018, Amazon Echo has 70% of the smart market share, Google Home has 25%, and all others have 5%. – barrons.com

Expected PharmAid Benefits

- Lower prescription cost
- Increased customer satisfaction
- Less human error
- Reduced infrastructure costs
- Leverages existing technologies: Central Fill (HVS), Electronic Prescribing (PPI), and A.I.
- Leverages future technologies: drones and autonomous vehicles.