Amazon Alexa Automation
Food ordering using Alexa Routine

Harsh Kumar [https://github.com/HyperWoo]

Abstract. The widespread adoption of intelligent voice assistants (IVAs), like Amazon's Alexa, presents new opportunities for designers of persuasive technologies to explore how to support people's behavior change goals and habits with voice technology. In this work, we explore how to use planning prompts, a technique from behavior science to make specific and effective plans, with IVAs.I design and conduct usability of Alexa's Routines and sub routines to make this work. We identify strategies that make it possible to successfully adapt planning prompts to voice format. The planing of a food delivering application is under process.

1 Introduction

People encounter problems in translating their goals into action [16]—often termed the intention-behavior gap or simply procrastination. The use of IOT devices can be a way to be productive when you don't feel like working.
In the this new world of technology the average man have huge amount of stress along with overwhelming amount of tasks. From a study done in MIT Psychology Grad Students in 2019, the early man have very slightest of task in compression of the current generation of humanoid, and this rate is hiking toward the Gen Z.

IVAs or Intelligent voice assistants, can contribute to wave off some amount of task over the hands of the current overwhelming experience.
The most popular voice assistant Amazon's Alexa is one of the greatest examples of IVAs present in our surroundings.
The Amazon's Alexa supports more than 20,000 devices, on an average Alexa manages more than 50 Million Echo devices are active, proving assistance to mare than 200 Million people each day.

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2 Related Work

IVAs are voice-based software agents that can perform tasks upon request— they use natural language processing to derive intent from requests made by their users, and respond to those requests using speech and/or another modality (e.g., graphical output). We focused on the intersections of IVAs and behavior change which is currently nascent. We discuss existing work surrounding IVAs for behavior change and planning prompts research in context of persuasive and behavior change technology.

IVAs is a piece of software that can be installed on a computer, a mobile device, or a specific device (such as an Amazon Echo or Google Dot) (e.g., Apple and Microsoft hardware). IVAs are made to take spoken or written input, respond to questions in natural language, display search results, support basic conversations, play music, place online purchases, manage a calendar, command Internet of Things (IoT) devices, and carry out other duties (Canbek, & Mutlu, 2016). Amazon Alexa, Apple Siri, Google Assistant, and Microsoft Cortana are among the most widely used IVAs.

The majority of IVAs need an internet connection to connect to the cloud servers of the businesses or other networked devices in order to function. IVAs typically start working when a user enters a triggering word or phrase into the voice recognition software of one of these devices. This word is "Alexa" for Amazon Alexa (which may also be altered and personalized by the user, Clauser, 2017), "Hey Google" or "OK Google" for Google Assistant, and "Siri" for Apple. The user often receives feedback when the programme is voice triggered in the form of lights (Google Dot, Alexa Echo), or a modified screen (Apple or Google phones). The information architecture of user interaction with one of the most popular IVAs, Amazon Alexa.

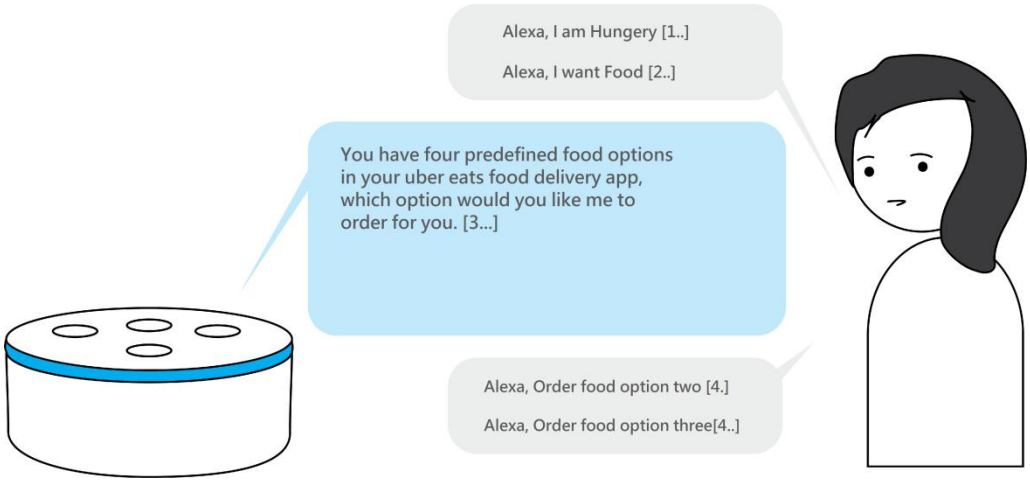
3 Design Process

In this work, I've employ a research through design approach to explore how the behavioral science technique of Alexa's Routine might be adapted from written to spoken format. Our design goal was to create a voice app or skill (Amazon's terminology for apps that run on their Alexa platform) that elicits spoken-out-loud planning prompts (see Figure 1). We relied on evidence-based techniques from behavioral science paired with an iterative design process to make this technology engaging and persuasive.

Using a suite of online services, Google Now uses a natural language user interface to answer questions, offer suggestions, and carry out tasks. Along with providing answers to user-initiated questions, Google Now also proactively sends users information that it forecasts based on their past searches or frequent search histories. On the Galaxy Nexus smartphone, it was originally supported in Android 4.1 ("Jelly Bean"), which was released on July 9, 2012.

Each firm that creates intelligent assistants submits an application. his own particular techniques and strategies for growth, it ultimately has an impact on the result. One helper can another person can more effectively synthesis speech accurately and without the need for further justification or correction execute tasks, while some only have a limited set of abilities duties, but in the most precise and desired manner. Obviously, There isn't a single universal helper that could do everything. similarly well.

4 Alexa Routine (Food Ordering)



Behavior Adaption

The behavior adaption is done using Amazon's Alexa Routine which uses Machine Learning technology. A persons behavioral attributes are reflected in his/her voice, to catch this behavioral attributes Alexa need a huge amount of data of N no. Of people to execute a working model on understanding a particular person.

Pre-defined Option Storage

To execute this automation the Alexa Echo needs to be connected with a IFFF supporting application. The application is connected with the Echo through the AWS Cloud Instance.
The AWS (Amazon Web Service) is used to accept a JSON File (Java Script Oriented Notation) have a key value attributes which contain the data needed for the execution of program.

Human Confirmation

To final exude “Food Ordering” using Alexa routine a human confirmation is needed to reduce any error in execution. A notification will be sent on the device for Order Confirmation.

5 References

[1] Planning Habit: Daily Planning Prompts with Alexa ? Andrea Cuadra[0000−0002−1845−0240], Oluseye Bankole, and Michael Sobolev[0000−0002−8931−7682] Cornell Tech, New York, NY, 10044, USA