Introduction

Welcome to Our Survey on Icon Inconsistency in Alexa Skill Apps

Thank you for participating in our research study. This survey focuses on the icon inconsistency issues within Alexa skill apps, which operate on Amazon's Alexa Echo devices. These apps form an ecosystem similar to mobile apps; developers can upload their Alexa skill apps to an App Store for users to use. Even if you're not familiar with Alexa skill apps, you can think of them as similar to mobile apps.

The survey comprises five question types and will take approximately 10-15 minutes to complete. We value your insights and appreciate your time.

Question Type A: inferring functionality from app icons

A1. Here is an icon from an Alexa skill app. Based on the icon alone, what **functionality** do you **expect** this app to have? Please answer in a **few** word.

A2. Here is an icon from an Alexa skill app. Based on the icon alone, what **functionality** do you **expect** this app to have? Please answer in a **few** word.

A3. Here is an icon from an Alexa skill app. Based on the icon alone, what **functionality** do you **expect** this app to have? Please answer in a **few** word.

A4. Here is an icon from an Alexa skill app. Based on the icon alone, what **functionality** do you **expect** this app to have? Please answer in a **few** word.

A5. Here is an icon from an Alexa skill app. Based on the icon alone, what **functionality** do you **expect** this app to have? Please answer in a **few** word.

A6. Here is an icon from an Alexa skill app. Based on the icon alone, what **functionality** do you **expect** this app to have? Please answer in a **few** word.

Question Type B: icon consistency study (icon/own description)

B1. Here is the **app icon** along with its **own description**. Do you think the design of the **icon accurately reflects** its **functionality**?

Alexa provides a quick forecast by default, but sometimes you need to know more: like the wind chill, the heat index, or the fact it'll be colder in the afternoon than it was in the morning. Better Weather gives you that information, from public data provided by the US National Weather Service.

No   Maybe   Yes

B2. Here is the **app icon** along with its **own description**. Do you think the design of the **icon accurately reflects** its **functionality**?

Listen to live data from a Raspberry PI weather station at 22 Karen Crescent. Readings are available for Temperature, Feels Like, Humidity, MM of Rain, Wind Speed and a whole lot more.

No   Maybe   Yes

B3. Here is the **app icon** along with its **own description**. Do you think the design of the **icon accurately reflects** its **functionality**?

City Weather is your dedicated source for real-time weather updates in Pune city. Whether you want to plan your day, stay informed, or simply satisfy your curiosity about the local weather conditions, our skill is here to help.

No   Maybe   Yes

B4. Here is the **app icon** along with its **own description**. Do you think the design of the **icon accurately reflects** its **functionality**?

Tune into Main Stop 1189, the hottest radio station and enjoy.

No   Maybe   Yes

B5. Here is the **app icon** along with its **own description**. Do you think the design of the **icon accurately reflects** its **functionality**?

FOX NEWS RADIO! Fair and ballanced. As the 2020 election cycle heats up, FOX NEWS RADIO has it covered 24/7.

No   Maybe   Yes

B6. Here is the **app icon** along with its **own description**. Do you think the design of the **icon accurately reflects** its **functionality**?

The Daily News Brief skill provides you with the latest headlines and top stories from the world of technology. Stay informed about the latest trends, innovations, and updates in tech by adding this skill to your Flash Briefing.

No   Maybe   Yes

Question Type C: user's download preference (icon/own description)

C1. Below are two Alexa skills offering **similar functionalities**. Which one would you **prefer to download**?

(a)

Alexa provides a quick forecast by default, but sometimes you need to know more: like the wind chill, the heat index, or the fact it'll be colder in the afternoon than it was in the morning. Better Weather gives you that information, from public data provided by the US National Weather Service.

(b)

Listen to live data from a Raspberry PI weather station at 22 Karen Crescent. Readings are available for Temperature, Feels Like, Humidity, MM of Rain, Wind Speed and a whole lot more.

○ a
○ b

C2. Below are two Alexa skills offering **similar functionalities**. Which one would you **prefer to download**?

(a) Alexa provides a quick forecast by default, but sometimes you need to know more: like the wind chill, the heat index, or the fact it'll be colder in the afternoon than it was in the morning. Better Weather gives you that information, from public data provided by the US National Weather Service.

(b) City Weather is your dedicated source for real-time weather updates in Pune city. Whether you want to plan your day, stay informed, or simply satisfy your curiosity about the local weather conditions, our skill is here to help.

○ a
○ b

C3. Below are two Alexa skills offering **similar functionalities**. Which one would you **prefer to download**?

(a) Listen to live data from a Raspberry PI weather station at 22 Karen Crescent. Readings are available for Temperature, Feels Like, Humidity, MM of Rain, Wind Speed and a whole lot more.

(b) City Weather is your dedicated source for real-time weather updates in Pune city. Whether you want to plan your day, stay informed, or simply satisfy your curiosity about the local weather conditions, our skill is here to help.

○ a
○ b

Please briefly explain your previous three choices.

[   ]

C4. Below are two Alexa skills offering **similar functionalities**. Which one would you **prefer to download**?

(a)

Tune into Main Stop 1189, the hottest radio station and enjoy.

(b)

FOX NEWS RADIO! Fair and ballanced. As the 2020 election cycle heats up, FOX NEWS RADIO has it covered 24/7.

○ a
○ b

C5. Below are two Alexa skills offering **similar functionalities**. Which one would you **prefer to download**?

(a)

FOX NEWS RADIO! Fair and ballanced. As the 2020 election cycle heats up, FOX NEWS RADIO has it covered 24/7.

(b)

The Daily News Brief skill provides you with the latest headlines and top stories from the world of technology. Stay informed about the latest trends, innovations, and updates in tech by adding this skill to your Flash Briefing.

○ a
○ b

C6. Below are two Alexa skills offering **similar functionalities**. Which one would you **prefer to download**?

(a) Tune into Main Stop 1189, the hottest radio station and enjoy.

(b) The Daily News Brief skill provides you with the latest headlines and top stories from the world of technology. Stay informed about the latest trends, innovations, and updates in tech by adding this skill to your Flash Briefing.

○ a
○ b

Please briefly explain your previous three choices.

_____

Question Type D: user's download preference (icon/same description, comparative)

D1. Below are three Alexa skills with the **same descriptions** but **different icons**. Which one would you **prefer to download**?

(a)

Alexa provides a quick forecast by default, but sometimes you need to know more: like the wind chill, the heat index, or the fact it'll be colder in the afternoon than it was in the morning. Better Weather gives you that information, from public data provided by the US National Weather Service.

(b)

Alexa provides a quick forecast by default, but sometimes you need to know more: like the wind chill, the heat index, or the fact it'll be colder in the afternoon than it was in the morning. Better Weather gives you that information, from public data provided by the US National Weather Service.

(c)

Alexa provides a quick forecast by default, but sometimes you need to know more: like the wind chill, the heat index, or the fact it'll be colder in the afternoon than it was in the morning. Better Weather gives you that information, from public data provided by the US National Weather Service.

○ a
○ b
○ c

Please briefly explain your previous choice.

D2. Below are three Alexa skills with the **same descriptions** but **different icons**. Which one would you **prefer to download**?
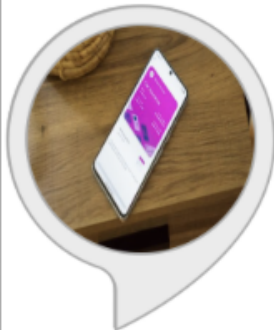
(a)

FOX NEWS RADIO! Fair and ballanced. As the 2020 election cycle heats up, FOX NEWS RADIO has it covered 24/7.

(b)

FOX NEWS RADIO! Fair and ballanced. As the 2020 election cycle heats up, FOX NEWS RADIO has it covered 24/7.
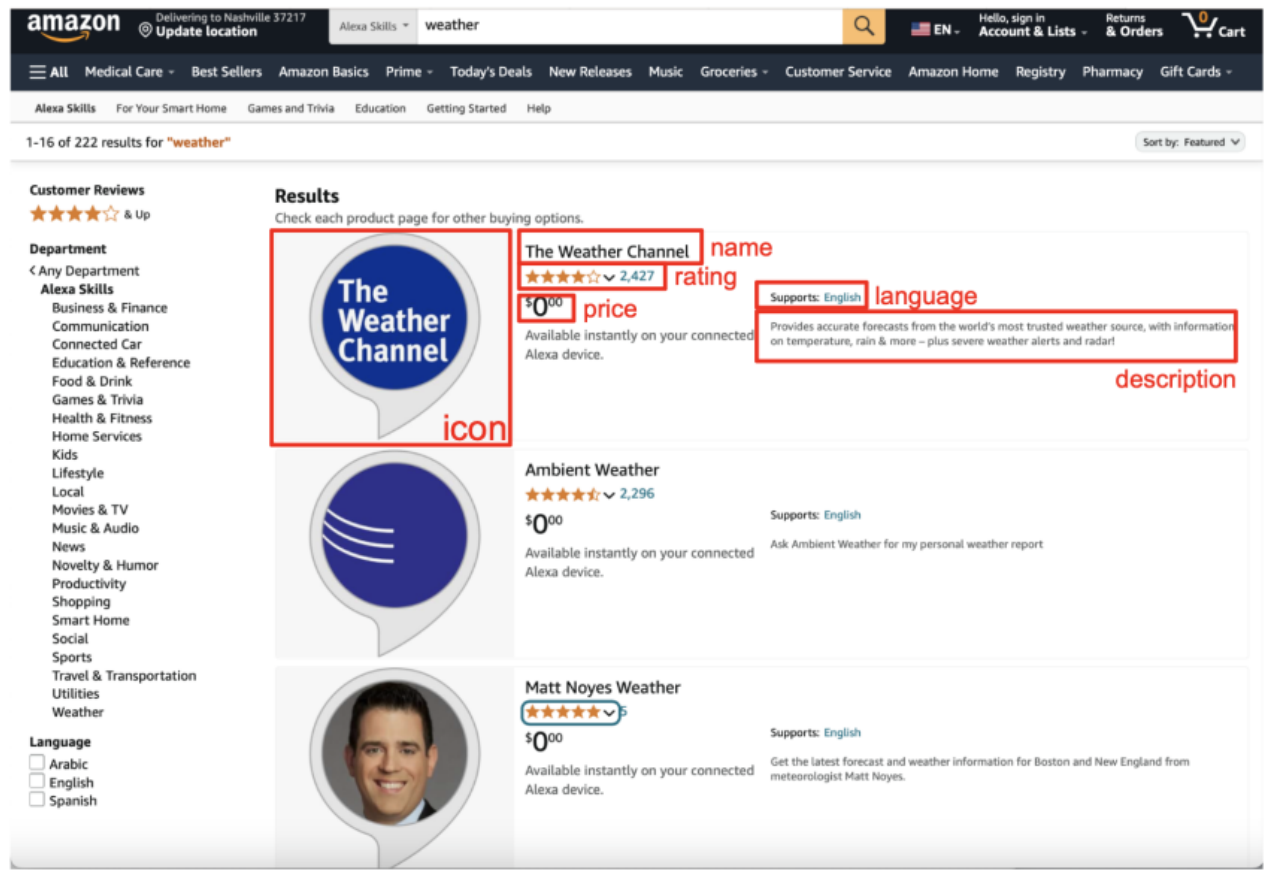
(c)

FOX NEWS RADIO! Fair and ballanced. As the 2020 election cycle heats up, FOX NEWS RADIO has it covered 24/7.

○ a
○ b
○ c

Please briefly explain your previous choice.

Question Type E. study on user search interface

E1. Below are Alexa skills that appear on the **website** when **searching for** the "Weather" **functionality**. Based on the element names labelled in red in the figure, please order the elements from **most important** to **least important** when **considering downloading** this app.

icon

price

rating

name

language

description

E2. Below are Alexa skills that appear on the **mobile** when **searching for** the "Weather" **functionality**. Based on the

element names labelled in red in the figure, please order the elements from **most important** to **least important** when **considering downloading** this app.

icon

utterance

name