

Equal Voice.

An Alexa Skill to give voice to everyone.

Fatima Rafiqui & Nikita Pinjare



Problem Space.

Group meetings have become a part of our everyday lives, be it a project discussion at school or a business meeting, the amount of time spent in meetings is significantly high.

But unfortunately, **not all team members are able to participate in group discussions.**



First, we did the groundwork.



Assumptions

To form initial hypothesis

Articles

To validate our assumptions

Interviews

To understand user perspective

Exemplars

To find design inspiration

ASSUMPTIONS

Let's list down how we feel.



Fatima

Personality Type: Extrovert

- During a meeting, I have something to say at every point that has been made and unknowingly **I keep cutting others** during a conversation.
- There is an urge to be a leader and **drive the conversation** in the right direction.
- Often, **I don't realize** that I have been talking for a long time and someone else did not get a chance.



Nikita

Personality Type: Introvert

- Sometimes I **keep waiting for my turn** to speak and it never comes. As a result people move to another point.
- I sometimes **zone out** of long conversations and discussions. It gets difficult to engage.
- I **feel invisible** from the whole scenario and it can be demotivating.

LITERATURE REVIEW

Researching online.

Harvard
Business
Review

Diversity | Run Meetings That Are Fair to Introverts, Women, and Remote Workers

How to overcome this bias:

- Before the meeting: Share the purpose of the meeting, provide any relevant data ahead of time, and list the specific discussion questions you plan to cover.
- During: Proactively give introverted thinkers the floor with questions like, “Janet, from the discussion so far, what really stands out for you?” or “Akshay, what do you think we should be considering that we haven’t yet covered?”
- After: Circulate a meeting summary and proactively solicit ideas that might’ve come to mind after the meeting. You can close your email with something like, “Anyone have a new insight about this situation since we met? If so, I’d love to hear it.”

The New York Times

IN HER WORDS

It's Not Just You: In Online Meetings, Many Women Can't Get a Word In

Overlapping chatter. Interruptions. Few nonverbal cues. For women, virtual meetings can mirror the inequities of in-person meetings.

Shannon May

INTERVIEWS

We conducted 6 interviews with people of different personalities

“A meeting is considered **productive** when all members have the feeling of **being heard**, and their **ideas are valued**.”

- Senior Engineer, Atlassian

“I sometimes feel **guilty** after a meeting, especially when I think **hijacked most of the conversation**. I’d certainly like to be aware if I am doing so.”

- Program Manager, Microsoft

“I have had many managers say, ‘You have great ideas, but **you need to speak up** more in meetings.’ It gets **really awkward** and I don’t know how to respond ”

- Engineer, Traveloka

What was validated?

01

Individuals often **require motivation and encouragement** to state their opinions in a group.

02

Self awareness can help individuals in **reflecting upon their actions** and making suitable amends.

03

A meeting is considered productive when **all members participate** and **feel valued**.

THE PROBLEM

What can
overshadowing
someone in a
meeting result in?

Credit: A possibility of someone else taking credit for another team member's idea because of speaking up.

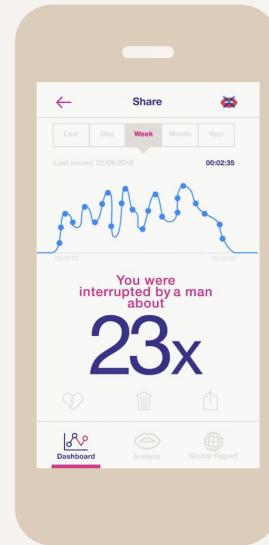
Team Motivation: Not being able to participate can bring down the team morale of the participants.

Biased Decisions: People who speak more often can influence the decision making and induce bias in the conversation.

Narrow Perspective: The lesser number of people speaking, narrower the perspective.

EXEMPLARS

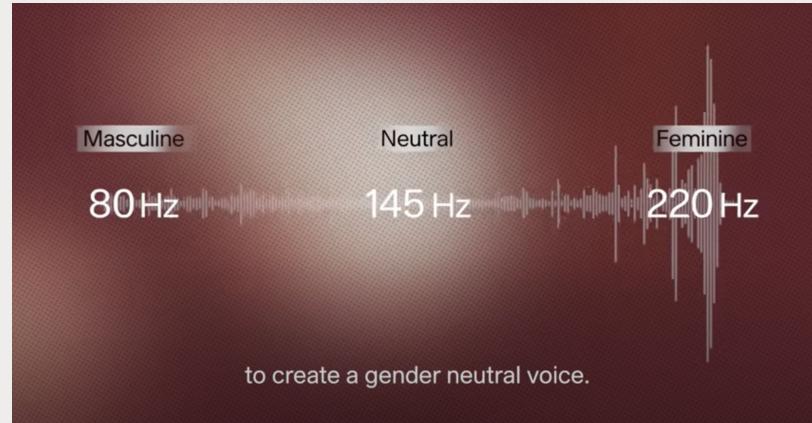
Wait, let's see what people have already done.



Women Interrupted is a **critical design concept** that reflects on the fact that **women do not get an equal opportunity to speak in meetings** and how much they are interrupted.

EXEMPLARS

Wait, let's see what people have already done.



Meet Q is a **genderless voice assistant**. It promotes **inclusivity** by using a voice frequency that is neutral. It guided our thought process by showing us that inclusivity is possible just through voice.



OPPORTUNITY

How might we create a **conducive environment** for everyone to speak up and have **equal participation** across the team?



Core design values to guide us.

01

Encouragement

We believe encouragement is a constructive way to bring about diverse opinions from everyone across the table.

02

Inclusivity

The group discussions should be inclusive of all and should not be biased against race, gender, personality or any other criteria.

03

Self-Awareness

We want individuals to be aware of their actions and consciously make an effort to bring equality.

Introducing Equal Voice.

Equal Voice is a skill in Alexa that can be installed through your mobile application or by directly talking to Alexa.

How it works?

Alexa turns on the discussion mode upon instruction. Once the mode is turned on, it overhears the meeting discussion and keeps a record of who is speaking and for how long. Based on voice analysis, it encourages people who have been talking in the group discussion more than others to give the rest a chance by interrupting during conversation pauses.



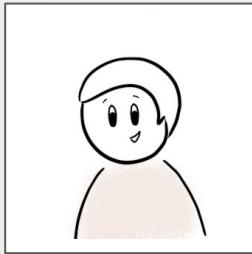


To understand how Equal Voice works

Let us walk you through a scenario.

Meet Jim, Rebecca, Jason & Kelly.

They work together at TechOnline and often find themselves in meetings for team discussions

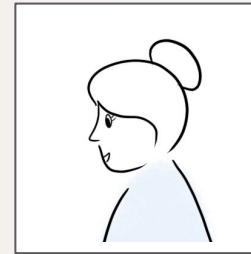


Jim

Position: Manager

Personality: Balanced speaker and moderator

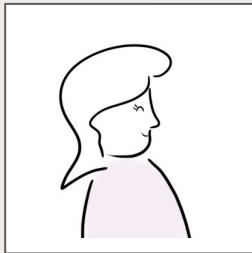
He organizes meetings and acts as a moderator.



Rebecca

Position: Developer

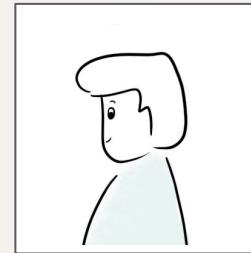
Personality: Speaks when required however, once she starts speaking it is **difficult for her to pause.**



Kelly

Position: Product Manager

Personality: An open speaker who often interrupts during meetings



Jason

Position: Researcher

Personality: A listener and introvert, finds it hard to communicate during meetings and often **waits for his turn.**

NORMAL SCENARIO

A sneak-peak into their normal meeting sessions.

Jim

Introduces the agenda of the meeting and let others speak.
Acts as a moderator

Kelly

Starts speaking as soon as the floor is open for discussion.
Continues to speak unless interrupted..



Rebecca

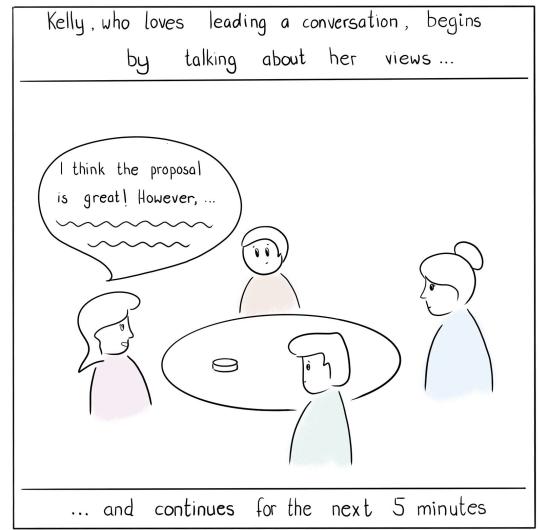
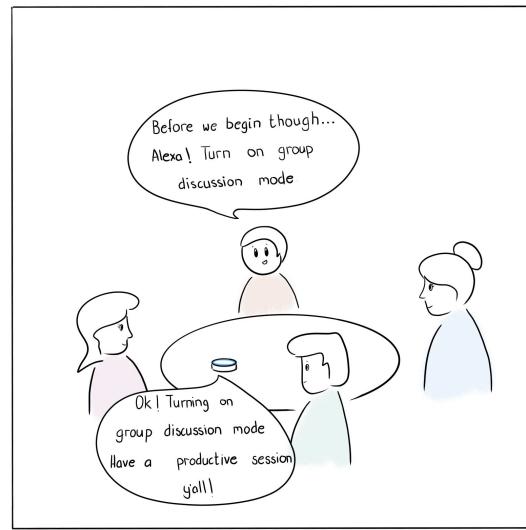
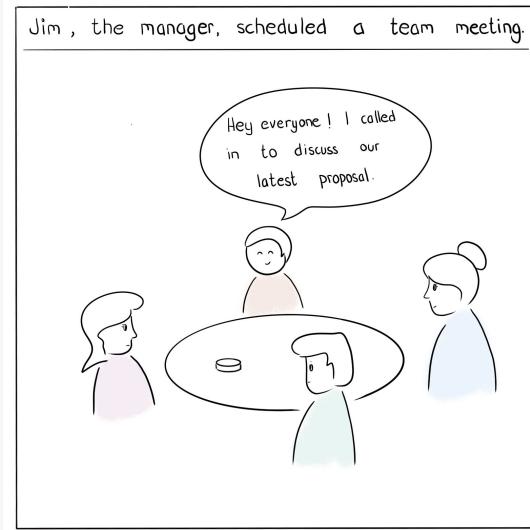
Rebecca continues to put her point across and that converts into an endless conversation..

Jason

Waiting for his turn to speak, Jason keeps on waiting until the topic is switched to something else and he never gets a chance!

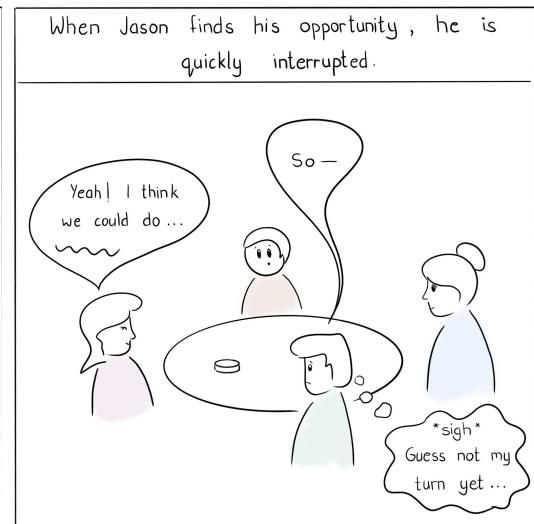
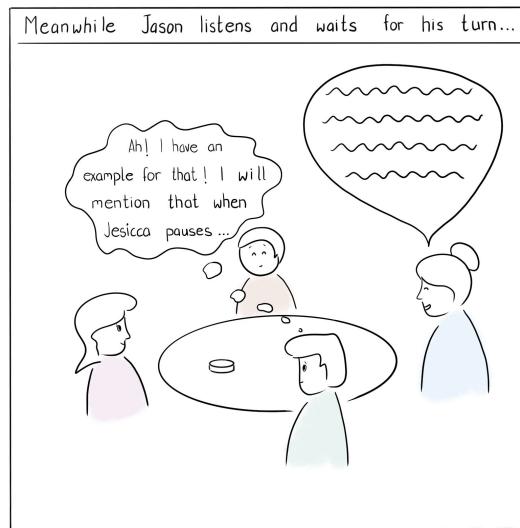
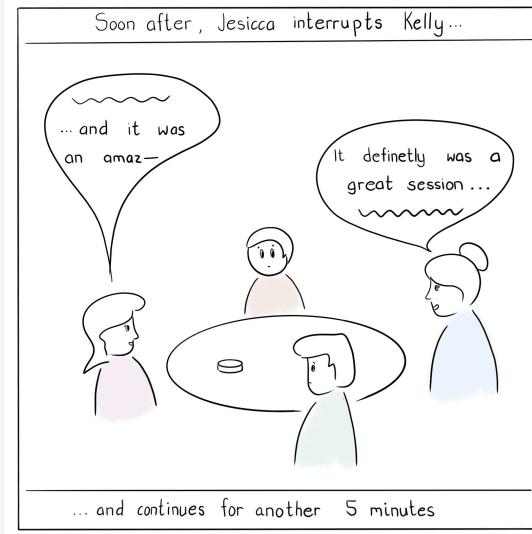
ITERATION 1

Storyboarding the scenario



ITERATION 1

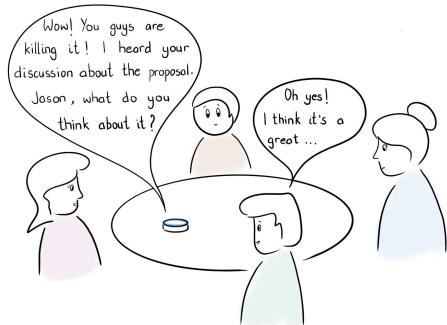
Storyboarding the scenario



ITERATION 1

Storyboarding the scenario

Alexa detects the non-talking member and gently interjects at a pause to urge equal participation

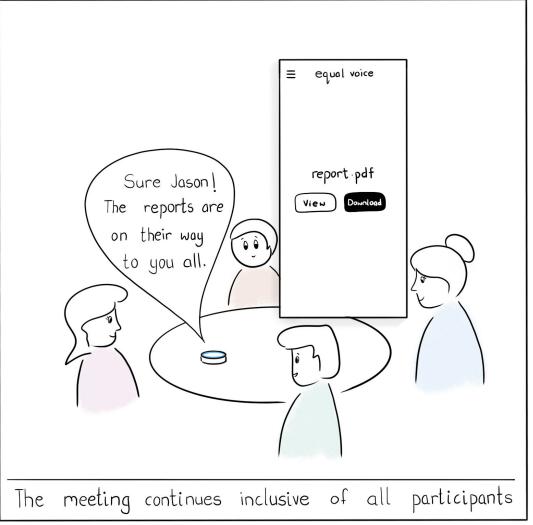


Jason finally speaks and feels valued in the meeting.

As Jason talks about his views, he realizes he could communicate better with the data and report...



The meeting continues inclusive of all participants



BEHAVIOURAL PROTOTYPING

Wizarding the behaviour.



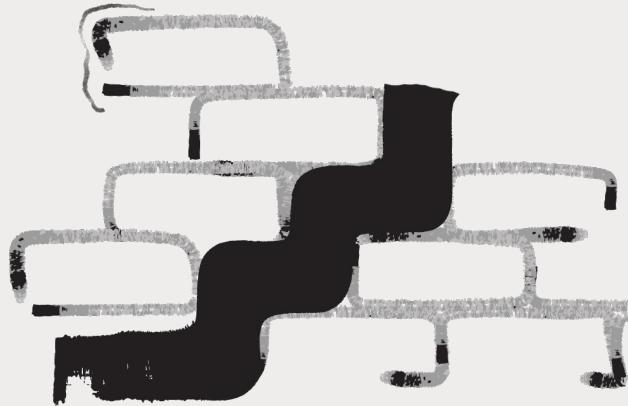
To rapidly prototype the behavior of the Equal Voice concept, we decided to use a **phone call on speaker mode** that will **mimic Alexa's behavior**. We started the group discussion on a topic relevant to all. Analysing the frequency of participation, the phone call would interrupt the conversation to make it more inclusive.

RESULT ANALYSIS

This revealed gaps in our concept.

Voice and tone: Interruption during a conversation can be intimidating for people. At this time, we need to be consciously aware of the content, and alexa should tweak the voice tone in a way to make it sound more motivating and encouraging.

Figuring out the mechanism: How do we differentiate between a 5 minute meeting and an hour long meeting? We need to empower users to set the meeting timing and chose if they want to be interrupted or not.



ENGINEERING CHECK

Understanding technical feasibility & challenges.

Firstly, Alexa needs to the **detect the number of people in a meeting** to moderate it, how do you plan on doing that?

Secondly, there are **different kinds of discussions**, how do you plan on differentiating those?

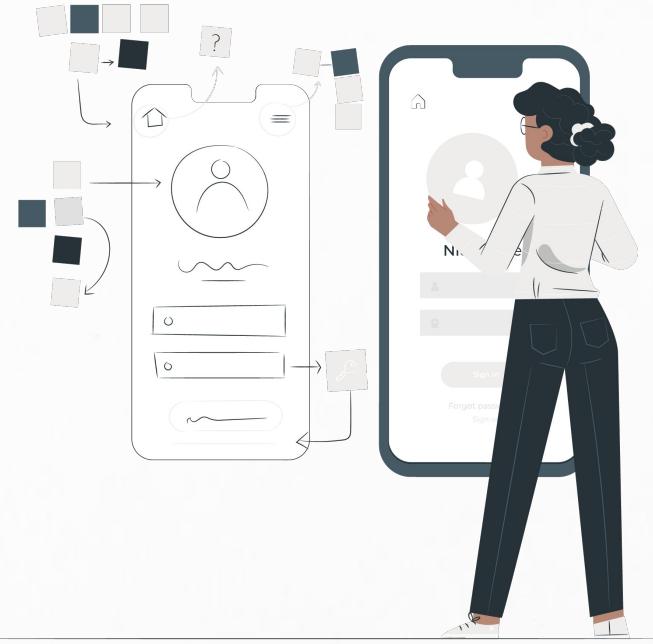
From a technical perspective, **Alexa may sometimes fail to register if someone spoke**, what would one do in this situation?

For this to work, Alexa would **need to detect a window of opportunity**, is that possible?

Yes, it could, if we **provide with 'indicators of pause'** in the backend.



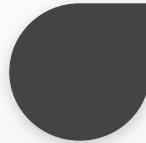
Final Design Solution



Style Guide

Utilizing a soft gradient consisting of more warm colors felt like the perfect fit for Equal Voice's branding. The color palette evokes the feeling of being in an office space merged with navy blue to give a composed vibe.

Colors



#0B103A



#4E4042



#CAB8AB



#F8EEEB

Typography

H1

AaBbCc

IBM Plex Sans

H2

AaBbCc

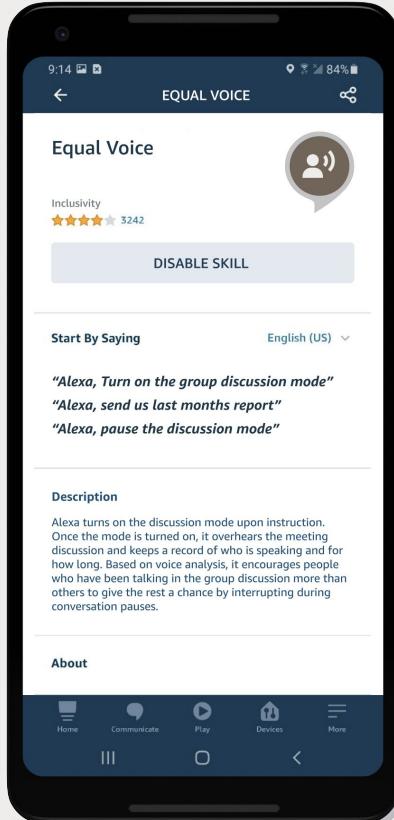
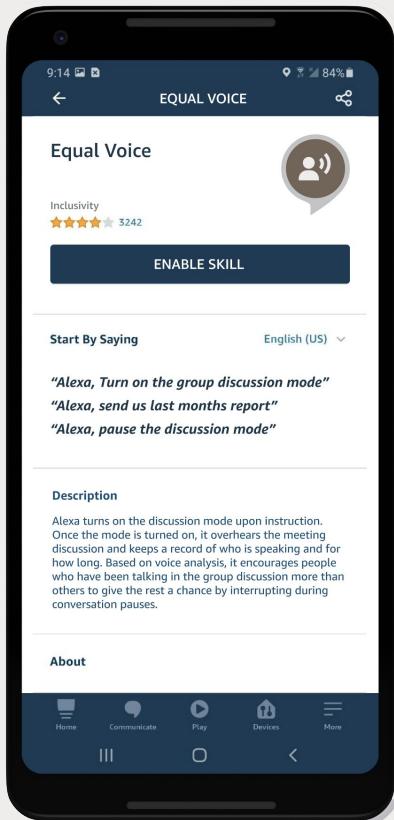
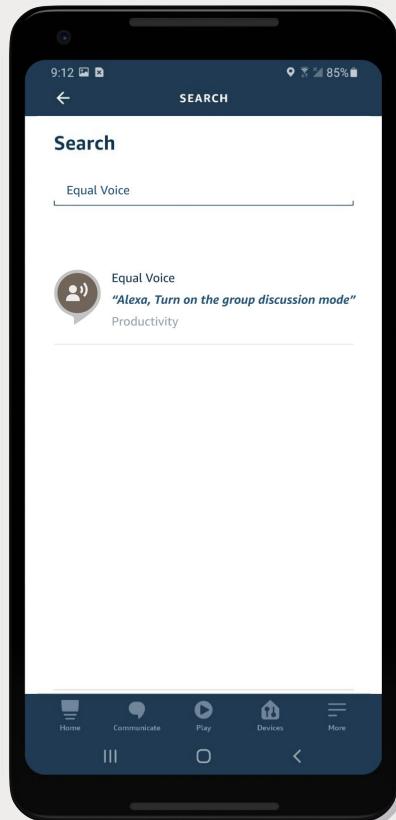
IBM Plex Sans Semibold



EQUAL VOICE ENABLED SCENARIO

Let's see how things changed after we place Alexa on the table.

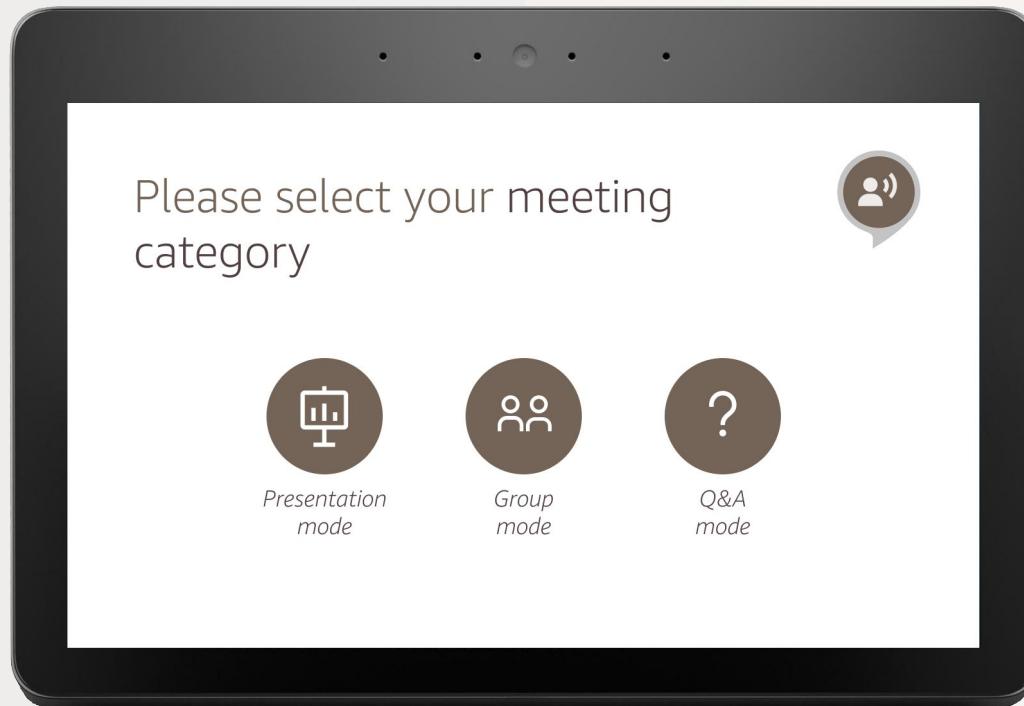
First, Enable the equal voice skill in Amazon Alexa application.



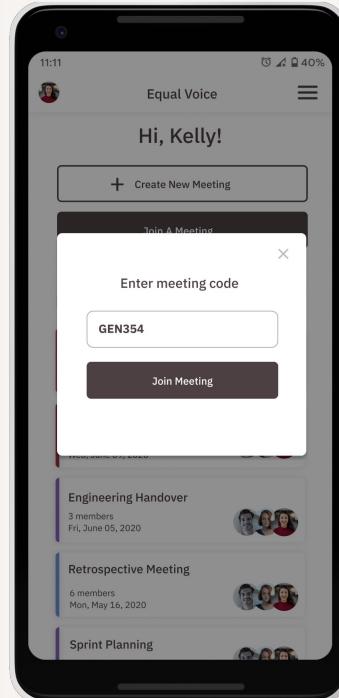
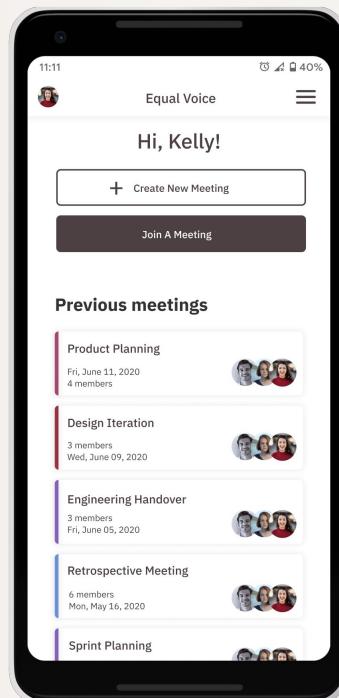
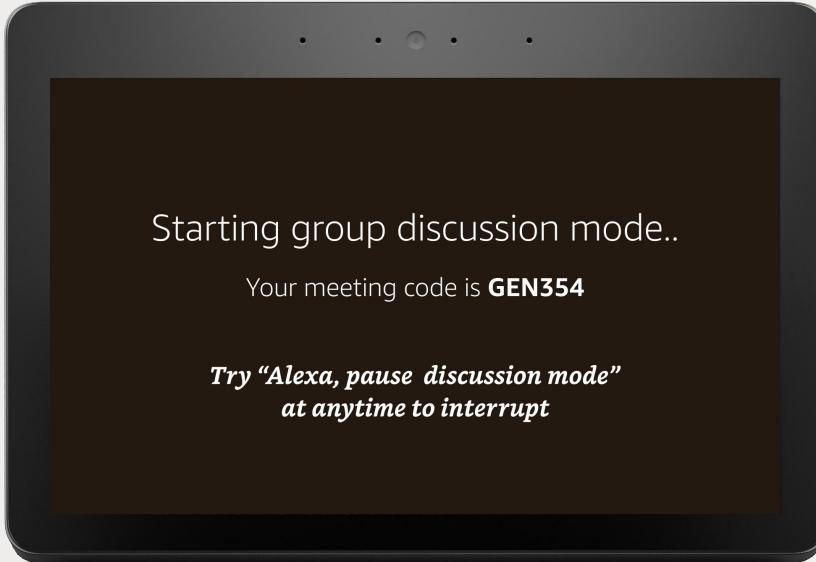
Once enabled, activate Equal Voice by prompting, “**Alexa, turn on group discussion mode**”



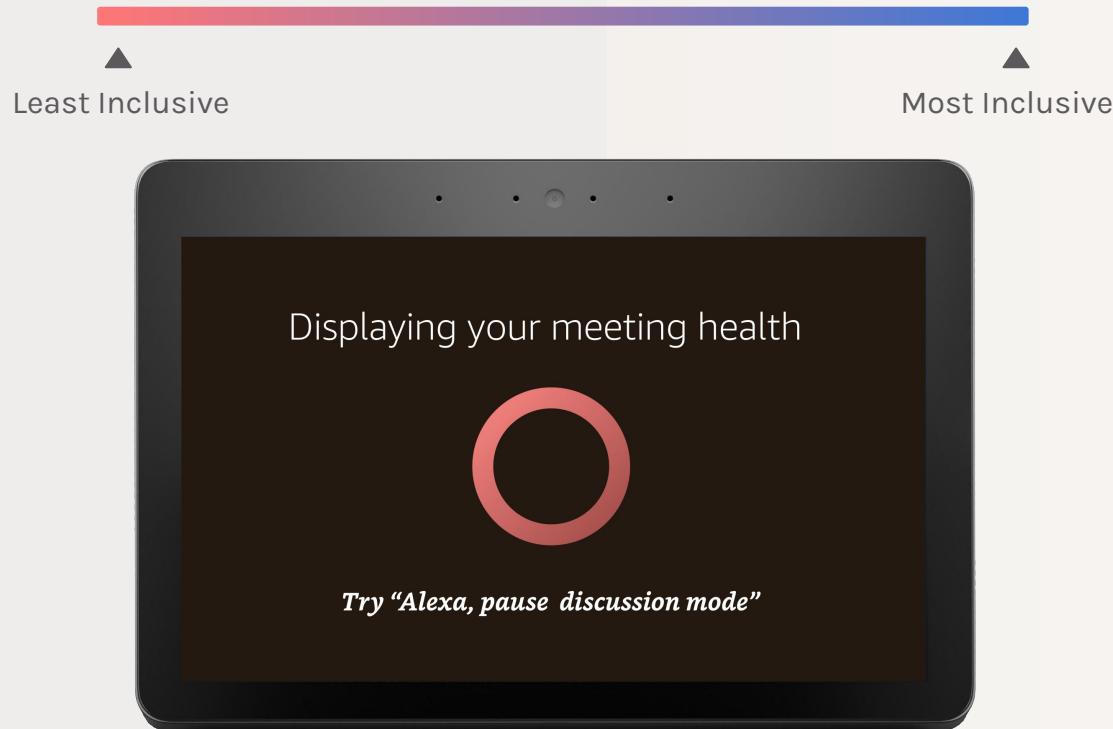
After enabling the skill, select the meeting category, so that alexa can tailor the experience.



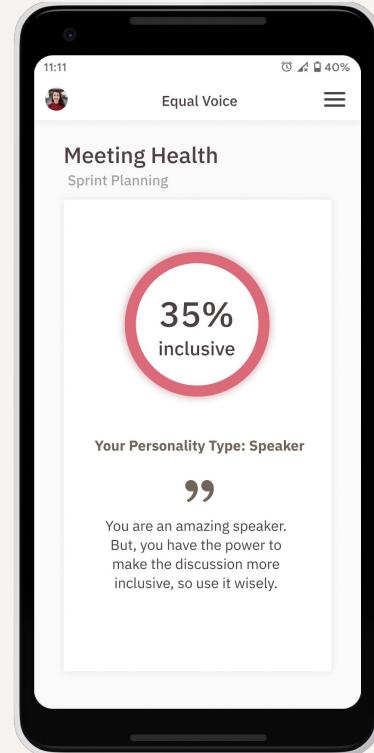
Then, the members of the meeting would need to mark their presence through the equal voice app by entering the meeting code. This would help Alexa better moderate the meeting.



While the meeting is progress, the Alexa Show screen displays the meeting health. The health is calculated as a function of member participation and time elapsed.



At the end of the meeting, every member of the meeting receives a report of the meeting and individual feedback.



Let's revisit our scenario



Jim

Position: Manager
Personality: Balanced speaker and moderator

He organizes meetings and acts as a moderator.



Rebecca

Position: Developer
Personality: A to-the-point speaker, however, when she starts speaking it is **difficult for her to pause.**



Kelly

Position: Product Manager
Personality: An open speaker who often interrupts during meetings



Jason

Position: Researcher
Personality: A listener and introvert, finds it hard to communicate during meetings and often **keeps waiting for his turn.**

EQUAL VOICE ENABLED SCENARIO

Final Concept Prototype Video



Testing it out!

We organized 5 sessions of 15 mins discussion with our 3 personas and divided the discussion into two parts

First half: Without Alexa

For the first half, we didn't introduce Alexa and wanted to see how the discussion unfolds.

Second half: With Alexa

We introduced Alexa and told the participants about the purpose of the Alexa skill and analysed how the dynamics changed.

METRIC #1

1. The number of times introvert speaks before and after introducing Alexa

Before

1

After

3

Percentage Increase

200%

METRIC #2

2. Comfort Level of Introvert on a scale of 1 - 10

Before

2/10

After

8/10

Percentage Increase

400%

METRIC #3

3. Acknowledgement by the extrovert before & after introducing Alexa

Before

1

After

3

Percentage Increase

200%

Future Prospects.



Across Products

The concept can be extended as a plugin to virtual meetings where it can be very easy for people to feel left out due to additional technical barriers such as turning on the video, unmuting themselves etc.



Across Scenarios

Equal Voice can be helpful in many different scenarios. Some of them could be discussion of what to cook everyday at home, classroom participations etc.



Thank You!