Cultural + Racial Biases

voice technology doesn't understand accents

Alexa will not understand when p6 speaks in deep southern accent and speaking too fast, or names of places that don't have conventional spelling or pronunciations

in general, thinks it's frustrating that there are accent issues with the systems

roommate is usually understood well, has a British accent, "terrible when it comes not (Chinese)

stopped using Alexa bc it couldn't understand her accent, compared to boyfriend who has American accent who was understood by Alexa much more quickly

parents don't use because of slight accent

sometimes Alexa doesn't understand words in English because of stronger accent

hypothesizes reason why Alexa may not understand her is because Italian in US is different from the Italian she speaks

when roommate (from China) tries to use Alexa, doesn't recognize her at all despite her speaking English well

Google home would pick up p10's accent better than friend's strong British accent, "terrible when it comes to Portuguese speech detection"

doesn't understand non-English songs/names

relatives in India have problems getting Alexa to play correct music; would have problems finding playlist that's not in native English

Alexa has difficulty with understanding names... tends to assume American artists when requesting European artists

Alexa has difficulty with understanding names... tends to assume American artists when requesting European artists

Alexa can't recognize last names, doesn't know difference between first and last for non-English names

when saying Chinese name, might link to a random English name in the contacts

hard to get a song spelled in English but different phonetically

Siri can't recognize name if not from English

Siri has multi-language issues: when pronouncing something "that is not in English in English", like asking for a song in foreign language, it would not understand her.

hard to request non English music with Alexa

when trying to play a Japanese song in non English, request song title translation in English and it can somehow recognize and play that Japanese song, but if there is no English title for that song then can't play that song

when Google home is reading out calendar it mispronounces non-English names

Alexa keeps mispronouncing names even if corrected

when asking Alexa to play song that's not a common English word/name, it will completely misunderstand, more biased to American artists

doesn't really pronounce name correctly

has issues with pitch of voice

boyfriend has lower voice, participant has higher, also pitch of voice changes, Alexa might not catch that

tone of voice can play a role, lower voice would be more likely to trigger voice assistant

solutions to challenges with voice technology

stopped using Alexa because it never understood her accent

"wouldn't do anything" when asked about solutions, or would wait for her bf or his sister to fix it

goes directly to the source (turning off light directly), hasn't replaced Alexa with phone

tries to make different requests ("find me the song that was featuring Drake and Jhene Aiko"), or change what he's looking for

will remember the way Alexa pronounced a song or artist and then repeat it back later, sometimes works if more data on song

will try to speak again and slowly

solution to not being understood: will have to speak very slowly in order to be understood, will try again

will alter requests or get louder and clearer for Alexa, won't go to phone

solutions to being misunderstood: stopped using functionality involving names, so very basic functionality like packages

helps by specifying artist when requesting song or from movie, names sound different so easier for requests?

will manually turn off light if Google home cannot understand, frequency is once or twice a week

will try to encourage Google home to turn on both lights if only one is turned on by asking another one

gets 7/10 times, but will repeat request and if it doesn't work, might use phone and play directly

older relatives will try 3-4 times, whereas p8 tries with more intonation, but relatives will just give up and "reduces amount of use they get out of it"

if person is trying to say a word that is not in English or the set language, then it will not be detected

had to pronounce words very slowly and clearly in order to be heard, sometimes if pronounced too slow then device won't recognize, "disturb dynamics of interaction"

voice technology being culturally insensitive (historically)

chatgpt brings up Armenian genocide denial rhetoric, Alexa might also have lack of understanding of similar themes, and she reads off Wikipedia

when asking Alexa to play Armenian music, sometimes brings up Turkish music, culturally insensitive as Armenia/Turkey is conflict ridden region and feels like confusing cultures

when asked to play music based on language command "Indian music", then it'll be biased to certain genres of music

voice technology has issues with very specific words

Alexa will not understand when p6 speaks in deep southern accent and speaking too fast, or names of places that don't have conventional spelling or pronunciations

when ask Alexa to play music or music from movies, Alexa can't understand

won't necessarily always pick up on nuances of specific words like "Baroque"

Alexa has trouble parsing very specific requests (French new wave), etc.

Alexa tends to favor one location's names more than others... socioeconomic barriers, like knowing more New York locations than Texas ones

Alexa will have trouble getting results for specific requests (songs, recipes) that aren't as popular

general ways in which voice technology can't understand requests

cannot clearly recognize command, like turning off both lights

parents have difficulty--if devices trained in the States and move elsewhere it wouldn't work as well

trouble with bilingual situations

Google home can't recognize sometimes if participant is speaking Eng or Chinese, does this with speaker and her friend

thinks it's frustrating that you can only use one version (language) of Siri at a time, limitation for bilingual people

issue because voice technology isn't super bilingual

reasons why voice technology might have difficulties

causes of Alexa issues: could be because of the way English is taught

thinks the cause is computer or AI responsible for smart device, hasn't been trained on variations of English

causes of issues: training models on accessible data, also tolerance to failure (much less forgiving of home assistants' errors)

cause [for locations in NYC being known compared to locations in Texas] is that Silicon Valley, investors from East Coast... so Midwest and South forgotten

"machine learning problem" where diversity isn't recognized by companies, because it isn't going to generate profit

issue could be caused by voice they use to train Alexa, also hard to identify changes in written script vs spoken

root cause is lack of data in specific cultures, creators should reach out to users from lesser known backgrounds and gather data

hopes for voice technology

if voice technology is able to understand older people with physical impairments it might help them feel more welcomed

model being capable of simulating human conversation can combat isolation in aging population

one vision for Alexa would be less invasive, and therefore more trustworthy. also more understanding of speech

improving voice technology's capabilities

could ask people to label words and how they are pronounced

could find more authentic samples for accents/dialects to help Alexa

solution: record people having conversations at universities in different states, more up to date words and more diversity

to have a better experience with Alexa, just keep the function simple

don't know if just adding more data would solve issue

smart speakers should start with better understanding of different pronunciations in English, then can build off of that

solution to improve: option to guarantee privacy... also having option of model being pre-trained or on user

Developer + Users

Developer clusters

Resources during development
(handwritten) **Resources:**
- use online resources
- platforms / communities
- informal learning: sense of belonging, mutual help

Sticky notes:
- Like with his personal skill, he used free resources online to answer questions during the development process.
- He had never written code before but used YouTube, Stackoverflow, and developer forums to problem solve.
- with the use of resources, documentation, & developer tools, he was able to continue during the development process.
- Gained got nice skill development through his full time job, and use his own interest in learning new development environments during the pandemic.
- He wrote the skill from scratch, rather than using a Template.
- This skill was built from scratch.

UX testing thru Pilot & beta
(handwritten) **UX testing:**
- Mainly trials & errors
- less design → develop loop

Sticky notes:
- UX design worked through a plan in a word document and thought through what users might want to ask Alexa, when using his skill.
- He found beta testers through Reddit (which is how I learned of it too).
- They did beta testing with on pilot and ran into trouble with errors, and then they discovered bugs and got feedback as they worked.
- There was no real formal planning before beginning to develop the skill, but as he tested, he learned of an odd UX/trust issue.

Post development
(handwritten) **PostDev**
- took skills off due to monetary con $ $$
- promote thru communities

Sticky notes:
- He never published this skill because he didn't want to have to pay a monthly subscription cost to Amazon.
- He ended up taking the skill down because this promotion ended and he felt that "... mean paying and spending my effort to make Alexa better for Amazon... For free".
- he continues to promote it to friends and the community on Reddit.

Difficulties during development
(handwritten) **Difficulties:**
- complex inquiry
- connect info - OAUTH & HIPAA
- Develop tools

Sticky notes:
- The most difficult challenge that he ran into were in connecting with a users official overreach account to get their stats in real time and do finding the right auth info to be able to create the experience he wanted.
- OAUTH was the biggest reason that it took him a year to develop.
- The biggest challenge they ran into was HIPAA compliance.
- Currently developing a recommendation screen for the show using the Alexa programming language developer tool. Thinks this tool is absolutely normal and hard to use. Thinks it would be better to use a more common programming language.

Comparisons

comparing to siri/google
(handwritten) **google   siri**
- use both alexa and google home for different stuffs

Sticky notes:
- Google is the very best for finding info you need. He instead asks Alexa specific things and specific commands. He didn't like it because he would ask Google on his phone better.
- Not playing favorites, never use siri
- He has disabled Siri on his devices because "It's useless"
- He uses Alexa similarly to Siri as a helpful voice assistant to create reminders/play music/send messages, but he doesn't want it to do most things that Siri can do since it's not constantly with him
- Apple set up is voice - beauty of everything inside one ecosystem. The app was kinda goofy. There were a lot of places to go inside it and its like man i dont need to learn a new app. This funny effect happens. We install the models in our mind.
- Doesn't use Siri - bothers her when phone or computer accidentally picks it up. Which is annoying.
- I use siri mostly for texting in the car because i dont know if because i dont know. Please like that i dont know if u can do that on amazon tablet.
- Alexa is more personable, tries to start conversations more. Pretty smooth, better dialogue flow that? Google (assistant-like)
- Siri is getting worse. Personalized request - deeper access to your stuff by using voice fingerprint. Ill ask her whats on my calendar - and she'll say i dont recognize your voice, whats your name.
- uses Siri exclusively for timers, likes that siri more directly connects to iphone/more integrated
- Alexa is wider reaching due to 3rd party support, Siri is much more of a closed network for the apple ecosystem
- Alexa has a narrow scope of what u can talk about. Ill ask a question about a celebrities life, wont know the answer - i can help you google that. if theres a way where alexa can google it and paraphrase it and say i will send u info to your phone.

comparing to laptops/phones
Sticky notes:
- "You need to know your audience well" and ask users questions.
- Map out a workflow before you start so that you don't get lost
- "Make it as simple as possible, using short sentences."
- Everything her phone does except that it's not voice controlled
- "Everything i use alexa for i could also do on my phone"? It hasn't really replaced my computer or phone. It doesn't add anything that i couldn't have done before
- I feel like it just an encyclopedia. There for peoples convenience. But ultimately the biggest turn off is the fact that it doesn't integrate well with an iphone
- something solar plane if you don't have it as your phone - convenient
- I was a bit resistant to it, i felt there was no big need for it. its a good speaker but i wasn't like suffering without it - if i laptop breaks its an impediment.
- Alexa is an efficient speaker/alarm system
- My phone doesnt have a centralized way to accessing all the settings, it etc, could use alexa
- Gays about statement, Alexa responds in random way. Fascinating how it interprets more figurative/less literal linguistic interactions
- Like an extension of your phone, an object

advice for developers
Sticky notes:
- "The more functionality you have, the more people have to learn"
- "Be aware of language barriers for users"

About Alexa

about alexa
(handwritten) **Affective**
- Alexa cannot understand mood
- can't express emotions

Sticky notes:
- It's like a person talking to you
- "It's like me, she should be able to give answers" "Do we think it seems like it's a person"
- He did refer to Alexa as "her and she"
- solid comparison - An external accountability friend
- Very basic tasks, can definitely do more with phone, only things that it's done before, but looking for new use cases as it speaks
- One of the things that Eric most uses Alexa for is to set a timer. He didn't realize 2 times at a same time
- Has mentality of why not automate everything to make his life easier
- He wants the intents/utterance recognition to improve so that the skills become more valuable
- no personification of home due to lack of name
- I think its really about creating your perfect and most comfortable home and it all came after the pandemic when ppl were staying at home and wanted everything like gym equipment washed their own to be exactly what they need
- Alexa and Echo are two different things"
- Alexa is efficient speaker/alarm system

motivation to develop & use skills/alexa
Sticky notes:
- Very deep sleeper. Alarm on phone isnt sufficient.
- Got one because there was a deal for an echo dot.
- His motivation for the overwatch skill was that he wanted to be able to ask about his characters stats in real time.
- Eric created the skill because he loves his Alexa and thought that it would be fun.
- Uses it in the morning to listen to news while tidying apartment.
- At someones apartment, i work in tech.
- BMW want to spend too much money - only very affordable (baby and affordably)
- live by myself - want an occasion to help me track myself but one like another, music
- It's like an apple app, but you can talk to the echo dot to do this stuff for you rather than going on your phone and download the app again?
- use Alexa hands free while playing instruments and already had them through his house.
- Sue Bagger device on friend's house, echo dot on sale
- Just seeing how other people had it and i want to try it would be nice to have it to play music out loud.
- Likes to listen to music uses speakers because it's more convenient

advice for alexa
Sticky notes:
- search history: I wanted to find a specific article that I read, I didn't find it through alexa
- He likes Alexa but he hopes that its overall intelligence expands
- "More visual design templates" He said that there aren't very many that you can work off of to map out your conversation logic then to create multimodal skills.
- track if the phone is with you
- "More natural, less explanations needed"
- handle more complex questions.
- The voice assistant functionality could be instrumental in therapies and medical counseling. Like doctors could really use the kind of interactive. To have real-time interactions with patients to see how they're doing.
- increased connectivity to other devices and apps
- I'd get yet with disabilities, socioeconomic limitations, issues in rural settings, the future becomes more valuable for low-income learning.
- Keep track of a routine, remind you to drink a cup of water or something
- increased connectivity to other devices and apps

Challenges in using Alexa

challenges in using Alexa (time)
(handwritten) **Time**
- non-highstake conversations
- speak so slow
- multiple back and forth, many steps
- hints (follow-up questions)

Sticky notes:
- I used to get annoyed idk if my device is old or i positioned it wrong i would have to say something a few times and frustrated saying it a few times but i did have an older device i would have to repeat over and over again and just give up in the end and do it myself.
- "In general i don't really like to have multiple back and forth's with Alexa. At some point she misunderstands, there's no point to easily go back. There's no, let me go back and clarity.
- "By the way" hints are kind of annoying
- The routine thing, but because Alexa spoke so slowly gets so frustrating.
- ask her to play a song and she would prompting at it, too long and she won't recognize it "Spotify?" do it from my phone.
- Always i felt it slowed the down. Well i being google i feel you can ask siri to text for you but i dont like doing it. I would not use siri. I dont get it. I feel i can do anything in what i said.
- And sometimes, i know its being organized! felt it's a little before confused google it from my phone"
- "By the way" hints are kind of annoying
- Will try to offer to set as accident feature, give a a voice interaction feature.
- hardship in using alexa. It was more than one step and i didn't have time to figure that out
- When she does that I'm already busy and then i forgot to do that
- After every command, Alexa will prompt you to set up more features. (ask for another temperature, then i played spotify)
- "News gets annoying after so many ads, then i played spotify"
- After every command, Alexa will prompt you to set up more features (ask for weather/set temperature, that asks if would like to set up another voice interaction feature)

challenges in using Alexa (Affective)
Sticky notes:
- no understanding of what mood youre in. It feels like a tool rather than a being. Thats why its hard to emotionally connect. I dont think they prioritize emotion anyways.
- Humans have to be more autistic-y to interact with these computers. Who have challenges reading the emotional qualities.
- alexa developers should collaborate w ppl who are not good at doing the human shit.
- U cant have an emotional or adult conversation with it. Although it cosplays as a human. U dont form a relationship w it as u do with a person, dog, cat. Its just a voice API into amazon. Feels like ur using a computer rather than ur talking to a person
- Alexa is more personable, tries to start conversations more. Pretty smooth, better dialogue flow that? Google (assistant-like)
- Likes more curt, to the point aspect of Home Skill could be to make Alexa shut up faster :)

challenges in using Alexa (recognition/culture specific)
(handwritten) **Recognition:**
- accent
- cultural-specific knowledge
  → non-us
  → non-mainstream
- unintentional waking Alexa

Sticky notes:
- Sucks with arabic music names. Has to manually select them
- We'd ask for a bollywood song and alexa wouldn't have any idea what we were talking about
- won't be understood, have to repeat himself louder, gets kinda aggressive
- My parents they have an indian accent so its annoying to have them have to repeat themselves.
- worried about sending message accidentally sent to her friends before amazon bought it out so its kinda dangerous
- Definitely if she couldnt understand me in the first time, non-american/english songs. Bollywood music, latina, afrobeats it constantly what is alexa
- Some artist or concept and she'll be like, sorry i don't know what u mean. And i feel that antecedent like i have my own means of describing a song
- worried some says Alexani of something that sounds like it and she right my and starts talking mistake interaction
- Asks it a query, if doesn't know answer, doesn't say anything. No feedback
- say word similar to an Alexa trigger word/skill and starts talking, Alexa unexpectedly activates
- He doesnt trust that Alexa understands him accurately enough and constantly have to fix his to recent & but the echo in recent & answers him.
- say word similar to an Alexa trigger word/skill and Alexa unexpectedly activates
- Issues with talking to one and then the other gets activated

challenges in learning Alexa
(handwritten) **learning**
- too complex
- not enough info (skills, systems "syntax")

Sticky notes:
- There's not enough information, when you set up the device
- Sometimes I get too busy to do all these things. Followed steps by Amazon
- No one really sells you as a user what other existing skills there are in Alexa out of the box
- Opened app to see what skills are, hasn't enabled any of the skills idont know what one tables
- "i try to format the phrase to fit with... maybe i idk, maybe if i change. i say the way if she doesnt get it the first time. I adjust my sentence"
- hardship in using alexa. It was more than one step and i didn't have time to figure that out
- Not very good - so much friction to get it installed they dont feel ppl are investing time in it, the ui still feels ur operating a command line where u have to use syntax. You're making it behave like a computer to speak to it. The whole point was conversational and natural letting it be unhinged - closer to messy humans.

not familiar with Alexa
Sticky notes:
- "i only use it for the most basic functions it can do all these things and i use it for the most basic thing"
- he heard of alexa skills... but havent used it.
- I think some ppl use it to check the weather and whatever else but especially older ppl dont know how compatible it is, so the marketing aspect of it they dont know which products are compatible
- I use siri mostly for texting in the car because i dont know if because i dont know. if he amazon has power like that i dont know if u can do that on amazon tablet.
- Not familiar with Alexa skills. Feels like probably wouldn't use this feature. Wouldn't trust it to make invasion for ex.

Ask for skill recommendations
Sticky notes:
- Would realize what are the help of it just handbook or some thing it would pop up "it was hard"
- Would you discover more section on idont otherwise. Better advertising of skills and better transparency regarding reaching Alexa skills would be of great benefit

so many features
(handwritten) **so many features** · out of habit · time · motivated

Sticky notes:
- feel that i won't use most of it. And i know that most of it are features that i wouldn't use for something
- "If i knew other things i could use for it... maybe i would use it more."
- As a set doesn't feel use a lot of skills. but "should" because its convenient. Doesn't use it mostly to play music right now
- "I only use it for the most basic functions, if i did all these things and i use it for the most basic thing"
- Doesn't back up skills frequently, she knows it's convenient and theirs cloud but similar odds

challenges in using Alexa (self-blame)
(handwritten) **self-blame due to**
- X time: to use more features
- rude
- X mental habits of using it

Sticky notes:
- "Why didn't i ask her to do this for me?" "well why not me asking alexa to do what the weather yet"
- Maybe that ignorant and there are ways that i can be more efficient
- Dad always says "please" - it does feel rude to just say "alexa do this for me"
- I feel im very uncomfortable if i'm doing one or longg responses it will it to shut up
- Doesn't use a lot of skills but "should" because its convenient. Doesn't use it mostly
- feel that i won't use most of it. And i know that most of it are features that i wouldn't use for something
- Wants to become a better user. doesn't get to do the part
- "if i knew other things i could use it with... maybe i would use it more."
- Focus on how stuff up i cat the anticipated frustration
- Ive never looked into im too lazy but ive always wonder that ppl dont pay attention allow location services
- "There might be something about Alexa that i don't know that might be useful, i just seem like a hazard. Why do i need this? It seems fun but i'm lazy, i'm not really interested in it"
- I feel im the wrong person but i don't know that much if i already have a ton of systems in place"
- Doesn't look up skills to do things, she dont know that but have me too but i already have a lot of systems that can be solved.

challenges in using Alexa (mental model)
(handwritten) **Alexa App**
- Alexa App
- no mental habits
- dependencies on visuals
- high-stake stuff: ordering from amazon

Sticky notes:
- There's something weird about speaking alone in your bedroom, speaking to a machine or speaking when no ones there in a weird and uncomfortable
- I dont think i have the app anymore but i remember u can set default music player.
- for music it feels easier on my phone. My phone is playing songs, then like songs, long-long response at least is to shut up.
- sometimes i don't use Alexa because i'm too afraid i'm going to do it wrong, and get anxious
- It's very visual person i hate - prefer to look at something and see the song and cloudy. My mind drifts i get distracted.
- No Alexa for ordering amazon. Alexa doesnt know what price, with color. i have to give her so many specifications about what i want. Its easier to go on the website and do nothing.
- Screen > no screen, would interface good for confirmation after voice command
- Interaction is mostly verbal. News stories revolving on screen
- Worries if asks alexa to look up a product and then alexa asks her if she wants to buy it she would Too easy to accidentally buy something
- Lack of visual interface/small size of echo decrease trust

compatibility
Sticky notes:
- My dad reads on amazon account and that was when the alexa first dropped, its like an apple thing u have one thing to u get everything from the brand, but he dont use it in the end. i dont think the connectivity stuff was that accessible at the time
- ...i think its bc my parents dont care to be that tech savvy. They dont have a lot of compatible devices.
- If plays music, you have to ask Alexa to connect to bluetooth, and then open spotify, bluetooth requires many steps to play music
- Didnt bring Google Home from Thailand (doesnt work with columbia wifi)
- Set up 3rd party IOT things is frustrating (dealing wih applications of other IOT devices and trying to connect those to Alexa)
- Have it at dorm but doesnt connect to school wifi
- Uses google home for some stuff but linked to spotify which is even better (play this song and its done)
- Well with Google Home since google products are more internationally supported (so Amazon services in Thailand)
- increased connectivity to other devices and apps

Flowchart (center-bottom)

- Challenges in Understanding Accents & Culture-Specific Inquiries
- Challenges in handling Time-sensitive Inquiries
- Challenges in Setting up / Learning Alexa
- Challenges in Fitting Users' Mental Model
- Too Many Features → Non-Use → Self-Blame → Ask for Recommendations
- Not Familiar

(handwritten near bottom right) **mental model** - Alexa App - no mental habits - dependencies on visuals - high-stake stuff: ordering from amazon

(handwritten) **ordering**

Trust cluster (top right)

trust/intrusiveness
(handwritten) **not confident: high-stake stuff** · **knowledge** · **privacy & intrusive**

Sticky notes:
- It's like an such separate from your phone, you can ask for the weather or other basic things verbally
- He views Alexa similarly to Siri as a helpful voice assistant to create reminders/play music/send messages, but he doesn't want it to do most things that Siri can do since it's not constantly with him
- I use siri mostly for texting in the car because i dont know if because i dont know. Please like that i dont know if u can do that on amazon tablet.
- Worries if asks alexa to look up a product and then alexa asks her if she wants to buy it she would Too easy to accidentally buy something
- Would not trust Alexa to order an Amazon product for you. Wants to browse various options, and not sure if would Trust alexa to place an order on my credit card. Lack of visual interface/small size of echo decrease trust
- Alexa has a narrow scope of what u can talk about. Ill ask a question about a celebrities life, wont know the answer - i can help you google that. if theres a way where alexa can google it and paraphrase it and say i will send u info to your phone.
- He doesn't trust that Alexa understands him accurately enough and constantly have to fix his to recent & but the echo in recent & answers him.
- Mom was against it because she was anxiety related worried her to type if she were to place an order on her credit card
- Alexa doesnt have accurately enough and constantly enough to store it as the weather, music (quality and affordability)
- A lot of the parents would use the shop in feature. If youre not savvy, then u feel like its another idea so it would be a given ring circling around alexa.
- I'm not modern. I wouldnt trust my children to interact with an parental control, buy things, accidentally no medication/purchasing information.
- Trusts Alexa less in general, hurts that there's no visual interface for confirmation
- I know what i would be more trustful with... i have an old fashioned one. I have a Google or just because there's a app to boop of my google.
- "i know what i would trust more ... id use the simple type i have on my phone as i know a google
- Alexa is always Sometimes, she would find the store on Google but then prompted her then couldn't because trust to. put in my google.
- Difference between that and an Alexa is you can just use that at any time and no prompt. its private. just creepy, thor me it but my daughters called both and jill
- "i know what i would trust more... id use the simple type i have on my phone as i know a google"
- unprepared conversation by these she used google set a timer for 5 mins, normally dad uses it, joked be if you were going, be afraid will you protect be are you fill and that was just creepy, thor me but my daughters called both and jill
- Would not trust Alexa to order an Amazon product for you. Wants to browse various options, and not sure if would Trust alexa to place an order on my credit card. Lack of visual interface/small size of echo decrease trust
- Worries if asks alexa to look up a product and then alexa asks her if she wants to buy it she would Too easy to accidentally buy something
- Screen > no screen, would interface good for confirmation after voice command