

VOICE CONNECT

PRODUCT REPORT

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Executive Summary

Is love blind? We believe it is.

Inspired by the Netflix show and experiment “Love is Blind”, we tackled the challenge of creating a dating app to connect people without involving any visual cues about the potential matches.

VoiceConnect uses only audio input and output with an Alexa to create a user profile, hear potential matches, accept or decline them, and connect with mutual matches. The target audience for VoiceConnect is those looking to find real and long-lasting emotional connections without physical features impeding this connection. Beta testers believe it would be easier to forge deeper connections with people without preconceived notions, proving that removing the ability to see photos of your current matches could lead to deeper connections.

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Brainstorming

During our brainstorming, we brainstormed ideas about what we would have wanted to build using VoiceFlow. These ideas included a scheduler/planner to track activities or tasks, an application to place food orders, a sports tracker, a clothes recommendations app based on weather, an application to help during emergencies, and a dating application based on voices.

For each of these ideas, we came up with the features that it would have and made a rough analysis of its potential stakeholders. These helped us determine if it would be feasible within the time we had to complete the project and whether it would be an application with a broader target audience. For instance, an emergency service application would not be ideal as it relies on the user prompting Alexa to take action, for example, calling 911. Still, the same application would not be ideal when the user is incapacitated.

Down Selection

During down selection, we all noticed that amongst most of the ideas we had, there was one common goal: connecting people with others or services. This became the basis for narrowing down what we wanted to build. During this analysis, we also agreed on how several dating platforms are not ideal as they are mainly based on people being judged by their physical appearance. This was the birth of VoiceConnect, an application that allows people to form long-lasting emotional connections without the barrier of physical appearance.

Design Considerations

Matching Process

Mimics current dating app processes to make user experience transition easier.

Account Creation

Name, Age, Gender, Bio - Key information for potential matches but not enough to create safety issues. Ability to update any profile information at anytime.

Hear Mutual Matches

Create anticipation of who liked you back and keep users using the app.

Repetition of all questions/statements if no answer from the user or Alexa does not understand.

A passcode to protect account privacy and safety.

Included common variations of denial and affirmations.

Success Criteria

We hope to revolutionize creating relationships by changing the heavy emphasis of physical appearance onto personality

Functions

Provide a unique view on the relationship sphere, allowing users to experience connections without the preconceived notions surrounding appearances

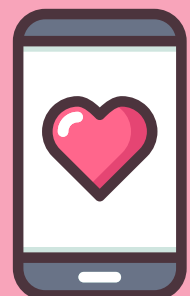
LOVE



Statistics

Almost 50% of age 18-29 year olds have used dating apps before, so we hope to open that audience

We also hope to have 100% of our users willing to try it again



Specifications

BIG-PICTURE GOAL:

To be able to connect similar people together using just voices by giving users the ability to hear many different types of people and personalities all by just listening to a sentence or phrase that constitutes of their personality

SUB-GOALS:

- Create a system that people intuitively understand
- Create a system where personality is highlighted rather than appearances
- 90% of users find satisfaction when using the system
- 35% of users find a match using the system

How to accomplish these goals/what must we learn/research:

- What market would be most receptive to voice-only dating app
- How can personality be conveyed through short audio messages
- How long/short should the audio messages be
- How much filtering of inappropriate wording and messages should there be
- Discover and eliminate any safety or privacy issues that might occur

Stakeholders

VoiceConnect removes the limitation of having a perfect profile to help you get matched with the most people. All you need is your name, age, gender, and a bio that may say something interesting about you. The direct stakeholders of VoiceConnect are 18 to 29-year-olds looking for real, long-lasting connections. Thus, these direct stakeholders have a higher chance of getting connected with many other users without being judged based on the details they provide on VoiceConnect.

Several people have used dating applications like Tinder to connect with other people. With the advent of VoiceConnect, these dating applications become a stakeholder as they now have to compete with an Alexa application that requires the most minimal information for someone to start meeting other people. Several dating applications have one main limitation: a lot of their users fail to get matched due to being judged by their physical appearance. VoiceConnect removes that barrier by allowing users to connect quickly without being judged.

Other indirect stakeholders include Amazon, as several people might acquire Alexa to help them connect with other users using VoiceConnect. This also means several services offered by Alexa, for instance, Amazon Music, Spotify, etc., may also gain a more extensive customer base as VoiceConnect expands

K-Scripts

"K-SCRIPTS: THE FASTEST AND MOST FLEXIBLE WAY TO ARTICULATE A USER EXPERIENCE."

– BLADE KOTELLY

Who (Alexa or User)	Observable Action	Non-Observable Action / Notes
User	"Alexa, play VoiceConnect"	Under the assumption that they have not played VoiceConnect before
Alexa	"Welcome to VoiceConnect. Would you like to create your profile or hear more about it?"	Alexa has no profile for this user, will set one up or give information as needed
User	"Create my profile"	Under the assumption that they understand the basic premise
Alexa	"Would you like to enter your unique personal statement or contact information first?"	
User	"Personal statement"	
Alexa	"After the beep, please take 15 second to record your saying" *beep*	Currently 15 seconds seems to be the best duration, but may be change in upcoming tests

User	Says original saying	
Alexa	"It has been 15 seconds. Your saying is: " *Plays users recording* "Say accept to use this recording or rerecord to record a different message"	
User	"Accept"	
Alexa	"Thank you for your saying, it has been added to your profile. Would you like to add contact information?"	
User	"Add contact information"	
Alexa	"Please spell out your Instagram username, including all numbers and special characters"	Currently, Instagram seems like the best way to protect privacy
User	Spells out username	
Alexa	"Thank you. Would you like to update your profile, see matches, or swipe?"	
User	"Update my profile"	As mentioned, updating because they already have a profile
Alexa	"Would you like to change your saying or update personal information?"	
User	"I'd like to change my saying."	

Alexa	"You have 15 seconds available for a recording. After the beep, begin speaking."	This alerts the user of the time limit and readies them for their speaking.
User	Says saying.	Speaks until finished or second beep.
Alexa	"It has been 15 seconds. Your saying is: " *Plays users recording* "Say accept to use this recording or rerecord to record a different message"	This allows the user to verify the Alexa captured everything needed.
User	"Accept"	If says rerecord, will go back to the "You have 15 seconds..."
Alexa	"Congratulations your message has been updated. Would you like to hear current matches or potential matches?"	Depending on the user response will move into the different k-script.
User	"I'd like to hear potential matches"	
Alexa	"I have found 10 profiles you have not seen before. Do you want to hear more about all of them?"	
User	"I just want to hear the first 5"	
Alexa	"Here is the first match:"(alexa says the profile of the first user)"Do you want to swipe accept or decline"	
User	"Accept"	
Alexa	"Great, I have added <username>. Here is the second match:"(alexa says the profile of the second user)"Do you want to accept or decline"	

User	"Skip this one"	A user can decide to also skip a profile if they do not want to accept or decline
Alexa	"Great I have skipped <username>. You can still hear their profile later" "Do you still want to continue hearing other profiles"	Alexa will try to make sure that the user still wants to hear more profiles after every two.
User	"I will continue later"	
Alexa	"Wonderful, you can always hear more profiles later on. Would you like to hear your matches or update your profile"	Depending on the user response will move into the different k-script.
User	"I'd like to hear my matches, please, thanks."	
Alexa	"You have 5 matches in total, and they are:(alexa says the 5 matches)Would you like to contact any one of them?"	Each user can add their phone number to be able to contact the any of the users they are matched with
User	"Yes, I want to contact <username>"	The user can say the username of the user they want to contact, if there is more than 1, alexa will ask the user to pick to correct one
Alexa	"Amazing. <username>'s instagram is xxxxxxxx. You can message them and plan your date. Have fun"	

Usability Testing 1

Pre-Questionnaire:

Have you ever felt like dating prospects have based you off of your physical appearance?

☐

Strongly
Agree

☐

Mostly
Agree

☐

Neutral

☐

Mostly
Disagree

☐

Strongly
Disagree

Have you ever felt like making friends is difficult, especially in your environment?

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Do you struggle with putting yourself out there?

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Do you believe love is blind?

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Agree

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Do you think that if you got the opportunity to meet people without preconceived notions it would be easier to make deeper connections?

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How do you currently find dates? [Multi-Select]

- Dating Apps
- Mutual Friends
- In-person events
- Wait for someone ask you

Have you ever tried dating apps to find significant others in the past?

☐

Yes

☐

No

Task Sheet:

- Make a profile
- Assign gender, age, bio, and password
- Swipe through 3 potential matches
- View matches
- Update profile in any way (bio, gender, name, etc)

Post-Questionnaire:

Was the system intuitive?

☐

Strongly
Agree

☐

Mostly
Agree

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Neutral

☐

Mostly
Disagree

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Was the system easy to use?

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Do you think this is a good system to find friends/relationships?

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Would you feel safe going out to meet someone you had met on this system?

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Disagree

If there was a 100% chance you would be safe, does that change your answer? And if so, would you be more likely to use it?

- Yes it changes my answer, I would be more likely to use it
- Yes it reinforces my answer, I would not be more likely to use it
- I do not feel strongly either way, it does not change my answer
- No it does not change my answer, I would still use it
- No it does not change my answer, I would still not use it

Would you use the system again?

☐

Yes

☐

No

Are there any additional suggestions/ideas you have with the system?

Link to Videos:

https://drive.google.com/drive/folders/1ZT1zLxrbli0MpcVy8lYgxi0FGvSDbrAB?usp=share_link

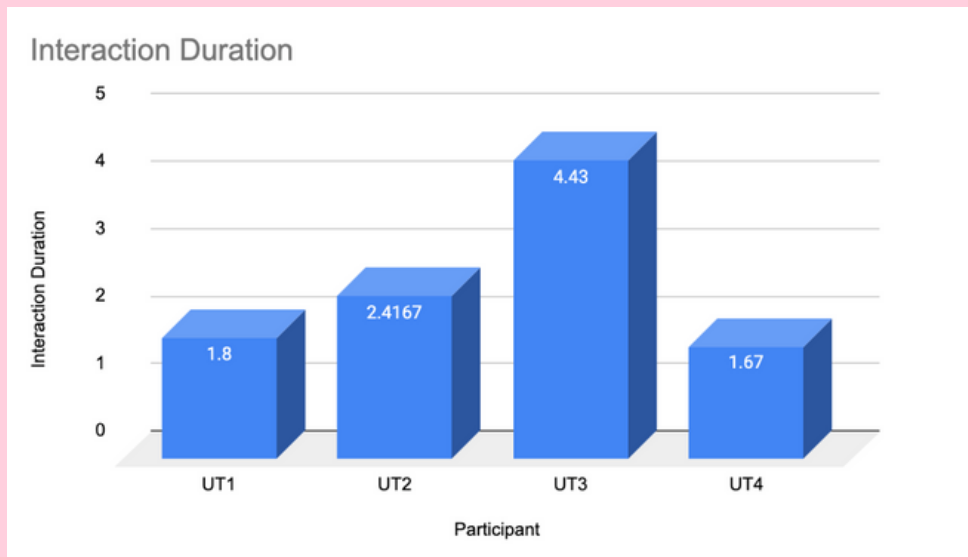
Analysis of Results:

Our four usability tests were done on the Voiceflow interface. During the tests, one common problem that emerged was that Alexa couldn't understand some of the users' responses, which led to the early quitting of the program. Some features of VoiceConnect, such as hearing matches, had not been implemented for UT1; therefore, when one of our users asked to hear their matches, the testing ended early. Another problem we encountered was that many users hesitated and paused for a while when asked what passphrase they would want to use to create their VoiceConnect account. This design isn't ideal because it might take people longer to come up with a passphrase to use, and it is essential that our participants remember the passphrases they created. Here is a table of issues we encountered during the testing process:

Issue #	Description	UX Severity (1-5)	Tech Severity (1-5)	Resolution
1	Alexa sometimes failed to capture or understand users' responses	2	5	Add a "no match" block to each question so that if the user response does not match any response blocks, reprompt user
2	The "view matches" feature hasn't been implemented, so when users said they wanted to "view matches," it wasn't understood by Alexa, which led to an early quitting of the program	5	2	Finish the implementation of other features in Voice Tinder
3	User showed hesitation when asked to create a unique passphrase for their VoiceConnect account	2	3	Add a question that asks whether they're ready to say their passphrase

(Figure 1. Usability Report Table)

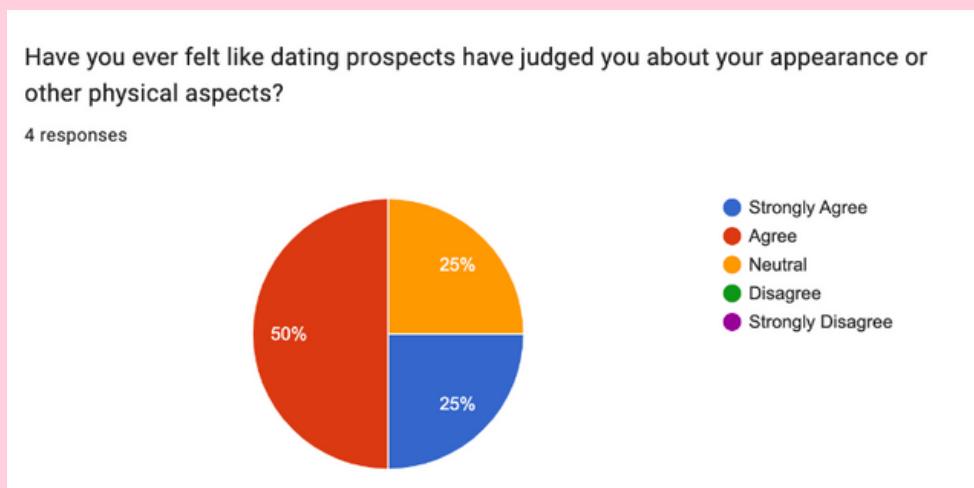
Three out of four tests took less than 3 minutes, and the average time the participants took to create a VoiceConnect account was 2.58 minutes.



(Figure 2. Interaction Duration for Each UT)

Pre-questionnaire:

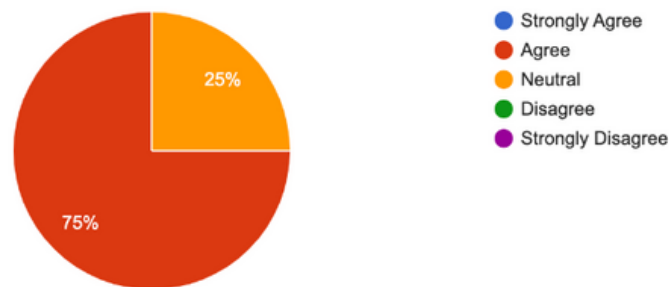
Regarding our pre-questionnaire, it was interesting to see the interaction between how those tested felt about the judgment that often comes with dating in relation to how they view appearances in relationships.



As seen in the graph above, all of those tested were either neutral or, more often, agreed that they have felt judged by their appearances. This seems to be the sentiment of most of the general population, and this line of thinking continues on.

Do you think that if you got the opportunity to meet people without preconceived notions it would be easier to make deeper connections?

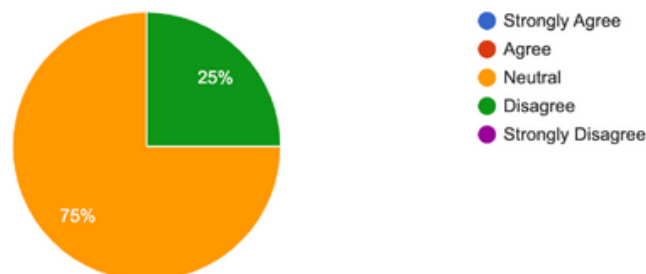
4 responses



As seen here, they all were either neutral or, yet again, more likely to agree that if they had the opportunity to meet people without those preconceived notions about physical attributes it would be easier to make romantic or non-romantic relationships. This thinking however changes drastically when asked whether they view others with that same viewpoint.

Do you believe love is blind?

4 responses

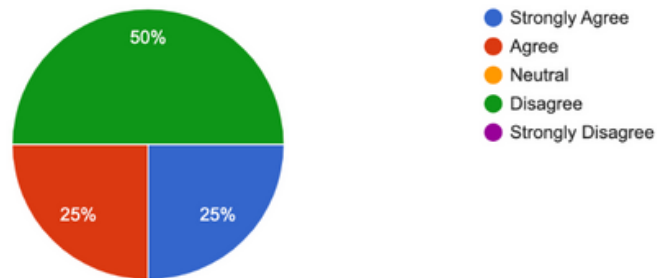


As seen above, those tested are either neutral or disagree with the sentiment that love, in any form, is blind, therefore pointing towards the concept that they believe, at least at some level, that physical appearances play a role in love, despite not wanting to be on the receiving end of this point of view. Our system removed that barrier. However, the concept that it would be removed seems attractive but not the actual implementation of it.

Continuing with some additional pre-questionnaire information, despite seeing an even distribution between outgoing and introverted people, the testers did not seem to be the target audience as they have not preferred dating apps in the past.

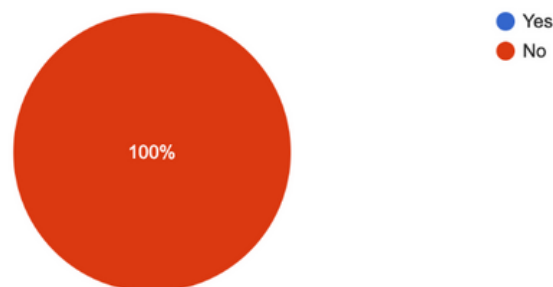
Do you struggle with putting yourself out there?

4 responses



Have you tried using any dating apps in the past?

4 responses



None of those we tested had used dating apps in the past, and our system is more aimed at those looking for dating/friendship apps but doesn't want to rely on the physical side, considering how highly those often depend on it.

Post-questionnaire

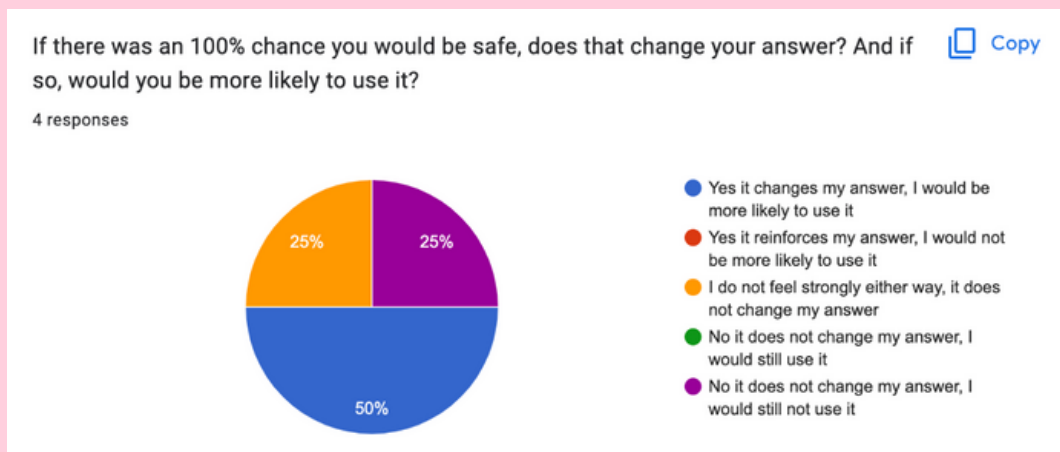
For the data from our post-questionnaire, the most essential data we collected was the hesitancy surrounding using a system with such few safety restrictions. Naturally, there is no way to guarantee safety in dating situations. However, there are several reasons why people would be skeptical of this.

Would you feel safe going out to meet someone you had met on this system?

4 responses



As seen above, all the candidates agreed they would *not* feel safe using this system.



After guaranteeing their safety, however, half of the participants agreed that it would make them more likely to use the system. It is also essential to consider the fact that, as seen from the pre-questionnaire, it is highly likely that the half that continued to feel negative about using it were unlikely to be the target audience that would use the system to begin with.

Takeaways & Direction for Future Improvements:

Many participants expressed that they liked the “Love is Blind” idea for a dating app and enjoyed interacting with Voice Tinder through Alexa. To make Alexa capture and understand user responses more accurately, we plan to add more sentence prompts (for example, for the bio question, we could add sentence prompts like “I want my bio to be...”, “My bio is ...” etc.) to each question block in Voiceflow. After asking users for their unique passphrase to log into their Voice Tinder account, we will add the question “Are you ready to say your passphrase?” to make sure that each participant is given enough time to come up with a passphrase. Lastly, we will add new logic to Voiceflow so that users can choose to repeat their answers if their answer wasn’t recorded correctly by Alexa.

Additional Data:

(See Usability Testing 1 in Appendix)

Usability Testing 2

Pre-Questionnaire:

Have you ever felt like dating prospects have based you off of your physical appearance?

☐

Strongly
Agree

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Mostly
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Do you think that if you got the opportunity to meet people without preconceived notions it would be easier to make deeper connections?

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How do you currently find dates? [Multi-Select]

- Dating Apps
- Mutual Friends
- In-person events
- Wait for someone ask you

Have you ever tried dating apps to find significant others in the past?

☐

Yes

☐

No

Task Sheet:

- Make a profile
- Assign gender, age, bio, and password
- Swipe through 3 potential matches
- View matches
- Update profile in any way (bio, gender, name, etc)
- Exit Voice Tinder

Post-Questionnaire:

Was the system intuitive?

☐

Strongly
Agree

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Mostly
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Was the system easy to use?

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Do you think this is a good system to find friends/relationships?

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If there was a 100% chance you would be safe, does that change your answer? And if so, would you be more likely to use it?

- Yes it changes my answer, I would be more likely to use it
- Yes it reinforces my answer, I would not be more likely to use it
- I do not feel strongly either way, it does not change my answer
- No it does not change my answer, I would still use it
- No it does not change my answer, I would still not use it

Would you use the system again?

☐

Yes

☐

No

Are there any additional suggestions/ideas you have with the system?

Link to Videos:

https://drive.google.com/drive/folders/1ZT1zLxrbli0MpcVy8lYgxi0FGvSDbrAB?usp=share_link

Analysis of Results:

On average for User Testing 2, the average test took 2.625 minutes. This is comparable to User Testing 1 with an average testing time of 2.58 minutes. Even though we added more working features, Voice Tinder was streamlined and much quicker to learn.

Issue #	Description	UX Severity (1-5)	Tech Severity (1-5)	Resolution
1	After a user has created their Voice Tinder account, they're asked what they'd like to do next, and our prompt "Would you like to view potential matches, view your current matches, update your profile, or exit using Voice Tinder?" was too long, the user forgot what the options were and said "view matches," which wasn't understood	4	2	Add a "repeat" block under that question so that user could ask Alexa to repeat the options
2	Program exits if the user is under 21 years old (bug)	5	2	Maybe try deleting the intent block and reimplement it
3	The synonyms of the answers are not recognized by the program (ex. "Yeah" is not recognized for "Yes")	5	3	Input the synonyms into all of the questions (also ties with the repeat block being added)
4	When the answer is not understood by the Alexa, the program quits	5	2	Create a repeat block if the answer is not understood for all options

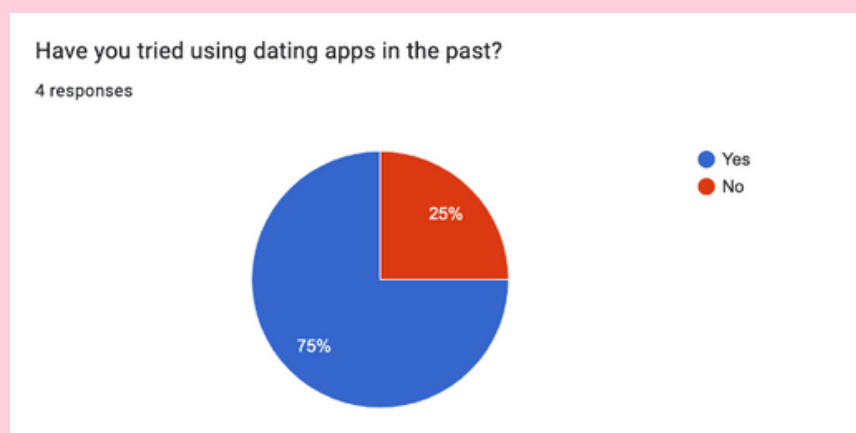
(Figure 1. Usability Report Table)

After watching the user testing videos, we noticed that the interaction between users and Alexa seemed very stilted as many people take longer to process hearing the words without any visual cues that users are used to. This requires the users to intensely concentrate on Voice Tinder and leads to confusion.

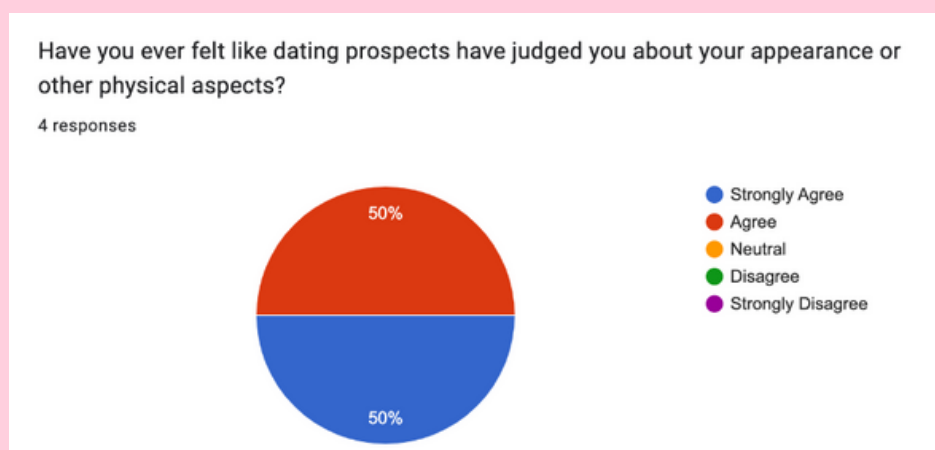
There are a few programming bugs to work out that the user testing found which we will fix for the final deliverable. The one concept bug that was found, we will solve with a question repeatedly to jog the user's mind.

Pre-questionnaire:

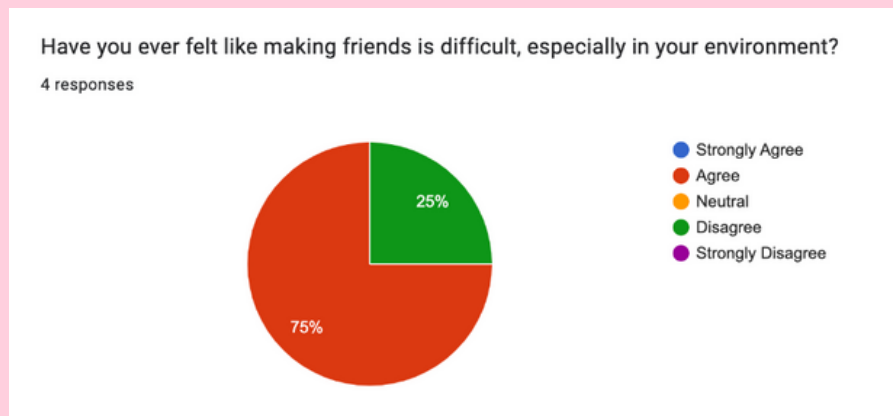
In comparison to our first usability testing, the responses on our pre-questionnaire and post-questionnaire varied a significant amount, even though they were the same questions. This can mainly be attributed to one, our improvements in the implementation, and two, more importantly, how our users had previously interacted with dating apps/systems. Previously, none of our users went to dating apps/outside systems to find relationships, however in this group of testing 75% of our users have used dating apps.



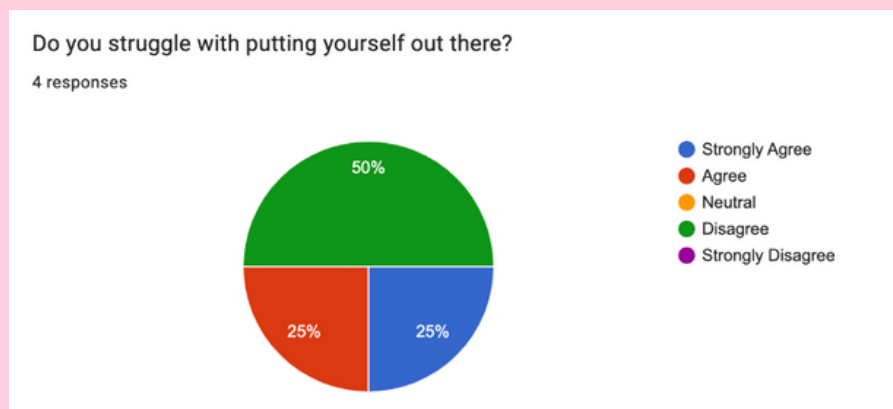
They also felt that they have been judged based on their physical appearance more strongly in comparison to the previous group, which makes sense considering a part of their relationships starts with seeing photos on traditional dating apps.



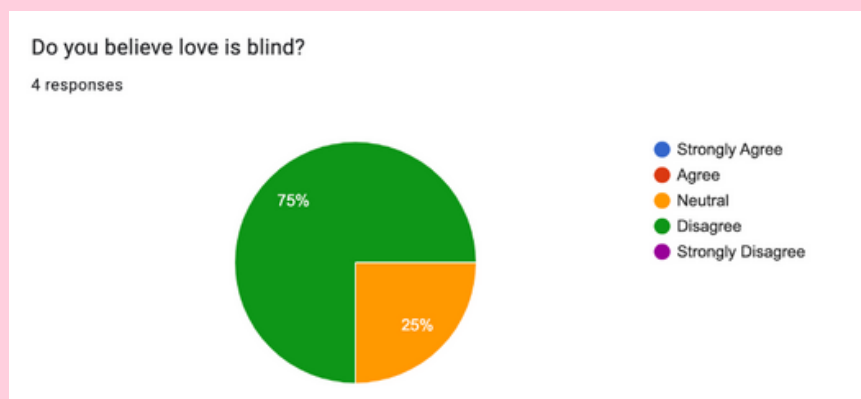
Continuing, our audience was far more likely to feel like making friends was difficult (25% previously to 75% now), meaning that they were closer to the target audience that would benefit from the system and experience.



Interestingly enough, the response data for their ability to put themselves out there was the exact same. This is beneficial actually because it proves that this aspect does not rely on introverted or extroverted personalities, and demonstrates the need for a change in the dating sphere no matter the natural personality one has.



Another interesting part of the data was the fact that those who were more likely to use dating apps felt more strongly about the idea that love was not blind (previously 25% disagree with the statement & 75% neutral, while now 75% disagree with 25% neutral). This really does show the direct correlation between dating apps and personal viewpoint.

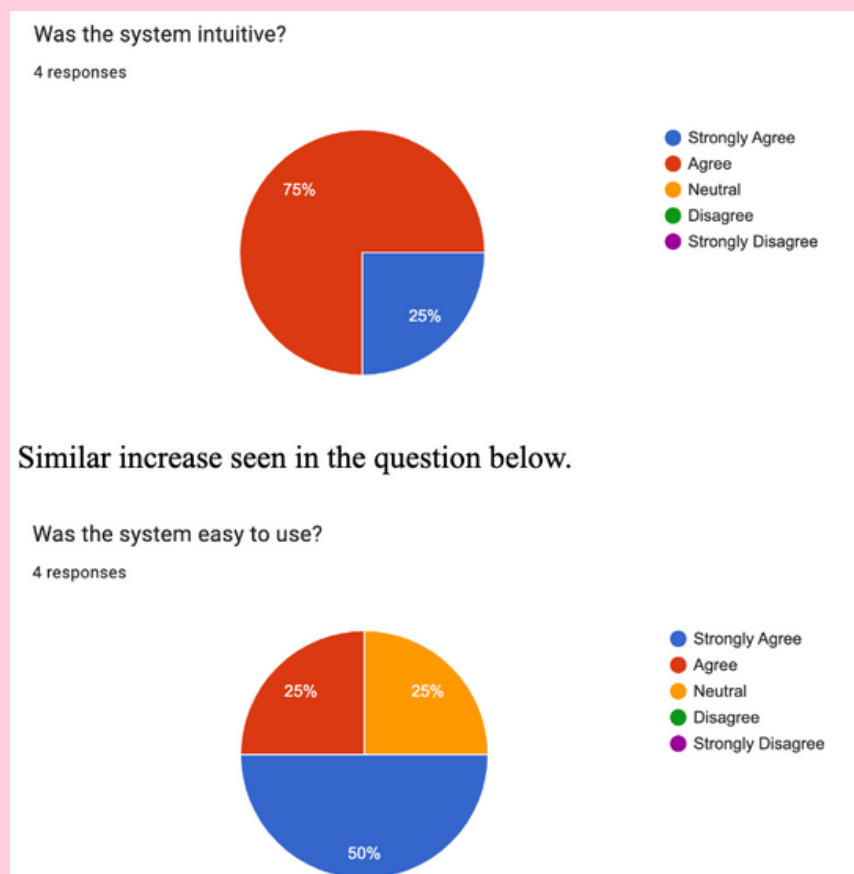


Another interesting development was that the data for the question below (“Do you think that if you got the opportunity to meet people without preconceived notions it would be easier to make deeper connections?”) had the exact same distribution, emphasizing the fact that even those who are more likely to use dating apps believe that they weren’t being judged by their appearances, the very thing the product wanted to solve.



Post-questionnaire:

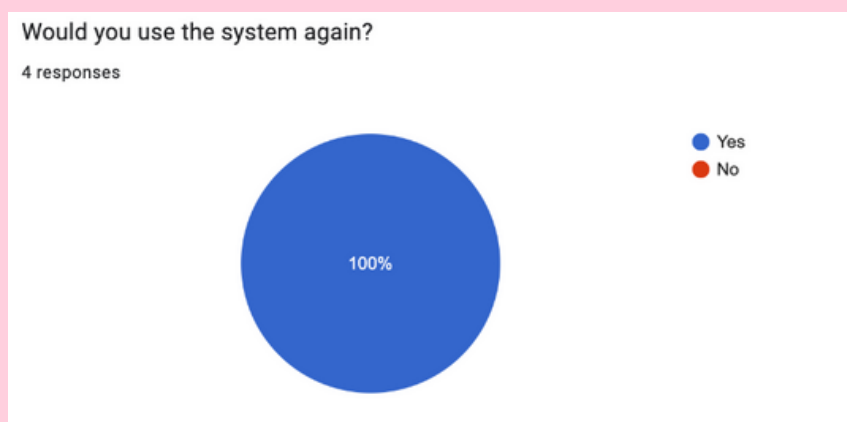
After the changes we made to the implementation, the post-questionnaire had significantly better results. Most of it can be summarized by the fact that previously half of the candidates felt that the system was not intuitive in some way, while the system now is seen as intuitive at minimum.



Another interesting change between those who were more likely to use dating apps vs those who weren't, is the fact that there was a very large increase in the percentage of users who felt safer, or at least more neutral, towards meeting someone using the system. Most of these users already understand the risks that come with using dating apps, and therefore are less likely to be turned away from the idea of meeting someone when little is known about them, aligning with how dating apps work now.



Finally, all of the users said they would use the system again. This can be attributed to the changes made in the implementation, as well as the fact that the audience is more the target focus- those using dating apps.



Takeaways & Direction for Future Improvements:

We will add repeat options to all the questions so that when users forget the question, they can ask to be reminded. We fixed the program so that the bug of quitting when the user's age is under 21 does not happen. To address the problem of the program not recognizing synonyms of yes and no, we will add common synonyms to the list of accepted phrases. If the user chooses to use an uncommon synonym, the program will recognize the no match and repeat its question. This is also the solution to Alexa not understanding the user. When the user has answered something unrecognizable, the program will repeat its question to allow the user to answer again.

Additional Data

(See Usability Testing 1 in Appendix)

Group Reflection

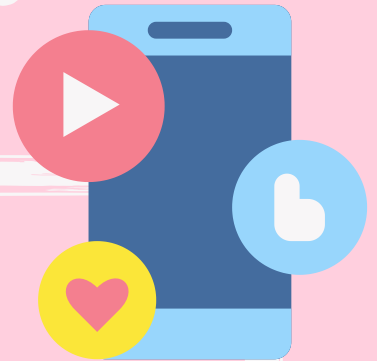


Since the creation of our idea Voice Connect, our team worked diligently and earnestly in order to develop a voice automated system that would break the negative stereotypes and heavy emphasis on physical appearance in the dating sphere. Our team had little background in computer science, however we all stepped up in really learning the necessary databases and complexities needed in order to implement such an ambitious project.

After user testing, we learned many valuable things about how the audience truly impacts the user experience, ending with 100% of our second user testing say they would use it again.

We naturally faced many challenges surrounding timing and scope of such a large project, but persevered in the end and created a system that we are all proud of!

Appendix

**TEAM CONTRACT:**

[HTTPS://DOCS.GOOGLE.COM/DOCUMENT
/D/1REOJXDSUFJWCXSTQOONXGS086DB
LGORJCHLSVBFEVX8/EDIT?USP=SHARING](https://docs.google.com/document/d/1REOJXDSUFJWCXSTQOONXGS086DBLGORJCHLSVBFEVX8/edit?usp=sharing)

K-SCRIPT:

[HTTPS://DOCS.GOOGLE.COM/DOCUMENT
/D/1ESTGPAIHDFSAVKOI4ZCCXXP-
RDQ28IRVXE VW1_QUDD8/EDIT?
USP=SHARING](https://docs.google.com/document/d/1ESTGPAIHDFSAVKOI4ZCCXXP-RDQ28IRVXE VW1_QUDD8/edit?usp=sharing)

USABILITY TESTING 1:

[HTTPS://DOCS.GOOGLE.COM/DOCUMENT
/D/1OASGW7T8HRT_WD3VVX-
8L6F2AYX318NH_X6SA5TIJ1O/EDIT?
USP=SHARING](https://docs.google.com/document/d/1OASGW7T8HRT_WD3VVX-8L6F2AYX318NH_X6SA5TIJ1O/edit?usp=sharing)

USABILITY TESTING 2:

[HTTPS://DOCS.GOOGLE.COM/DOCUMENT
/D/1TZ8APAQUQBFRQZOA0IMXBZILHOH
8B8TVSQTGST_LFPU/EDIT?USP=SHARING](https://docs.google.com/document/d/1TZ8APAQUQBFRQZOA0IMXBZILHOH8B8TVSQTGST_LFPU/edit?usp=sharing)