

Assignment 6: Usability Results + Heuristic Evaluation

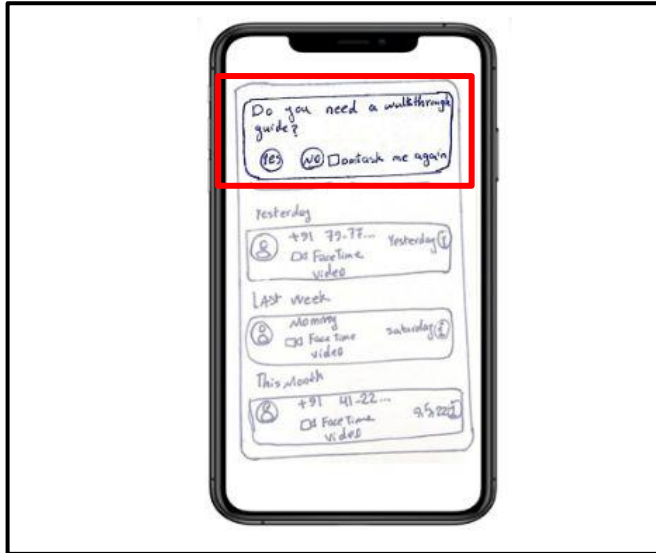
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UFTs & summary for
think-aloud usability

	Critical	Severe	Major	Minor	Positive
Priority	1	2	3	4	-

#1 walkthrough guide for new updates

FaceTime Walkthrough guide for new users and for new updates



The walkthrough guide pop-up for the first time users/whenever there is an update.

Findings

EVIDENCE: Users found walkthrough guide very useful for first-time users. It was also mentioned that the walkthrough guide would be even more helpful whenever an update or a new feature is added, because it not only informs the user about recent updates but also about how to use the recently added feature.

- o **Frequency:** common - it was mentioned that walkthrough guide's usefulness would not only be effective for first time users but for all users in the case of an update.
- o **Impact:** Medium - walkthrough guide save time for the users to learn how to use the app properly and in its full potential.
- o **Persistence:** Low-it is a one-time problem to learn how to use different features of an app and after the first time, people will learn how to overcome.

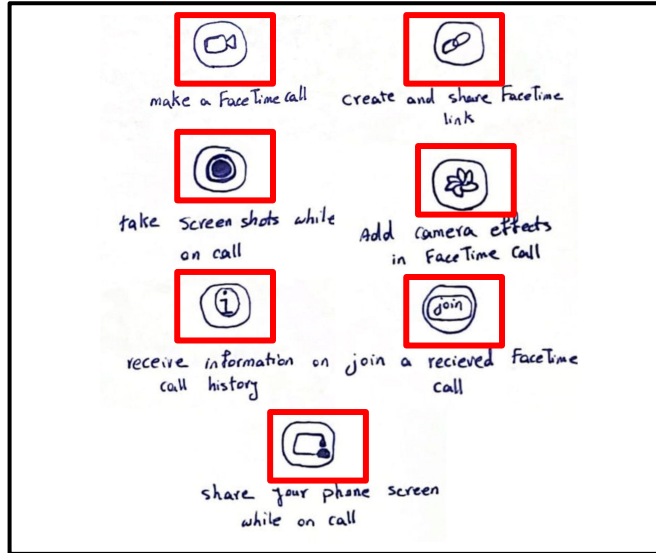
Recommendations

- **SOLUTION:** the solution and addition for the current paper prototype would be to update it as a real pop-up feature that informs users of new features and recent updates. So this walkthrough guide would be repapetedly updated
- **TRADE OFF:** creating a walkthrough guide for first time users would be a one-time solution for an issue that might be long-lasting. However it would increase its usability. In terms of a new walkthrough guide whenever a new feature is added, it might require time and cost but it is eventual for increasing usability efficiency.

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#2 redundancy vs to the point information

Positive aspect of walkthrough guide not providing information about all the features



The seven information of features that were displayed through the FaceTime walkthrough guide.

Findings

EVIDENCE: the paper prototype walkthrough guide provided information only about seven feature that were generally unique to the FaceTime mostly in terms of UI. The rest of the features that were designed based on UI standards were not included in the walkthrough guide as they were easy to use. This prevent the users to be bored interacting with the walkthrough guide.

- o **Frequency:** common -users mentioned that they liked that provided information were not redundant and time consuming to go through all.
- o **Impact:** High - users mentioned that they would skip the whole guide in case the first couple of information were redundant and not to the point.
- o **Persistence:** Medium - if users keep skipping the walkthrough guide, they might repeatedly use the app in a wrong way or not in its full potential.

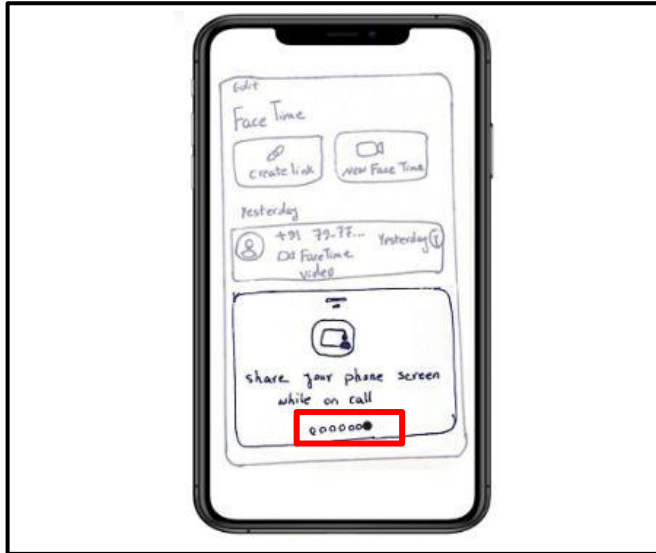
Recommendations

- **SOLUTION:** not specific solution but conducting users studies to understand which features users cant related with, based on other UI standards, that would be a potential feature to be added in the walkthrough guide
- **TRADE OFF:** conducting users studies of first time FaceTime users, can be considered as an extra step that would need a research team to work on it which can be considered as an extra time and effort, however the having the to the point walkthrough guide would encourage and keep first time user to decide to use FaceTime more and know exactly what they can do with it.

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#3 Order of information displayed to users

Order of FaceTime walkthrough guide information displayed to users



FaceTime's share screen is a unique feature that not all users are aware of. In the paper prototype, this feature was displayed the last.

Findings

EVIDENCE: users mentioned that the order of information about each feature is very important. If the highly important information are kept for the last (the case with the current prototype), users might get bored and skip all the information quickly.

- o **Frequency:** common - users mentioned that information about screen share feature or screen shot feature that are more likely not to be known by the users should be displayed first which did not happen in the paper prototype usability think aloud.
- o **Impact:** High - a little change such an order change of displayed information would have high impact in terms of how users actually pay attention to the walkthrough guide.
- o **Persistence:** medium- the issue with learning how to use a feature can persist if they actually do not pay attention or skip the walkthrough guide displayed information.

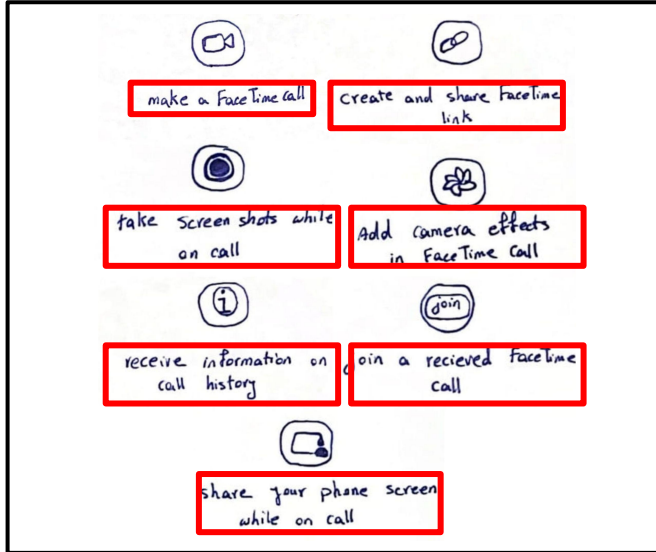
Recommendations

- **SOLUTION:** solution is easy. It is just to change the order of information displayed on the walkthrough guide based on the priority of user needs. Most important information in terms users need should be the main priority and should not be displayed at the end.
- **TRADE OFF:** changing the display order of what already exists does not require a team of research or specific energy to invest on, Although it would increase the user awareness in terms of FaceTime features' full potential and would increase its usability.

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#4 More graphics, less text

FaceTime Walkthrough guide not to be wordy and full of texts



Current description of any feature in the walkthrough guide is in text format that can be replaced with more graphical presentations such as animations

Findings

EVIDENCE: users mentioned that for each feature displayed on the walkthrough guide, they would like to be informed about the usability of that feature with more graphics rather than text (such as animations or short video, or story telling images)

- o **Frequency:** common - users generally preferred graphics over text descriptions.
- o **Impact:** High - the impact of visualizing text information through graphic presentation would be highly efficient in terms of increasing the communication and conveying of useful data to the users
- o **Persistence:** High - in case users do not really perceive how a specific feature should be used, they would continuously search on the internet for more visual guidances, which can be overcome through visual walkthrough guide.

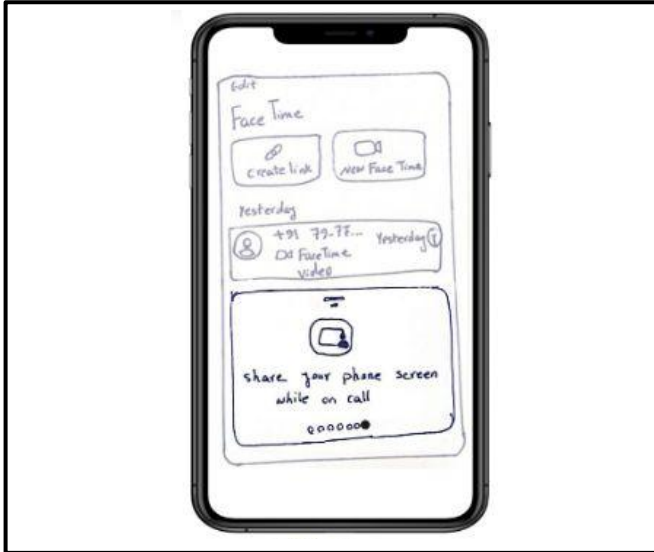
Recommendations

- **SOLUTION:** the best solution would be to replace text or keep it but with addition of more graphical description such as animations or short video, or story telling images
- **TRADE OFF:** although graphics vs text strategy would be more usual and easy to perceive in terms of first-time users. But it would require collaboration with different teams such as graphics, researcher, designers, etc. comparing the the approaches of animations, short video, and story telling images, story telling images seems to be more achievable in case of a restricted time and budget limitation. It would not take as huge effort as other two approaches, but make a difference as result.

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#5 Represent Icons same as on screen

Walk through guide on homepage



The icons cannot be located where they will be placed on the screen

Findings

EVIDENCE: The walk through guide explains the icons but does not indicate where they will be on the screen. The user mentioned that the walk through could be a replica of the screen

- o **Frequency:** It's a common problem faced by the users. Even though the icons are explained, the user might not be able to locate them on the screen correctly
- o **Impact:** Difficult. The user needs to be able to visualize the usability of the icons
- o **Persistence:** It isn't a one time problem, since the user might encounter this everytime they use the walk through guide

Recommendations

- **SOLUTION:** Instead of the single icon on the walk through guide, the guide should show an entire screen, show where the icon is placed and what it does
- **TRADE OFF:** Showing an entire screen before the user actually making a call might be too much of an information for the user

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#6 Ability to disable the guide

HomePage where the Walk through guide pops up



The option to disable guide with “dont ask me again” is a positive experience

Findings

EVIDENCE: When the guide pops up everytime user opens the app, the popup gives an option to disable the walk through guide

- o **Frequency:** It's quite common for the users to disable the guide once they are acquainted with the functionalities
- o **Impact:** The option is easy to use as it is quite intuitive and prevents from overwhelming the user
- o **Persistence:** The experience of having this option has to persist every time the walk through guide pops up

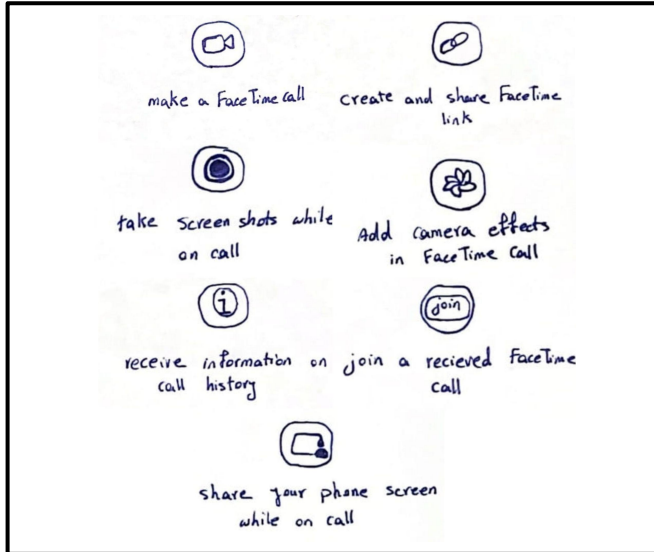
Recommendations

- **SOLUTION:** No solution necessary. Other option could be “skip guide”
- **TRADE OFF:** skipping the guide might disable the guide and the user might need the guide the next time which they wont be able to recover once it is disabled

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#7 Guide as and when the screen appears

Walk through guide



The guide for icons is not when needed, instead its too early an information for the user

Findings

EVIDENCE: The guide for icons is not when needed, instead its too early an information for the user as the guide explains most of the icons before the user has seen them

- **Frequency:** This is quite common problem since the user might be overwhelmed with the information they dont need right now
- **Impact:** Easy to use since there is no major downside to having the user guide
- **Persistence:** It is a one time problem since the users will get familiar with the icons once they make a call

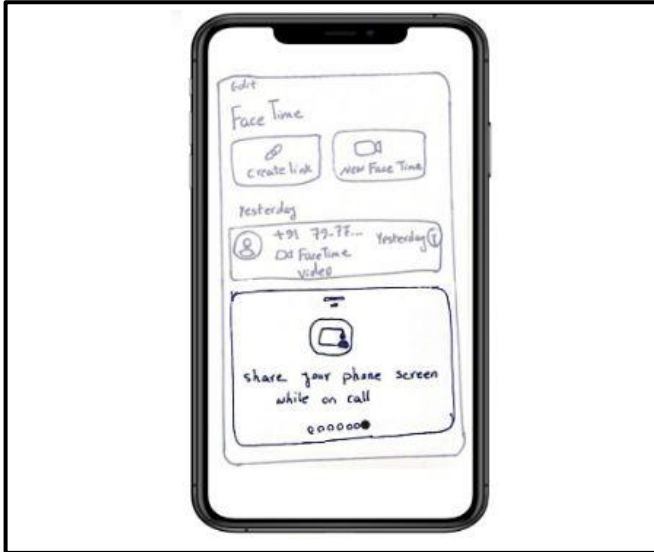
Recommendations

- **SOLUTION:** Instead of showing the icons before making the call, the walk through guide can be displayed after the call is made
- **TRADE OFF:** the biggest downside about walk through guide after making a call is that it might interrupt the ongoing call and hence would be a bad user experience

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#8 Should have option to skip guide midway

Walk through guide ongoing



The user should not be compelled to go through the entire walk through guide

Findings

EVIDENCE: during the walk through guide, the user might not need the entire guide and might want to skip midway. A user pointed out that there was no way to skip the ongoing guide

- o **Frequency:** The problem is quite common as all the users might want the guide to be ended/skipped at some point midway
- o **Impact:** The problem is not easy to overcome unless the user has skipped the guide in the beginning or finished the guide
- o **Persistence:** It is not a one-time problem as it will persist everytime the guide pops up

Recommendations

- **SOLUTION:** A “skip” button should be offered on every screen of the user guide
- **TRADE OFF:** The downside of the option is that the user might want to close the entire guide altogether and not just skip one screen

Summary of think-aloud usability

The Think aloud analysis brought us to the following conclusions that we are summarising in two categories of “positive” and “work needed” categories:

Positive:

- The user found the walk through guide to be useful and just enough as it does not explain all the features that are intuitive, rather focuses on new and unusual features
- When the guide pops up everytime user opens the app, the popup gives an option to disable the walk through guide thus giving the user more control and freedom

More work needed:

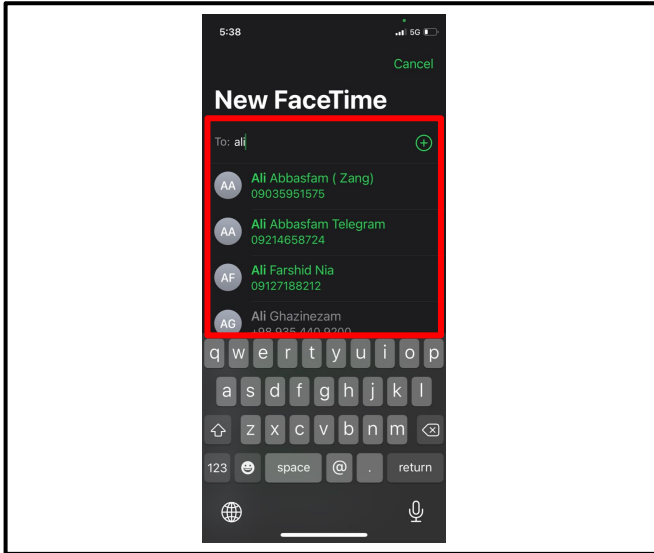
- The guide needs to replicate the actual screen and placement of the icons as it is
- The users would like to have the guide during updates and new versions as well to indicate changes in the app
- The users expect the most unusual or new information to be placed first in the guide
- Rather than the textual information, the users would like to see more graphics
- The users desire an option to skip the guide midway

UFTs & summary for heuristics

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#1 Error prevention

Positive experience in searching for a contact for a call



Positive finding in terms of having suggestions while searching for a specific contact

Findings

EVIDENCE: FaceTime provides suggestions based on the initial written letters by the user, when trying to find a contact in the search bar for a call. It also has the a separate suggested list below the search bar which shows the people who the user have called most and is likely to call again.

- **Frequency:** It is very common and every user can experience it, as everyone need to search for a contact first to be able to make a video call.
- **Impact:** High-the impact is high in terms of easiness. It is a convenience for users to have this feature.
- **Persistence:** High-people will be always use this feature because when searching for a name, errors might happen in spelling. So the selection rather than entry here is very helpful.

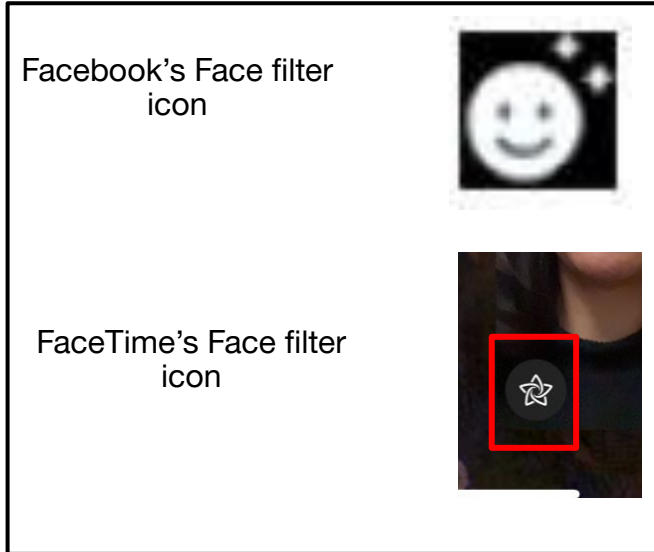
Recommendations

- **SOLUTION:** No specific solution necessary, as it is a positive experience, however machine-learning algorithms can be used to make suggestions more effective and to the point if the user has too many contacts.
- **TRADE OFF:** including a search option that not only is based on the initial user input letters but also is based on the probability of a contact being called can be valuable, however, implementing such a machine learning algorithm requires time and cost which final results might be useful to only a portion of users with too many contacts

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#2 Recognition rather than recall

Face filters icon design is not consistent with standard filter icon in other UIs



FaceTime's face Filter icon compared to other app's Face Filter icon.

Findings

EVIDENCE: Many other apps have an icon where a symbolic face of a human is used for the face filter feature. However it is hard to relate the FaceTime's face filter feature icon with other app's designs as it does not have a symbolic face.

- o **Frequency:** common. Everyone using FaceTime is probably also familiar with other apps and would see the difference in the UI design for face filter icon.
- o **Impact:** Medium- users need to accidentally try that filter button in UI to find out that is a face filter.
- o **Persistence:** Low- because it is a one-time problem that people will learn how to overcome. Other than the first time, users would know which button is used for face filters.

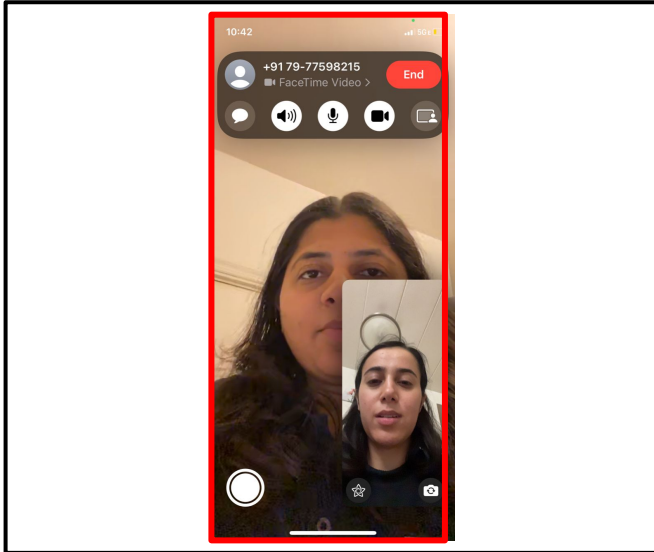
Recommendations

- **SOLUTION:** Be consistent with other app's face filter button design (standard UI design for face filter icon). Use an iconic or symbolic face instead of current star shaped icon.
- **TRADE OFF:** The solution will not require a huge effort or time to redesign. As it just need to be consistent with UI standards however it would highly increase the usability of the FaceTime, because many people do not know that FaceTime has a face filter option.

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#3 Aesthetic and minimalist design

Positive minimalistic FaceTime UI design



Minimalistic UI design of FaceTime with clean and simple design.

Findings

EVIDENCE: FaceTime's UI design strips away all unnecessary elements. Its interface is clean, simple, and easy to use. Its uncluttered and free of distractions, which can help users focus on the task at hand.

- **Frequency:** common- the minimalistic UI of FaceTime is easy to use and legible for everyone
- **Impact:** Easy- because the UI directs attention to important information it is easy for users to quickly achieve their goals.
- **Persistence:** Low in terms of possible problem occurring- the UI enables interfaces appear less busy and overwhelming so if an issue occurs, it will not be that persistent and users with this minimalistic design would be able to easily overcome.

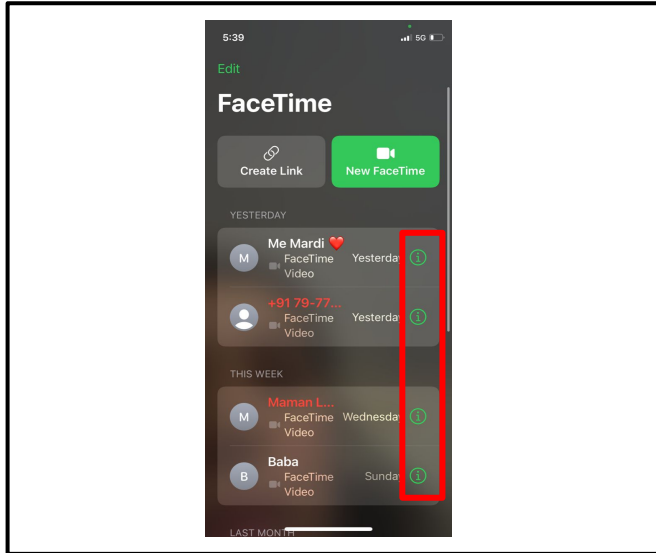
Recommendations

- **SOLUTION:** One way to create a more minimalist interface is to use more white space. White space is the area around elements on a page that is left empty. This can help to create a feeling of openness and simplicity.
- **TRADE OFF:** using more white space would not require major changes in UI design of the FaceTime but it will increase its readability. This goal is relatively easier to achieve.

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#4 Help and documentation

No Help button for troubleshooting and Tips for occurring issues



The current “i” information button provide only more contact information. It is not actually a “help & tips” feature that would provide troubleshooting information

Findings

EVIDENCE: there is no help button where troubleshooting information is provided to users when FaceTime is not working. There is a “i” button besides each contact but that is not actually help, it just provides more information about that specific contact.

- **Frequency:** common - none of the users can have initial troubleshooting help through the FaceTime app itself, everyone has to google it to find possible solutions.
- **Impact:** Highly difficult- users need to search the net which is time consuming and no guarantee of finding the reliable information all the time.
- **Persistence:** High - always new problems can occur (not one-time problem), and for each user had to study and search to find the solution.

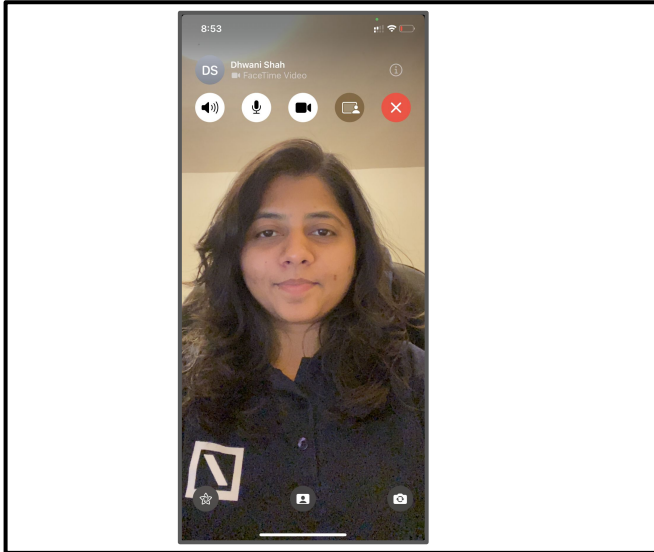
Recommendations

- **SOLUTION:** a “help & tips” feature can be added where detailed and comprehensive source of information is provided for users for their possible and common types of issues.
- **TRADE OFF:** this solution might need major effort, time, cost, and especially research team to define what are the common issues and how possible tip for overcoming those issues can be mentioned in the “help & tips” feature, however it worth it in terms of usability and decreasing user frustration in case of an issue. Users would want to hear first-hand solution from the app rather than internet searches.

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#5 Visibility

No status on whether the call is connecting or ringing or waiting for response



When making a facetime call, there is no way to know if the call is getting connected or not

Findings

EVIDENCE: While making a new FaceTime call, the UI does not indicate whether the call is connecting/ringing or waiting for response.

- o **Frequency:** common. The process is the same, almost every user will be confused but overtime the users will get used to this process
- o **Impact:** Easy. Once the user understands how the application works, or if the call gets connected, it is self intuitive and the user can understand what has happened
- o **Persistence:** It is a one-time problem. Once the users understands how a call gets connected, they won't be confused as such

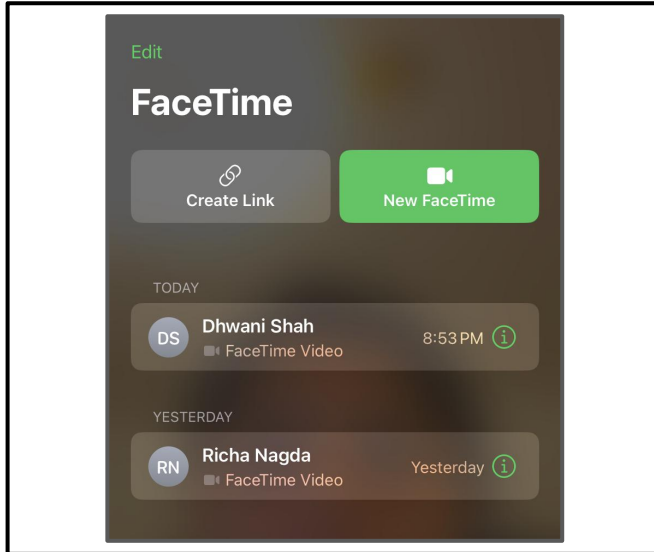
Recommendations

- **SOLUTION:** A small text indicating whether the call is connecting or not can be a great indicator of the system status
- **TRADE OFF:** Even if the call is connected, we can't know for sure if the user is unavailable or if its the internet issue, which might confuse the user about what is really happening

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#6 Match between the System & Real World

Start Page



The “New FaceTime” button is an appropriate representation of real world video cameras

Findings

EVIDENCE: At the home/launch page, the icon for “New FaceTime” matches the real world video camera and hence is quite intuitive

- o **Frequency:** It is a common experience and every user has found it easy to use
- o **Impact:** It’s quite an easy to use button. It does not need any external help to figure out how to make a call
- o **Persistence:** This positive experience persists throughout the lifetime of the user journey since its color and the icon are a good indicator of what the button “New FaceTime” stands for

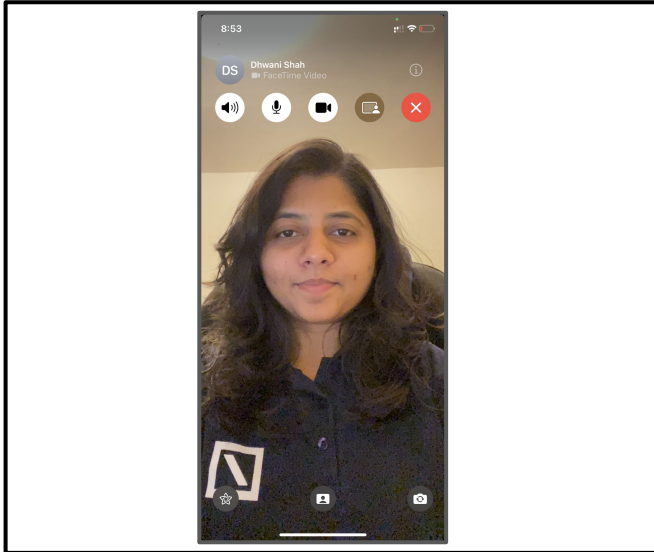
Recommendations

- **SOLUTION:** No solution necessary. Since the current solution is the most minimalistic solution. The name “New FaceTime” could be replaced with “Call” to make it even simpler
- **TRADE OFF:** Since the users are used to “New FaceTime”, replacing it with “Call” might confuse the users whether its a voice or a video call

Priority	Critical	Severe	Major	Minor	Positive
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#7 User Control and Freedom

“New FaceTime” call page



When the user makes a call, they can cancel the call with the red cross button shown above

Findings

EVIDENCE: After making a call, the user has control over reverting it by cancelling the call

- **Frequency:** It's a common experience and a positive experience in a way that allows user to control their actions
- **Impact:** It's easy to cancel the call with the red cross button without any cognitive load
- **Persistence:** This is a unified experience and necessary to have the cancel button so that the user can cancel the call before it gets connected

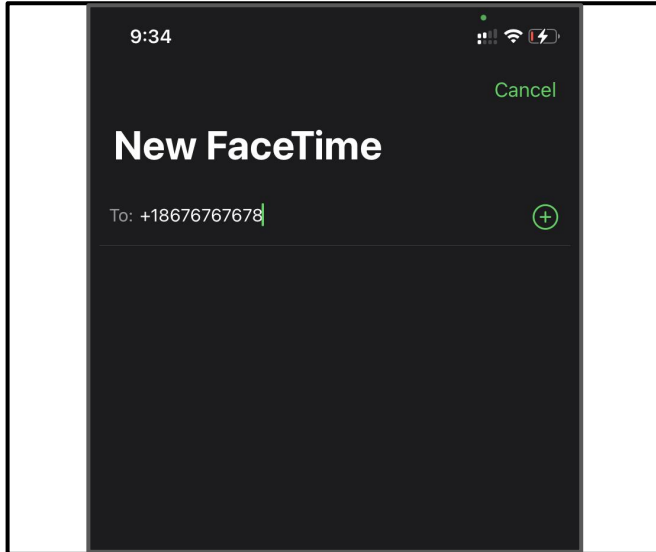
Recommendations

- **SOLUTION:** No solution necessary. Instead of a red cross button, there can be a “Cancel” button to make it more intuitive
- **TRADE OFF:** Since the users are used to the red cross for cancelling, replacing it with “Cancel” might confuse the users.

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#8 Problem Recognition

New FaceTime to contacts page



While trying to make a call to a number that is neither saved nor on FaceTime, the UI does not indicate that the number is incorrect or not available on FaceTime

Findings

EVIDENCE: While trying to make a call to a number that is neither saved nor on FaceTime, the UI does not indicate that the number is incorrect or not available on FaceTime

- **Frequency:** Rare. Usually people save the contact before making a FaceTime call hence we can assume that the problem is quite rare
- **Impact:** It's easy to recover from the issue if the user chooses to save the contact and then see if they can make a FaceTime call to the contact
- **Persistence:** The problem isn't one time, rather it persists

Recommendations

- **SOLUTION:** There can be information on the screen if the contact is not on FaceTime
- **TRADE OFF:** The downside for letting the user know that the contact is not on Facetime does not give the user the option to send them a link to join, which they can otherwise do from the "create link" option

Summary of heuristics

FaceTime app Heuristics analysis brought us to the following conclusions that we are summarising in two categories of “positive” and “work needed” categories:

Positive:

- The app's new real-world camera feature matches between the system and the real world.
- The cancel call button enables user to have the freedom of control when to cancel an unwanted call
- Moreover, based on its suggestion feature, users can find and select their intended contact to call without any typing error.
- The UI has a perfect minimalistic design.

More work needed:

- In terms of recognition rather than recall, the UI needs more work as the design of some features is not consistent with the UI standards of other app (e.g. face filter feature design)
- There is no system status while making a call about whether the call is connected or not
- There is no such a feature that would help with the problem recognition for example when users by mistake types a name that do not exists, no information is provided to the user at all. However, information such as “the searched account not found” is needed.
- No “help & tips” feature is provided.