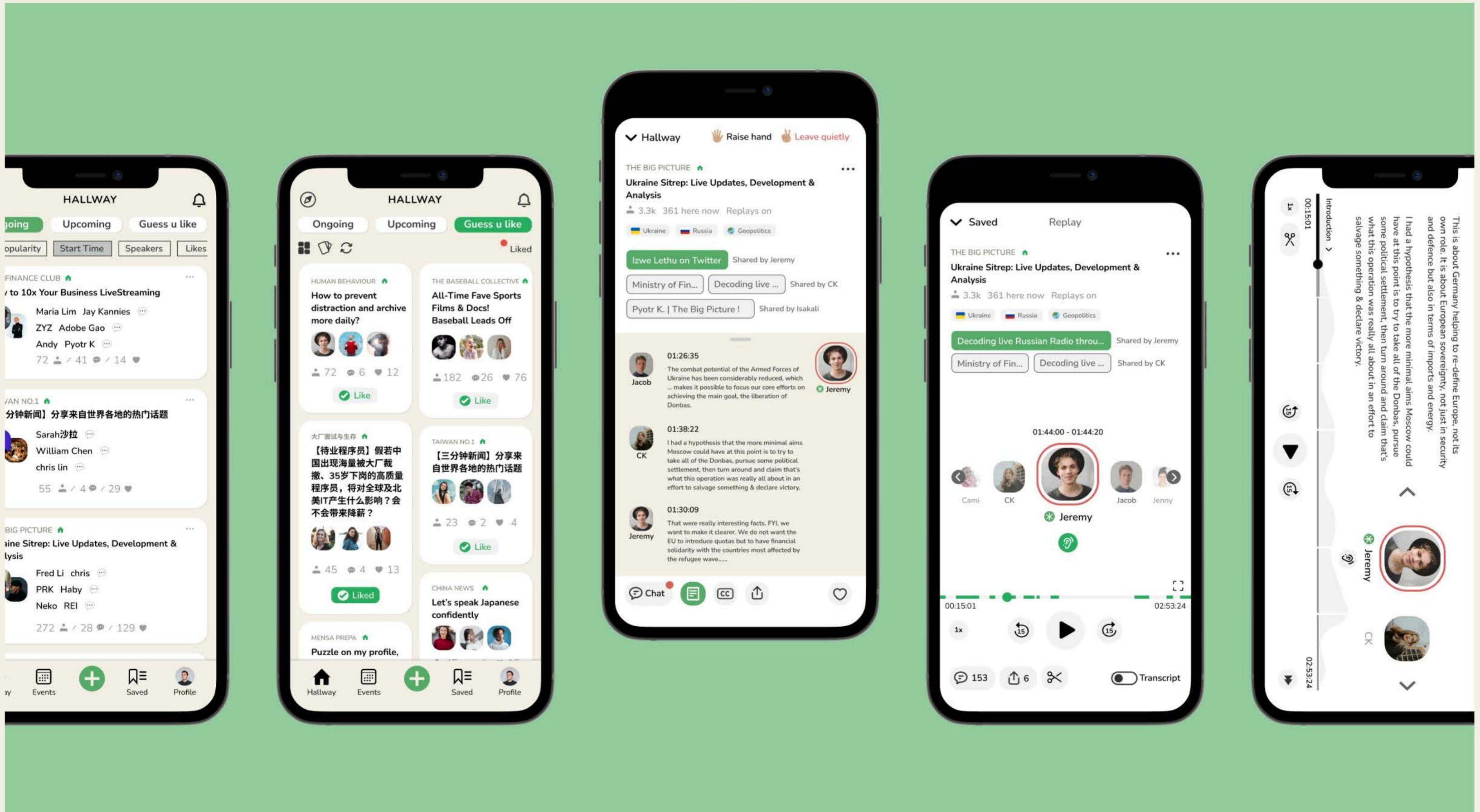


Clubhouse Redesign

An audio-based social media platform that enables listeners to access contents tailored to their own interests.



Overview

This project aims to redesign Clubhouse to address the underlying UX issues that leading to its decline and great loss of users after the intial popularity in early 2021.

We identified several pain points by synthesizing insights from user interviews, where the efficiency of real-time participation and access to information were of primary concern. To address these, we implemented multiple features, including an innovative AI solution, to help listeners gain information and knowledge more efficiently and elevate their experience throughout the app.

TIMELINE

7 weeks (Feb - Apr 2022)

TEAM

JIAO Keqing Clara
WEI Zixiong Jason

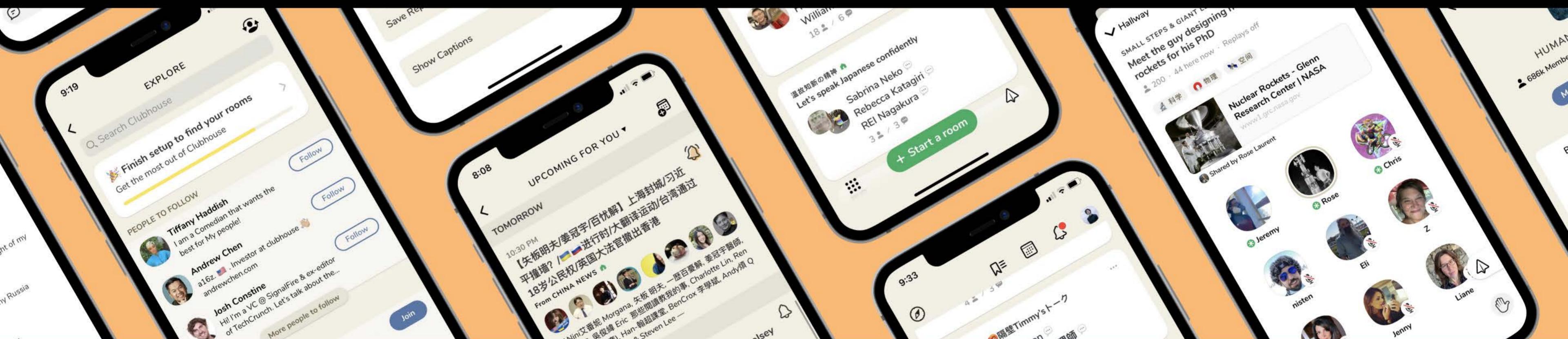
MY ROLE

User Research, UX Design, Wireframe, Lo-fi Prototype, Usability Test, Hi-fi Prototype

TOOLS

Figma

How might we add new features on Clubhouse to help audience that are looking for insights into certain topic gain knowledge and information more efficiently?



01 Discover

Week 1

Desktop Research
User Interview

02 Define

Week 2

Persona
User Journey Map
Cometition Audit

03 Ideate

Week 3

Brianstorm
Value Proposition
AI Model *Confirmation*

04 Prototype

Week 4

Information Architecture
Paper Wireframe
Lo-fi Prototype

Week 5

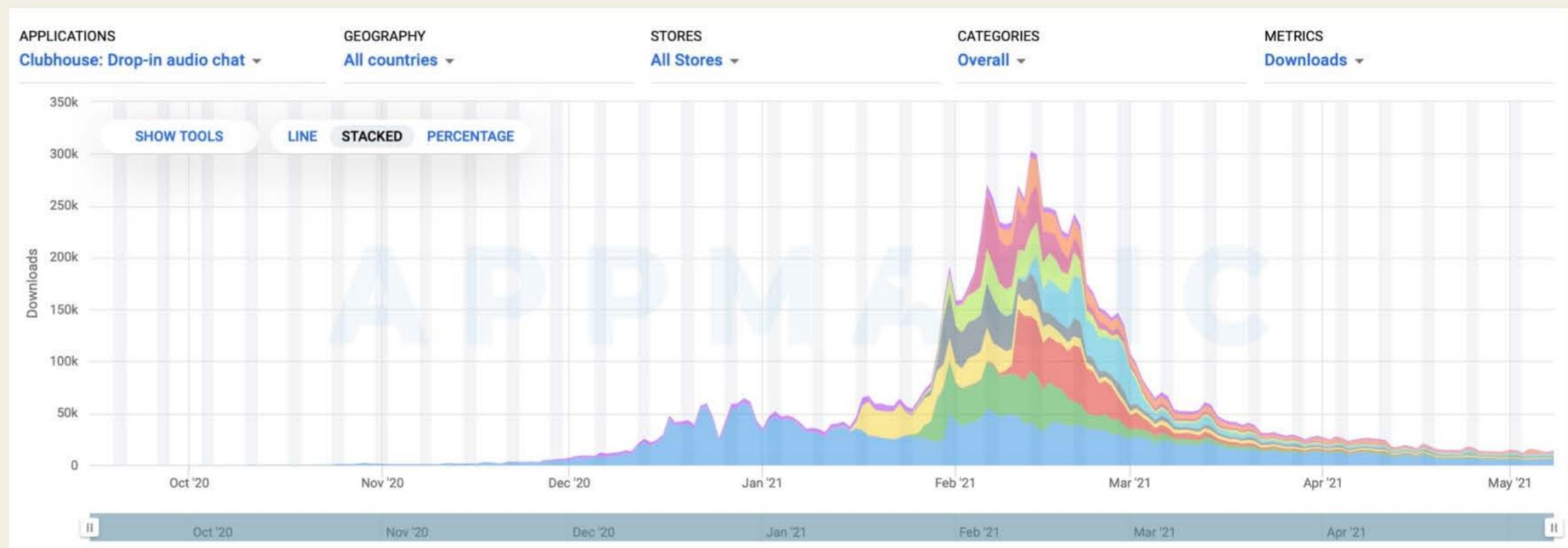
Usability Test
Heuristics Evaluation

Week 6

Hi-fi Prototype
Future Consideration

Research on Clubhouse

Clubhouse is a live audio social media app. It is a new type of social product based on voice that allows people to talk, develop ideas, deepen friendships, and meet interesting new people around the world.



Clubhouse download figures across some of its popular markets, according to estimates by mobile insight firm AppMagic

Dec 2020 - Feb 2021: Rapid Growth

Mar 2021 - Apr 2021: Begin to Decline

Apr 2021 - Now: Almost Disappeared

The need for a more personal and as-close-to-reality way to communicate during the pandemic attract a huge amount of users. The exclusivity created by invite-only membership increased a sense of mystery. The celebrity effect driven by Elon Musk made Clubhouse the hottest topic in early 2021. According to the Clubhouse blog, in a single week during January 2021 they managed to get 2,000,000 users. I remembered clearly that in April, some of my friends were heavy users of Clubhouse, they recommended it to me and invited me to join. We are curious about why the success of Clubhouse is not sustainable and why users gradually abandoned the app.

Why Clubhouse fails within such a short period of time?
Can we revitalize it through proper UX design?

User Interview

We started the project through thorough users interview to clearly understand why so many addicted users gradually abandoned clubhouse within half a year.

We interviewed 4 former heavy users of Clubhouse who had used the app very frequently, with some investing 6-10 hours into it on a daily basis. Each of them was now having a significantly reduced amount of activity on the app, some of them even uninstalled it. Our interview focused on their pain points to figure out how to revise the app.



Masa

- Female 26
- Employee in financial sector
- Living in Tokyo
- Heavy user of clubhouse from Feb - Jun 2021
- Peak usage time per day: 10+ hours
- Mainly listen to political/geopolitical discussions participated by ethnic Chinese all over the world



CinCin

- Female 29
- Commercial Real Estate Analyst
- Living in Vancouver
- Heavy user of clubhouse from Feb - Jul 2021
- Peak usage time per day: 5-6 hours
- Mainly listen to discussions organized by acquaintance or close friends; prefer listening to rooms of business, technology, and music radio



Wendy

- Female 20
- Undergraduate Student
- Living in Philadelphia
- Heavy user of Clubhouse from Feb - Jul 2021
- Peak usage time per day: 4-5 hours
- Mostly being listeners in public discussions and occasionally organizing private rooms among friends



Michael

- Male 22
- Graduate Student
- Living in Pittsburgh
- Heavy user of Clubhouse from Feb - Apr 2021
- Peak usage time per day: 3 hours
- Would only listen quietly to speakers in public rooms

CinCin, Wendy

My friends all left, and the quality of the discussions was not so great after a while. I couldn't get any useful knowledge so I gradually stopped using it.

Micheal

After entering a room, it was hard to understand what everyone was talking about and catch up with the discussion.

Micheal

I'd love to re-play some records, but they are difficult to accurately locate. It was also hard to revisit the highlights as replays were often lengthy and without transcription.

Masa, Micheal

People were arguing with each other during the discussion. Those with different opinions were bullied, and I even heard curse words. I hate the atmosphere.

CinCin

Nearly every room recommended to me contains someone that I'm following. They talk about topics I'm too familiar with. But I need more than this!!! I felt constrained by the recommendation system...

Masa

Schedule management is unclear, and I often miss rooms. I previously planned to join. Some rooms are in different timezones, which are even more likely to miss, and there won't be a second chance to revisit them.

CinCin

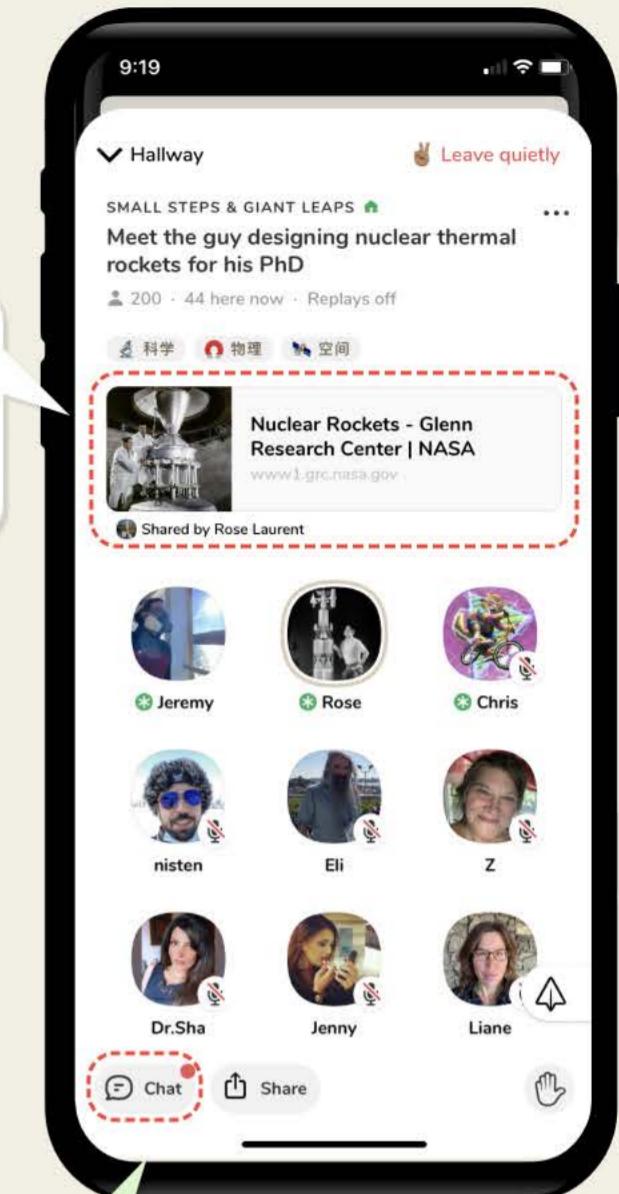
I couldn't share images, videos or links freely in the Chats. It's harder to illustrate my opinions by external sources.

Wendy

I couldn't effectively organize the replays I saved. I wish the app can provide a tidier way for categorization...

CinCin

Only one shared link can be pinned here by the speakers. It's not very convenient.



Wendy

The 'Chat' session is separated from the main room. Not easy for me to catch up with the speakers while texting.

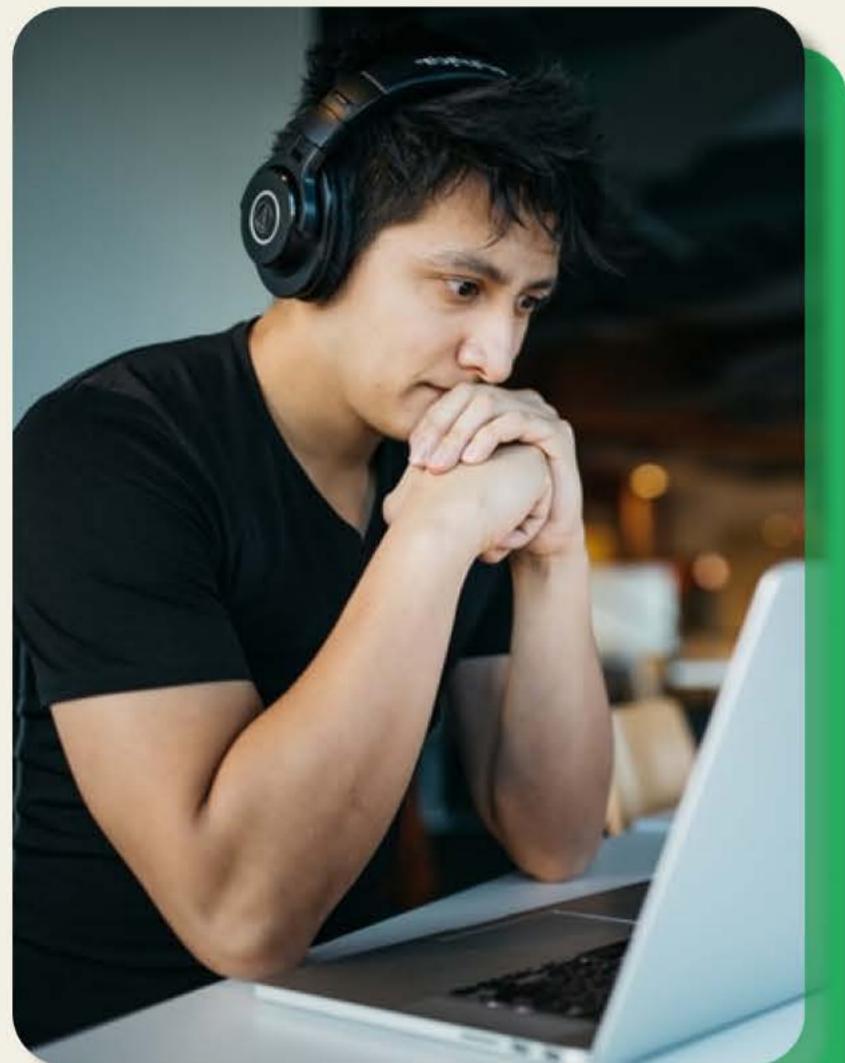
Masa, CinCin, Micheal

As a listener, I seldom use these buttons. Why they are so salient?

Pain Points

- 1 - Difficult to find more rooms of interest.
- 2 - Cannot catch up with the ongoing discussion promptly.
- 3 - Hard to precisely check back on previous contents.

User Persona



Lenard

Identity	Graduate Student
Major	Computer Science
Age	24
Location	Pittsburgh
Marital status	Single
Personality	INTJ

“Speak less and listen more! I barely have the desire of expression. I can learn more from listening.”

Environment & Behavior

Lenard has reduced his in-person activities during the pandemic and now has many free time for online discussions. He's interested in technology, history, and geopolitics, particularly those related to the Greater China region.

He would like to use Clubhouse to hear the thoughts from people of Chinese ethnicity around the world on these topics and wants to form his own judgments by comparing what he hears and reads.

Problem Space & Pain Points

- When joining an ongoing discussion, Lenard cannot see any records, and it takes very long before he can catch up, making him miss a lot of highlights and meaningful contents.
- Lenard feels that discussions are often too lengthy and overly inefficient without agendas.
- When topics become sensitive, conflicts often start and some participants use inappropriate language or form groups to bully those with different views. In these cases, it is rare to see objective and rational discussions.

Character & Personality

As an INTJ, Lenard is interovert, rational, and knowledgeable.

His motto is “speak less and listen more”. For him, listening is the best way of observing people and the society. He likes exploring deeper into domains including technology, history, and geopolitics.

Needs & Goals

- Add summaries/intros/abstracts for those entering the room in the middle of a discussion.
- Introduce reporting or supervising mechanisms to prevent inappropriate uses of language and behaviors and promote a friendly environment for rational, high-quality discussions.
- Hopes that Clubhouse can organize and keep records of those discussions with higher qualities for users who missed them to revisit.

User Journey Map



Lenard 24

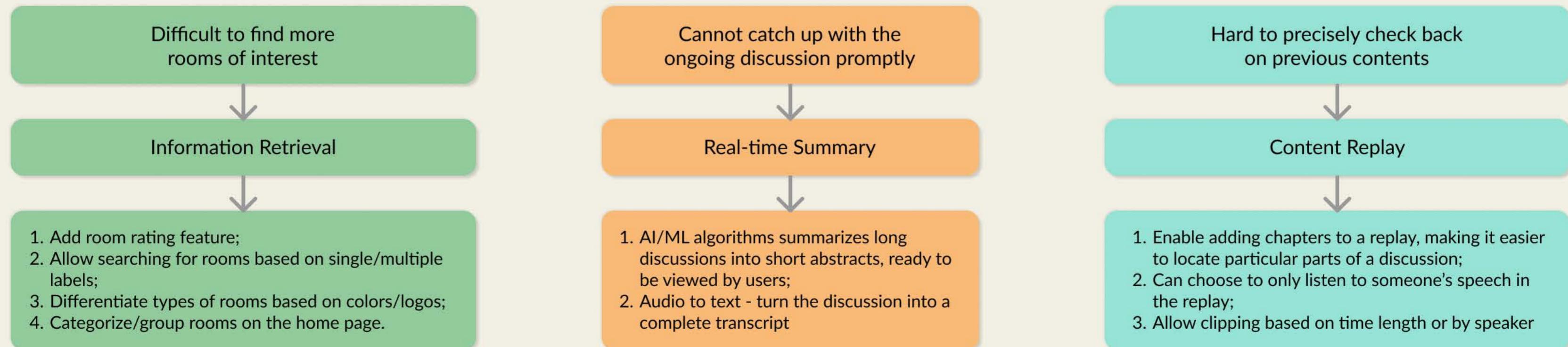
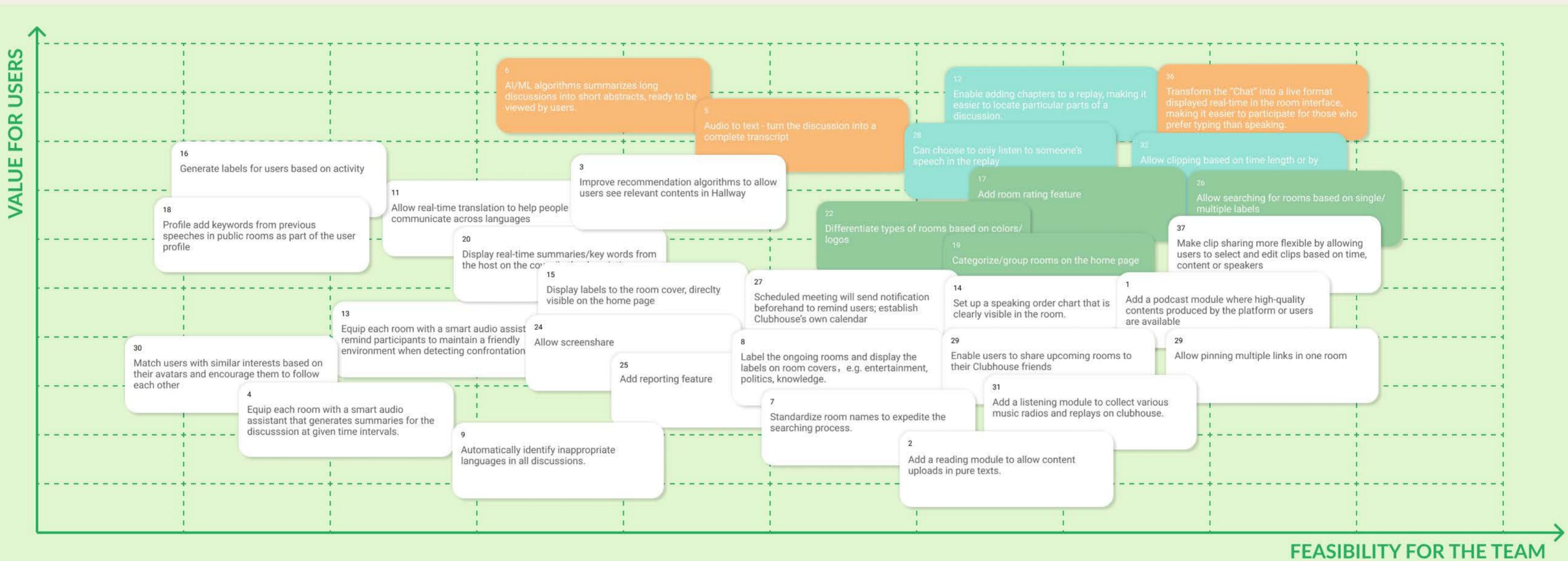
Graduate student loves geopolitics and technology topics

PHASES	SEARCH FOR CONTENT	VIEW RECOMMENDED ROOMS	ENTER THE ROOM	PARTICIPATE IN THE DISCUSSION	LISTEN TO REPLAY
GOALS	To look for interesting contents in the "explore" page	To browse recommended contents in Hallway, looking for rooms of interest	To obtain useful knowledge and insights from experts or experienced professionals	To solicit opinions and gain knowledge	To go back to parts he missed/ didn't catch up with; to revisit opinions he forgot
ACTIONS	<ul style="list-style-type: none"> 1. Search by keywords 2. Find Clubs/People/Topics 3. Follow People, Join Clubs 	Browse the Hallway	<ul style="list-style-type: none"> 1. Enter a room mid-way 2. Check the pinned link 3. Check the "Chats" to try to catch up with the ongoing discussion 	<ul style="list-style-type: none"> 1. Listen quietly 2. Take notes 3. Share the insights 	<ul style="list-style-type: none"> 1. Search for a Replay 2. Listen to a Replay
EMOTIONS & THOUGHTS	I want to know people's opinions on the heated debate over Russian invasion of Ukraine! There are so many ongoing rooms and replays. Which one should I choose?	Some of my friends are talking in this room! And more than 500 people are listening! This might be cool... What are they talking about now? I cannot catch up with this discussion easily...	The discussion is great! Offer a lot of interesting insights and I've learnt a lot today!	A professor just shared a brilliant idea! He quoted a book but I'm not sure which one it was though...? Some speakers with different opinions are quarreling with each other. Couldn't they just friendly sharing ideas?	The room have a replay! Great! Let me check the professor's speech! The discussion is two hours long?! I can't remember when the professor spoke about that book. How can I find it???
PAIN POINTS	<ul style="list-style-type: none"> 1. Sometimes user just want to kill time, doesn't have a specific topic/keyword to search for; 2. View People & Clubs' profile cannot tell whether they are worth following or not. 	<ul style="list-style-type: none"> 1. Little content for new users following a few people/clubs; 2. Hallway crowded rooms of similar topics. User doesn't know which one has better quality; 3. Repetitive recommendation makes it difficult to access a wider range of topics. 	<ul style="list-style-type: none"> 1. Hard to follow the discussion mid-way without records of previous contents; 2. Easy to miss interesting live rooms. 	<ul style="list-style-type: none"> 1. Difficult to maintain a friendly discussion atmosphere; 2. Without clear agendas, discussions will be too lengthy or inefficient. 	<ul style="list-style-type: none"> 1. Replays are often too long for users to locate a specific part; 2. Saved replays cannot be clearly categorized.
OPPORTUNITIES	<ul style="list-style-type: none"> 1. Establish a better recommendation system; 2. Establish a rating system for users to evaluate People and Clubs. 	<ul style="list-style-type: none"> 1. Optimization the recommendation algorithm; 2. Establish a rating system for users to evaluate each room; 3. Add new features to sort the contents. 	<ul style="list-style-type: none"> 1. Provide some intros, abstracts, or summaries of highlighted contents; 2. Let a host/an audio assistant recap past discussions or preview upcoming discussions every once in a while. 	<ul style="list-style-type: none"> 1. Set up supervision or reporting mechanics to auto-mute speakers used harmful languages 2. Set up a rating system for users to evaluate the speakers. Reminding them to improve their quality. 	<ul style="list-style-type: none"> 1. Save and re-organize high-quality discussions for users to revisit; 2. Saved replays can be categorized by users personally; 3. Add features like "Searching by keywords", "Listen to him/her only" to fast locate specific parts of the discussion.

Brainstorming

Based on the above discoveries, we brainstormed some potential features to solve the pain points.

By using the proposition grid, we finally confirmed on three important categories for further development.



Value Proposition

- 1 - Information Retrieval: quickly locate targeted rooms
- 2 - Real-time Summary: generate abstracts with AI algorithms
- 3 - Content Replay: precisely check back on previous contents

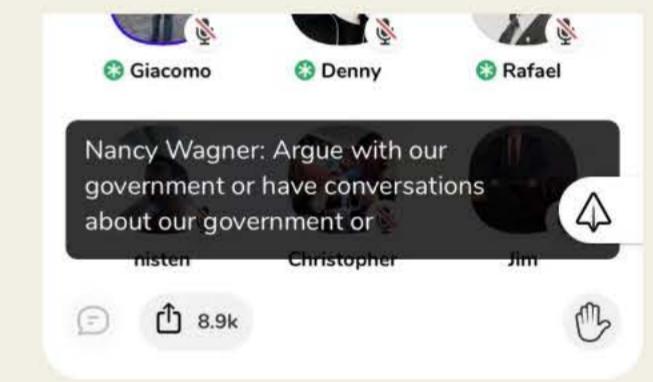
AI / ML Research & Application

I. Speech Recognition

With a preset language, AI algorithms **extract acoustic features** from audio materials and analyze them with lexical, grammar and pragmatic models to **generate meaningful strings** of words and phrases.



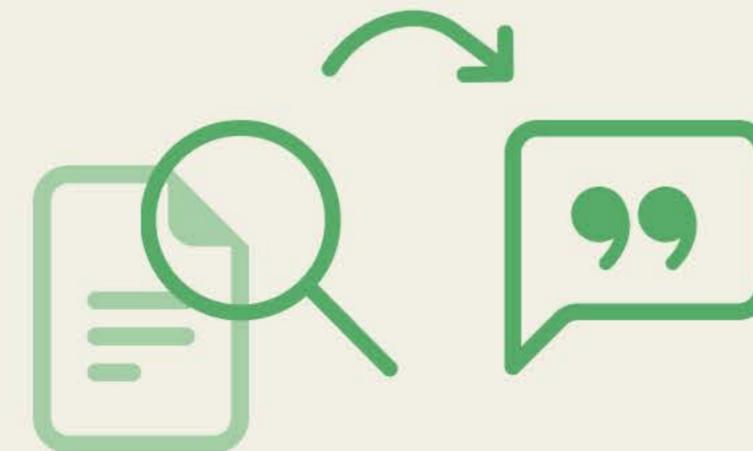
A “CC” feature creates real-time subtitles. The generated text is then added to a transcript of the entire discussion, which keeps updating and can be accessed by everyone in the room.



II. Text Summary

Using neural networks, AI algorithms **identify and retrieve the most important information** from texts and **create shorter versions** of them for users.

General & case-specific models are used when applying text summary in different scenarios. Output can be either extractive or abstractive.



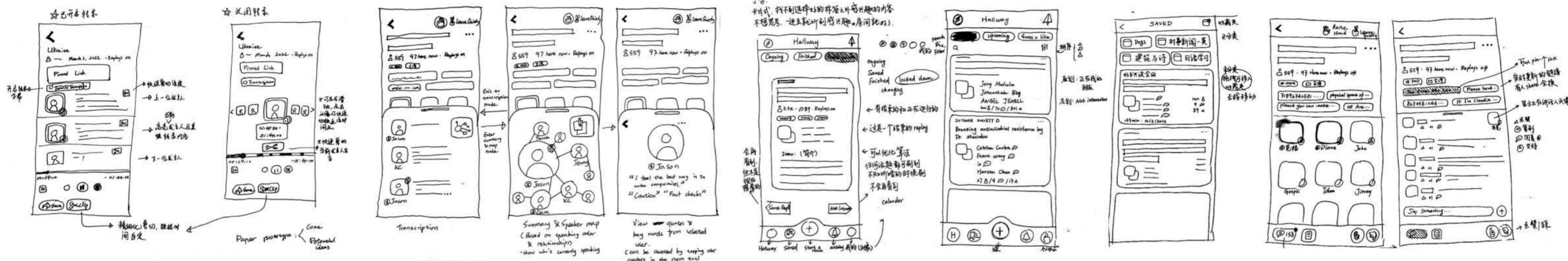
Based on text generated from speech recognition, AI performs speech summary algorithms and generate a short summary for the discussion or based on individual speakers.

A screenshot of the Quillbot AI text summarizer tool. At the top, there are tabs for "Key Sentences", "Fragments", "Summary Length", and "List". Below the tabs, there is a text area with a summary of Clubhouse's history and a summary length of "300 Words". At the bottom, there is a "Summarize" button and a "Paraphrase Summary" button.

 Quillbot

 [Read more on AI text summary here](#)

Paper Wireframe

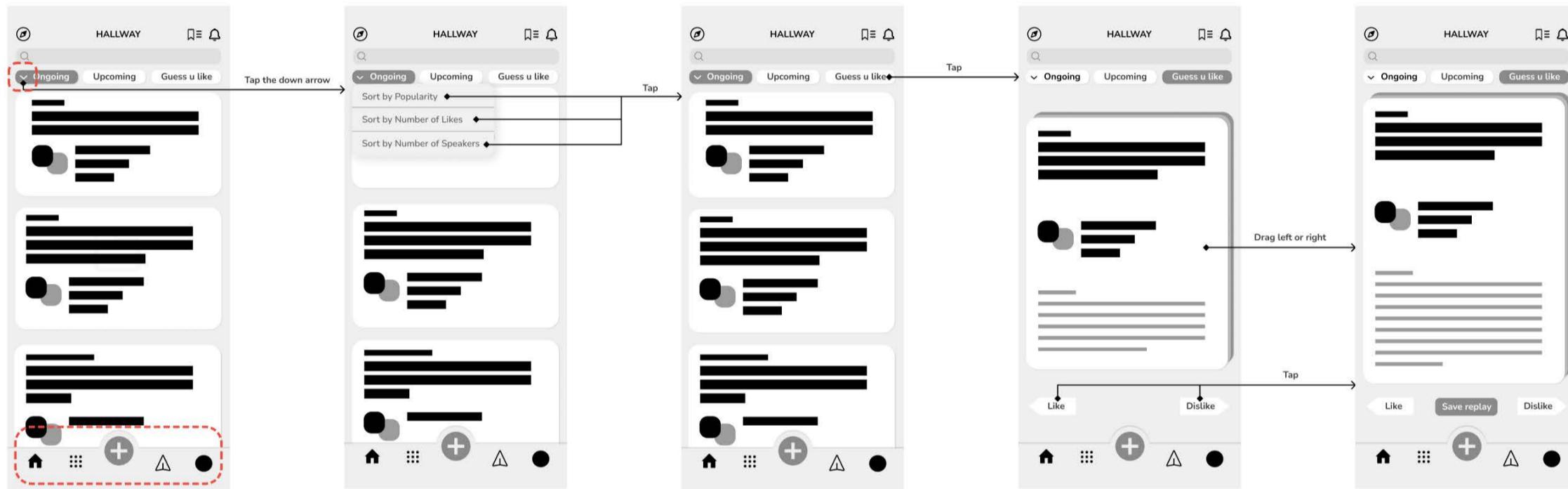
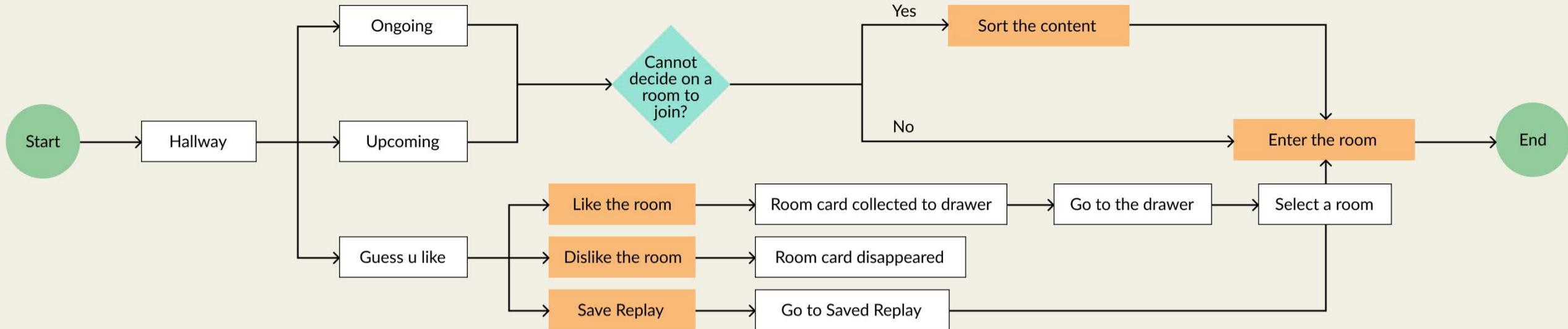


Lo-fi & Usability Testing

In order to identify issues with first version of Low-fi prototype, we produced an exhaustive usability test plan, and the findings were significant.

INTRODUCTION	Date: 21/3/2022-26/3/2022 Research goal: Test if the redesigned interface can improve users' efficiency of gaining knowledge and information.
PARTICIPANTS	We recruited six participants for usability testing, four of which we already interviewed in the discovery phase. All six users used to be heavy users of Clubhouse, but have now given up using the app.
TASK & QUESTION	<p>Task1: (a) Please re-order all cards on the "ongoing" page and find the most popular room (b) If you're not interested in any rooms located on the "ongoing" page, and decided to look elsewhere, what would you do?</p> <p>Task2: (a) You just joined a discussion on Ukraine and would like to know the opinions from the speakers and what they previously talked about. (b): What would you do if you want to comment with a picture in the middle of the discussion. (c) Suppose you are Jeremy, what would you do if you want to edit your own opinion displayed?</p> <p>Task3: (a) You saved several rooms that Jeremy participated. What to do if you want to put them in a folder named "Jeremy?" (b) What would you do if you want to move the music-related room into the folder called "music?"</p> <p>Task4: (a) In one of the replayed rooms where Jeremy participated, you'd like to check out the real-time transcript of the speaker. What would you do? (b) What to do next if you only want to listen to Jeremy's speech? (c) What to do if you want to capture one moment of his speech and share it to Twitter?</p>
KPI	Quantitative Measure: task completion time、task success/error rate、number of asking for assistance Qualitative Measure: user's overall review and satisfaction about the test
METHODOLOGY	Using low-fi prototypes in Figma with interaction effects, let participant remote control

1. Find a room in the Hallway



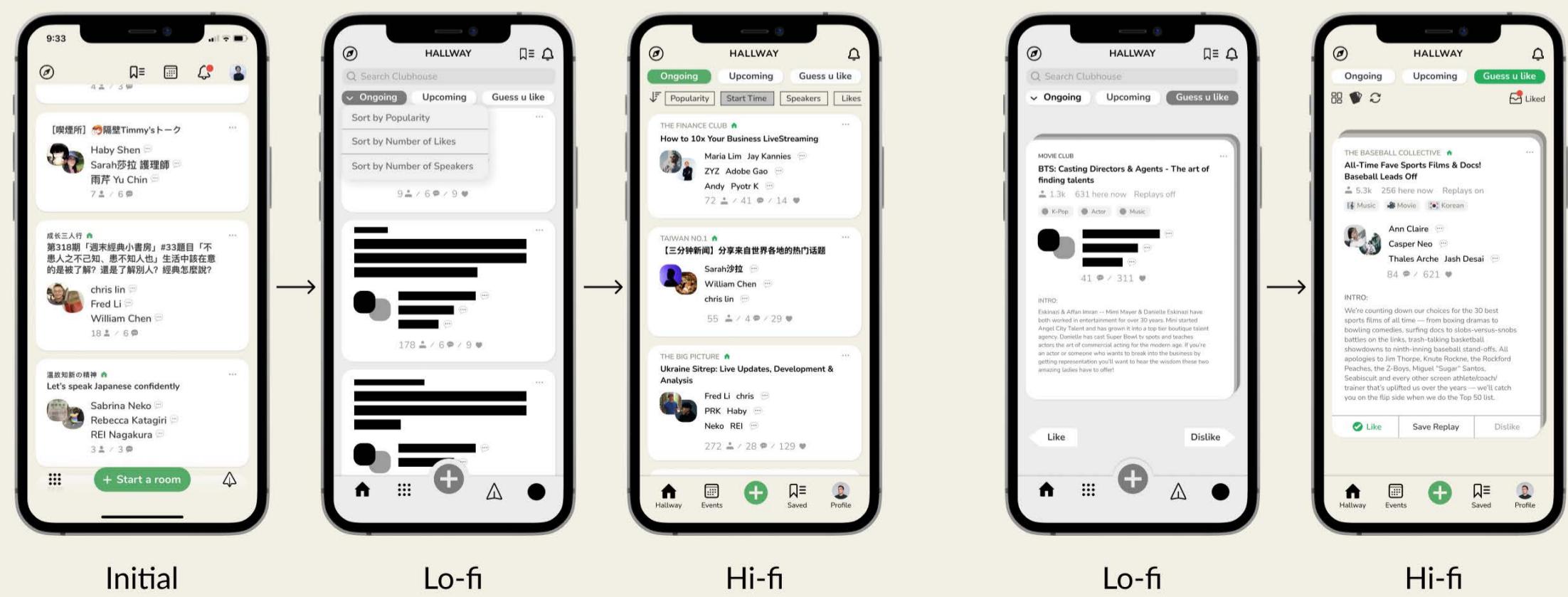
It was observed that **3 out of 6 participants** had no idea how to “sort by popularity.” This means that “the sort/filter” feature should be more visible and be separated from the “ongoing” button.

Based on this theme, an insight is to **add an additional layer of filters belonging to the “ongoing” tab.**

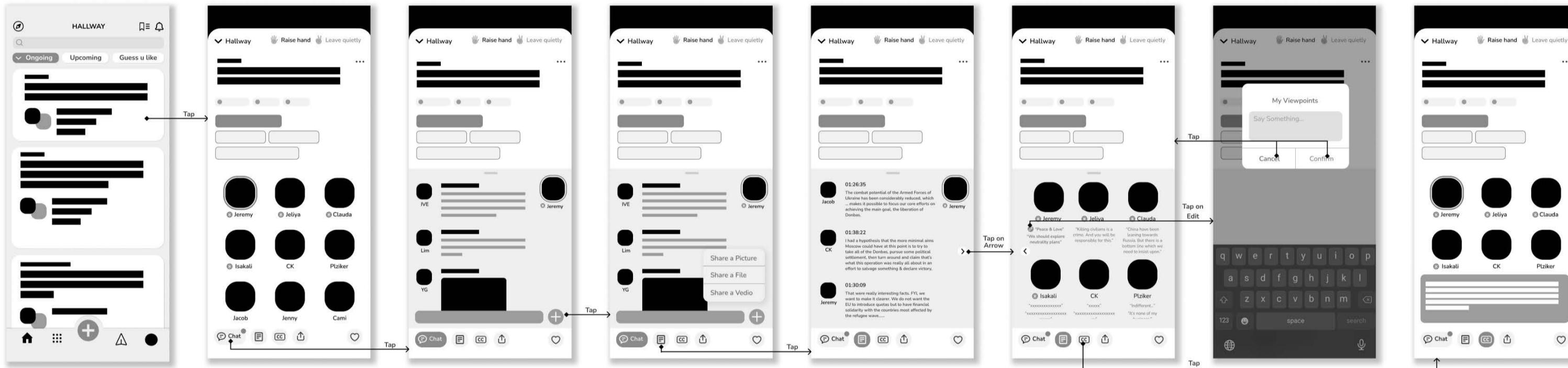
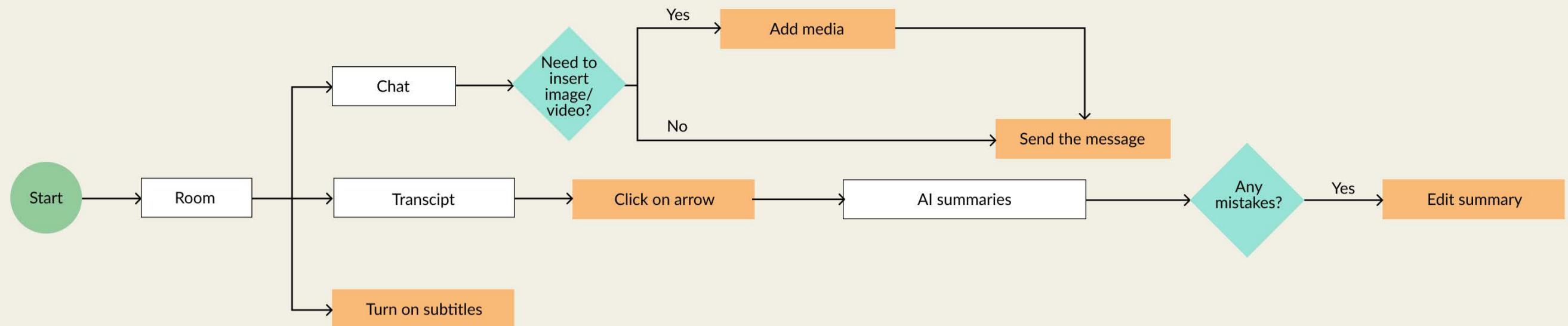


It was observed that **4 out of 6 participants** could not return to previously liked rooms. This means that users need a space for storing rooms they want to listen to later.

Based on this theme, an insight is to **add a temporary folder that holds all rooms the user has liked in one day on “guess u like” page.**



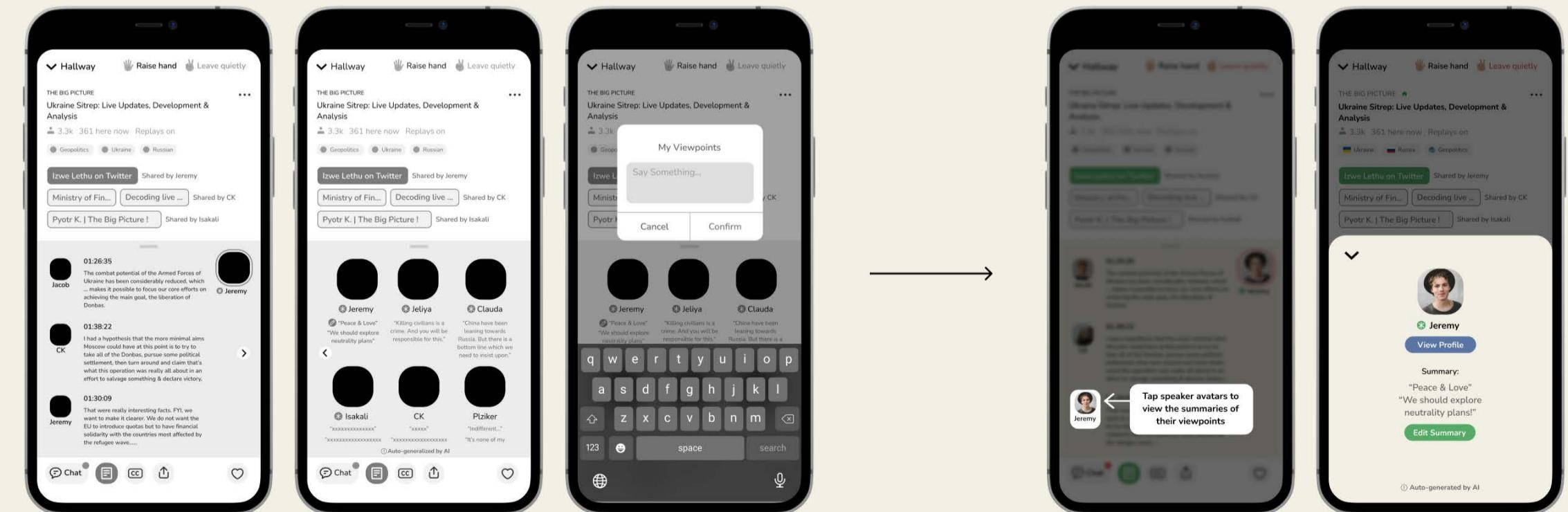
2. Enter a Room mid-way



It was observed that **3 out of 6 participants** cannot find the AI summaries of the speakers effectively. This means that there is no clear clue on whether there are AI summaries and how to access them.

Based on this theme, we generated three insights:

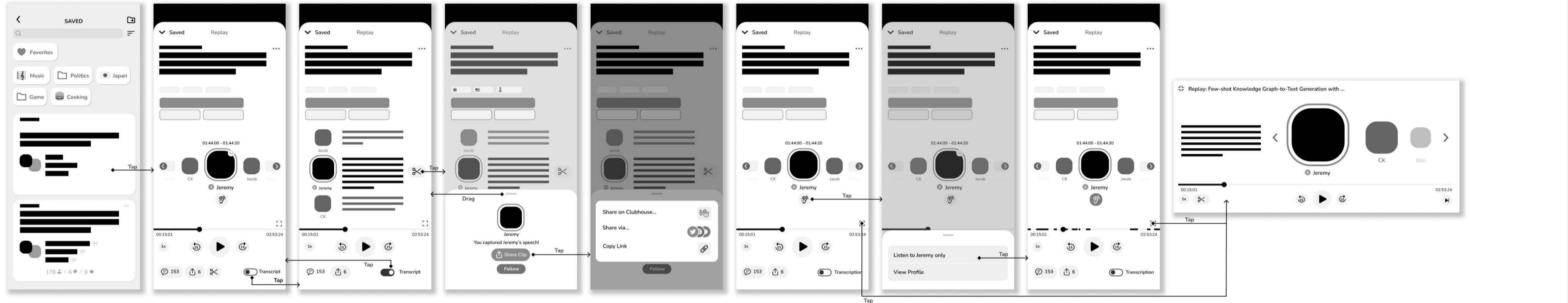
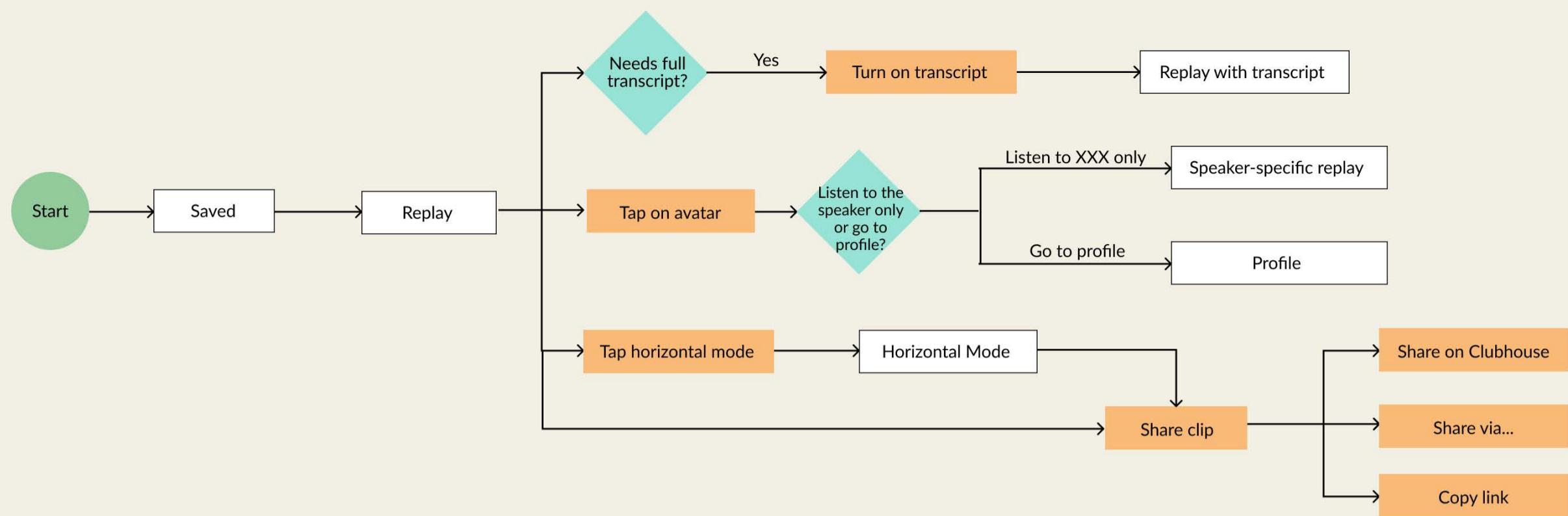
- 1. let the additional layer of filters belong to the "ongoing" tab;**
- 2. Clicking on the avatars in the transcript page;**
- 3. Keep the current design (swiping to the right).**



Lo-fi

Hi-fi

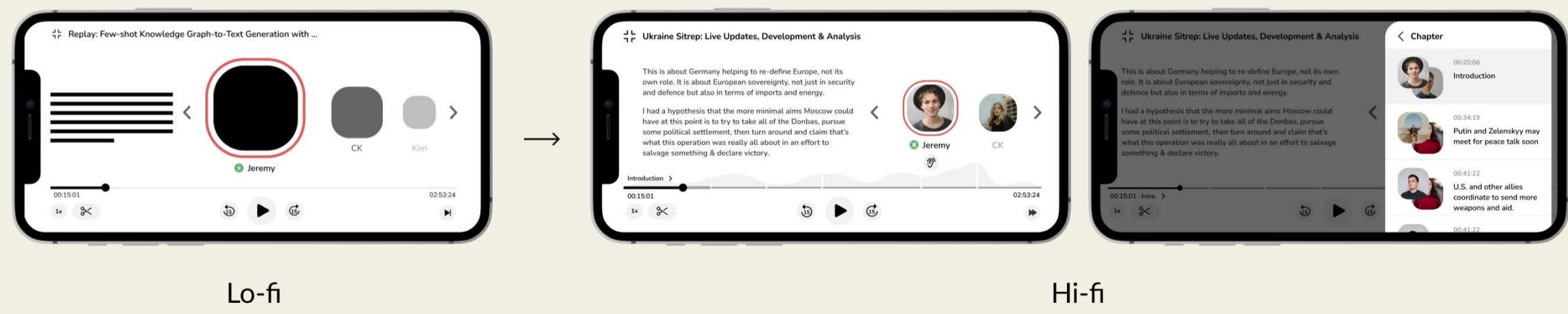
3. Check back Saved Replays



It was observed that **5 out of 6 participants** were not clear about what they can benefit from the horizontal screen mode. This means that the horizontal mode needs to have distinct features compared to vertical mode.

Based on this theme, some insights are to:

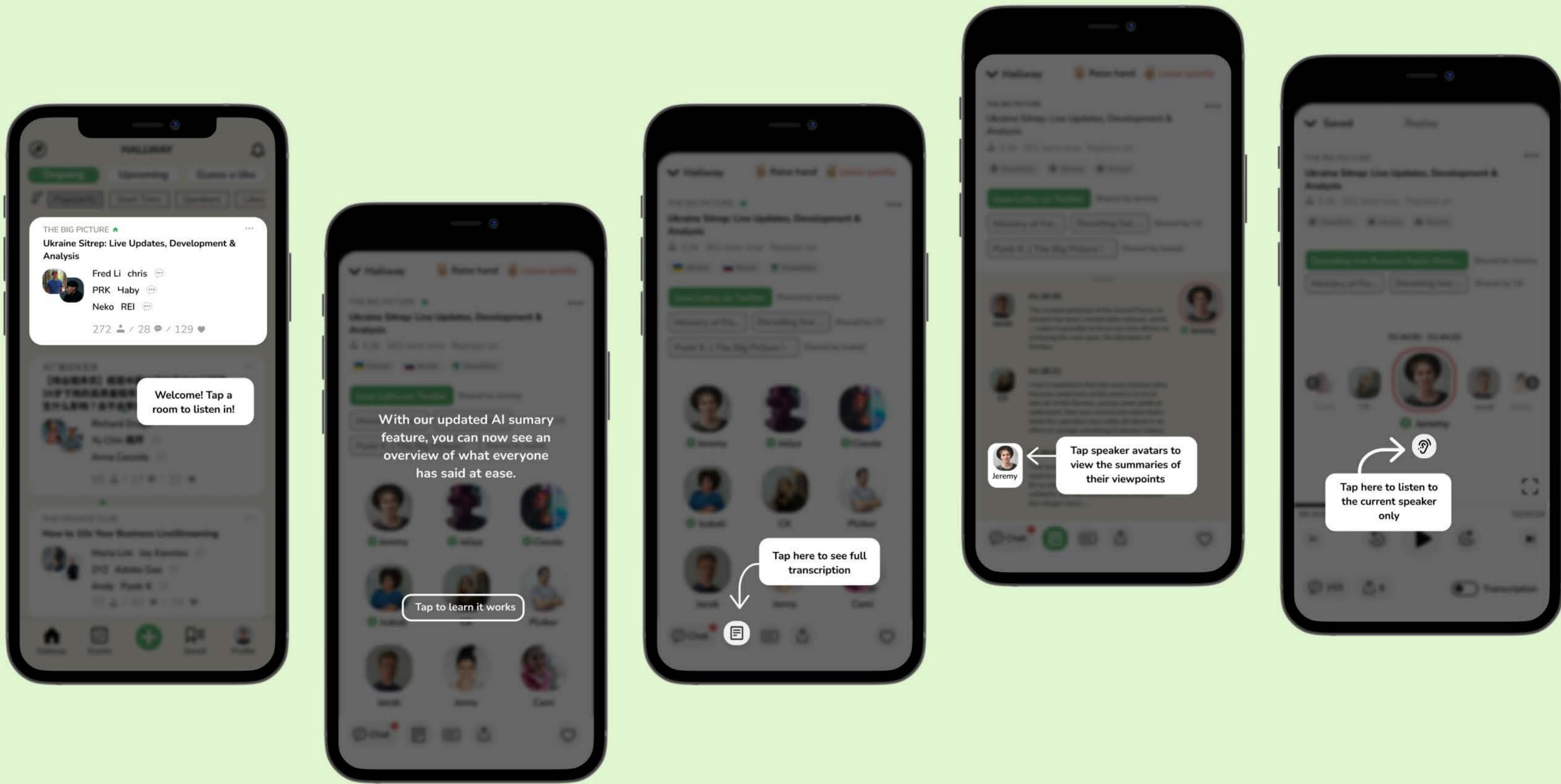
1. Change to a bigger text display;
2. Divide the progress bar into sections with different titles;
3. Add a wavy line on the progress bar showing the intensity of the discussion.



Onboarding

Introduce AI summary features for new users

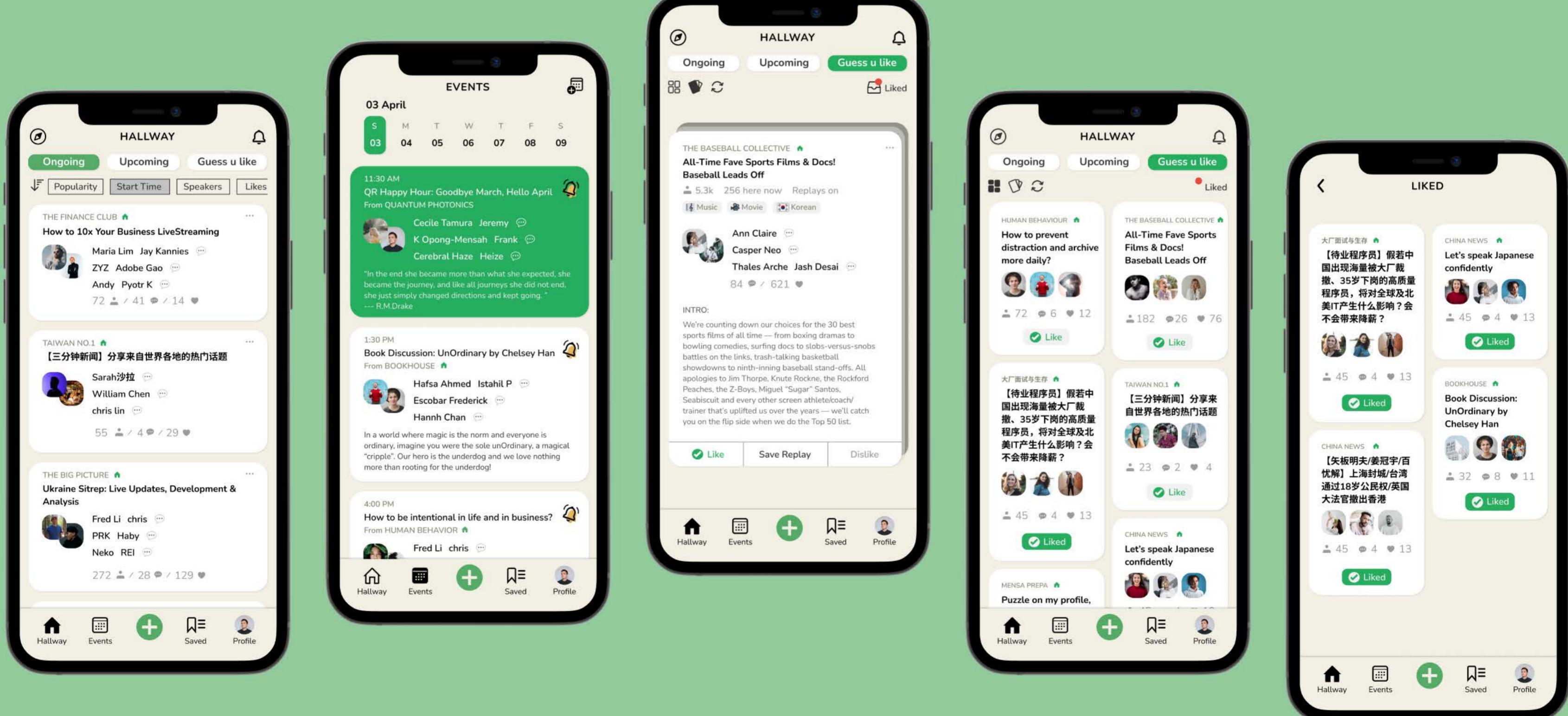
With UI adjustments and a new AI feature implemented, we want to inform new and returning users about how they can naturally make use of these powerful tools improve their listening experience with ease. Upon entering Hallway, users are directed to these exciting new features in a live room and guided by step-by-step highlights to access them.



Hallway + Events

- 1 - Rearrange icons with a new navigation bar
- 2 - Brand new calendar remind users of important events
- 3 - “Guess u Like” helps to optimize recommendation algorithm

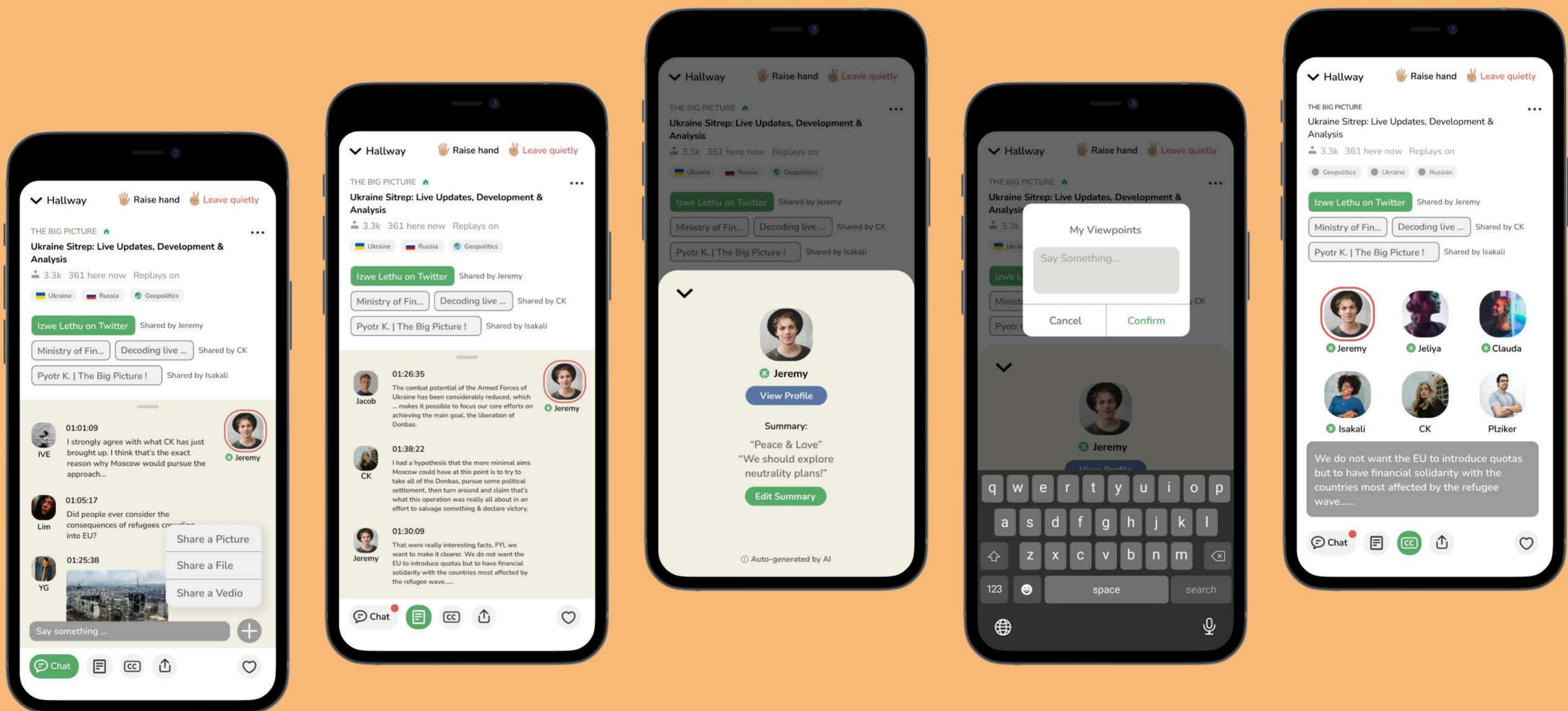
Hallway - separate to Ongoing, Upcoming, and Guess u like sessions. Ongoing & Upcoming - allow sorting the contents by Popularity, Start time, Likes, and so on. Events - display all subscribed and host events by day. Guess u like - Tinder-like & Pinterest-like mode for discovering a wider range of contents. Liked - temporarily collect “Liked” rooms to view later.



AI Summary

- 1 - “Chat” zone supports sending pictures, files, and videos
- 2 - Provide full transcript with time & speakers
- 3 - AI summarizes each speaker’s main viewpoint

Pinned links - support sharing more than one links simultaneously. Chat - transformed into a live format; display the current speaker at the upper right corner. Caption - CC button moved to the bottom bar. Transcription - full transcription helps users who joined the room mid-way review previous discussions easily. AI summary - concise, auto-generated, and editable.



Saved + Replay

- 1 - Customize folders to categorize all Saved Replays
- 2 - “Listen to sb. only” helps locate needed information
- 3 - Horizontal mode offers a more immersive experience

Saved - users can customize folders' name and emoji. Clip - can clip both audio and text, and then share it on social media. “Ear” button - Listen to certain speaker only. Horizontal mode - when dragging the progress bar, a curve will be displayed to show the intensity of the discussion; divide the replay to several sections for checking more efficiently.

