

Let's Talk @Clubhouse: Exploring Voice-Centered Social Media Platform and its Opportunities, Challenges, and Design Guidelines

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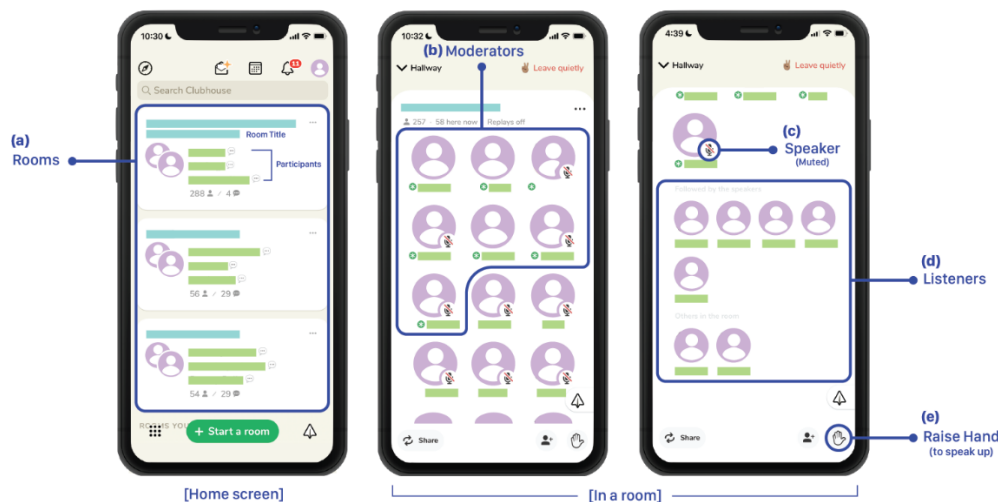


Figure 1: Screenshot examples of Clubhouse app interface (i.e., ‘home screen’ and ‘in a room’), participant roles, and provided features. In each (a) room, (b) moderators, (c) speakers, and (d) listeners dwell. Moderators lead the conversation and either add, mute, or delete speakers. Listeners can (e) raise their hands to ask moderators to become one of the speakers.

ABSTRACT

Due to the pandemic, social media has become an essential route to satisfy socializing needs. Expanding from dominant services like Facebook and Instagram, a new wave caused a stir—*Clubhouse* as

a *voice-centered social media platform*. Despite its worldwide popularity after its launch in 2020, general properties of Clubhouse have not been actively discussed. Accordingly, this study explores Clubhouse’s opportunities and challenges as a voice-centered social media through its user experiences. We conducted interviews with regular Clubhouse users (N=26) to gain insight into their motivation, social networking, and conversations. Findings highlight that voice is effective for establishing social relationships via interactivity and intimacy, mutual respect, and convenience from ephemerality. Conversely, users reported patterns of the privacy paradox and the oligopoly of communication. Design guidelines for future voice-centric social media are proposed. Our initial study of Clubhouse will encourage more dialogues on voice-centered social media and its potential as a major platform.

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CCS CONCEPTS

• **Human-centered computing** → Collaborative and social computing; Empirical studies in collaborative and social computing.

KEYWORDS

Clubhouse, social media, voice-centered system, voice communication, voice, user experience

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1 INTRODUCTION

During the COVID-19 pandemic and the following decline of face-to-face social events, social media increasingly gained more attention as a safe and convenient place for socializing. According to Kantar [1], more than 61% of social media usage had risen after the outbreak of COVID-19 which indicates the role of social media as a crucial bridge for people to stay connected. However, as the dominant social media services like Facebook and Instagram were fundamentally built out of an asynchronous nature, new social networking platforms that emphasized synchronicity quickly grew their popularity. Among them, *Clubhouse*, beta-launched in April 2020, has become a leading social media platform that targeted a niche market during the pandemic [2]. Its user population has grown from 600,000 in December 2020 to over six million in a year and more are estimated to be actively using Clubhouse today [3].

Clubhouse operates as a live streaming voice-centered social media platform. A user can travel around various rooms in which real-time conversations are taking place (see Figure 1). Inside a room, there are three main roles: moderators, speakers, and listeners. Moderators are the users with a green badge next to their displayed name and they can administer the permission to speak among the participants. When the permission to speak is granted to a user, one is now a speaker who can freely talk or choose to listen by muting oneself. The rest of them are listeners which include people *followed by the speakers* and *others in the room* who cannot speak but can raise hand to ask for it.

Clubhouse itself is a unique service as a voice-centered social media platform. Similarly to Twitter, Facebook, and Instagram, it is a social networking service where users follow other users through their profiles (called *Bio* in Clubhouse), and they can continually interact with each other within the service. Simultaneously, it is a voice communication tool like Discord, in which people inside the same audio space can talk to each other via a group call. For the users who mainly enjoy listening to the talks, Clubhouse serves as a radio or podcasts which can be a great background noise. Overall, Clubhouse introduces a new way of socializing during the pandemic as people starve for social events and networking.

Nevertheless, little attention has been paid for this novel form of voice-centered social media platform. It is unknown how the users of this type of service interact with others, e.g., how their

experiences are similar and different compared to other conventional social media usage. This is interesting, as “un-tact” group interaction will become more normalized in the future (e.g., through avatars inside a metaverse). To address this point, the current study aims to explore the opportunities and challenges of a voice-centered social media platform through Clubhouse user experiences. Based on the insights gained from user interviews, we propose design guidelines for creating a voice-centered social media platform. This study contributes to both social media and online voice communication research, and thus it encourages further exploration of voice-oriented social networking systems and its potential in becoming a prevalent form of social media.

2 RELATED WORK

2.1 Social Media and User Behavior

Researchers have extensively studied social media and user behavior to understand the mechanism of online social engagement. One popular method is to analyze them through big data accumulated by the users themselves. Early Twitter researchers like Kwak and colleagues [4] elucidated social networks inside Twitter using the data of 1.47 billion social relations and 106 million *tweets*. They found that following on Twitter is chiefly one-sided, as only 22.1% of users were following each other. Additionally, users demonstrated a certain level of *homophily* (being attracted to similar people) as the averaged time zone differences dwindled to 1.07 hours with people having fewer mutual friends. Similarly, *mentions* and *tweets* on Twitter were discovered to have a negative correlation with retweets while the number of followers and following users are strong predictors of retweets [5]. When users between social media services (Facebook, Instagram, and Twitter) were compared, they also exhibited dissimilar user tendencies [6]. Instagram was favored by users for its strength in visuals over Facebook and Twitter while Facebook was preferred for stronger social networking than the others. Compared to other platforms, Twitter users were more likely to keep their profiles public and disclose about themselves.

Qualitative research approaches were also actively employed in social media studies to illuminate users' mental models behind their actions. In particular, these approaches are used to study self-representation inside social media that people strive to maintain their online impression. Devito and colleagues [7] observed that social media users mostly try to present a genuine or improved image of themselves while some avoid conflicts with their viewers or simply do not bother with their own self-representation. In Instagram, real and fake accounts contrasted in personality presentations, as people on their fake accounts were more extraverted but less conscientious and agreeable than their real accounts [8]. People on their real accounts were more concerned about their self-representation whereas fake accounts enabled them to become more honest but socially unwelcomed.

2.2 Online Voice Communication

Online voice communication has been scarcely examined in social media research which operates largely on asynchronous communication through text, images, or videos. Rather, other contexts like online gaming have recognized the value of concurrent oral conversation in online spaces. For instance, Williams and colleagues [9]

conducted a field experiment inside an online multiplayer game to compare between voice- or text-only group communication. Results indicated that participants with voice communication had more robust relationships and trust than those who talked in text and gradually felt happier and less lonely. Furthermore, the ambivalence of voices in online gaming was accentuated through a series of user studies by Wadley and colleagues [10]. Voices encouraged gamers to efficiently communicate with each other by delivering information more swiftly (than manually typing a message) and socially (e.g., emotions and social presence). Nonetheless, they were often subjected to *noises* (e.g., unwanted overhearing, background sound, or unnecessary social talks) and confronted undesired situations when their real social identities were guessed through social cues like accents. Other than games, studies on voice-centered online communities have unveiled the uniqueness of online voice communication as well. An example is the role of moderators who run Discord channels where a multitude of users flock to talk about a mutual interest [11]. The interviews with moderators identified practical strategies for crowd management and the ephemerality of voices was discussed as a critical factor for online communication as they do not leave digital traces like text.

3 METHODS

3.1 Participants

Thirty participants were recruited via university online boards to participate in the study. Four of them retracted their interviews before the scheduled dates which left 26 participants in total. They were all Asians with almost an even gender distribution (13 females, 12 males, and 1 who did not specify) and an average age of 26 years ($min = 20$, $max = 30$). All of them were using more than one social media excluding Clubhouse, such as Facebook, Instagram, or Twitter.

3.2 Presurvey

All of the research procedure was approved by the university's Institutional Review Board (IRB). A presurvey was conducted to estimate the participants' willingness to self-disclose and online privacy concern and protection. For measurement, the general willingness to self-disclose scale [12] and the attitude dimension of the Adapted Scale for Online Privacy Concern and Protection for Use on the Internet (APCP) [13] were used, following Taddicken [14] who analyzed the online privacy paradox in social media. We removed or modified some items based on the research context (e.g., *computer* or *email* to *social media*) and translated them into Korean for the participants. From the general willingness to self-disclose scale, they showed a slightly higher than moderate level of the willingness to self-disclose ($M = 3.02$ on a 5-point Likert scale; $SD = 0.669$). The results of the APCP were similar to willingness to self-disclose but marginally higher ($M = 3.38$ on a 5-point Likert scale; $SD = 0.538$). Overall, the participants were in the middle of moderate and high levels of both measurements.

3.3 Interview Procedure

Participants were individually invited to a meeting room inside Zoom and were explained about the research procedure. After receiving their participatory consent, the interviews began and

the session was recorded for future analysis. Interviews were carried out in a semi-structured format, which consisted of four main themes: general Clubhouse user experience, specific Clubhouse features compared to other social media, conversational experience by intimacy levels, and suggestions for future improvement. The themes and their questions were preliminarily collected from user observation and an internal focus group interview with colleagues who were also Clubhouse users. For general Clubhouse user experience, participants answered on how they discovered Clubhouse, their typical use patterns, and the personal advantages and disadvantages of Clubhouse. Then they shared their thoughts on specific Clubhouse features like *following* users, their *followers*, *Bio* (personal profile page), current rooms joined by their following users, self-representation, and voice communication. As follow-up questions, we asked the participants to compare these features to their experiences with other social media. Next, we inquired on participants' conversational experience by intimacy levels which focused on talking with strangers, acquaintances, and close friends. Lastly, participants gave out their suggestions about Clubhouse and privacy. After their interviews, participants were appreciated for their contribution and compensated \$25 in Korean won.

4 RESULTS: OPPORTUNITIES

We transcribed the recorded interviews and used them for the subsequent thematic analysis [15]. Under an inductive approach, our goal was to organize user thoughts into meaningful constructs which would characterize the properties of Clubhouse as a voice-centered social media platform. After three rounds of individual open coding by three coders (who are also the authors), 44 initial codes were clustered into five overarching codes as a result of two group discussions for axial coding. Then, they were categorized into two central themes of *opportunities* and *challenges* of a voice-centered social media platform in the final selective coding process. The selected wordings were referenced from a previous study [16]. The opportunities discuss how voice functions as an effectual communicative means with increased interactivity on intimacy, fostered mutual respect, and ephemerality leading to convenience. On the other hand, there are two main challenges: the privacy paradox and the oligopoly of communication.

4.1 Interactivity and Intimacy

Most commonly, participants agreed that voice was helpful in conversations due to its rich interactivity. They mentioned how talking with their own voice and listening to others' voices were easily facilitated with more communicative information contained inside them than in texts. For example, people were able to understand the other speaker's intentions by noticing their subtle tone and nuance in their words. As a result, people reported feeling more intimate with other users. This finding was more apparent when compared to other social media or text-based messengers as highlighted by P19 and P5:

"I think I can feel more intimate with voices. In text, it's difficult to show your emotions [fully] but with voices, you can express the nuance which is closer to what I think a social networking service should be." – [P19, male]

“I think voice is way better [than text] [. . .] In Kakaotalk (text-based messaging app), you cannot deliver your tone or atmosphere well whereas communicating with voice is a better way for it.” – [P5, male]

4.2 Mutual Respect

Participants felt that voice communication increased mutual respect between people as they were speaking in their own voice and hearing others in their voices. People perceived it as a more evident presence of both themselves and others so that they were reciprocally more polite when conversing in voices.

“You can easily see a lot of toxic comments online that spit out things behind a screen that one will never say in person. But when talking in our voices, those actions seem to decrease. I think people are less willing to say such things with their own voices.” – [P20, female]

“In social media, also in Instagram or Twitter, I often think that we should remember there’s a human being behind the screen. It’s hard to keep it in mind though, which is why sometimes we become aggressive online. But in Clubhouse, those things seem to disappear [as we talk in voices]. [. . .] I can understand the intentions better and even the age of the speaker, so that I can guess why that person is saying it in that way. That’s probably why I am more lenient in Clubhouse.” – [P1, female]

4.3 Ephemerality and Convenience

Ephemerality refers to how conversations inside the Clubhouse rooms exist only for a set time and vanish afterwards. Before an update on new features like *Replays* and *Clip* (short recordings), there were no in-app features available that could record or leave traces of the ongoing conversation. It was similar to a face-to-face group conversation as people gather to talk freely about a topic. Apparently, this ephemeral quality of Clubhouse was favored by participants who desired a convenient social atmosphere to engage in.

“[. . .] what we say inside Clubhouse rooms is not being recorded. That’s why I can say anything without having any burdens.” – [P12, male]

Some participants specifically pointed out the advantages of ephemeral rooms in contrast to other social media conversations, which emphasized the curation of content.

“When I first began to use Instagram, I had to contemplate what to post on my feed. But in Clubhouse, you can just enter a room and say things, so there’s less burden about how you appear on social media.” – [P12, male]

5 RESULTS: CHALLENGES

5.1 The Privacy Paradox

The privacy paradox is the phenomenon that explains people’s self-disclosure of personal information despite being aware of the potential negative consequences [17]. It has been discovered that people often open up their private information to other users in

social media as they begin to build a new relationship and get to know each other better [18, 19]. This analogously occurred with Clubhouse users as corroborated by P22 and P21.

“When I feel like I want to know more about this person in Clubhouse, I give out more information [of myself] to that person.” – [P22, male]

“As a coincidence, an expert in a field where I hoped to pursue my career was from my family. [. . .] My mind was wide open once I knew we shared that commonality.” – [P21, male]

Interestingly in Clubhouse, *Bio* (the personal profile page) played an important role that eventually accelerated self-disclosure of private information. During our user observation, we noticed that Clubhouse users frequently displayed a list of personal information in their *Bio* ranging from demographic (e.g., age, gender, or nationality) to professional (e.g., schools, current occupation, and position at work) and casual (e.g., personal interests). Interviewees described the role of *Bio* as a conversation starter between people and an identity indicator that represents the users themselves.

“When you are in a room full of college students, the first topic to talk about is your major. That is why I added it in my Bio.” – [P19, male]

“People first look at your Bio and ask me about the information written there. They asked me about my job so many times that I added ‘a college student’ in my Bio. After that, writing your MBTI (Myers-Briggs personality Type Indicator) was a trend, so I used to keep that in my Bio too.” – [P23, female]

Furthermore, the role of users inside a room was a crucial condition for self-disclosure. When they were a moderator or a speaker, they were naturally exposed to situations when they needed to talk more, often about themselves. This was common when users were inside a room for social support or public debate.

“[As speakers,] we mutually shared our worries. We listened to each other’s worries that were similar but different.” – [P19, male]

“I once confessed a personal story to support my claim. It was an experience related to the social issue that was discussed in the room.” – [P1, female]

Some participants like P24 said that they are more likely to disclose their honest thoughts to strangers as they are more comfortable than talking to acquaintances or friends.

“I don’t really tell my worries to my friends or colleagues. But if it is a person who I will never meet again, I am more willing to share them and listen to others’ opinions.” – [P24, male]

5.2 Oligopoly of Communication

Oligopoly of communication happens inside Clubhouse rooms when people are isolated from their opportunity to speak due to moderators and speakers who already dominate the conversation in progress. In a big-sized room with an excessive number of participants, the problem was that not everyone could have their time to talk and listeners who constantly raised their hand (to request permission to speak) were ignored.

“[In a big-sized room] Certainly, there are moments when I feel like not participating in a conversation but listening to the radio. [...] There’s an invisible entry barrier existing.” – [P10, male]

“The shortcoming is that too many people participate at the same time and the opportunity to speak is not for everyone; some people are allowed [to talk] while others aren’t.” – [P14, female]

In addition, the oligopoly of communication took place in a small-sized room where newcomers were difficult to blend into the old members who were already too intimate with each other. As they realized that they were not welcomed as much as they expected, they quickly lost interest and left the room.

“It’s a party of their own. When a newcomer [like me] enters a room, they are just talking on their own. [...] I thought everyone could speak evenly but only the few could.” – [P26, female]

“In my room, we became really close and continued to talk every day. Since seven or eight of us talked to each other only, people who newly joined the room did not stay long and left soon.” – [P25, male]

6 DESIGN GUIDELINES

6.1 Giving Users Informed Control on Privacy Adjustment

One troublesome aspect of Clubhouse repeatedly mentioned by participants was that the default level of privacy control is too weak. Frequently, user activity was involuntarily transparent to their followers and even to people in their Contacts, especially via app notifications and in-app live status (as people can check which room you are currently in). As users were not fully informed of how the Clubhouse app automatically sends notifications, several users like P8 and P25 complained about situations when one is speaking of a personal matter and their acquaintances (with low intimacy) enter their current room.

“I was so embarrassed [when in a relationship counseling or meditation room] thinking that he [a person with low intimacy] is listening to what I am listening to. [...] When it was my turn to talk, I became reluctant to speak, so I returned back as a listener rather than staying as a speaker.” – [P8, female]

“I was in a panic [when a professor came into the room]. Yes, I think the professor was definitely listening to our conversation for a while. Later, I pretended that I didn’t see him coming in.” – [P25, male]

On one hand, Clubhouse is a service that emphasizes live streaming which may be a reason why the app sends notifications about talks held at the moment. Nevertheless, users like P16 expressed a need for an adjustment option to control their privacy flexibly between complete anonymity and full transparency. As the privacy paradox will happen regardless and people will self-disclose personal stories in their rooms, designers should provide an environment where users are well-aware of their privacy status and can manage their in-app activity to be public or not.

“I even had a persona that I wished to try out, like in rooms for LGBTQ+ or transgenders. It was rare for me to meet these people in person and I’ve been naively curious to hear their stories. But the fact that my followers could misunderstand my sexual preference stopped me from joining those rooms.” – [P16, female]

6.2 Opening Up Opportunities to Contribute

To alleviate the oligopoly of communication, designers of a voice-centered social media platform should open up opportunities for everyone to contribute to the ongoing talk. At present, Clubhouse lacks this feature which separates the moderators and speakers from the listeners (*others in the room*) and intensifies the communicative gap. Rather, P3 described a way how speakers in Clubhouse express their applause by quickly muting and unmuting themselves which turns on and off the green light surrounding their profile picture.

“Once I wanted to send an emoji after listening to the talk, but there was no such a thing. It was disappointing that I could not express my applause by turning on and off the mute button because I am not a speaker [but a listener]. I couldn’t express anything from a listening point of view.” – [P3, female]

All users irrespective of their current roles (moderator, speaker, and listeners) must be able to participate in the conversation although the scopes might vary. For instance, two users (P2 and P26) introduced Twitter Spaces, a conversational platform launched by Twitter after Clubhouse’s success, as a better voice-centric system with more interaction elements.

“I think I use Twitter Spaces more casually [than Clubhouse] [...] It has five emojis that listeners or speakers can send in real-time. Also, you could send direct messages during the talk if they allowed to receive them. In this sense, it was more convenient for me to communicate than Clubhouse. As Clubhouse before [an update] did not permit direct messages, it was difficult to talk privately to other people as I would have to find their other social media accounts in their Bio to contact them.” – [P2, female]

“I am a Twitter user myself and do you know about Twitter Spaces? It is a voice chat like Clubhouse where there are speakers, people raising hands to speak, and listeners who can still chat [in text]. They can also send pictures in the chat and one day I saw people sharing images of cute puppies and thought that it would be great to have this in Clubhouse too. As people who do not speak can participate a little bit.” – [P26, female]

We suggest new ideas for expressions inside a voice-centered social media platform to actively utilize auditory elements along with visual ones. For example, a short applause sound can be played when a number of people simultaneously send the applause emoji. In this way, user experience inside a voice-centered interface could be more unique and interactive by integrating specialized reactions.

7 CONCLUSION AND FUTURE WORK

The present work explores the experiences of Clubhouse users to gain insights on the opportunities and challenges of a voice-centered social media platform. The interviews indicate that voice in a social media setting can promote intimacy with high interactivity, mutual respect, and convenience from its ephemerality. On the contrary, the privacy paradox and the oligopoly of communication have been witnessed within Clubhouse users as special challenges to be considered. We recommend two design guidelines for designers of voice-centric social media to afford evident user control on privacy adjustment and various options to express their reactions.

Despite the limitations of the study with the lack of quantitative evidence and the small, ethnically biased sample, our work is a pioneer for future research on voice-centered social media platforms. We would like to encourage future research and design directions on user interaction and system development upon empirical grounds from voice-centric social media. For instance, conversation data could be collected and analyzed to observe how voice communication is carried out under a social media context. Moreover, as services similar to Clubhouse such as Twitter Spaces are now available, it would be interesting to compare between voice-centered social media services to look at the differences inside similar systems. Overall, because online social networking spaces are becoming increasingly important with the advent of metaverse, voice-centered social media platforms have the potential to become one of the mainstream channels of social interactions.

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