

# VoiceMail: Deepening Relationships with Thoughtful Voice-Based Communication

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## Introduction

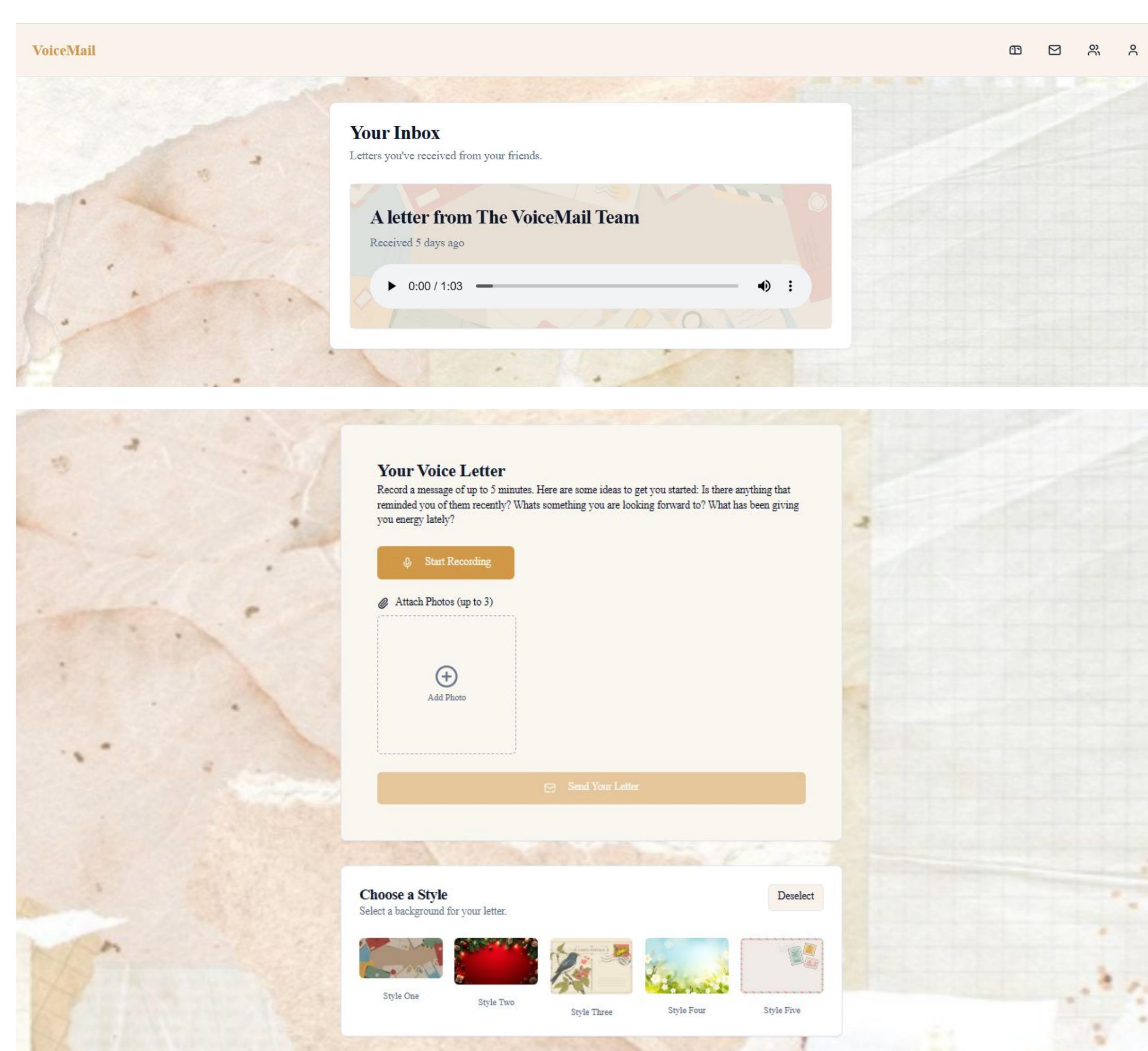
Maintaining close relationships is difficult with distance and busy schedules, and digital messaging often lacks the emotional depth of voice. Existing social platforms emphasize instant replies and social comparison, limiting authenticity. VoiceMail is a web platform designed for sending intentional audio letters to nurture genuine connections. In our field study, most participants reported feeling appreciated, happy, and personally connected when sending voice letters. VoiceMail's private, asynchronous format reduced response and social pressure, and users valued its ease of use and ability to personalize messages. Challenges included onboarding and differentiating from other tools. These findings highlight the potential of intentional voice messaging to foster authentic, meaningful communication.

## The Platform

Voice-based communication platform designed to nurture meaningful social ties, especially among close relationships separated by distance or time.

### Key Features:

- Voice Letters:** Users record up to 5-minute messages, add images, and customize backgrounds for creative expression.
- Inbox & Anticipation:** Messages arrive as 'digital envelopes' into your inbox, unseen until actively opened to mirror the anticipation of physical mail.
- Friend Code System:** Mutual opt-in ensures secure, intentional connections. Initiation off the platform.
- Low Social Pressure:** No visibility into friends-of-friends or others' activity, minimizing social comparison. Friend lists are private.
- Delayed Notifications:** Unopened letters prompt email reminders at a user-chosen time of day, slowing the notification of communication and echoing the ritual of checking a real mailbox.



## Related Work

Research on strong ties - the few emotionally close relationships people have - consistently shows these close relationships are directly linked to emotional well-being, especially as people age (Antonucci & Ajrouch, 2019). Additionally, research shows online communication improves well being when it involves direct communication with strong ties, but the same levels of improved well being did not come from weak tie communication or passive consumption of media (Burke & Kraut, 2016). This research ties along with research that shows one to one communication is stronger for relationship maintenance than communication that is public (Trieu, Paym, 2020). Voice communication can provide users with feelings of closer connection and intimacy with the respondent, though people usually underestimate it. People often think text is easier, or voice communication will be awkward, but once they do it they appreciate the intimacy and communication style (Kumar, 2020).

## Results

### Usage Summary

- 19 total sent letters
- Average letters sent per person: 2.1
- 84% of letters were listened to
- Average letter length: 1:04 minutes
- 26% of letters included images

### Major Themes

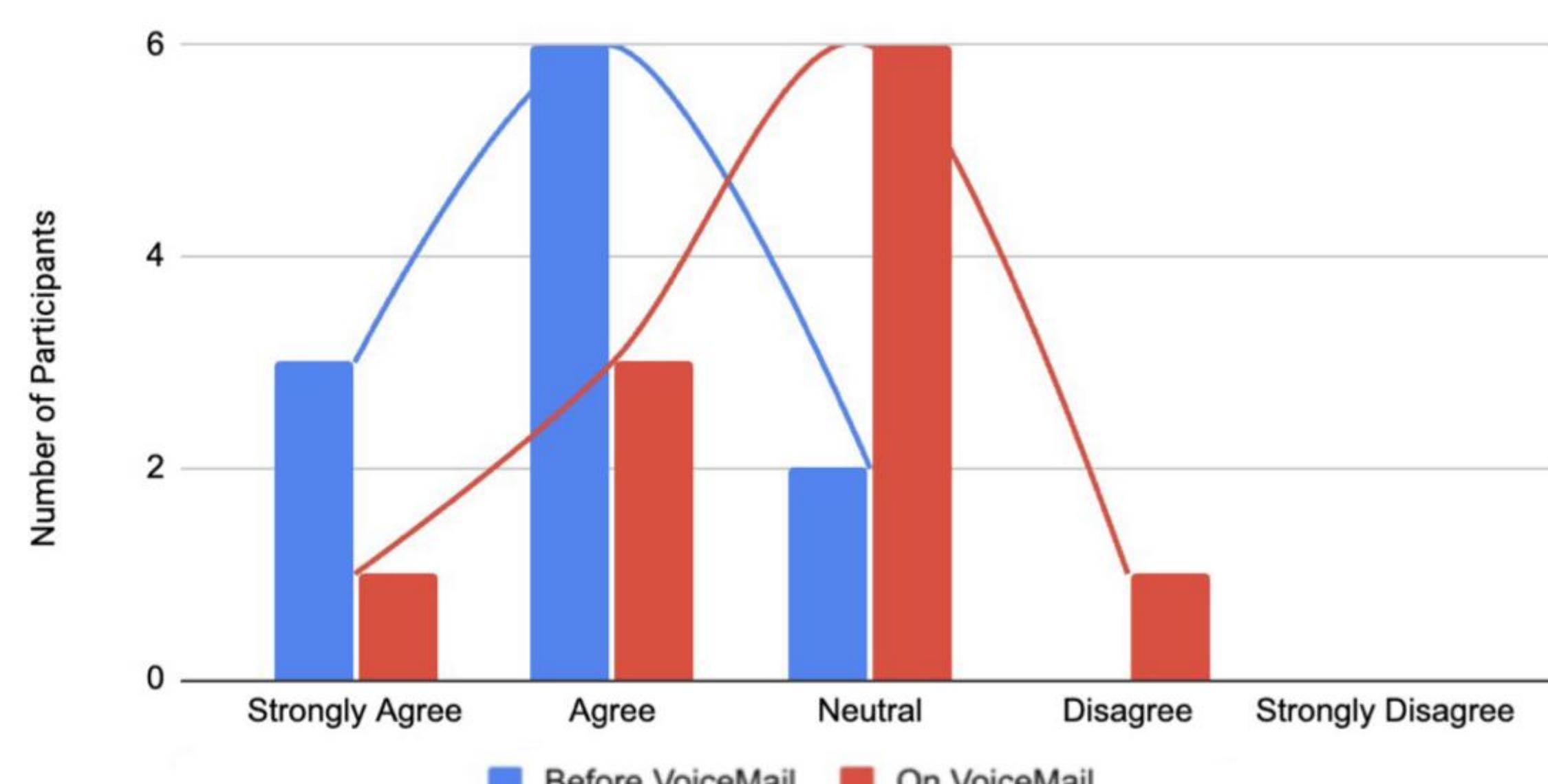
#### Enhanced Connectedness

88.9% of participants reported feeling more connected to friends and family while using VoiceMail, suggesting that the platform may encourage stronger personal connections. Many found that hearing a loved one's voice made messages feel especially personal and emotionally meaningful. As one participant put it, "It was fun to hear the sender's voice. The message felt more personal that way."

#### Focused Communication and Minimal Pressure

Participants appreciated VoiceMail's focused environment, describing it as less overwhelming than typical social media platforms. Survey results below show users felt less pressure to respond immediately on VoiceMail than with other means for personal messages. One participant specifically compared it to Facebook and said, "I think [VoiceMail] is a lighter burden."

#### "When I receive a personal message, I feel I should respond as soon as I can"



#### Platform Limitations

**Onboarding:** The initial setup process was unclear for many users. All but one participant listened to the initial letter from the VoiceMail team but most reported that it made little difference in their experience. Additionally, adding friends and creating contacts took more effort than expected, with several users noting the process "wasn't super intuitive."

**Mobile Access:** A lack of a mobile app was frequently cited as a barrier to consistent use. As one participant put it, the format was "more inconvenient than just doing it on [their] phone."

#### Differentiation from Other Platforms:

Although most participants saw the value in intentional voice-based communication, opinions varied on how VoiceMail stood apart from other apps. One participant noted, "I liked how it was different than other messaging apps and made the experience more personal." Others remained uncertain with another participant saying that receiving a letter felt "not much different from when [they would] receive a text or FaceTime."

## Evaluation Approach

We evaluated VoiceMail through a 10-day study with a mixed-methods, pre/post-test design.

### Participants:

- 9 participants (aged 19–60, 6 female, 2 male, 1 other)
- All with strong, pre-existing social ties

### Recruitment:

Convenience sampling from the university. Each participant invited a close friend or family member, ensuring meaningful user pairs.

### Procedure:

- Pre-Study Survey: Assessed baseline habits, connection, and communication pressure.
- Intervention: Participants used VoiceMail with all core features and daily email notifications for 10 days.
- Post-Study Survey: Measured changes in perceptions, usability ratings, and gathered feedback on specific features.
- Interviews: Semi-structured interviews with 5 participants provided deeper insight into user experience.

### Data Collected:

- Survey responses (demographics, connection, response pressure, notification manageability, etc.)
- App use logs (letters sent, message length, images shared, friends added)
- Interview transcripts

### Analysis:

- Quantitative:** Due to the small sample size (N=9) and the paired pre/post-test design, Wilcoxon Signed-Rank Tests will be used to assess the statistical significance of changes in user perceptions after using VoiceMail.
- Qualitative:** Thematic analysis by independent coders identified key patterns (e.g., intimacy of voice, reduced social pressure).

## Discussion

Based on our results, our system generally did yield the major outcomes we expected, including the following:

- Reduced Social Pressures:** The removal of public features and replies was highly successful, making the experience "less overwhelming." The decision to remove replies was successful, promoting intentional communication.
- Voice Modality Works:** Users reported significant positive emotional impact and found the voice messages "more warm" and "personal."

Additionally, we did have some unexpected findings.

- Value Regardless of Distance:** People found value in VoiceMail even when they saw each other often, suggesting the platform opens up a space for meaningful communication that can strengthen bonds regardless of distance.
- Effort is Key:** The reward is proportional to input: what people got out of it depended on what people put into it, specifically regarding the content of the letters.

However, our evaluation highlighted three key areas for improvement. First, the study's time limitation had a large impact on the study, restricting our ability to make a conclusion on any sustained relationship benefit. Secondly, friction in onboarding was significant, as the friend-code system was confusing. Our initial message to set norms also didn't seem to be effective, as it didn't change users' perception of the platform. As part of this, users struggled to see the value proposition of this platform at first, which affected their motivation to send letters. This suggests future efforts should clearly explain what makes VoiceMail unique from other voice messages and the intended benefits.

## Future Work

We identified key improvements that could be made based on our study insights:

- Mobile version:** Participants felt VoiceMail would be convenient on mobile devices, and that having to go on a laptop was a barrier to use. Future work would involve deployment in app form and translating the current platform for hand held device use.
- Onboarding:** A redesign and guidance on certain features, based on participant feedback: how to add friends, open the intro message by the VoiceMail team, and look at letters users have sent others.
- Time period:** A longer period of time for the study would allow people to engage with the platform more and for us to observe any stronger effects.

## References

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