**Introduction**

RAK (Random Acts of Kindness) is a platform designed to spread positivity by enabling users to schedule and send short positive messages to friends and family, based on time or a user’s location. We noticed that our digital environments and physical environments can breed negativity and harm our mental health. We set out to make a space that could improve the mental status of a community by deepening strong ties and using compliments ability to psychologically reward both the complimenter and receiver.

Our final iteration used a social bricolage of text and email to schedule and receive messages with RakMan, our platform persona. During the launch, there were examples of reciprocation, positive feedback loops, and binary engagement: some users scheduled a lot of messages while some did not use the platform at all.

**Prototyping & Iterating**

We had two rounds of prototyping, aimed at testing our biggest underlying assumptions. First, that users would enjoy and respond positively to receiving unprompted positive messages. Second, that users would be intrinsically motivated to schedule messages for their friends and family.

**Low-Fi**

Our low-fi prototype was simple: we each sent a bunch of friends positive messages without explaining the experiment to gauge true reactions over the course of 2 days. We sent messages to individual friends and also broadcasted them to a large audience of connections. We used a number of existing social mediums: WhatsApp, SMS/iMessage, Facebook, Instagram, and experimented with different formats including text, images, gifs, videos, and audio. We recorded each interaction and response in a spreadsheet (Appendix A). After a few days, we followed up with each friend to ask them about how they felt receiving the compliment, what medium they preferred, and whether they felt compelled to reply or reciprocate.

![Sample Messages & Responses from Low-Fi Prototype](image)

**Figure 1:** Sample Messages & Responses from Low-Fi Prototype

**Results & Key Learnings:**

1. **Message medium depended on the person.** For example, one user felt stressed about receiving an audio compliment and didn’t know how to respond, while another enjoyed it and responded with one of their own.
2. **Responses were highly varied, and sometimes caused anxiety.** Responses ranged from none to expressing gratitude, to returning a compliment (Figure 1). Some users felt stressed about replying appropriately.

3. **As were feelings towards compliments.** Friends reported a variety of emotions: gratitude, surprise, concern, sass, apologetic, anxiety, or guilt.

4. **Messages sparked more in-depth interactions between strong ties.** A number of messages resulted in long overdue catch-up conversations or plans to get together.

5. **Broadcasts engaged former strong ties.** Messages sent broadly prompted responses from friends who used to be strong ties, but have drifted apart.

Medium-Fi

Our medium-fi prototype incorporated learnings from our low-fi and tested our second primary assumption, that users are intrinsically motivated to send compliments to their community. We recruited a small clique of four friends to test with, kicking off with an introductory email that explained RAK, platform norms, and how to use it (Appendix B1). The test lasted 4 days, and we bootstrapped content in this round with our own positive messages. We concluded by conducting follow up interviews with users after the test finished.

**Design Updates & Rationale:**

1. **Centralized email address.** Users were instructed to schedule messages by texting or emailing a central email address, and our team texted the message at the appropriate time or location. This gave the impression of a platform instead of a series of texts.

2. **Help users navigate responding to compliments.** Each delivered compliment was followed up with an option to reply with an emoji or scheduling a return compliment (Figure 2). We wanted to provide users a way to respond to compliments easily so it didn’t feel like a burden, distinguish RAK as a positive message platform as opposed to a chat platform, and encourage reciprocation.

3. **Introducing injunctive norms.** We laid out platform norms: be kind, any media format less than 30 seconds, and no compliment solicitation. For full norms, see Appendix B1.

4. **Text confirmations.** We sent confirmation texts when users scheduled a message, and when the message was sent, to keep the user informed of the message status.
Results & Key Learnings:

1. **Information overload.** No users scheduled messages in this round, at most we received reactions from our bootstrapped content. Two users indicated that the instructions on how to use the platform were too cumbersome and complicated:
   a. “I was unmotivated to send messages because of how much simpler it would be just to reach out to these people in person, especially if they’re in a place of need.” - User D

2. **Impersonal delivery.** The impersonal delivery made messages seem out of place and robotic, which didn’t encourage users to engage.

3. **Positive emotional responses.** Users experienced positive reactions to receiving both broadcasted messages and 1:1 messages from bootstrapped content even though they were not motivated to engage or interact.
   a. “Automated and personalized messages were both incredibly sweet and supporting, making my day when I was stressed and tired.” - User A
   b. “Being complimented is always nice and it was nice that Riya remembered about my final.” - User D
Final Design & Implementation

Over the course of the prototyping process, we found that simplicity and ease of use was necessary for user engagement. We also found that “automated” delivery made messages seem impersonal and cold. To solve for both of these issues, we created RakMan, an animated character that interacts and responds to the platform users, sets injunctive norms, and guides users through an onboarding flow. The following describes our final infrastructure, onboarding, and usage experiences.

Infrastructure

![RakMan Contact Card](image)

Users scheduled and received messages via text through a centralized email. To facilitate email-to-text, we collected our users phone numbers and carrier services. This helped pull the platform together and reduce the robotic feel - messages were delivered by the centralized email instead of a random unknown phone number.

Message deliveries and confirmations were tracked in a spreadsheet to ensure request fulfilment - see Appendix C.

Onboarding

Users were provided with the names of other RAK users and a short wireframe flow to address the cumbersome issue in the Medium-Fi prototype. We used the flow to set norms, introduce basic functionality, and establish an improved look and feel of the app.

To onboard, we began by sending each participant a RakMan contact card and asking them to add this to their contacts lists. Users then received the first positive message from RakMan containing the
onboarding flow (Figure 4), as well as instructions on how to schedule messages for this launch.

**Figure 4:** RAK Onboarding flow. **Figure 4a)** Platform introduction. **Figure 4b)** Primary functionality. **Figure 4c)** Injunctive norm setting.

**Usage**

After the onboarding process we initiated and encouraged users to start sending messages by having RakMan send them their first compliment. After this the users began to send in compliments. The launched version of the platform was simple to use. With the RakMan contact in their phones, all users had to do was send the receiver, time/location and message. Users would send a message to the email. Acting as the platform we would respond with a message that let them know that their message was received and would be delivered. We then sent the message to the recipient.
Platform Launch: Deployment & Interaction

For our final launch we choose a close group of six friends, who had been close to each other for the past four years. This group consisted of 3 males and 3 females, all with different personalities and interests, launching with the process described in the previous section. Four out of the six participants actively used the system.

Results & Key Learnings:

1. **Binary Usage.** Some users were very active on the platform and others did not use the system at all. One user requested to be removed from the system.
   a. “I forgot to send messages” - User T

2. **Reciprocation.** Some users sent back and forth compliments between themselves.

3. **Feedback Loops.** When a blast compliment was sent out, a number of scheduled compliments were set up afterwards. Once a user received a compliment, he would tend to send out a few others.

4. **No direct responses.** Unlike during our initial test when users often responded with emojis, no immediate emoji responses were sent to the compliment. In future iterations, we may include a visual cue to a compliment recipient to respond with an emoji.

5. **Enjoyed Receiving.** Users expressed a liking for RAKMan and for receiving compliments.
   a. “Receiving compliments made my day happier” - User T
   b. “RAKMan is a super fun intermediary” - User S

Discussion
From our two prototypes and final launch, we learned that receiving compliments works to spread positivity but intrinsic motivation to send compliments varies. Many users who received compliments, even those who did not send compliments, enjoyed receiving them and explained that they made their day happier. At the same time, however, as we saw in the first test, receiving compliments from strong ties in unfamiliar contexts or out of the blue can be unsettling and a cause for concern. In these interactions, the compliments felt like dishonest signals and thus did not create the intended psychological benefit. Users enjoyed receiving compliments from a personal source, such as RAKMan, as opposed to an anonymous number or email. The receiving portion of our platform was effective because it tapped into the improvements in psychological well-being from receiving one on one communications from strong ties. Receiving a compliment from a character makes the message feel like it is coming from a more familiar, stronger tie source. One of the design features we considered was anonymity of the complimenter. Given the results of our testing, we realize that this would take away from the positive effects of receiving compliments from trusted sources.

In terms of sending compliments, we found that substantial activity was not achieved. This is likely because since the testing groups were strong ties, they communicate over many platforms and do not feel the need to go out of their way to use the RAK platform. Additionally, the time and location features were not used. This is likely because all of the users were located in the same time zone and on campus. Several users expressed that time and location features would be useful to communicate with family and friends living in other countries. When compliments were sent, all followed the injunctive norms set out by the onboarding flow. People only sent positive content and appropriately sized content. This indicates that people were intrinsically motivated to only send positive content, not any negative content, and that strong moderation may not be needed to sustain the platform’s values. A descriptive norm emerged in that the compliments were mostly sent by and sent to female participants. One male participant in the final testing round felt uncomfortable sending compliments to his male friends because “it is not something you would normally do.” Again here, we learned about the importance of honest signals to strong ties in how it guided participants lack of sending compliments.

Conclusion
In creating RAK, after two iterations and a launch, we affirmed the power of spreading joy through compliments and the need for low barrier, honest signals to maintain a strong tie based sociotechnical system. Even without a designated platform, authentic compliments and acts of kindness spread positivity in the stressful world we live in for both close and distant friends. Now go out there and RAK it up!
## Appendix A: Low-Fi Tracker

<table>
<thead>
<tr>
<th>User</th>
<th>Anchor Event</th>
<th>Day/Time</th>
<th>Platform</th>
<th>Medium</th>
<th>Response?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samantha</td>
<td>Landing in Cornell for Piances Graduation</td>
<td>Wednesday May 22, 5:00</td>
<td>Imessage</td>
<td>Video Message/boomersang</td>
<td>Yes! text were response* lol were wobbling*</td>
</tr>
<tr>
<td>Jacob</td>
<td>Having a hard time in florence sleeping</td>
<td>Wednesday May 22, 5:00</td>
<td>Imessage</td>
<td>Audio Compliment</td>
<td>Yeas audio response: Its 1 am. raining, when david comes it will be sunny in clue terrace but rainy in florence now. I should try harder to sleep goodnight love you!</td>
</tr>
<tr>
<td>Manny</td>
<td>Having girl trouble and drama and very stressed about it</td>
<td>Wednesday May 22 8:45</td>
<td>Imessage</td>
<td>text</td>
<td>no lol</td>
</tr>
<tr>
<td>Pieter</td>
<td>Russian Visa Delay + Friendship Appreciation</td>
<td>Wednesday May 22 3:30 PM Facebook Messenger</td>
<td>iMessage</td>
<td>Compliment</td>
<td>Yeas reciprocated the compliment. then asked if everything is okay</td>
</tr>
<tr>
<td>Elieri</td>
<td>Friendship Appreciation</td>
<td>Wednesday May 22 3:30 PM iMessage</td>
<td>Text</td>
<td></td>
<td>Yeas reciprocated the compliment .</td>
</tr>
<tr>
<td>Hana</td>
<td>Help with HW</td>
<td>Wednesday May 22 3:30 PM iMessage</td>
<td>Text</td>
<td></td>
<td>Yes - winky face</td>
</tr>
<tr>
<td>Arjun</td>
<td>Thanks for Having Lunch</td>
<td>Wed May 22 3:30 PM iMessage</td>
<td>Gif + text</td>
<td></td>
<td>Yes - &quot;Ty&quot;</td>
</tr>
<tr>
<td>Weak ties</td>
<td>Happy Week 8!</td>
<td>Thurs May 23 3:00</td>
<td>Instagram</td>
<td>Story Post - image + text</td>
<td>Yes --&gt; 2 ex-strong ties responded, 1 week tied responded, 3 strong ties responded</td>
</tr>
<tr>
<td>Elieri</td>
<td>Going on a trip to New Orleans</td>
<td>5/24 11:00 AM</td>
<td>Imessage</td>
<td>Video</td>
<td>Idk messages - lots of emojis and well wishes</td>
</tr>
<tr>
<td>Lauren</td>
<td>Missing me lol</td>
<td>Wednesday May 22, 12:00</td>
<td>Facebook</td>
<td>video and outset</td>
<td>Yes I responded</td>
</tr>
<tr>
<td>Luke</td>
<td>He texted me</td>
<td></td>
<td>Sms</td>
<td>text</td>
<td>none</td>
</tr>
<tr>
<td>Sarah</td>
<td>Tough day at work yday</td>
<td>5/22, 3pm</td>
<td>SMS</td>
<td>text</td>
<td>Yes</td>
</tr>
<tr>
<td>Brett</td>
<td>No reason</td>
<td>5/21, 4pm EST</td>
<td>WhastApp, in chat of 3</td>
<td>text</td>
<td>&quot;I appreciate this whole unnecessary compliment. You guys are swell too&quot;</td>
</tr>
<tr>
<td>Julia</td>
<td>Moving to Oakland today</td>
<td>5/22, 8am</td>
<td>WhatsApp</td>
<td>audio</td>
<td>No response, but did follow up to a text</td>
</tr>
<tr>
<td>Eric</td>
<td>Field trip for his students today</td>
<td>5/22, 4pm</td>
<td>SMS</td>
<td>image</td>
<td>Double high five emoji</td>
</tr>
<tr>
<td>Julie</td>
<td>Coming home from Paris</td>
<td>5/22, 5:45s</td>
<td>WhatsApp</td>
<td>Gif</td>
<td>yes</td>
</tr>
</tbody>
</table>

## Appendix B1: Medium-Fi Introduction Email
Welcome to RAK!

The RAK Team <rakitup1@gmail.com>
To: darcys@stanford.edu

Mon, May 27, 2019 at 5:23 PM

Hey hi hello,

Thank you for agreeing to help us design and develop RAK (Random Acts of Kindness).

What is RAK?
We are a platform designed to send short, positive messages to your community for any reason or no reason at all.

What are the rules?
1. Be Kind. The intent of any message is to make the other person feel loved, appreciated, and/or good.
2. We support all mediums (text, voice, images, videos, gifs, anything goes).
3. Keep all content less than 30 seconds.
4. No compliment solicitation.
5. Moderators have final word and we will not send through any messages that don’t meet the community standards.

How does it work?
You schedule a message to be texted to the person of your choosing at a specific time or when they reach a specific location. For example, if you know your friend has a job interview in Tressider tomorrow, you can leave a message for them that will be able to receive upon arrival or at the start of the interview.

Below you’ll find short how-to’s for sending and receiving message during this trial period. In short, text or email us here (rakitup1@gmail.com) with the who, what, and when/where.

Let us know if you have any questions, and have fun!
The RAK Team

How To: Send Messages
You can send a message to a specific person, or you can send a message to everyone in your entire community (all app users).

To a specific person, TEXT (or email) your message to rakitup1@gmail.com with the following information:
1. Your name and phone number.
2. Your sendee and their phone number.
3. Your message - see above.
4. When or where you would like your compliment to send, e.g. today at Tressider, tomorrow at 4pm, or ASAP!
5. Sit back and relax. We’ll let you know when your message has been sent.

To the whole platform:
1. Your name and phone number.
2. Your message.
3. When or where to broadcast.

How To: Receive Messages
1. Your message will be sent by the RAK team. Enjoy!
2. OPTIONAL: Choose to send a single reaction emoji back to your complimenter, or schedule a compliment for them.

Appendix B2: Medium-Fi Prototype Tracker
## Appendix C: Launch Tracker

<table>
<thead>
<tr>
<th>Participant</th>
<th>Number</th>
<th>Carrier</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tevon Strand Brown</td>
<td>(+1)7074945368</td>
<td>Verizon</td>
<td><a href="mailto:7074945368@vtiext.com">7074945368@vtiext.com</a></td>
</tr>
<tr>
<td>Sarah Phillips</td>
<td>(+1)6027480344</td>
<td>T-Mobile</td>
<td>6027480344@<a href="mailto:t@tmo.com">t@tmo.com</a></td>
</tr>
<tr>
<td>Katherine Vankirk</td>
<td>(+1)7038355503</td>
<td>Verizon</td>
<td><a href="mailto:7038355503@vtiext.com">7038355503@vtiext.com</a></td>
</tr>
<tr>
<td>Makenzie Little</td>
<td>(+1)6056562566</td>
<td>T-Mobile</td>
<td>6056562566@<a href="mailto:t@tmo.com">t@tmo.com</a></td>
</tr>
<tr>
<td>Duncan McWilliams</td>
<td>(+1)8502233442</td>
<td>AT&amp;T</td>
<td>6502233442@<a href="mailto:t@t.com">t@t.com</a></td>
</tr>
<tr>
<td>Trey Turner</td>
<td>(+1)8168982671</td>
<td>AT&amp;T</td>
<td>8168982671@<a href="mailto:t@t.com">t@t.com</a></td>
</tr>
</tbody>
</table>

## Appendix D: App Wireframes
Hello, my name is RakMan!

Welcome to RAK!
We are a platform designed to send short, positive messages to your community for any reason or no reason at all.

Continue

How It Works
Schedule messages to send at specific time or location.

For example, if you know your friend has a job interview in Tressider, you can leave a message for them that they will be able to receive upon arrival.

Continue

Sending Messages

TEXT your message to rakithop2@gmail.com with the following information:
1. Your sender.
2. Your message.
3. Place or when you would like your message to be sent, e.g. Monday at Tressider, tomorrow at 4pm, or ASAP!

Continue

RAK Guidelines

Be Kind. The intent of any message is to make the other person feel loved, appreciated, and/or good.

We support all mediums (text, voice, images, videos, gifs, anything goes). Keep all content less than 30 seconds.

Moderators have final say and we will not send through any messages that don’t meet the community standards.

Continue

Good morning, Aladdin!

We are thrilled to help you spread positivity in your community.

Happy RAKing!

Continue

Schedule a RAK

Select Recipient

Type or attach your positive message, remember to be kind and keep it under 30 seconds.

Choose a delivery option:

- ASAP
- By Day & Time
- By Location

→
About RAK

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