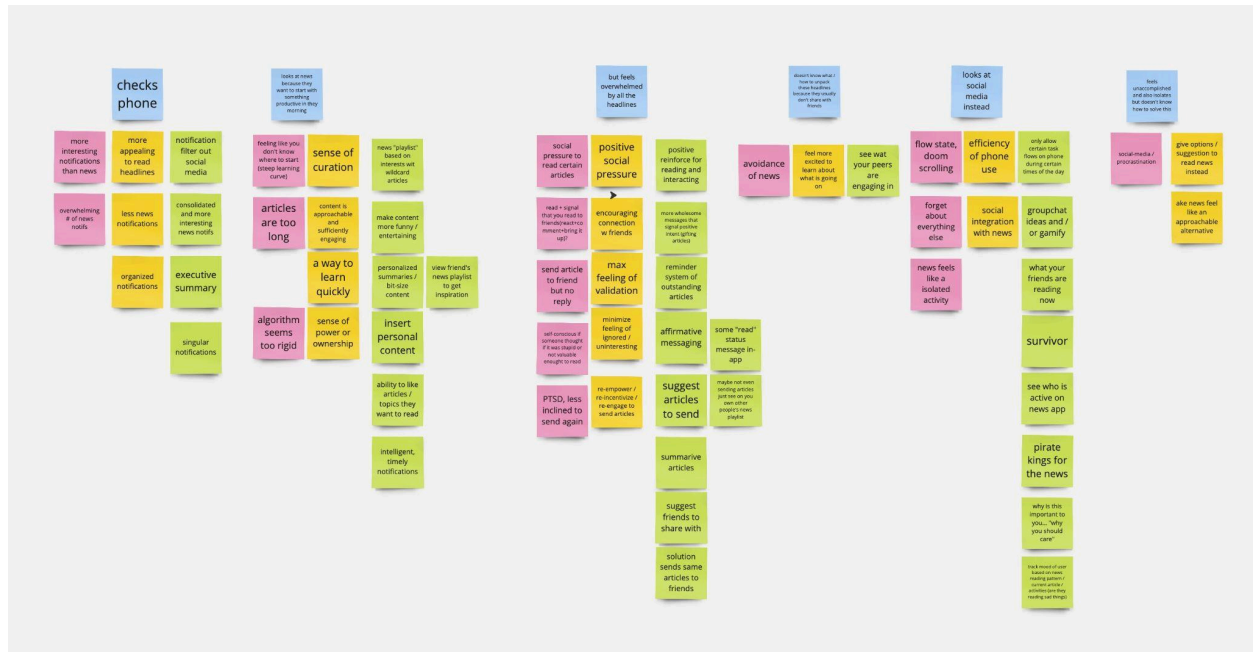


Story Maps



In crafting the MVP features for the news reading app, the development process was rooted in a comprehensive understanding of the user's daily news interaction, informed by interviews and the construction of user personas. This approach involved mapping out the entire journey of a user's interaction with news, from the initial discovery to ending up on social media instead. For each step in this journey, specific pain points were identified—such as the effort required to find relevant articles or the lack of engagement in sharing and receiving content.

With these pain points in hand, the team then set goals aimed at addressing each one. The goals acted as solutions to the pain points and were aligned with the overall user experience we wanted to achieve. For instance, if a pain point was the "chore-like" feeling of finding news, a goal might be to "make discovering relevant news effortless and enjoyable."

From these goals, specific features were conceptualized. Each feature was designed to directly tackle a pain point and fulfill the corresponding goal. For example, to address the issue of finding articles feeling like a chore, a feature like an intelligent content curation system was proposed, which would learn a user's preferences and deliver a personalized news feed. This would not only streamline the discovery process but also aim to make it more engaging by tailoring the content to the user's interests.

Analyzing the story map provided reveals several key insights regarding users' interactions with news on their phones and how these interactions could shape the development of a news reading app. Firstly, there's a clear indication that users are overwhelmed by the volume of notifications and the length of articles, which suggests a need for more succinct content, like executive summaries, and a more organized

notification system. Users also crave a sense of curation and ownership over their content, indicating that a personalized news "playlist" and smarter, more appealing headlines could be beneficial.

The map also suggests that social interaction plays a significant role in how users consume and interact with news. Users feel a social pressure to read and share articles, and there's a desire for positive social reinforcement from these actions. Features that allow users to see what their friends are reading and suggest articles to send could cater to this need for social connectivity.

Furthermore, there's an expressed need for a balance between engaging content and informational content. Users want a way to quickly learn from the news they consume without it feeling like a chore or just another task to complete. This might involve integrating humor or making content more entertaining, suggesting that a gamified approach to news reading could be effective.

Lastly, there's a tension between staying informed and the desire to avoid the negative psychological impact of news consumption, pointing to the need for features that allow users to filter out less desirable content. This could include mood tracking to suggest content based on the user's current sentiment or avoiding certain topics at specific times of the day.

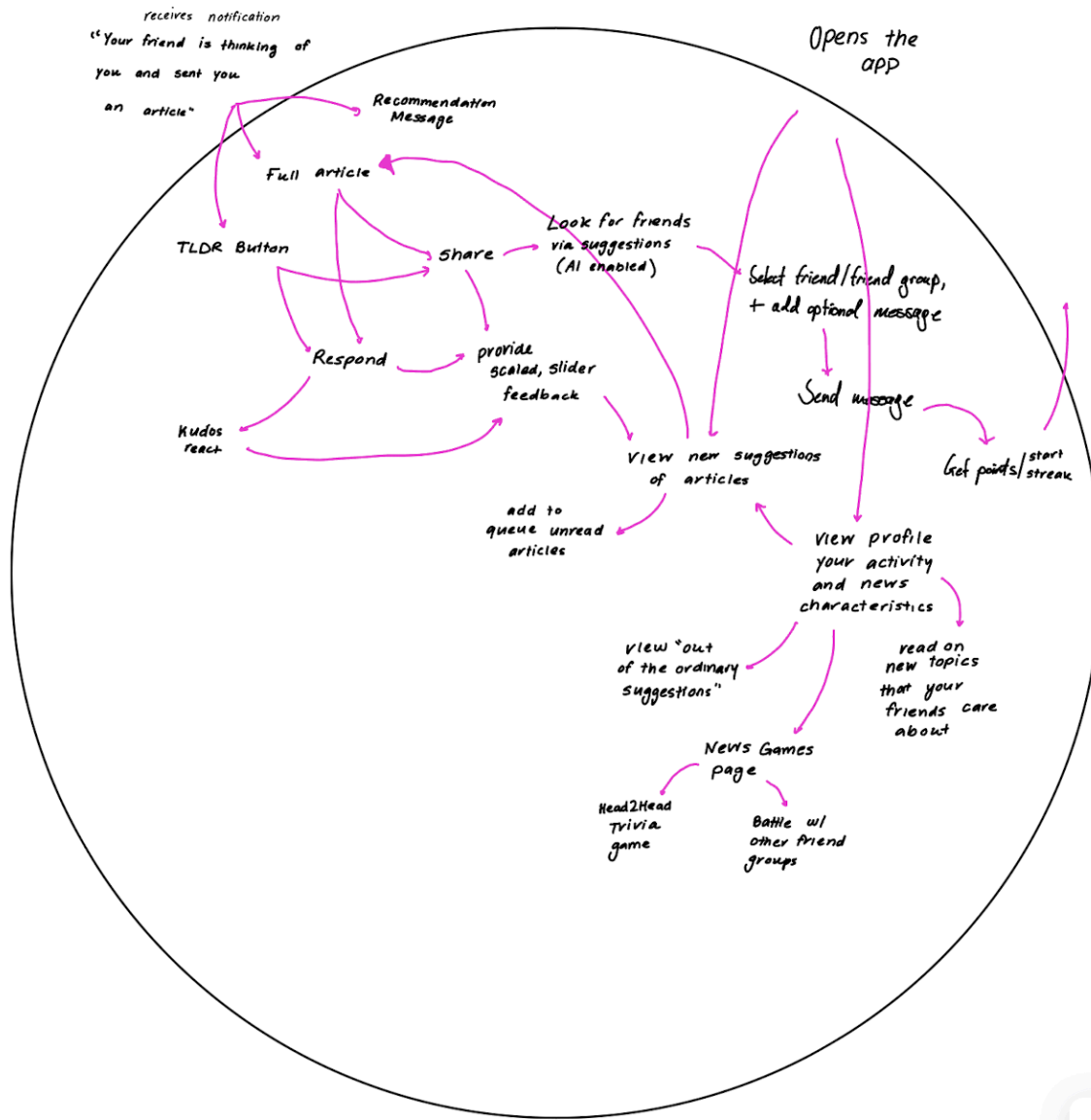
All together, these insights inform the development of an MVP that should prioritize content personalization, efficient and enjoyable learning, social sharing, and mental well-being in news consumption.

MVP Features

- **Curated News Playlist:** users have a daily "playlist" of news based on their interests, behavior, and wider audience trends.
- **Sharing:** Functions for users to easily share articles with friends and see what their friends are reading, encouraging social interaction around news content.
- **Executive Summaries:** Provide concise summaries of articles for users to get the gist quickly, with an option to read the full article if interested.
- **Personalization Algorithm:** A system to filter content based on the user's reading habits and preferences to provide a sense of ownership and control over the content, also have an option for users to provide feedback on articles to help refine the algorithm and content curation.
- **Intelligent Notifications:** Notifications for articles that align with the user's interests but are not overwhelming + A feature that nudges users to read articles they've sent or received by tracking and reminding
- **Interactivity:** Options such as the ability to like or comment on articles, or see "read" status indicators within the app, to encourage engagement.
- **Status/Gamification:** Features that reward reading or sharing articles, and extra functionality is used to reward those that engage with the news the most
- **Gamification:** Implement elements like "Pirate Kings for the news," which could involve competitive features such as leaderboards or challenges based on reading and sharing news.
- **Mood Tracking:** A feature to track the mood of the user and suggest content accordingly + an option to remove or reduce negative content to lessen the impact of potentially distressing news

System Paths

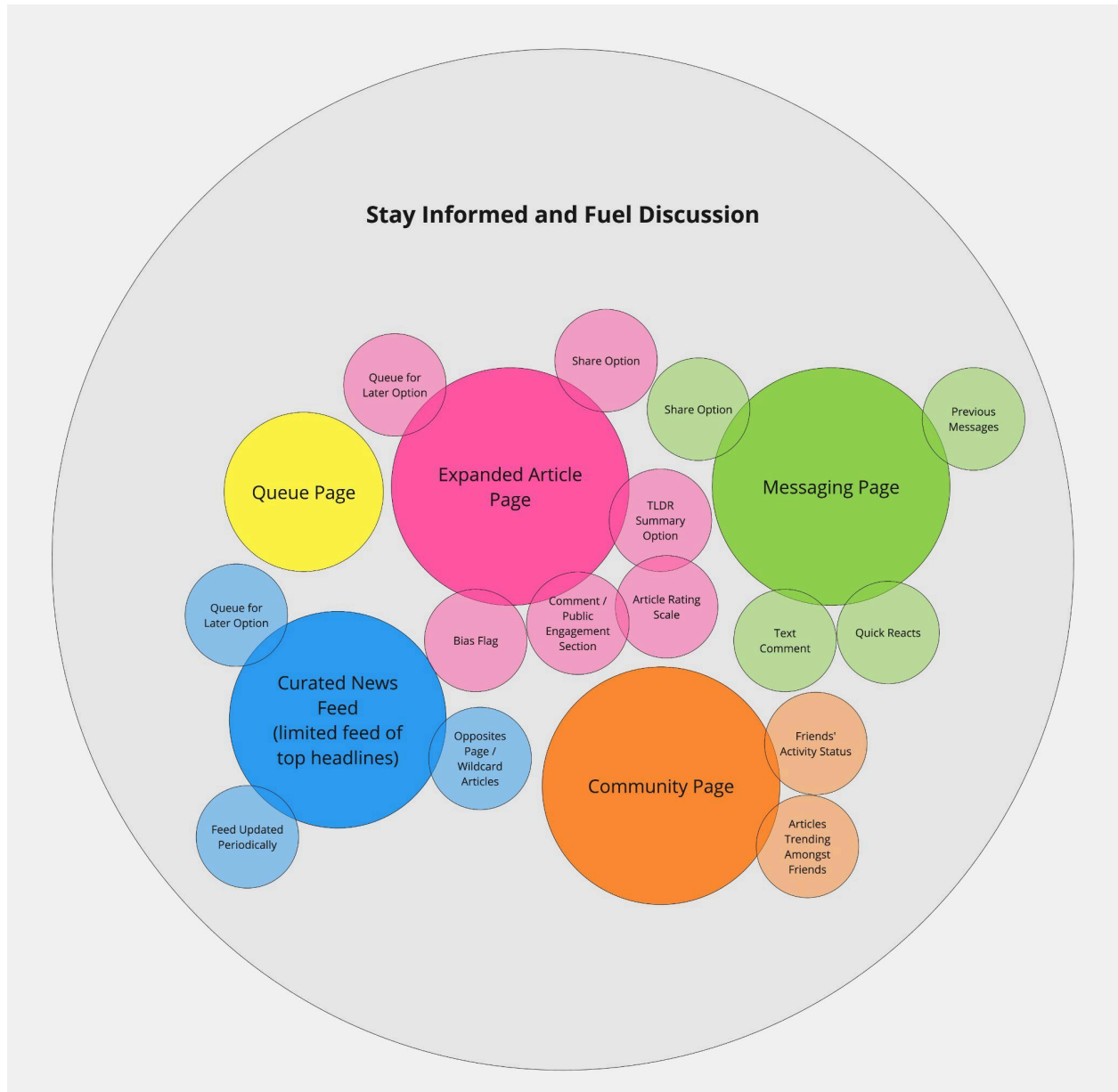
"Bisa"
The Avid Reader



In class, we created a system path for our Avid Reader persona called Bisa. The system path diagram was a mechanism that we could use to illustrate different ways one could interact with our MVP. By showing what the most avid type of user could do, we essentially captured most of the functions that any persona might be interested in acting on in our MVP. In other words, the above diagram illustrates all the behavior that any user would be able to act upon in our MVP, so illustrating different personas would lead to redundancy. Delving into the specifics of our diagram, users enter the system through notifications, which notify users of articles that their friends have sent. We first encourage users to read the article (they can do

so in multiple ways), and then react to what they have read (they can do so in multiple ways). The method of feedback will help curate a news feed for the users of articles that they might find interesting as well as articles they may want to share with friends. We also ideated a few additional features, such as News Games; a Profile; or Streaks, where individuals could further engage with their peers in new modes as opposed to just reading the news.

Bubble Map



In our class working sessions, we collectively honed in on a suite of essential features that form the nucleus of our solution. The ability to curate a newsfeed is paramount—this foundational element is the epicenter from which all other functionalities radiate. A user's journey begins with personalized headlines, leading naturally to an in-depth exploration of articles. This progression from curation to expansion is critical for delivering content that resonates on a personal level while ensuring comprehensive access to information.

Our design philosophy embraces the social dynamics of news consumption. The Community Page and Messaging System are not just features; they are conduits for dialogue and exchange, driving the social

interaction that is vital for engaging with the news positively. We aim to replicate the ease and familiarity of existing social interactions found in popular apps like iMessage or Instagram. The incorporation of a quick-share option, gesture-based reactions, and a history of past messages allows users to engage with our platform using well-established behavioral patterns, reducing the learning curve and enhancing the overall experience.

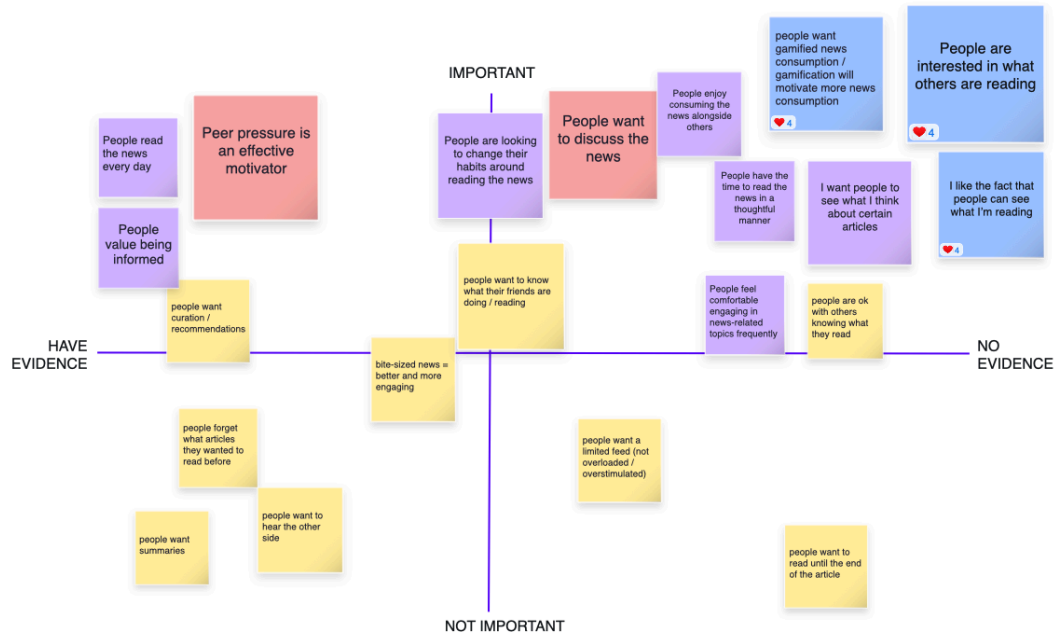
We've also incorporated visionary elements to address specific user needs surfaced during our research. The 'Queue' feature was born out of the observation that users often lose track of interesting content. By providing a space to save articles, we not only offer convenience but also position our platform as a go-to hub for personalized content curation.

Our bubble map also reflects a deliberate choice to cultivate a healthy public discourse. The 'Opposite/Wild Card Articles' bubble represents our commitment to diversity of thought, challenging users to engage with perspectives they may not have encountered otherwise. Similarly, the 'Bias Flag' feature was conceived to promote media literacy, encouraging users to critically analyze the tone and intent of the articles they consume.

These components are interconnected, not only by their functionality but by the underlying ethical principles they represent. We have been mindful to balance innovation with caution, particularly in the Community Page. Initiating with features that showcase friends' activities and trending articles among peers, we lay the groundwork for a community-centric experience while remaining vigilant of potential unintended consequences. We hope to continually hone this page with increasingly community-oriented features as we develop our solution.

Overall, our bubble map is more than just a visual representation; it's a narrative of our design strategy. The size of each bubble signifies the importance and volume of content, guiding users intuitively from one interaction to the next. We've crafted a user experience that is not just about staying informed but doing so within a community that values depth, diversity, and dialogue. Our goal is to elevate the platform beyond a mere tool for news consumption to a space where engagement and community thrive in the context of current events.

Assumption Map



Above, we created an assumption map that plotted key assumptions for our solutions to function properly. We plotted them across two axes: (1) Important/Not Important and (2) Have Evidence/No Evidence. We selected three insights that we found to be most important and that we did not have evidence for, and hope to test these in an experience prototype. The three assumptions are:

1. People want gamified news consumption / gamification will motivate more news consumption
2. People are interested in what others are reading
3. I like the fact that people can see what I'm reading

Regarding the first assumption, we hope to incorporate a game-like component into our MVP to motivate users to engage in our desired behavior. We made this feature decision based on other products in the media space that leverage social pressure and gamified components to engage users. We believe that news has not been packaged in this way, and so if our assumption is correct, could pose an effective way to position current events.

Regarding the second assumption, we hope to use social elements throughout our MVP to encourage individuals to read and engage more deeply with the news. A core aspect of this would be a feature that showed users what their friends were reading in a real-time or delayed feed. While we believe that individuals would be motivated to read and engage more if they saw their friends' activity, this is an assumption that we do not have evidence for at the moment.

Regarding the third assumption, this is another flavor of the second assumption outlined above. Sharing of data must be mutual – in other words, if users are able to see what their friends read, their friends must be able to see that user’s data as well. This assumption touches more on a privacy aspect of our MVP, and in order to build an ethically responsible product, we feel that this is a crucial component to test.

Assumption Testing

Assumption #1: Gamification Enhances News Consumption

People inherently enjoy games and rewards, and integrating these elements into news consumption may increase engagement and frequency.

Experience Prototype: News Reading Challenge

- Objective: Determine if a competitive element can increase the quantity and diversity of news consumption.
- Method: Host a News Reading Challenge over a set period, where participants track and submit the number of articles they read. To incentivize a broader scope, points are awarded not just for quantity but also for diversity in sources, topics, and the act of sharing articles with others.
- Feedback Mechanism: After each article submission, participants receive positive reinforcement, such as a message celebrating their 'intellectual curiosity' to encourage continued engagement.
- Leaderboard Display: Introduce a public or semi-public leaderboard where participants can see their reading stats in comparison to others. This visual will tap into their competitive spirit and drive more engagement.
- Measurement: Assess not only the quantity of articles read but also the variety and sharing frequency to gauge the effectiveness of gamification across different dimensions of news consumption.

Assumption #2: Curiosity About Others' Reading Habits

People have a natural curiosity about what others—especially their peers—are reading, and this could influence their own reading choices.

Experience Prototype: Personal vs. Social Article Selection

- Objective: Test which type of article recommendation is more compelling: personalized curation based on the user's interests or articles recommended by friends.
- Method: Each participant receives two article options daily: one article is presented as hand-selected for the user based on their past reading behavior and stated preferences; the other is presented as an article that a friend has read and thought the user might find interesting.
- Procedure: Over the course of the experiment, track which articles are chosen each day by the participants—whether they consistently choose the personalized article or the friend-recommended one.
- Analysis: This approach will provide insight into user preferences for article selection, allowing us to understand the relative weight of personalization algorithms versus social recommendations in the reading choices of users.

Assumption #3: Willingness to Share Reading Habits

The assumption is that users are comfortable with their reading habits being visible to their social circle, potentially fostering a sense of community through shared interests.

Experience Prototype: Reading Habit Sharing Comfort

- Objective: Assess users' comfort with their reading list being visible to friends and the platform.
- Method: Create a mock-up of a feature within the platform that displays a list of articles the user has recently read. Inform users that participating friends will be able to see this list and that the platform will use this data to suggest articles to their friends.
- Transparency and Control: Introduce a toggle that allows users to opt-in or out of this feature, giving them control over their privacy. Everyday, we will ask whether or not the participant would like to share what they have read with others on a given day.
- Observation: Monitor the frequency with which users enable or disable the feature, and which articles, if any, they choose to hide or share more frequently.
- Feedback Collection: After the study period, conduct a survey or interview with participants to gather qualitative data on their feelings about sharing their reading habits, any privacy concerns, and the perceived value of this transparency in fostering community engagement.
- Ethical Considerations: Ensure that users are aware that the list of articles is only visible to participating friends and that they consent to this part of the study. The goal is to simulate a real feature while maintaining user privacy and trust.

Intervention Study

Overview

Our intervention study plan is designed to explore the dynamics of information sharing and its impact on engagement with news content and social interactions. We pair a Knowledgeable Participant (KP) with an Ignorant Participant (IP), with the latter unaware of the study's existence. The KP is tasked with sharing articles or podcasts with the IP daily, using various communication mediums such as messages, email, or social media platforms. We collect both quantitative and qualitative data to assess several aspects of the intervention.

Firstly, we gather data regarding the types of articles or podcasts shared, categorizing them by topic, length, source, and format. This aims to understand the preferences and engagement levels of the participants. Additionally, we track the mode and frequency of sharing to analyze patterns in behavior. We also collect participant feedback to gain insights into the motivations behind content selection by the KP and the IP's response to the shared content, including interest level and relevance. Secondly, we monitor behavioral changes, particularly in the IP's news consumption habits and the frequency and depth of discussions between the KP and IP. We also note any expansion of content sharing beyond the study pair, such as with other friends or on social media platforms.

Most importantly, we conduct a post study interview to gather more open ended qualitative data. Furthermore we want to evaluate emotional and cognitive responses, including the IP's engagement and interest levels with the shared content and any changes in their knowledge or perspective on specific topics. Overall, our study aims to gather insight into how interpersonal information sharing influences news engagement and whether or not these social interactions are viewed in a positive light, and finally if such discussions valuable generate some new insight for people involved in the test.

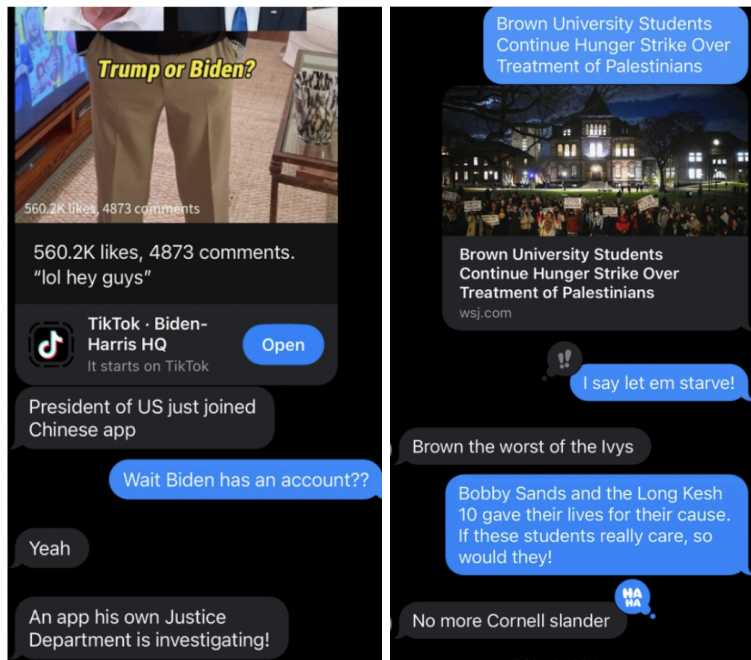
Method

1. **Recruitment of Participants:** Eight participants were recruited for the study through various channels, including social media platforms, email lists, and personal networks.
2. **Participant Instructions:** Once recruited, participants received detailed instructions on the study procedure and their roles, including identifying a friend for the intervention.
3. **Sharing Content:** Participants were instructed to share news-related content that they find interesting with a friend or group-chat over messaging platforms
4. **Engagement in Discussion:** Participants were encouraged to actively engage in discussions with their friend, asking open-ended questions and sharing their thoughts and opinions.
5. **Daily Reminders:** Throughout the intervention period (4 days), participants received periodic reminders to carry out the task and maintain regular communication with their friend.
6. **Data Collection:** At the end of the intervention period, participants were asked to submit screenshots or transcripts of their conversations with their friend regarding the shared content.
7. **Post-study Interview:** Participants were invited to provide feedback on their experience via an interview

Results

In fairness, this study had less than ideal participation compared to our diary study. Nevertheless four of our eight participants fully engaged in our study and gave us very interesting insight into news sharing behavior, and in turn, further guidance for our proposed solution. The most interesting data we collected for this study were screenshots of conversations with friends or in group chats that pertained to articles sent in by participants. However we are yet to quantify this screenshot data in order to gather any numerical insights.

In the study we find that all active participants predominantly shared news articles rather than other forms of media. This may be due to less friction when sharing, or conditioned on the likelihood of the other party actually engaging with it (more likely to read a short article than listen to a thirty minute podcast). It also became evident that there was much more variance in participants' experience than expected. We also noticed that participant experiences were mostly segmented by the persona they mostly aligned with (avid reader, hobby reader and avoidant reader). Those who were 'avid readers' would receive the most engagement from their friends or group chats - leading us to believe that people mingle with those with similar baseline engagement levels with the news. This has several possible implications we could exploit e.g. if someone is put in an environment with more avid readers would this naturally cause someone to change their reading habits? People that aligned more with the avoidant reader category struggled much more to engage in meaningful discussions, even with close friends and family members. For example friends would be confused as to why a participant was suddenly sending them articles, or wouldn't reply at all. These findings underscore the importance of considering individual differences and social dynamics when designing and implementing our prototype aimed at fostering discussion and engagement with news content.



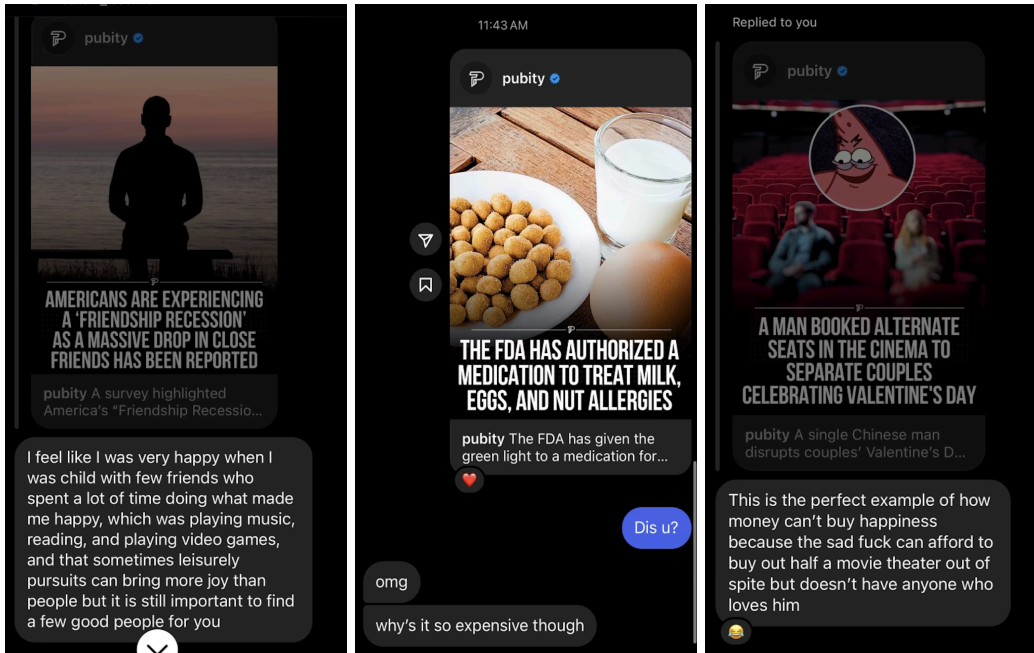
Amusing screenshots of satirical group chat created by one of our participants

Now we will cover some highlights from the study with some amusing screenshots included. One participant in our intervention study shared insights into an existing group dynamic that significantly influenced their engagement with shared content (see above screenshots). This participant disclosed that since September, they had already been part of a pre-existing group chat with three close friends specifically focused on the upcoming presidential election. In this established chat, the four friends regularly exchanged articles they had individually read and found pertinent to the election. The main purpose of this chat was to spark in-person discussions at a later time in the day when they would all see each other. It was also amusing to see how humorous the exchanges were in light of the seriousness of the subject matter. Much of the exchanges were satirical/sarcastic that opposed their actual political beliefs. Despite the banter, the purpose of this exchange was to keep each other informed and discuss various perspectives on the political landscape.



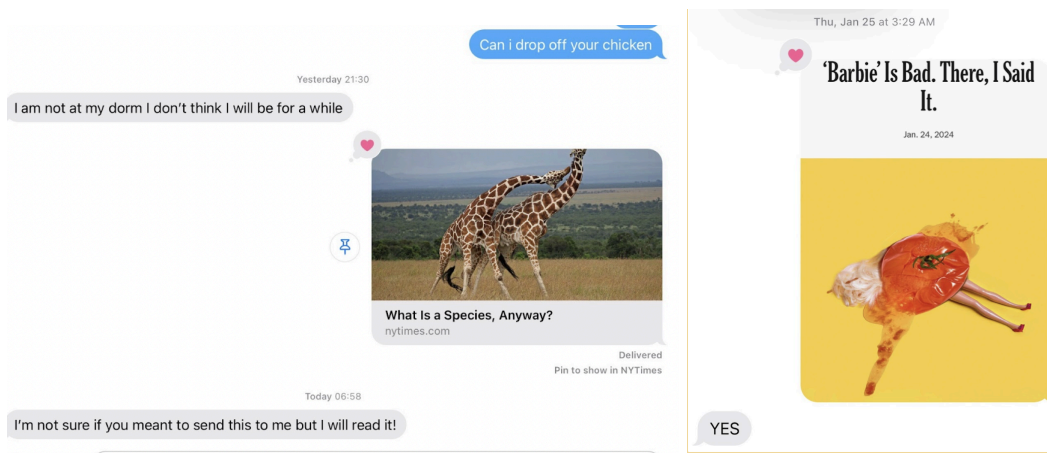
This participant's father only engaged in discussion with articles he sent

One participant in our intervention study shared their experience of reciprocating article sharing with their father who regularly sent them articles prior to the study. This participant hoped to engage their father in a meaningful exchange and hopefully promote a more two-sided exchange of news-reading. However, the results were interesting, as their father did not respond to articles they sent in, but seemed much happier to discuss articles he sent compared to before the study began. Additionally, none of the participant's friends showed significant engagement with the news articles they shared, highlighting a contrast with the aforementioned participant who had a pre-existing group chat. This contrast underscores the influence of existing social dynamics and communication habits on the effectiveness of engaging others in discussions about shared content.



We saw the most engagement from this participant, but this felt like more of a chore for the participant

Another participant in the study exhibited signs of being accustomed to passive information consumption on social media, finding the active search for articles during the study burdensome compared to their usual low-effort approach. Their perception of the task as a chore suggests a lack of intrinsic motivation, possibly stemming from the obligation imposed by the study's requirements. Despite sharing articles with friends, the absence of reciprocal sharing may have diminished their motivation to continue. However, they displayed ingroup favoritism by feeling more comfortable sharing with close friends, demonstrating a preference for interactions within their social circle. Despite not finding the task enjoyable, the participants made efforts to select articles resonating with their friends' experiences, indicating empathy and a connection to their social group. Nonetheless, the study heightened the participant's awareness of their behavior, potentially paving the way for more active and thoughtful news consumption in the future.



This participants experience was defined by general confusion and huge variation in engagement

This participant who mostly aligned with the ‘hobby reader’ persona expressed feeling somewhat awkward and unsure about sharing random news articles with friends as instructed, often resulting in confusion from their friends and minimal follow-up interaction. This also resulted in some amusing screenshots. They admitted to not always reading the articles thoroughly herself, choosing topics based on personal interests or debates, such as the origin of Goldfish crackers, rather than relevance to her friends. They found the interactions entertaining and felt it supplemented their friendships, although they acknowledged their friends' reactions varied. It was also interesting to see that the study increased their news consumption and enjoyment of reading articles overall. Nevertheless due to limited subscriptions, their engagement was limited when friends would send in articles from papers they were not subscribed to.

Interview Results

We have chosen to summarize just three interviews for the sake of brevity and to cover multiple different perspectives. Furthermore several interviews had significant amounts of overlapping content that we believe these interviews also cover well. To preserve anonymity they are referred to as Participant A, B and C.

In the post-study interview, Participant A, an avid reader, discussed their participation in a group chat focused on news related to the presidential election, which has been active since September. While interactions in the group chat are primarily humorous, Participant A believes most members read the shared articles. They also noted that discussing articles in the chat helps them engage and remember the content better, particularly when referenced in-person or during practice. Participant A is unafraid of being judged for bringing up news topics and expressed comfort with others seeing what they read. Regarding an app idea, Participant A suggested a platform where users could choose their preferred newspapers and participate in discussions related to articles they've read, with participation potentially earning recognition within the platform. They also expressed interest in seeing what their friends and celebrities read, and they are comfortable with others seeing their news reading habits.

Participant B expressed mixed feelings about the study, describing the act of sending articles as feeling more like a chore and a tedious process, especially compared to their usual passive consumption of information on social media. While they acknowledged becoming more engaged with articles and posts and trying to relate them to their friends' experiences, they found it challenging to find articles that would genuinely interest their friends. Despite their efforts to engage in meaningful exchanges by sending articles with short messages, they noted receiving little to no feedback and no articles in return. However, they appreciated the opportunity to connect with close friends through sharing articles, feeling more comfortable doing so because of their familiarity with the recipients. Overall, while the study prompted increased awareness of news articles and posts, Participant B found the process of actively seeking and sharing articles to be more of a chore than a natural interaction, with limited reciprocation from their friends.

In the interview with Participant C, they described feeling uncertain and somewhat silly while participating in the intervention study by sharing articles with friends. Despite lacking nerves or fear, Participant C found the task amusing, especially considering the random nature of the articles they shared

and the confused reactions they elicited from their friends. Their approach to selecting articles was casual, often picking random ones from the news without much consideration for relevance, which led to light-hearted interactions but limited deeper engagement with the content. Participant C primarily shared articles over text and didn't have further interactions beyond initial responses from their friends, indicating a lack of sustained discussion or exploration of the shared content.

Participant C admitted to avoiding certain topics during the study to maintain a light-hearted atmosphere, preferring to steer clear of potentially controversial or serious subjects. They also shared articles without thoroughly reading them, focusing more on sparking entertaining conversations rather than engaging with the content itself. Moreover, Participant C noted that the study had an unintended positive effect on their news consumption habits, leading them to engage more with news content than usual, even though they faced limitations due to using a flip phone. This increased engagement with news articles was driven by a desire to participate in the study's activities and foster amusing interactions with their friends, suggesting that the intervention had a subtle but notable impact on their behavior. Overall, Participant C found the experience of sharing articles entertaining and saw potential for continuing similar interactions in the future, highlighting the value of lighthearted engagement with news content within social relationships.

The interviews with these three distinct participants shed light on the varying attitudes towards sharing news articles within social circles, ultimately painting a picture of openness to interacting with friends through article sharing. Despite differing levels of enthusiasm and approaches, it is evident that engaging in such interactions is generally perceived as a positive experience. Participant A, for instance, enthusiastically participates in a group chat focused on news related to the presidential election, showcasing comfort with sharing articles and discussing them with others. Participant B, although expressing mixed feelings and encountering challenges in the process, appreciates the opportunity to connect with close friends through sharing articles, albeit noting limited reciprocation. Participant C, on the other hand, finds the task amusing and entertaining, despite initially feeling uncertain, and perceives the exchanges as adding value to their friendships. Moreover, the interviews collectively highlight an unintended yet positive outcome: an increase in engagement with news content among participants. While the above summary doesn't capture every nuance of each interview, it underscores the overall sentiment that sharing articles with friends is a valuable and engaging activity that fosters connections and contributes to a deeper engagement with the news.

To list off some key takeaways:

1. Most participants find discussing articles with friends a fun/rewarding activity
2. Participants engage more with the news when an article is 'socialized'
3. Overall, participants were interested in seeing what their friends are reading
4. Generally participants were ok with people seeing articles that they read
5. People would like to see what other well-read people think about certain news articles/issues
6. Some participants would like decreased friction when it comes to sharing articles with friends

Changes to solution design

The intervention study and subsequent interviews have provided valuable insights that reaffirm our confidence in the potential of developing a platform where users can readily share articles with friends, observe their friends' reading preferences, and initiate discussions with other users on specific topics. Through these interactions, participants expressed a genuine interest in engaging with news content within their social circles, highlighting the inherent value of such platforms in facilitating meaningful exchanges and fostering connections based on shared interests. The interviews further revealed that participants found enjoyment and amusement in the process of sharing articles, indicating a positive reception towards the proposed platform's core functionalities.

Building upon these findings, we are now moving forward with enhancing the user experience and further incentivizing engagement with the platform. One avenue we are exploring is the implementation of a scoring system that rewards users for their participation and contributions to discussions. By gamifying the experience, users will be motivated to actively engage with the platform, whether it's through sharing articles, initiating discussions, or participating in existing conversations. This scoring system will not only incentivize users to interact more frequently but also foster a sense of competition and achievement within the community, driving sustained engagement over time.

Additionally, we are considering implementing features that promote social recognition and status within the platform. This is a feature that one of our participants felt especially excited about. Users who consistently contribute high-quality content or facilitate engaging discussions could be recognized and rewarded with badges, titles, or other virtual accolades. This sense of recognition and status will not only incentivize users to maintain their active participation but also foster a sense of community and belonging within the platform.

In summary, the intervention study and interviews have validated the demand for a platform that facilitates article sharing, discussions, and social interactions around news content. Moving forward, we are committed to enhancing the platform's features and implementing innovative incentives to drive user engagement and create a vibrant and dynamic community centered around news consumption and discussion.