How Can Design Make Sharing Feel Less Like Performance? Features for Youth Relationship Building on Social Media

JAEWON KIM, The Information School, University of Washington, USA
YURI KIM, Department of Computer Science, University of British Columbia, Canada
YOOJIN HONG, Individual Contributor, Korea
JINA PARK, Individual Contributor, Korea
ALEXIS HINIKER, The Information School, University of Washington, USA

We conducted a field study with 99 youth across Korea and the US to examine how social media design features affect relationship-building. Over four weeks, participants used two platform versions: CTRL (resembling Instagram) and EXP. Semi-structured interviews with 21 participants revealed that EXP's design shifted users from extrinsic to intrinsic motivation—participants valued self-reflection and curiosity about others even when receiving fewer reactions, describing posting as something done "for myself." This shift emerged from redistributing agency from posters to the platform: daily prompts reframed sharing as responding rather than performing, while a profile-list feed reduced lowered expectations for reactions. Prompts also surfaced values absent from typical social media, helping participants discover unexpected commonalities. However, these features introduced a trade-off: weaker ties benefit from plausible deniability, while closer relationships gain from EXP's intentionality. We contribute a feature-level account of how design shapes not only behavior but the experience of social media use.

CCS Concepts: • **Human-centered computing → Collaborative and social computing**.

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1 Introduction

While social media is often portrayed one-dimensionally as harmful, young people understand these platforms as complex spaces offering both risks and opportunities for friendship-building, learning, and stress relief [71]. Current legislative and educational approaches focus primarily on limiting young people's access to social media platforms [55, 61]. However, young people themselves view social media as a critical space for social connection and self-expression [20]. They perceive outright banning—and assumptions that they lack knowledge or concern about privacy and healthy use—as dismissive of their lived realities, undermining their agency, and failing to acknowledge the nuanced ways they navigate and understand social media [50, 67]. Young people seek to amplify positive social interactions and build meaningful connections with peers on social media platforms. Yet they only occasionally experience such interactions [53]. More

Authors' Contact Information: JaeWon Kim, The Information School, University of Washington, Seattle, USA, jaewonk@uw.edu; Yuri Kim, Department of Computer Science, University of British Columbia, Vancouver, Canada; Yoojin Hong, Individual Contributor, Korea; Jina Park, Individual Contributor, Korea; Alexis Hiniker, The Information School, University of Washington, Seattle, USA, alexisr@uw.edu.

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frequently, they encounter significant challenges: interactions that feel inauthentic [37], environments lacking trust [49], celebrity culture that fosters social comparison [31], and endless feeds of "content soup" that mostly comes across as boring [23].

The design of current social media platforms directly contributes to these negative experiences. Social media as a concept is not inherently problematic, but the archetypal forms we see today often promote toxicity through specific design choices. Quantified metrics such as Likes and follower count encourage social comparison, expanding their sharing circles beyond trusted connections and posting content for engagement rather than self-expression [24, 47]. Because algorithms prioritize attention-grabbing content, social media platforms increasingly incentivize sensational, polarizing material [41, 70], content that young people find inauthentic and stressful [32]. Nevertheless, young people do experience moments of positive connection and meaningful interaction on social media, suggesting potential for social media to support their relational needs and well-being [4, 49].

Therefore, this study examines how intentional, value-aware design [18, 33] can enhance young people's relationship-building experiences, focusing on dyadic connections within broadcast-oriented social media platforms such as Instagram. Drawing on design guidelines from prior work [3, 36, 49], we developed `WhoamI Today (WIT)`, a social media platform aimed at supporting youth relational needs through three core goals: facilitating initiation (e.g., sharing), enabling reciprocation (e.g., signaling interest and attention), and supporting positively-calibrated repetition (e.g., gauging trustworthiness and deciding whether to deepen intimacy or continue interaction cycles). We conducted a four-week crossover field study with 99 youth aged 15–25 [1] across the United States and South Korea, in which participants alternated between two versions of the platform: `CTRL`, which replicated archetypal broadcast-based social media patterns, and `EXP`, which incorporated features designed to scaffold relational processes, drawing from design principles in prior literature. For this paper, we focus on interview data from 21 participants to analyze how `WIT`'s design, at both the feature and platform level, influenced friendship-building experiences, perceptions, and behaviors.

Our study shows that relationally oriented design features can reshape how users perceive and enact social media behavior. Features such as daily prompts, question-sending, and status updates scaffolded low-stakes yet intentional initiation and supported authentic expression, while emoji reactions and private comments reduced ambiguity and stakes around the meaning of reciprocal actions. Participants reported engaging with the platform even when others appeared less active or when they received fewer responses, because the design diversified pathways to meaningful engagement: prompts sparked curiosity about others' perspectives, question-sending conveyed genuine interest, and the reflective nature of questions provided intrinsic satisfaction through self-discovery. Combined with a feed design that eliminated concerns about "taking up space" in others' feeds ("profile-list feed"), these mechanisms transformed posting from performance into a form of mutual exploration and personal expression.

At the same time, these designs introduced tensions that shape how and with whom young people connect. Designs that promote intentionality—such as sending questions directly to a friend—make care and attention unmistakable, but they also remove the "social cover" that a casual Like or reaction provides, where interest can be shown without risking rejection. This loss of plausible deniability means such features are better for deepening established ties than for initiating new ones, where social stakes are higher. Similarly, the profile-list feed gave every friend equal visibility and reduced fears of oversharing, but at the expense of the serendipitous encounters with weaker ties that a scrollable feed

[1] Our recruitment targeted participants aged 15–24 in line with WHO and UNICEF definitions of youth. However, one participant was 25. Because we recruited in small groups of at least two (average three to four) for ecological validity, excluding that individual would have disrupted the recruitment process. Given the length and demands of the four-week study, we anticipated a relatively high dropout rate. In addition, because we ran four different groups and wanted sufficient statistical power, we aimed to recruit more participants overall. These combined factors made flexibility in age cutoffs important.

enables, and made browsing and reacting to such ties feel uncomfortably deliberate. These trade-offs underscore the need to support different gradients of intimacy rather than rely on a single model of connection. By identifying these dynamics, this work clarifies how design shapes friendship building on social media, demonstrates what supports trust and authentic connection, and points to future directions for accommodating relational needs across varying levels of closeness.

2 Related Work

2.1 Meaningful Self-Disclosure and Authentic Self-Presentation in Adolescent Relationships

Relationship science identifies self-disclosure as a central mechanism for forming and deepening close ties. Disclosure is not merely the revelation of private facts; it is a social behavior through which people signal intimacy, seek validation, clarify self-concepts, and strengthen bonds [3, 25, 43]. Derlega and Grzelak's five functions—social validation, social control, self-clarification, self-expression, and relationship development—map closely onto developmental tasks of adolescence, a period marked by identity exploration and heightened need for acceptance [25, 30, 54, 64, 68]. Classic accounts emphasize that even mundane disclosures accumulate into connectedness [9].

In everyday interaction, disclosure often appears as "bids for connection." Responses that turn toward bids nurture relationships; turning against or away strains them [35, 36]. During adolescence—when peer ties scaffold identity and belonging—supportive responses bolster self-worth, while dismissive reactions fuel isolation [21, 30, 57]. Social media extends these dynamics: teens make digital bids via posts, comments, and DMs [20, 39], with disclosure serving validation, impression management, emotional release, and relational deepening [3, 12, 75]. Yet platform-mediated bids carry interpretive risks that face-to-face interaction avoids. A Like, a follow, or a direct message must be parsed for intent: Casual or invested? Expecting reciprocity or no? Because digital signals lack the contextual cues of co-presence, both senders and recipients face uncertainty about how gestures will be read [29, 65].

Uncertainty Reduction Theory (URT) [8] and Social Penetration Theory (SPT) [3] clarifies why disclosure functions differently across relationship stages. Individuals seek to reduce uncertainty about others, particularly in initial interactions, and self-disclosure drives this reduction [8, 66]. Early in a relationship, disclosure is exploratory: people reveal information to test compatibility and signal openness to further exchange. As uncertainty decreases, disclosure shifts from information-seeking to intimacy maintenance [51]. This interpretive burden falls unevenly across relationship types. In established relationships, partners have developed shared understandings and demonstrated mutual interest through repeated exchange [3]. Uncertainty runs low, and direct engagement reads as care rather than presumption. Weaker ties operate under persistent ambiguity: without established rapport, even small gestures require decoding. The same affordances may thus support close relationships while introducing friction for peripheral ones.

2.2 Barriers to Meaningful Disclosure and Authenticity on Social Media

Despite the developmental importance of self-disclosure, social media environments present significant obstacles that inhibit authentic sharing among adolescents. Privacy concerns represent the most fundamental barrier, as teens must navigate complex interpersonal privacy challenges while managing their digital footprint across diverse audiences [77]. Developmentally heightened self-consciousness (the "imaginary audience") and opaque audiences online intensify scrutiny fears and context collapse [11, 28]. Persistent content, oversharing stigma, and networked privacy create vulnerability even for savvy teens [13, 40, 54]. Real-world social pressures further complicate privacy management, as phenomena like "cancel culture" and the practice of saving "receipts" leave teens feeling vulnerable and disempowered

about their privacy [11, 71]. This creates what researchers term "resigned pragmatism," where teens engage in privacy protection measures while simultaneously feeling resignation about their effectiveness [1, 71].

The image-forward nature of many social media platforms compounds these challenges by promoting social comparison and strategic self-presentation over authentic expression. The asynchronous nature of digital communication, while allowing for more controlled exchanges, often leads to carefully curated content that prioritizes favorable impression management over genuine sharing [62, 69]. The broadcasting nature of social media amplifies adolescents' heightened self-consciousness, creating an "online authenticity paradox" where users aim for authenticity but feel compelled to share only positive experiences due to the risks associated with vulnerability [38]. Photo sharing particularly exacerbates these concerns, as the visual nature of platforms promotes social comparison with meticulously curated images, leading to unhealthy comparisons and amplified emphasis on self-presentation rather than authentic connection [17, 31, 75].

2.3 Technology Designs to Support Meaningful Self-Disclosure and Authentic Self-Presentation

Recognition of these barriers has spurred the development of design approaches that scaffold authentic self-disclosure and relationship building among adolescents. Ephemeral sharing represents one of the most promising directions, with research on platforms like Snapchat, Instagram Stories, and BeReal demonstrating how temporary content can reduce self-consciousness and encourage more casual, authentic exchanges [7, 16, 47, 52, 74]. Despite potential context loss, ephemeral posts grant users greater control over their narrative and privacy while enabling deeper, more playful interactions [14, 26].

Audience control mechanisms provide another crucial design strategy, allowing users to create more intimate spaces within broader social media platforms. Secondary accounts like "Finsta" demonstrate how users actively reconfigure existing platforms to establish smaller, more intimate environments that enable sharing of unfiltered and emotionally expressive content [73]. Similarly, features that enable selective content sharing with specific circles allow users to segment their audiences and make targeted bids for connection [44]. Pseudonymity, as exemplified by platforms like Tumblr, can foster greater trust and promote authenticity, particularly benefiting marginalized individuals seeking safe spaces for genuine self-expression [6, 22, 27].

Recent work has further advanced understanding of effective privacy features, showing that those minimizing impact on others while requiring minimal user effort can establish privacy as a community norm rather than individual burden [46]. "Trust-enabled privacy" extends this framework by treating boundary regulation as fundamentally relational: platform design shapes interpersonal trust dynamics that influence disclosure decisions. The goal is to create environments where self-disclosure feels lower-stakes through frequent, low-risk interactions and high perceived partner responsiveness [49]. Research on effortful communication suggests that features requiring discretionary investment of time and effort can foster closeness and meaningful connections [45, 76]. Systems that reduce pressure for immediate responses, provide private status sharing, and offer sender-controlled notifications help create more conducive environments for meaningful interactions [15]. Additionally, platforms that curate content based on interests rather than existing social ties, such as TikTok's "For You" page, can provide users with a sense of anonymity while promoting supportive community dynamics around shared interests [6, 60].

3 `WIT` System Design

We designed and deployed `WIT`, a social media app with two distinct versions to investigate how design features influence youth relationship-building.

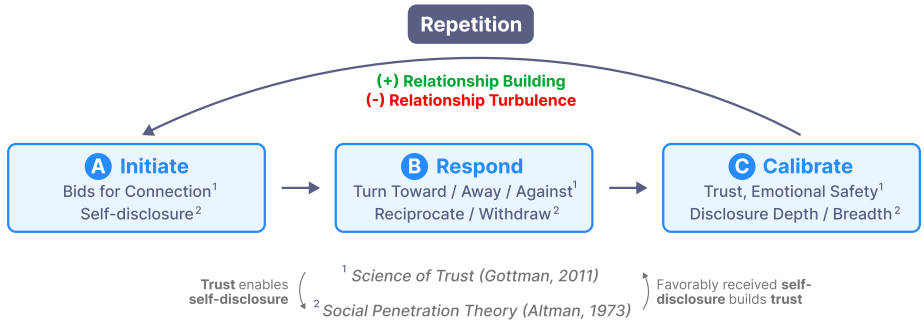

Fig. 1. Suggested theoretical framework for relationship-building in social media.

3.1 Theoretical Framework for Design

Figure 1 illustrates our framework for relationship-building in social media, synthesizing Gottman's Theory on trust-building in relationships [36] and Social Penetration Theory [3] to identify three critical interaction stages. The framework posits that successful relationship development requires: (A) Initiation through bids for connection and self-disclosure, (B) Response through reciprocation or withdrawal, and (C) Calibration of emotional safety level and disclosure depth. These micro-interactions form a repetitive cycle that either builds trust and intimacy or leads to erosion over time.

This framework guided our feature development by highlighting three key design requirements. First, platforms must enable personal disclosure by reducing the emotional barriers to self-disclosure. Second, they must support dyadic relationship building by providing clear reciprocation signals. Third, they must support users to calibrate their trust and emotional safety toward specific individuals, thereby adjusting disclosure depth based on response patterns.

3.2 Experiment Version (EXP) Design Guidelines

The EXP version of the app was designed based on the design guidelines provided in Kim et al. [49] that build upon the framework. The paper discusses how privacy mechanisms focused on building trust are more effective in networked environments, especially where privacy concerns are interpersonal and hinder low-stakes disclosure that teens find meaningful for building social connections. The design guidelines suggest 8 different design ideas supporting initiation (starting interactions), reciprocation (signaling mutual interest), and positive calibration (building trust or intimacy through repetition) in social media interactions.

Through iterations based on co-design interview data and design workshops with the research team and three industry-level product designers, we concretized each design concept into specific features. The design team met weekly over 20 months before finalizing the designs. Of the 8 design guidelines, we excluded setting clear trust-centered norms. We deliberately omitted explicit norms to study how users naturally interpret design features and negotiate platform culture. This approach allowed us to observe how social expectations emerge organically from affordances like private comments and question sending, rather than from prescriptive messaging. From prior literature, we know that clear expectation setting works in shaping community norms [58], so its effect did not need to be questioned or tested.

In contrast, CTRL replicated familiar patterns from Instagram, the most commonly used platform in prior studies and among our participants. The taxonomy of features incorporated in EXP, their underlying design principles from Kim et al., and their corresponding features in CTRL are outlined in Table 1.

Table 1. Comparison of EXP Features and CTRL Equivalents

EXP Feature	**Description**	**Supported Relationship Building Process**	**Design Principle [49]**	**CTRL Equivalent**
Daily Prompts (Figure 2A)	Users receive five new questions each day, and one of them is sent via notification.	Initiation	Guided Disclosure: *"provide clear guidelines and expectations around posting, reducing uncertainty and the need for users to interpret implicit social expectations independently"* [49]	Daily notifications without highlighting a specific prompt (e.g., `[username], quick reminder to share something with your friends today!`)
Sending Prompts (Figure 2B)	Users can choose from any of the Daily Prompts they have received in the past and send one to a specific friend (Figure 2Ba), with notifications for both sending and receiving replies (Figure 2Bb).	Reciprocation	Mutual Commitment: *"allow viewers to opt in or out of content while requiring them to agree to the space's rules before joining, ensuring mutual commitment and accountability for both the sharer and the audience"* [49]	N/A
Close Friend Settings (Figure 2C, Figure 2D)	When creating a post, the default audience is set to close friends. Total friend counts remain hidden; only mutual friends are displayed. Users can choose `Apply this change to past posts` via a checkbox.	Repetition	Contextual Disclosure: *"enable segmentation of posts for specific interest groups, ensuring content reaches the right audience"* [49]	Similar to Instagram: new connections default to Friends, posts visible to Friends, and total friend counts are displayed.
Emoji Reactions, Private Comments, Hidden Likes (Figure 2E)	Users can react to posts with emojis like Likes. The number of likes is not displayed to author or audience. Private comments can be written so only the author can see them.	Reciprocation	Intentional Signaling: *"encourage more meaningful, context-specific reactions beyond simple 'Likes'"* [49]	Regular Likes and comments on posts; total number of Likes displayed (Figure 3I).
Status Update (Figure 2F)	Users can update music or mood on their profile.	Initiation	Low-Stakes Disclosure: *"offer casual, subtle, or ephemeral sharing options that lower the pressure to curate perfect content"* [49]	N/A

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EXP Feature	Description	Supported Relationship Building Process	Design Principle [49]	CTRL Equivalent
Persona & Social Battery (Figure 2G)	Users can set multiple personas (e.g., `Daily Scroller`, `Emoji Fan`) and display a social battery label (e.g., `Completely Drained`, `Fully Charged`) indicating availability.	Repetition	Contextual Clarity: *"allow users to add contextual information, reducing likelihood of misunderstandings and misjudgments"* [49]	N/A
Profile-list Feed (Figure 2H)	Feed with a list of profiles and summary of updates. Users can pin favorite friends; an `UP` label appears when a friend has posted or updated.	Repetition	Self-Contained Disclosure: *"ensure that every user has a dedicated space from the start, enabling them to share without worrying about burdening others by "clogging" their feeds"* [49]	Public feed displaying all post types in reverse chronological order (Figure 3J).

3.3 EXP Feature Specifications

The experimental version introduced seven integrated features designed to scaffold relationship-building.

3.3.1 Initiation Support Features. Three features reduced the emotional stakes of starting interactions by providing structured prompts and lightweight ways to signal contexts.

Daily Questions. Inspired by studies of BeReal and similar platforms, which show that scheduled prompts reduce the stakes of participation while normalizing frequent, lightweight sharing [47], we built a system that generated five prompts per day. We curated questions from commercial conversation cards and generated additional youth-oriented questions using an LLM to expand the pool.[2] All users received identical daily question sets (translated by language) with one highlighted via push notification. Questions remained accessible for one week through a dedicated Questions tab (Figure 2A).

Question-Sending. Prior work notes that posting can sometimes be interpreted as self-promotional rather than relational, making the act of posting feel risky or prone to judgment [49]. To address this, we allowed users to forward any of the daily questions directly to friends, creating a light nudge that invited interaction without requiring an open-ended post. This feature made it easier to initiate exchanges by giving users a ready-made conversational starting point, while also framing activity as a response to a prompt rather than an unsolicited broadcast. Because it was not visible whether a post was prompted or self-initiated, participants retained flexibility in how their contributions were interpreted, lowering social risk while encouraging more frequent bids for connection (Figure 2B).

[2]We generated the original question pool by collecting questions from online sources and commercial reflection card decks, including Holstee Reflection Cards [42], We're Not Really Strangers [72], and Prompta Conversation Cards [59]. We then used Claude 3.5 Sonnet [5] to both refine the collected questions and generate new questions with similar themes that would interest teen/youth users. The refinement prompt was: "refine these questions if needed. if they sound too stern or complex or formal for 15-24 year olds, make it more interesting without making it overly so to the degree that they would find it to be cheesy for old people trying too hard. also i want to remove bad questions, bad questions as in 1. cringy for 15-24 year olds 2. too difficult/abstract/broad to answer 3. political or social in a way that could lead to heated debates and some people using it as opportunities to come off as smart not in a genuine way (e.g., should AI be banned) 4. repetitive questions if there are too many of the similar ones, just leave the one best one." We excluded potentially controversial or debate-inducing topics (criterion 3) based on prior research where teen participants identified such discussions as key factors that break trust and create hostile environments on social media platforms.

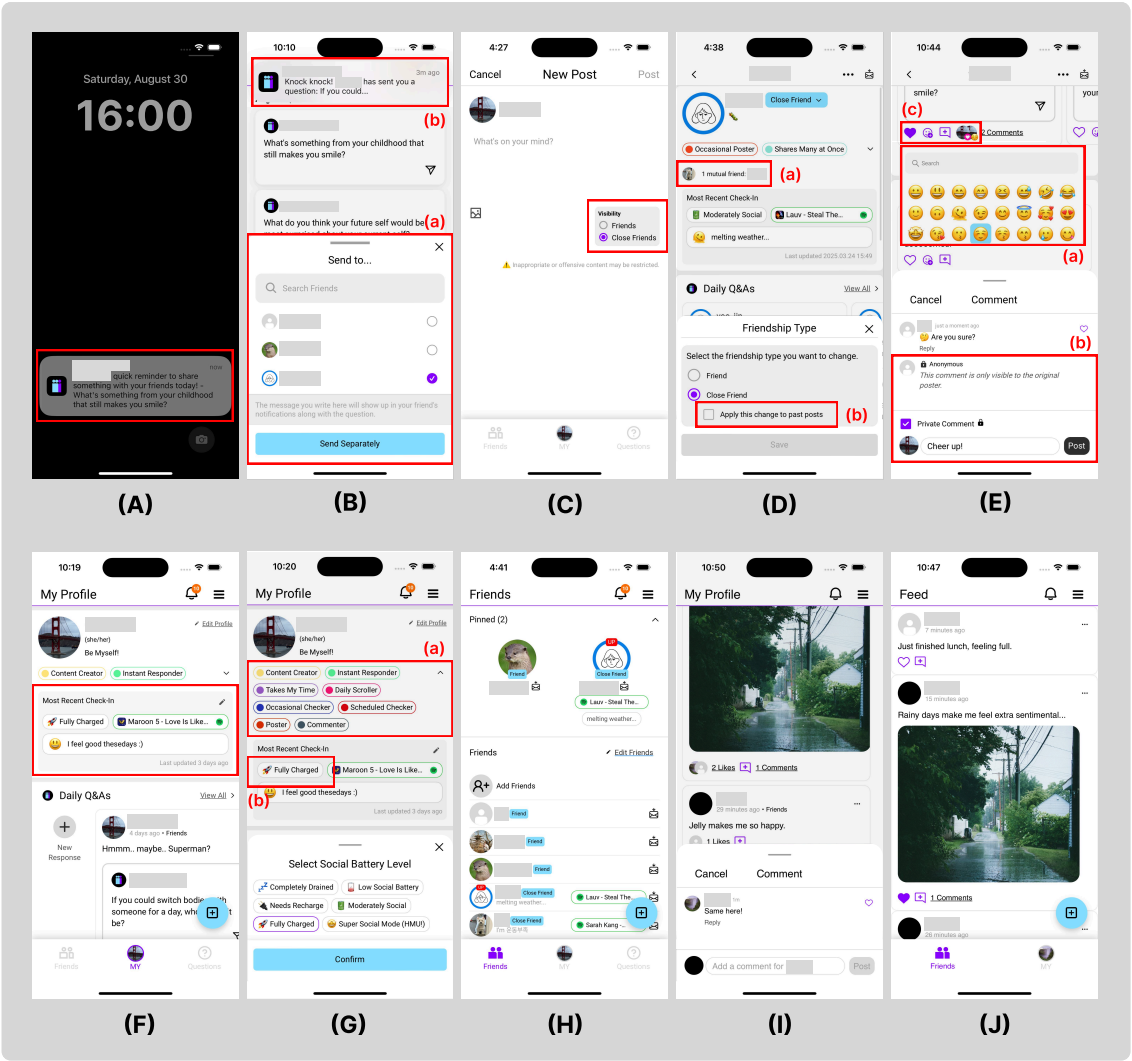

Fig. 2. Screenshots of EXP and CTRL features. (A) daily prompts (EXP); (B) sending prompts (EXP); (C) `Close Friends` as the default audience for posts (EXP); (D) deemphasized friend counts & option to apply friendship status change to future posts only (EXP); (E) emoji reactions, private comments, hidden likes (EXP); (F) status update (EXP); (G) persona & social battery (EXP); (H) profile-list feed with an UP label for updates (EXP); (I) regular likes and comments on posts (CTRL); (J) public feed (CTRL).

Status Updates. Users could share lightweight signals of their current state through profile updates, offering a low-stakes and low-intensity form of expression. There were a couple structured ways to update their status: they selected mood states from a standard Unicode emoji picker [56], set social battery levels across five states from `Completely Drained` to `Fully Charged`, and shared chosen music through Spotify API integration [63]. These indicators remained visible on profiles until users manually updated them (Figure 2F,G).

3.3.2 Reciprocation Support Features. Two features enabled users to signal genuine engagement without the pressures of public performance or obligatory responses.

Emoji Reactions. Prior studies show that Likes often feel obligatory and fail to convey meaningful engagement, while quantified counts invite comparison and pressure [49]. To counter this, we removed visible tallies of Likes and additionally allowed users to select any number of Unicode emojis of their choice, paired with a small preview showing up to three reactors' profile pictures. This made reactions more expressive and signaled real attention rather than perfunctory acknowledgment (Figure 2E).

Private Comments. Evidence also suggests that private, non-performative responses are often perceived as more authentic [49]. We therefore allowed comments to be marked private, making the content of the comment viewable only by the original poster. This gave participants a way to engage in ways that are (expected to land) more sincere without worrying about performance in front of an audience, while still leaving a visible trace that interaction had occurred so the presence of other users can be felt (Figure 2Eb).

3.3.3 Positive Calibration/Repetition Support Features. Three features supported gradual trust-building by giving users interpretive context and fine-grained control over their visibility and influence.

Profile-List Feed. Research highlights that conventional feeds, where posts automatically fill others' timelines, can make frequent posters feel like they are taking up too much space and can undermine trust among users [49]. Our design replaced the infinite scroll with a feed that resembles the list of contacts on chat apps, where each friend occupied equal space and their latest updates were summarized via status, music, and indicators of unseen activity. Users could pin friends to the top for easier access. This structure gave everyone the same surface area of attention and reduced the risks of unwanted exposure or friction (Figure 2H).

Context Indicators. Prior studies suggest that when teens can present themselves across multiple casual dimensions, disclosures feel less risky and more accurately understood. On our platform, users could select social media usage "personas" such as `Emoji Fan` or `Daily Scroller`. These features offered interpretive context, helping others gauge how to approach interactions and reducing the likelihood of misjudging intent (Figure 2Gb).

Privacy Defaults. Prior work shows that teens often feel pressured to broaden visibility to maintain peer norms; by making `Close Friends` the default audience for posts, the platform itself signaled that strong privacy boundaries were expected and respected. Friend counts were removed except for the number of mutual friends, and users could switch a contact's status between Friend and Close Friend with an option to apply this only to future posts. This design cued users to make deliberate choices while reducing the fear of retroactive oversharing (Figure 2C,D).

3.4 `CTRL` Feature Specifications

The control version provided a baseline resembling Instagram's core interaction patterns. Users encountered a reverse-chronological, scrollable feed where all friends' posts appeared immediately upon creation. Social signals remained fully transparent: public like counts on posts, visible comment threads, and displayed friend counts on profiles. Posts defaulted to all-friends visibility, though users could manually select close friends per post.

3.5 Shared System Defaults

Both versions provided basic social media capabilities that remained consistent throughout the study. [3] Users could create posts containing text and images, build social networks by adding friends through username search, and engage with others' content through various mechanisms. Both versions included removable and editable posts, notifications, messaging, various settings, personalization

[3]During the experiment, we identified and resolved several software issues across the app frontend, backend, and platform-specific repositories (Android/iOS). These included bug fixes (e.g., login errors), minor user interface adjustments (e.g., improving button visibility), and backend changes (e.g., improved event logging). While we implemented these updates during the study period, we did not intend them to alter the study design or intervention logic. Nonetheless, because participants experienced different versions of the app depending on timing and platform, these changes could have influenced user interactions and should be considered when interpreting results. Details of the changes appear in Appendix B.

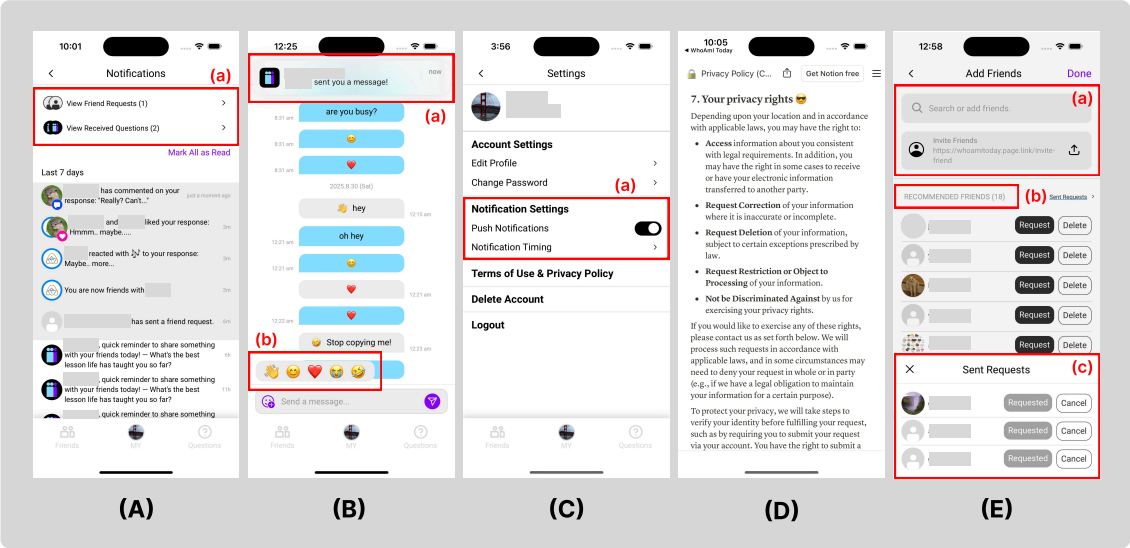

Fig. 3. Screenshots of shared system defaults between EXP and CTRL. (A) notifications; (B) messaging; (C) settings; (D) terms of use and privacy policy; (E) adding friends.

(e.g., profile update), user blocking, and user/content reporting, and access to Terms of Service. Table 2 provides details of the shared system defaults.

3.6 Technical Implementation

WIT was implemented as a web-based application accessible through mobile apps via WebView on both iOS and Android devices. The frontend used React 18.2 with TypeScript, providing responsive interfaces that adapted to diverse device sizes and operating systems. Firebase handled authentication and push notifications. The backend ran on Django with REST Framework, containerized through Docker for consistent deployment across development and production environments.

The platform supported full internationalization through i18next, automatically detecting user language preferences and switching between Korean and English interfaces. This was essential given our cross-cultural participant pool, with 40.4% of users from Korea.

A feature flag system managed the crossover design, dynamically toggling which features were accessible based on participant assignment and study phase. Participants experienced each version for two weeks, with automatic switching at midnight local time on day 14. The system maintained version state server-side to prevent manipulation while ensuring seamless transitions for users across different time zones. This architecture enabled deployment of a single codebase while ensuring participants only accessed appropriate features for their assigned condition, essential for maintaining experimental integrity across our four study groups (US CTRL-first, US EXP-first, KR CTRL-first, KR EXP-first).

4 Method

We conducted a four-week field deployment with 99 youth participants to examine how specific design features influence self-presentation and trust-building in social media. The study procedure comprised onboarding, two phases of platform use (two weeks per version of WIT), daily surveys, design evaluation surveys after each phase, and optional follow-up interviews. Our crossover experimental design allowed all participants to experience both a control version resembling Instagram (CTRL) and an experimental version with features designed to support intentional engagement (EXP), so that during interviews, participants could reflect on the

Table 2. Summary of Features and Descriptions

Feature	Description
Notifications	Received friend requests and received questions are shown in separate views (Figure 3Aa). A scheduled daily notification delivers a prompt at a predefined time, and regular notifications are triggered by activities such as likes, emoji reactions, friend requests, received questions, and comments. Notifications are also grouped into `Last 7 Days` and `Earlier`, with a button to mark all as read (Figure 3A).
Messaging	A lightweight message system where friends can send short text with one of five predefined emojis (Figure 3Ba). Notifications appear as push alerts (Figure 3Bb). Messages are updated on the page asynchronously rather than in real time. Users have to click the `refresh` button at the top to view new messages.
Settings	Users can modify the time of daily notification delivery (Figure 3Ca). Users can edit profile information including username, profile image, pronouns, password, and bio. Users can delete their account permanently or log out (Figure 3C). Terms of Use and Privacy Policy are accessible for reference (Figure 3D).
Add Friend	Users can invite others by sharing a deep link to the app or search and add friends using in-app usernames (Figure 3Ea). Recommended Friends are displayed in the `Add Friends > Recommended` tab, showing up to 25 users with the highest number of mutual friends, followed by up to 10 additional users selected at random (Figure 3Eb). Users also have access to the list of pending friend requests sent by themselves (Figure 3Ec).
Content and User Reporting	Users can report any post or user within the app. Once a report is submitted, the reported content is automatically hidden from the reporting user's view. The reporting feature is accessible directly from posts and user profiles.

experimental features in direct comparison to the familiar baseline. While we collected comprehensive data across all procedures, this paper focuses specifically on behavioral logs and interview data.

Table 3. Interview Participant Details. Abbreviations: **Social media use** — IG (Instagram), DC (Discord), SC (Snapchat), TT (TikTok), BR (BeReal), X (Twitter/X), RD (Reddit), FB (Facebook), TH (Threads), TB (Tumblr), LK (Locket). **Country** — US (United States), KR (Korea).

PID	Age	Gender	Ethnicity	Country	Social media use	Order	*	**
P01	17	Girl/Woman	Asian or Asian American	US	IG, DC, BR, RD, LK	EXP-first	4	3
P02	16	Girl/Woman	Asian or Asian American	US	IG, DC	EXP-first	4	0
P03	23	Girl/Woman, Non-binary/Third gender	Asian or Asian American	US	IG, DC, BR, TB	EXP-first	2	3
P04	18	Girl/Woman	Asian or Asian American	US	IG, DC, SC, TT, RD	CTRL-first	3	10
P05	19	Boy/Man	Other	US	IG, DC, SC, TT, RD	EXP-first	5	1
P06	20	Girl/Woman	Asian or Asian American	US	IG, DC, SC, TT, BR, RD, FB	EXP-first	4	0
P07	18	Girl/Woman	Asian or Asian American	US	IG, DC, TT	CTRL-first	4	16

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PID	Age	Gender	Ethnicity	Country	Social media use	Order	*	**
P08	21	Girl/Woman	Asian or Asian American	KR	IG	CTRL-first	2	11
P09	17	Girl/Woman	Asian or Asian American	US	IG, DC, SC, TT, BR, RD	EXP-first	3	3
P10	19	Boy/Man	Asian or Asian American	KR	IG, BR	EXP-first	4	3
P11	20	Girl/Woman	Asian or Asian American	KR	IG, BR, X, RD, FB	EXP-first	4	8
P12	24	Girl/Woman, Non-binary/Third gender	Asian or Asian American	US	IG, DC, SC, TT, X, RD, FB	EXP-first	2	4
P13	18	Non-binary/Third gender	Asian or Asian American	US	IG, DC, SC, TT, X, RD, FB	EXP-first	4	6
P14	17	Girl/Woman	Asian or Asian American	US	IG, DC, SC, TT, BR, X	CTRL-first	6	14
P15	19	Girl/Woman	White	US	IG, DC, SC, TT, BR, X, RD, TH, TB	EXP-first	3	0
P16	19	Girl/Woman	Black or African American	US	IG, DC, TT, TH	CTRL-first	3	22
P17	21	Boy/Man	Asian or Asian American	KR	IG, TT, FB	EXP-first	4	3
P18	15	Girl/Woman	Asian or Asian American, White	US	IG, DC, SC, BR, X, RD, FB	EXP-first	5	2
P19	21	Girl/Woman	Asian or Asian American	KR	IG, TT, X, TH	CTRL-first	2	10
P20	24	Girl/Woman	Hispanic or Latino	US	IG, DC, SC, TT, X, RD, FB	CTRL-first	3	6
P21	21	Girl/Woman	Asian or Asian American	KR	IG, X, FB, TH	CTRL-first	2	6

Note. *: Number of friends who signed up together for the study; **: Number of friends newly added on the platform during the study.

4.1 Study Operations

4.1.1 Participants. As summarized in Table 4, we recruited 99 participants aged 15–25 (M=18.7, SD=2.4) across the United States (N=59, 59.60%) and South Korea (N=40, 40.40%). Participants identified as girls/women (61.62%), boys/men (35.35%), non-binary/third gender (6.06%), or unlabeled/gender fluid (1.01%). 71.72% identified as Asian or Asian American, 19.19% as White, 7.07% as Hispanic or Latino, 3.03% as Black or African American, 2.02% as Native American or Other Pacific Islander, and 1.01% as Other. All participants were active social media users, with Instagram being universally used (100%), followed by Discord (60.61%), TikTok (49.49%), Twitter/X (45.45%), and Facebook (42.42%).

Recruitment occurred through multiple channels. For US participants, we contacted approximately 400 individuals from an established participant pool of youth who had participated in previous studies or expressed interest in future research. This pool was initially built in 2022 through Instagram advertisements targeting users aged 13-18 in the U.S.. We supplemented this with recruitment through university communication channels and word-of-mouth. For Korean participants, we distributed recruitment materials through university community boards, high school academic websites, and direct outreach to high school teachers. We also leveraged university-related group chats, online communities, and personal networks to reach eligible participants.

To participate, individuals were asked to recruit 2–5 in-real-life friends to join the study as a group, ensuring at least a minimal baseline of existing connections. This requirement both created opportunities for meaningful interaction and helped verify participant legitimacy. Groups of friends enrolled together and were assigned to the same experimental condition to preserve ecological validity; participants from different countries were kept separate and did not interact

with one another. Additionally, we required participants to add non-in-real-life friends upon study commencement to achieve ecological validity through having an audience on the platform with whom they lacked established friendships—a phenomenon commonly reported in prior research that leads to context collapse—and to encourage engagement with privacy affordances on our platform.

Given significant issues with fraudulent sign-ups in prior studies, we implemented stringent verification procedures. We filtered participants based on IP risk scores, geographic location verification, email address validity, response consistency across screening questions, and good-faith engagement with open-ended questions. Additionally, we required participants to consent to identity verification if requested. [4] Participants who had previously taken part in interview studies with cameras on, their referred friends, and participants with verifiable university email addresses and their friends were exempted from additional identity checks.

4.1.2 Conditions. We employed a crossover design with two conditions: CTRL (control) and EXP (experiment). CTRL resembled archetypal broadcasting social media platforms like Instagram, featuring a chronological feed, public Like counts, standard commenting, and regular visibility settings where posts are shared with all friends by default. EXP introduced seven features designed to support relationship-building through three core principles: (1) making initiation of interactions feel less high-stakes, (2) making reciprocation clearer and more intentional without ambiguity of genuine interest, and (3) foregrounding control to prevent unnecessary trust erosion, as laid out in Section 3.

Participants were randomly assigned to one of two groups: starting with CTRL then switching to EXP (CTRL-first, n=47), or starting with EXP then switching to CTRL (EXP-first, n=52). This counterbalanced design controlled for order effects while allowing us to observe how feature exposure influenced subsequent platform use. Each phase lasted two weeks, with surveys administered at transition points to capture immediate reactions to each version's features. The platform was available as a native mobile application on both iOS and Android devices through official app stores. The version switched automatically for the all users upon the 2-week period at the same time.

4.2 Measures and Analysis

4.2.1 Behavioral Data. We collected comprehensive interaction logs capturing all user activities within the platform. From the initial 99 participants, we used data from 53 who completed onboarding in both phases, qualified by submitting at least one diary entry and visiting the platform during the 4-day mandatory use period. We analyzed participants' daily frequencies of posting (regular posts + responses) and of reactions (Likes, emoji reactions, (private) comments). Both outcomes are count data, so we applied Poisson models [19]. In terms of regular posting, 653 of 1,537 participant-days (42.5%) showed zero values, indicating zero inflation with no serious overdispersion. In terms of reactions, 694 of 1,113 participant-days (62.4%) showed zero values, and the overdispersion ratio was 3.12 ($p < .001$), indicating both zero inflation and overdispersion. To account for these distributional properties and the repeated-measures design, we fit GLMMs with random intercepts for participants, comparing Poisson, zero-inflated Poisson (ZIP), and zero-inflated negative binomial (ZINB) models [10]. In terms of model selection, we examined log-likelihood, AIC, and BIC. AIC was treated as the primary criterion as it balances fit and complexity, while log-likelihood and BIC were used to double-check that the chosen models did not reflect overfitting or overly conservative penalties [2].

[4] The following text was included verbatim in the consent form and sign-up survey: "*Unfortunately, we've had issues in the past with people signing up under fake identities—like older adults pretending to be teens or people making tons of spam accounts with fake responses. To make sure our research stays accurate, we need to verify in later stages of this research that you're a real person and actually within the 15–24 age range. You can verify in any way that works for you—like showing a school ID (with any private info covered), a social media profile that matches your age, or anything else reasonable. How you do it is up to you, but it is required.*"

4.2.2 Semi-Structured Interviews. Twenty-one participants (see Table 4 for demographics information) completed optional 45–60 minute semi-structured interviews after study completion, receiving additional compensation. Interviews explored participants' experiences with specific features, perceived impacts on their relationships, comparisons between versions, and suggestions for improvement. We conducted interviews via video call, audio-recorded with permission, and auto-transcribed for analysis. The interview protocol is available in Appendix C.

We analyzed interview data using reflexive thematic analysis, with two researchers independently coding transcripts and iteratively developing themes through discussion. The first author and the last author read through two transcripts line by line and identified initial themes to come up with the first set of codes. While there were other themes, for the scope of this paper, we focused on themes relevant to feature or platform evaluation. We did inductive coding through multiple stages and generated themes focusing on how specific design features influenced relationship-building behaviors and perceptions.

4.2.3 Compensation Structure. To encourage participation and reduce dropout, we implemented procedure-by-procedure reimbursement. Participants received $5 for completing signup and onboarding, $10 for completing Phase 1 (2 weeks), $5 for the mid-study survey (design evaluation survey for the first version they used), $20 for completing Phase 2 (2 weeks), and $10 for the post-study survey (design evaluation survey for the second version they used). Additionally, participants received a $10 bonus for completing all procedures and $10 for optional interview participation. Phase 1 and Phase 2 comprised mandatory platform usage for the first four days, followed by 10 days of voluntary usage and daily diary completion. We made daily surveys mandatory during Phase 1, but recognizing that requiring daily surveys when platform usage was voluntary created a contradiction, we made daily surveys voluntary alongside platform use during Phase 2. Participants who recruited friends received an additional $10 bonus when their referred friends completed onboarding. All compensation was distributed via Amazon or Tango digital gift cards based on participant preference and regional availability. The adherence rates for each procedure across demographic groups are shown in a heatmap in Figure 4.

4.3 Ethical and Cross-Cultural Considerations

4.3.1 Ethical Considerations. The study was reviewed and approved by the university's Institutional Review Board. Given that we worked with minors, participants under 18 provided parental consent. We implemented participant verification and built-in safety mechanisms such as blocking and reporting. Participants were reminded that the platform was a research prototype, and could withdraw at any point without forfeiting compensation for completed tasks. During onboarding, researchers explicitly encouraged candid feedback, clarifying that there were no "right" answers and that both positive and negative impressions were valuable. This transparency was especially important given that participants could easily discern which version reflected mainstream norms and which introduced unfamiliar design elements.

4.3.2 Participant Identification and Translation Conventions. Because the study included both Korean- and English-speaking youth, all surveys, communications (e.g., emails, consent form), and interface elements were provided in participants' preferred language. The first author, fluent in both languages and cultural contexts, reviewed all translations for accuracy and tone. When quoting Korean interviews, we provide an English translation in the main text and include the original in footnotes for transparency. Interview participants are cited in the format $I_{country,condition}$PID, where "country" indicates US or KR, "condition" indicates starting condition (`EXP` or `CTRL`), and PID indicates participant number (e.g., $I_{us,exp}15$).

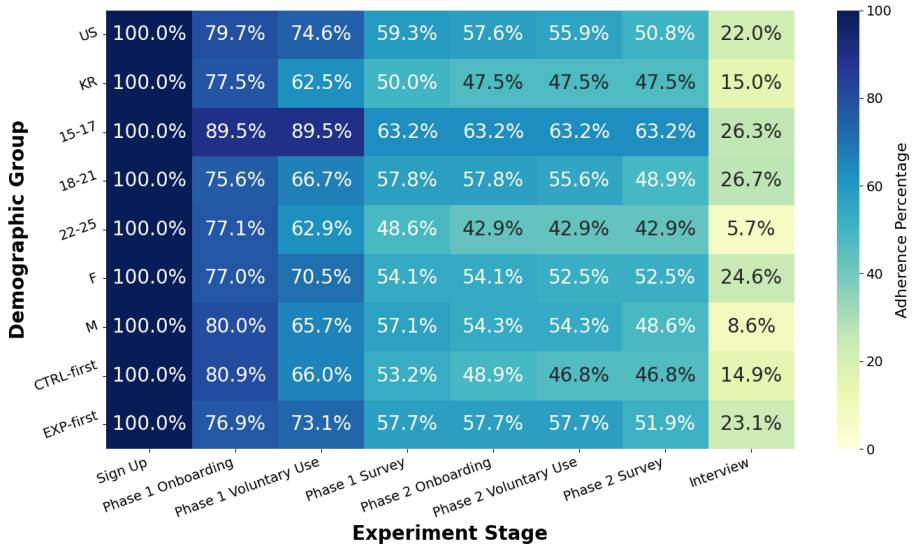

Fig. 4. **Study adherence rates by demographic and experiment stage.** Participation was operationalized in sequential steps: Phase 1 onboarding (≥1 diary entry and ≥1 platform visit during the 4-day mandatory use period), Phase 1 voluntary use (≥1 visit during the 10-day voluntary use period), Phase 1 survey, Phase 2 onboarding, Phase 2 voluntary use, Phase 2 survey, and interview participation. Each stage was defined as the intersection of the prior stage and the new condition, except for the interview.

5 Results

Our analysis reveals how EXP's design features worked together to support relationship building through five interconnected mechanisms: lowering barriers to authentic expression, enabling intentional person-directed connection, surfacing identity beyond the curated everyday, navigating an inherent tension between depth and breadth, and shifting users from extrinsic to intrinsic motivation.

5.1 Lowering Barriers to Authentic Expression

A central challenge in social media design is reducing the vulnerability users feel when posting. EXP addressed this through three complementary mechanisms: providing structured prompts that removed creative burden, redistributing agency from individual posters to the platform itself, and creating collective participation that made sharing feel less exposed.

5.1.1 Structured Scaffolding Removes Creative Burden. Daily prompts eliminated the blank-canvas problem that prevents regular posting. Participants contrasted this with free-form platforms: *"CTRL is like a blank canvas… you don't know what to fill it up with. But with EXP, you know exactly what the question is asking, and you know how you want to answer it."* ($I_{us,exp}02$) They similarly provided fallback activities when users lacked inspiration: *"the questions gave sort of like an underlying prompt… if you don't have anything that you want to post yourself per se. But you still want to interact… There was something for you to do."* ($I_{us,exp}12$) This scaffolding proved particularly valuable for users who struggle with initiation, transforming the platform into a conversational space with *"a pool of questions that you could ask to someone else who's interesting… almost just like a conversation starter."* ($I_{us,exp}02$)

The structured format also appealed to users who enjoy completing defined tasks. One participant explained: *"I like completing tasks, and I felt like I was completing a task in some way."* ($I_{us,exp}03$) This task-oriented framing provided clear behavioral templates that made engagement feel purposeful rather than aimless, contrasting with the open-ended nature of traditional social media where users must generate both content and motivation independently.

Status updates complemented these structured mechanisms by offering low-stakes emotional expression through music choices and emoji-based mood indicators. Participants appreciated this flexibility: *"with the questions, I guess a very directed sort of thing. But I guess with the check in it's like you have more flexibility and freedom."* ($I_{us,exp}12$) The ephemeral, decorative nature of these updates removed performance pressure entirely, feeling *"simpler… like profile decorating… closer to self-satisfaction"* ($I_{kr,exp}11$) [5]. Participants also noted that some users *"prefer decorating these things rather than posting"* ($I_{kr,ctrl}08$) [6], suggesting status updates served as an alternative expression channel for those uncomfortable with regular posting. The frequency of updates reflected their low-stakes nature: *"I just changed my check in a lot more, because it's, you know, a check in… I think I change my music like twice every day."* ($I_{us,exp}13$) Unlike story posts on Instagram that invite judgment, check-ins felt *"more of an in-the-moment type of thing… you don't expect them to judge you based on it… the check-in doesn't have a reaction to it."* ($I_{us,exp}13$)

5.1.2 Redistributed Agency Reduces Individual Vulnerability. Beyond providing structure, the prompt mechanism shifted perceived responsibility for posting from the individual to the platform. This redistribution fundamentally changed posting psychology: *"I was given a question. I'm responding to that question… I'm posting because I was asked to, and not because I want everyone to see it… it feels like less pressure to make it interesting."* ($I_{us,exp}01$) The shared nature of prompts created what participants described as communal vulnerability: *"there is some sense of community where we're all just sort of answering the question… I'm not coming up with this prompt… everybody's responding to the prompt… we're all in this together."* ($I_{us,exp}12$) This collective framing *"made the stakes feel a little lower."* ($I_{us,exp}12$)

The shared task structure also reduced vulnerability by creating a sense of mutual participation. Participants felt more comfortable engaging because *"you were doing the same task… everyone's being asked the same question. You feel more welcome to… send comments, or reply."* ($I_{us,exp}03$) This mutual engagement meant that responding to others' content felt less like intrusion and more like participating in a collective activity.

Question-sending operated similarly by providing psychological cover for reaching out. The asynchronous nature and private visibility lowered barriers compared to both direct messages and public comments. Participants found the act itself lighter: *"Sending questions is much simpler than writing posts… it's lighter and less burdensome… comfortable, easy, simple, can do it multiple times without burden"* ($I_{kr,exp}10$) [7]. The question format provided what we may call "air cover"—participants could reach out without the full weight of initiating contact resting on them alone.

5.1.3 Engaging Typically Passive Users. These scaffolding mechanisms successfully engaged users who typically avoid posting. One participant reported dramatic increases in group engagement: *"most of us… don't really post on social media as much… once we got into* EXP*, everyone's amount of interactions with the app increased by like 200%."* ($I_{us,exp}05$) Self-described lurkers found the format accessible: *"generally on social media, I'm not as much of a poster as I am like a lurker… I felt the questions feature was like an interesting way to do more posting myself… that didn't require as much*

[5] 조금 더 간편하기도 하고… 프로필 꾸미기 이런 느낌… 자기만족에 가까운 것 같아요.
[6] 게시글 같은 거 올리는 것보다 저런 걸 꾸미는 걸 더 좋아하는 사람들이 있잖아요.
[7] 질문을 보내는 행위가 게시글을 쓰는 것보다 훨씬 간단하고… 가볍고 부담이 덜 되어서… 되게 편하고 쉽고 간단하고 부담 덜 되게 여러 번 할 수 있겠다.

effort." ($I_{us,exp}12$) This engagement created positive feedback loops, with question-sending increasing app usage time, which *"naturally led to posting about various daily experiences"* ($I_{kr,exp}17$) [8].

5.2 Enabling Intentional, Person-Directed Connection

Where mainstream social media often defaults to broadcast communication, EXP's features enabled targeted, deliberate interactions that signaled genuine engagement. This intentionality operated across three dimensions: directing attention to specific individuals, requiring deliberate response selection, and focusing browsing on people rather than content streams.

5.2.1 Targeted Communication Through Question-Sending. Question-sending fundamentally restructured social media engagement from passive consumption to active initiation. On archetypal platforms, participants noted that *"someone has to start first before I can passively participate"* ($I_{kr,exp}17$) [9]. CTRL limited users to reacting *"only to what someone decides to post"* ($I_{kr,exp}17$) [10], whereas EXP's questions enabled *"drawing out interactions beyond that"* ($I_{kr,exp}17$) [11]. For users who struggle with initiation, this scaffolding proved valuable: *"Sometimes it's hard for me to start conversations with others. So I feel like with* EXP *it's nice… you don't have to really think of a question."* ($I_{us,exp}02$) The private nature removed social pressure: *"Without worrying about others' eyes… I can comfortably send it if I want to"* ($I_{kr,ctrl}19$) [12].

Question-sending created pathways for direct, one-on-one communication that participants recognized as more certain than broadcast posting. One participant explained: *"With posts, you can't be sure if someone will comment or react… but question-sending is one-on-one, and the person knows it was sent… it's more direct and certain for inducing communication"* ($I_{kr,exp}10$) [13]. This directionality benefited both senders and recipients. Senders appreciated being able to target questions to specific people (e.g., *"if there was this question that I thought a friend… I wanted to know their answer. And I could just ask them… I can target things"* ($I_{us,exp}01$)), while recipients valued the validation: *"they value my opinion, and therefore they would send me the questions"* ($I_{us,exp}05$) and *"they thought of me, you know they wanted to get to know me better."* ($I_{us,exp}13$) Recipients reported increased responsiveness as a result: *"When someone specifically wonders about this and sends it to me, I tend to answer more"* ($I_{kr,ctrl}21$) [14].

5.2.2 Deliberate Response Selection Through Emoji Reactions. Emoji reactions required greater engagement than passive liking, signaling genuine attention. The selection process demanded deliberation: *"Sometimes likes show a lack of effort in some ways… but with an emoji, it adds more personalization, with how you feel towards something."* ($I_{us,exp}02$) This effort requirement ensured content consumption: *"Liking is just… you can just scroll and Like… But with emojis you would have to see the post first and read it, and then you can react."* ($I_{us,ctrl}14$) The range of options also enabled nuanced communication that addressed what participants described as generational needs: *"Especially with this generation, you can't really tell the tone of texts if you don't use emojis… people that I'm close friends with use a lot of emojis and reactions. And that makes it really easy to tell what they're thinking."* ($I_{us,ctrl}04$)

5.2.3 Person-Centered Browsing Through Profile-List Feed. The profile-list interface promoted person-centered rather than content-centered browsing. Participants noted: *"Scrollable feed's disadvantage is… you can't distinguish who posted*

[8] 앱의 사용 빈도 시간이 증가하면서 자연스럽게 일상적인 어떤 다양한 상황이나 경험들을 포스팅을 하게 되는.
[9] 누군가가 그걸 시작을 해야지만 내가 수동적으로 participate할 수 있다.
[10] 올리기로 마음 먹은 거에만 반응을 할 수 있기 때문에
[11] 그거 이상의 상호작용을 이끌어내기.
[12] 남 시선을 신경 쓰지 않고… 편하게 내가 하고 싶으면 보내고.
[13] 게시글을 썼다고 해서 그 사람이 댓글을 달거나 반응을 하는 게 보이지는 않잖아요. 근데 질문은 일대일로 보내고 상대방이 보냈음을 인지하니까… 일대일로 소통하고 반응을 얻는데 있어서 게시글보다 상대방과의 소통을 유도하는 게 좀 더 직접적이고 확실하지 않나.
[14] 상대방이 딱 이게 궁금하다고 해서 나한테 보내준 거니까, 그런 것에 대해서는 답을 많이 하게 되는 것 같아요.

what… But EXP *'s profile-like feed lets you see only what a specific person posted when you want to know about them… you focus more on the person"* ($I_{kr,ctrl}21$) [15] This design provided fuller context when viewing someone's content: *"you kind of had to go to their profile. And then you see their Spotify update, or mood update… you kind of get the full context… this is the full user. Whereas with the scrollable feed, you're not seeing all of that along with their post."* ($I_{us,exp}12$)

The profile-list structure also amplified signals of intentionality in interactions. Because viewing required deliberate navigation rather than passive scrolling, reactions carried more weight: *"Questions aren't posted to the feed but require entering someone's profile… so leaving emoji reactions feels more like 'they intentionally came found me on this app"'* ($I_{kr,ctrl}08$) [16].

5.2.4 Low-Friction Personal Engagement Through Private Comments. Private comments addressed the need for contextual responses too minor for direct messages yet too personal for public display: *"a lot of times on platforms like Instagram, if I see something on a post and I don't want to write a comment for everyone to see, I'll have to send them a DM… it made it super easy to reply… DMing feels like a lot more work."* ($I_{us,exp}09$) The effort differential was significant: *"if I saw someone's post and I want to tell them something about it but I don't want everyone to see it, I have to DM them, but it's not worth DMing. So I just never say it."* ($I_{us,exp}05$) Private comments solved this friction by providing contextual anchoring that differentiated them from general messaging: *"DMing is more like casual conversation… private comments are more specific to what the post was about."* ($I_{us,ctrl}14$) Participants used them for sharing private details and making connections that relied on shared offline context, such as *"mentioning friends' real names"* ($I_{kr,exp}11$) [17] or *"saying things like 'I didn't know you liked that program'… conversations that come from real friendship context… it might feel awkward to put that online, so private comments felt more comfortable"* ($I_{kr,ctrl}21$) [18].

5.3 Surfacing Identity Beyond the Curated Everyday

EXP's design revealed dimensions of users' personalities that do not usually surface on social media, providing richer information for understanding others and assessing compatibility.

5.3.1 Accessing Values and Preferences Rather Than Activities. Daily prompts and question responses surfaced aspects of personality typically absent from social media. Participants recognized this distinction: *"If you have multiple social media accounts, generally you'll be posting the same things… But for* EXP *I can actually see what they think. What's their opinion on this topic… It's just new way of looking at someone."* ($I_{us,exp}05$) The questions accessed authentic self-expression: *"[*EXP*] is more me. Whereas* CTRL *seems like more people were posting pictures about their day-to-day life… But* EXP *lets you talk more about your personality."* ($I_{us,exp}03$) This depth benefited social understanding: *"Questions are quite detailed and people answer with their values and thoughts… rather than simple daily sharing, answering questions lets you know others better"* ($I_{kr,ctrl}19$) [19].

The question variety also surfaced topics absent from typical social interactions: *"There were a lot of random things I learned about, like preferences, or what people would choose. And it's just topics that wouldn't really ever come up in any other circumstance."* ($I_{us,exp}09$) These discoveries created future conversation seeds while revealing unexpected

[15] Scrollable feed의 단점은… 누가 무슨 글을 올렸는지 그게 그냥 분간이 안 된다… EXP의 그 프로필처럼 나와 있는 피드는… 어떤 사람에 대해서 자세히 알고 싶을 때 그 사람이 올린 글들만 보일 수 있으니까… 사람에 좀 더 집중을 하게 된.

[16] 질문을 대답한게 약간 피드로 올라오는 게 아니라 그 사람의 프로필을 들어가야 볼 수 있더라구요… 이모지 같은 걸 남겨주는 게… 뭔가 이 앱에서 나를 찾아줬다는 느낌이 강한 것 같아요.

[17] 친구의 실명을 언급해야 할 때

[18] 땡땡이는 뭐 이런 이런 프로그램을 좋아하는지 몰랐네… 실제로 두 사람이 알고 있는 사이고 원래 그런 쌓았던 친분 속에서 나올 수 있는 그런 대화… 사이버상에 올라가는 게 혹시 껄끄러울 수도 있고… 비공개 댓글로 올리는 게 조금 더 편했어서.

[19] 질문이 상당히 세세하기도 하고, 사람들의 질문에 대해서는 그래도 나름 본인의 어떤 가치관이나 생각 등을 잘 담아서 얘기해주는 것 같아서… 단순한 일상 공유보다는.

commonalities: *"My favorite movie is Tron legacy, which is very niche… One of my friends, I would never have thought they would even want to watch this movie… And I wouldn't have known that if I didn't post it on* EXP*."* ($I_{us,exp}05$)

5.3.2 Enabling More Meaningful Assessment. The richer identity information enabled better evaluation of trustworthiness and compatibility. Participants described: *"if I were to rank them on level of trust I'd [say]* EXP, CTRL *and then Instagram…* EXP*, I can see what other people are saying and what they think. So I can get a sense of if they're trustworthy… I can't really judge a person by just looking at one picture."* ($I_{us,exp}05$) Question responses reflected authenticity and openness: *"you can judge based on how genuine they are in their response… when you have the choice, and you choose to answer certain questions, it's like you're saying, oh, I'll let this person learn this aspect of me."* ($I_{us,exp}02$) This support for calibration informed relationship decisions: *"I would invite the people that I would want to get closer to to* EXP*, because… it's easier to get to know people that way."* ($I_{us,ctrl}14$)

The ability to express a more authentic self also enhanced the meaning of reactions received. Participants valued responses to their genuine content: *"I can show a more honest me… express content closer to my original self… people reacting to the real, honest me rather than a filtered version feels more genuine and grateful"* ($I_{kr,ctrl}21$) [20]. This created a virtuous cycle where authentic sharing led to more meaningful reciprocation.

Status indicators complemented this by providing ambient awareness of friends' emotional states. Music choices offered emotional cues: *"You can kind of get a gauge of how they're feeling, because… some people tend to listen to more depressing, sad songs… If they're feeling happy, they listen to upbeat songs."* ($I_{us,ctrl}07$) This ambient information supported relationship maintenance: *"Seeing how someone's headspace is, is really important for me… the check-ins really helped me be like, oh, this person might not be doing so great. Maybe I should ask them how they're doing, or just leave them alone."* ($I_{us,exp}18$) One participant described this as enabling *"low maintenance friendship"* ($I_{us,exp}18$)—the ability to stay attuned to friends' states without requiring active check-ins. The feature provided *"a little snapshot of how they were feeling or their mood… really nice to know that directly, instead of looking through the feed."* ($I_{us,exp}02$) Despite the casual nature, updates still reflected intentionality: *"they still put in the effort to choose a song or change the song."* ($I_{us,ctrl}14$)

5.3.3 Prompting Self-Discovery. The questions prompted deeper self-examination than typical social media, benefiting posters as well as viewers. Participants appreciated the unexpected variety: *"I thought they'd be obvious questions, but they asked about diverse things, so answering and thinking about them was really fun"* ($I_{kr,ctrl}21$) [21]. The prompts facilitated introspection: *"It helps me reflect on myself and think about the questions deeply… since it's a question from the app for me as a person. It made me think about it more."* ($I_{us,exp}01$) This self-reflective quality distinguished EXP from platforms focused on external presentation.

5.4 The Depth-Breadth Trade-off

The mechanisms enabling deeper connection with close ties—intentionality, friction, person-focus—simultaneously constrained broader community engagement. Participants perceived a tension between the depth and breadth of connections that the designs seem to support.

5.4.1 Question-Sending Requires Existing Social Foundations. Despite lowering barriers to initiation, question-sending proved unsuitable for forming new connections. The perceived intimacy made questions *"too heavy to send to someone I*

[20] 조금 더 솔직한 나를 보여줄 수 있다… 꾸미지 않은 원래 나에 가까운 내용들을 표현할 수 있고… 진짜 솔직하고 약간 나의 원래 일상과 가까운 그런거에 반응을 해주는거랑… 조금 더 진솔하고 조금 더 고맙게.
[21] 뻔한 질문일 줄 알았는데 좀 되게 다양한 걸 묻고 있는 그런 질문들이 나와서 그런 걸 대답하고 생각해보는 게 되게 재밌었던 것 같아요.

don't really know" ($I_{kr,ctrl}08$) [22]. One participant explained: *"Question-sending inherently requires some basic familiarity to feel comfortable… suddenly sending to someone would be like talking to someone sitting next to you in lecture… but sending to close friends felt playful and natural"* ($I_{kr,exp}17$) [23]. The one-on-one nature felt too personal for unknown connections: *"it feels like a direct message, like a DM… reaching out to them one on one… that feels weird to do when I don't know some of these people in real life."* ($I_{us,ctrl}04$)

5.4.2 Private Comments Reduce Sense of Community. Private comments reduced social discovery and community building by hiding interactions. One participant articulated this tension: *"Private comment feels too private… like I only want you to see this, and I'm preventing other people from joining in on the conversation… if you make everything private, you're just gonna be able to build less community."* ($I_{us,exp}03$) Another noted that extensive private commenting would prevent the kind of *"fun comments like on YouTube"* ($I_{kr,exp}10$) [24] that contribute to social platforms' appeal. The feature optimized for dyadic intimacy at the cost of sense of community and openness.

5.4.3 Profile-List Feed Reduces Serendipitous Discovery. The profile-list design that enabled intentional, person-focused browsing also introduced barriers to casual engagement. The deliberate nature of profile viewing created social discomfort for some: *"I almost feel as if the whole list-view feature feels like stalking… it feels like I'm peering into the life of a stranger."* ($I_{us,exp}06$) Another participant articulated the distinction: *"Scrolling is just serendipitously seeing something, but entering someone's profile is snooping"* ($I_{kr,ctrl}08$) [25].

More significantly, the design reduced passive exposure to acquaintances' activities that facilitates weak-tie maintenance. Participants preferred passive information for acquaintances: *"I'm not really interested in them… but sometimes when we meet, we need conversation topics… I want that information to be supplied appropriately without me having to search for it"* ($I_{kr,exp}11$) [26] This passive exposure through scrollable feeds helped build familiarity and brought a sense of community: *"Around finals season… seeing everyone post about their finals and worrying about their applications… was really fun to me, and that helped me connect with them a lot more"* ($I_{us,exp}13$).

The increased friction also decreased overall platform engagement. Participants noted: *"[on* CTRL*,] It was a lot easier to see the posts than on* EXP*. So I did see them, and I commented on them more often"* ($I_{us,exp}01$). This reduced visibility created isolation: *"In* CTRL *it was like a two-way conversation… But in* EXP*, it kind of felt like I was talking to a brick wall"* ($I_{us,ctrl}07$).

5.4.4 Implications for Relationship Contexts. Participants consistently recognized EXP as effective for deepening established relationships but limiting for forming new ones. The platform served different social functions than mainstream alternatives: *"I think* CTRL*, if it's someone completely new is easier… if it's with friends that you already know,* EXP *is a lot better because it brings up ideas and questions that you might not necessarily ever think of"* ($I_{us,exp}09$). This made EXP particularly suited for specific relationship: *"it's like a good platform like, if you know someone like your like a colleague or like a classmate but like you want to get to know each other better"* ($I_{us,exp}02$).

When considering which platform to invite new acquaintances to, participants' preferences depended on their relational intentions. For connections they hoped to deepen, EXP's structure was preferred: *"I would probably default…*

[22] 모르는 사이에 보내기엔 무겁다고 생각했고요.
[23] 질문 보내기 자체가 어느 정도 기본적으로 친분이 있어야 편안하게 성립되는 일이다 보니까… 뜬금없이 갑자기 보내게 되면 이를테면 강의를 듣는데 옆자리에 앉은 사람한테 말을 건다든지… 친한 사람들한테 보내는 건 장난스럽게 자연스럽게 장난치는 느낌이에요.
[24] 유튜브 댓글 같은 거 보면 되게 재밌는 댓글이 많은데
[25] 스크롤하는 거는 그냥 우연히 본 거고 프로필을 들어가면 염탐을 한 거죠.
[26] 그 사람들에 대해서 그렇게 막 관심 있진 않은데… 가끔씩 만나면 그냥 뭐 대화거리 이런 건 뭐 있어야 되잖아요… 그런 정보는 그냥 뭔가 제가 찾아보지 않아도 그냥 적당히 공급되는 게 좋은 것 같아요.

asking them to join EXP*… if I want to get to know them better… with* CTRL*… there's no guarantee that they could just join the platform and then do nothing"* ($I_{us,exp}12$). The structured scaffolding provided behavioral templates that made meaningful engagement more predictable than traditional platforms where users must generate their own activity. However, for connections likely to remain distant or where trust had not yet been established, the lower-commitment nature of CTRL felt more appropriate. The depth-breadth trade-off is thus not a flaw to be corrected but a design choice with predictable consequences for which relationship types and relational intentions the platform best serves.

5.5 Shifting from Extrinsic to Intrinsic Motivation

EXP's design reduced dependence on external validation, shifting users toward intrinsic rewards that enabled more sustainable engagement.

5.5.1 Reduced Performance Pressure. Multiple design elements combined to reduce the performance anxiety typical of social media. The profile-list feed eliminated concerns about overwhelming others' attention—participants no longer worried about *"just taking up their screen space"* ($I_{us,exp}01$). The question-answer format provided cover for sharing: *"I actually felt maybe a little bit more pressure with* CTRL*, because… things that the person was choosing to share specifically… versus questions… felt a little more casual… it doesn't feel like the intention of posting is to get a reaction from someone else"* ($I_{us,exp}09$).

The overall effect was a flattening of social media's emotional highs and lows. One participant explained: *"With* CTRL*, if you post something but don't get many reactions, it's awkward… so you end up posting things for reactions. But* EXP *I just said whatever I wanted to say"* ($I_{kr,exp}11$) [27]. Without the reward-loop dynamics of scrollable feeds and visible metrics, participants described the platform as reducing stress typically accompanied by social media experiences.

5.5.2 Intrinsic Rewards from Self-Reflection. Participants described depending less on external validation and finding value in the act of responding itself: *"I feel like I honestly probably got less reactions with* EXP *than* CTRL*. But… with* EXP *it wasn't as bad, because… I just enjoyed answering the question… even if someone didn't really see it, I didn't care too much"* ($I_{us,exp}02$). This shift enabled a sense of empowerment: *"it's nice… I ask questions that you didn't really think about… I never really knew I had this kind of answer… it helps you understand yourself better"* ($I_{us,exp}02$). One participant framed their engagement entirely in self-directed terms: *"every day that I answered a question… was for me. It was like a timeline… things that added to my personality. So I didn't feel discouraged [for not receiving reactions]"* ($I_{us,exp}13$).

This intrinsic orientation affected how participants conceptualized the platform itself. Rather than a public social performance space, EXP functioned more like a personal space for sharing: *"*EXP *didn't really feel like SNS… SNS feels like a market where everything is spread out… but blogs feel like there's someone's territory and I can enter and leave that territory…* EXP *was like my own diary that others could see if they wanted to"* ($I_{kr,exp}11$) [28]. One participant even described using it *"like a screaming jar… like an anonymous confession board"* ($I_{kr,exp}11$) [29], treating the platform as personal expression space rather than social performance. Participants drew comparisons to other platforms, with one noting that *"*CTRL *follows a bigger, generic social media concept… definitely more like Instagram.* EXP *I felt like it was a lot like Discord"* ($I_{us,exp}06$)—a platform they perceived as community-focused, less performative interactions.

[27] CTRL은 좀 뭔가… 올렸는데 반응 많이 못 받으면 좀 뻘쭘하잖아요… 그런 것들 위주로 올리게 되는 것 같은데 EXP는 그냥 좀 그냥 하고 싶은 말 그냥 아무 말 했던 것 같아요.
[28] EXP는 뭐가 진짜 SNS 느낌은 아니긴 했어요… SNS는 되게 그냥 다 펼쳐놓고 하는 뭔가 시장 같은 느낌인데 블로그는 뭔가 그 사람의 어떤 구역이 있고 그 구역에 내가 들어갔다 나올 수 있다… EXP는… 원한다면 볼 수도 있는 나만의 일기장.
[29] 그냥 그런 느낌으로 썼던 것 같아요… [대나무숲] 그런 느낌으로

5.5.3 Natural Conversational Flow. The question-answer format established organic conversation starters that sustained engagement through genuine curiosity rather than obligation. Participants appreciated having conversational tools: "EXP *is kind of like walking around with flashcards ready to have a prompted conversation… if someone said something very surprising… you could strike up a pretty nice conversation"* ($I_{us,exp}$18). This transformed social media into dialogue: *"it came a lot more as like a discourse forum… more conversation-based"* ($I_{us,ctrl}$20). Participants enjoyed discovering unexpected responses and following up on them: *"I liked answering questions… it's fun to be asked like, 'if you were a tree, what type of tree would you be'… once you do answer a question, it is like, Why did you choose oak?"* ($I_{us,exp}$03).

The conversational nature made posting feel appropriate for users who typically avoid social media: *"I don't really post on social media… I'm an extrovert. So whenever I hang out with my friends, I always try and keep the conversation going, I always ask questions. So this is just the same thing but on social media"* ($I_{us,exp}$05). For these users, the question format provided *"a new formatting of socializing"* ($I_{us,exp}$05) that aligned with how they naturally build connections offline.

5.6 Design Contingencies

EXP created engagement through novelty and differentiation from existing platforms. As one participant shared: *"I really liked how* EXP *felt pretty different than some of the other social media I've used because it felt like there was an intention for what you were supposed to do… it definitely felt a lot more different than the social media that I use usually."* ($I_{us,exp}$09) This differentiation was appreciated: *"I actually enjoyed* EXP *more than* CTRL*. It's like a refresher of what a social platform is… every social platform is just the same… but I never seen an app with questions before."* ($I_{us,exp}$05) The structured nature appealed to some users: *"I feel like* CTRL *is kind of more classically social media and* EXP*… I just kind of liked answering questions… I like completing tasks, and I felt like I was completing a task in some way."* ($I_{us,exp}$03) Participants particularly appreciated the question-sending feature: *"Question-sending was so fun… and the questions weren't too formal… when I sent to friends question I was curious about, it was really fun"* ($I_{kr,exp}$10) [30] This motivated platform adoption over established alternatives: "CTRL *reduced differentiation from other platforms, so users had little motivation to use a new platform instead of Instagram where many friends already are"* ($I_{kr,exp}$17) [31] At the same time, findings point to boundary conditions affecting the mechanisms described above.

5.6.1 Prompt Quality and Relevance. User satisfaction with daily prompts depended heavily on personal relevance. When questions aligned with interests, participants found deep value: *"Questions I hadn't thought about before… answering them felt more meaningful than posting"* ($I_{kr,ctrl}$08) [32]. However, misalignment created friction. Some found questions *"either geared for children or an older generation… at 20, it was awkward for me"* ($I_{us,exp}$06) or resembling *"questions that older people would ask me… like when your auntie comes in and [asks] 'How's school? Boyfriend yet?'"* ($I_{us,exp}$06). Users desired customization options, suggesting user-submitted questions to better match community interests.

5.6.2 Context Indicators Face Adoption Barriers. The social battery feature enabled explicit communication of social boundaries. Participants valued this capability: *"I often, a lot of times on other apps, people see when you're online, and*

[30] 질문 보내기 자체는 일단 그 자체가 너무 재미있었고 질문도 되게 너무 형식적이지 않은 것들도… 친구들한테 반응이 궁금한 질문을 던졌을 때 되게 재밌었던 것 같아요… 그냥 보내고 반응 기다리면 되니까… 질문 보내기는 너무 재밌었고.
[31] 다른 플랫폼과의 차별성도 줄어들었기 때문에… 굳이 내가 기존에 사용하던… 이미 많은 친구들이 사용하고 있는 인스타그램 같은 플랫폼이 아니라… 새로운 플랫폼에 접속을 해서 뭔가 활동을 해야만 하는 동기도 굉장히 적었다고 생각합니다.
[32] 생각해보지 못한 것들이 많아서… 질문을 대답하는 과정 자체가 질문 올리는 것보다는 훨씬 이 앱을 사용하는 의미가 있다는 생각이 들었고.

that's all they see… I feel bad not responding because they know I'm online. If I can just be like, 'Hey, my social battery is low,' then they don't expect a response" ($I_{us,exp}$01).

This context would prevent misunderstandings: *"You can kind of see if people are willing to talk right now… if you see that their social battery is lower, and they're not responding to you, then you understand why they're not in the mood to talk"* ($I_{us,ctrl}$04). The feature was mutually useful: for the user, *"having that social battery can show that I'm not in the mood to talk, even if I'm online"* ($I_{us,ctrl}$04), and for friends, *"if I messaged someone and I didn't know why they weren't replying to me, I would check here, and they would be completely drained"* ($I_{us,exp}$18).

Despite conceptual appeal, social battery faced practical implementation challenges around updating and visibility. Participants found maintenance burdensome: *"it was hard to update. It wasn't really up to date, ever… And I forgot to change mine too"* ($I_{us,exp}$01). The feature's location hindered utility: *"I don't think it worked as well on the app, because it was hard to find… It would be nice if every time you saw someone's profile picture you could also see their social battery"* ($I_{us,exp}$01). Context also affected relevance: *"since I wasn't really using it as a messaging app or to actively talk to people, it wasn't exactly what I was looking for… the check-ins were daily and not hourly… so the battery level was not as important to me"* ($I_{us,exp}$18). Further, participants desired better workflows: *"I wish it reset whenever you wanted to do a new one, so that I didn't have to manually delete the previous ones"* ($I_{us,exp}$15).

The persona feature attracted interest as an identity signaling tool that encouraged social connection by providing persistent identity cues: *"I think it encourages people to interact with you more because a post… you're more prone to scrolling past it… whereas if you put up a persona, or your music, that's more of who you are, and that's more connected to you"* ($I_{us,exp}$13). Even in established relationships, personas offered value by confirming existing perceptions: *"Their persona also helped me to get to know her better… I think it was like something I already knew. That's how she acted, but it just like kind of confirmed"* ($I_{us,ctrl}$14). Participants recognized particular utility for new relationships: *"But I think for making new friends again… It could help a lot to kind of see their vibe I suppose"* ($I_{us,exp}$18). However, participants desired greater customization options: *"Maybe you can add your own custom persona… I would use personas as something like I want others to know a fun fact about me… I put Music Sharer and Daily Scroller, because that's who I am daily"* ($I_{us,exp}$13).

5.6.3 Granular Privacy Controls Enable Selective Sharing. The future-posts-only privacy setting addressed concerns about retroactive content exposure when adding new connections. Participants found this control valuable for relationship management: *"I did really like the feature where you could make the Close Friends see future posts only… sometimes, if you're thinking about if you want to add someone to close friends or not. It's kind of like a battle, because… you might not want them to see everything that you'd ever posted before… I only have to think about what I'm posting in the future"* ($I_{us,exp}$09). This control influenced adding behavior: *"that made me more inclined to add some of the other people… because then I was like, Okay, I only have to think about what I'm posting in the future"* ($I_{us,exp}$09). Practical applications of the feature participants imagined included reputation management: *"Some of it was newer people I met and I want them to think I'm cool so they can't see my cringe post from middle school… I don't think I've bad mouthed somebody and then later added them, if I became friends with them. But I feel like I would worry about that"* ($I_{us,exp}$15).

5.6.4 Default Settings Shape Behavior. Participants emphasized that default configurations, not merely feature availability, determined platform character. Many expressed a desire for both feed formats—appreciating the person-centered benefits of the profile-list while missing the convenience of scrollable browsing. When asked whether adding a scrollable feed option would reintroduce the comparison dynamics and performative pressures associated with platforms like Instagram, participants consistently pointed to defaults as the deciding factor. As one explained: *"I think it's more about what the default settings are… It really depends on where [the app] opens to… when you open it, does it show as a*

[scrollable] feed? Or does it show something more personal… I think it would be different depending on that" ($I_{kr,exp}11$) [33]. The implication was that a scrollable feed buried behind intentional navigation would function differently than one presented as the default landing experience. Privacy defaults similarly shaped behavior: the future-posts-only setting for Close Friends influenced willingness to add new connections by addressing concerns about retroactive content exposure.

6 Discussion

Through a crossover deployment study with 99 youth participants, we investigated how design features can support relationship-building in social media platforms. Our findings reveal that EXP fostered more frequent and comfortable sharing, clearer signals of genuine interest, and a shift toward intrinsic motivation—while also exposing fundamental tensions between intimacy and community visibility, intentionality and plausible deniability, and depth with close ties versus breadth with acquaintances. These results carry implications beyond the specific features we tested, suggesting that design shapes not only what users do on social platforms but how they experience doing it.

6.1 Design Shapes Internal Orientation, Not Just Behavior

Prior work has established that platform design shapes user behavior through affordances, defaults, and interaction patterns [26]. Users post what platforms make easy to post, react in ways platforms make available, and consume content in patterns that feeds and algorithms encourage. Our findings confirm this: participants posted more frequently on EXP partly because daily prompts established an expectation of regular contribution, and they sent questions because the feature existed, was easy to use, and was salient.

However, our findings reveal that design's influence extends beyond behavioral compliance to reshape how users experience social media as an activity. Across our results, a consistent pattern emerged: the same actions—posting, reacting, browsing—felt qualitatively different depending on platform design. Participants did not merely change what they did; they changed how they understood their own activity.

Several mechanisms drove this experiential shift. Redistributed agency transformed posting from self-initiated performance into platform-scaffolded response; participants felt they were answering rather than broadcasting, which reduced the vulnerability of claiming others' attention. Intentionality requirements made reactions feel like genuine attention rather than social obligation; emoji selection demanded deliberate engagement that perfunctory liking does not. Person-centered navigation reframed browsing as visiting rather than scrolling; entering a profile felt like approaching a person, not consuming content. Prompt-based sharing surfaced identity dimensions—values, preferences, hypothetical reasoning—that participants described as absent from both typical social media and everyday conversation.

These findings carry implications for how we understand social media's effects on young people. Prevailing narratives—in policy debates, educational settings, and popular discourse—often treat social media as inherently harmful, a technology whose core dynamics inevitably produce toxic social comparison, inauthentic self-presentation, and shallow connection [**? ?**]. From this perspective, appropriate responses include restriction, digital literacy education to build resistance, or harm-reduction approaches that assume damage is unavoidable.

Our results suggest a different framing: what we observe on mainstream platforms reflects design choices, not technological inevitability. The anxiety, performance pressure, and validation-seeking that characterize much social media use emerge from specific design decisions—algorithmic feeds optimized for engagement, visible metrics that

[33] 뭔가 기본 설정이 어떻게 되냐에 좀 더 가까운 거 같아요… 이거 진짜 딱 열었을 때 피드로 보이냐, 아니면 좀 개인적인 그런 게 보이냐에… 따라 다를 것 같아요.

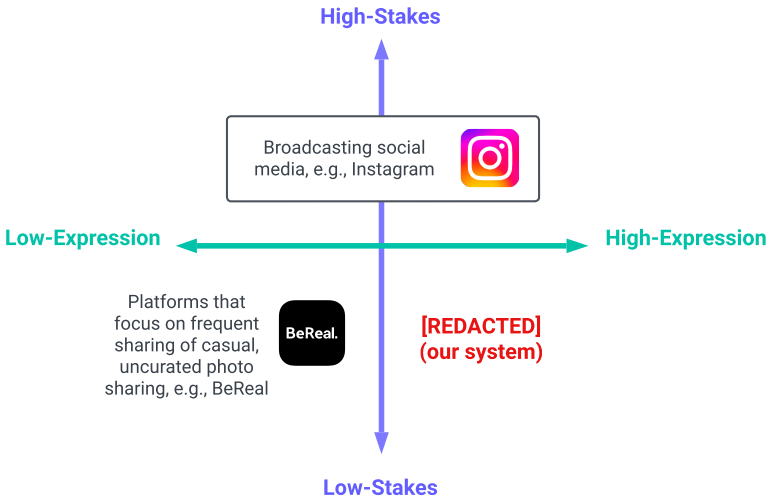

Fig. 5. Expression-stakes matrix for social media sharing

quantify social approval, broadcast architectures that flatten diverse relationship types into undifferentiated audiences, and interaction patterns that reward frequency over depth. When these design choices change, user experience changes with them. Rather than asking only whether social media is harmful, or what behaviors should or should not be supported we can ask which design configurations produce which experiential outcomes for which users in which contexts.

Nevertheless, our findings demonstrate that design can matter, that the felt experience of social media interactions is not fixed and that alternatives to the dominant paradigm are possible.

This raises a practical question: what specific experiential configurations should designers aim for? Our findings point toward one underexplored possibility—sharing that feels low-stakes yet remains high in personal expression—which we examine next.

6.2 Low-Stakes, High-Expression Sharing

A persistent challenge in social media design is encouraging meaningful self-disclosure while minimizing the performance pressures that inhibit sharing. As Figure 5 illustrates, mainstream broadcast platforms occupy a characteristic position in this space: high stakes, variable expression. Instagram exemplifies this pattern. While the platform supports diverse forms and modes of sharing, its curated, image-forward culture, combined with visible metrics and the ambient presence of celebrity and influencer norms, creates an environment where sharing feels consequential. Many users respond by becoming lurkers who consume but rarely post, or by restricting their sharing to highly polished content that feels safe but reveals little.

Platforms designed to counter these dynamics have often reduced stakes by constraining expression or reach. BeReal lowers stakes through daily cadence, mandatory reciprocation, and the enforced vulnerability of unfiltered photos. Yet this approach often produces obligatory, repetitive content—low-stakes but also low-expression. Users share because they must, not because they have something meaningful to convey [48]. Finsta accounts take the opposite approach, preserving Instagram's full expressive range while restricting audiences to trusted circles [73]. This trades

one limitation for another: rich expression becomes possible, but only by fragmenting identity across separate accounts and maintaining the cognitive overhead of audience segregation.

Our findings suggest that EXP enabled a different configuration: low-stakes, high-expression sharing. This quadrant remains underexplored in existing platforms. Daily prompts lowered the threshold for contribution by removing the creative burden of content generation; users did not need to decide what was worth sharing because the platform posed specific questions. This shift reduced vulnerability, as participants felt they were responding to external prompts rather than making claims about their own interestingness. The question-answer format provided what participants called air cover"—a structural excuse for sharing that deflected the weight of self-presentation onto the platform itself.

Crucially, participants described their engagement as intrinsically motivated. They posted because they found the questions genuinely interesting to consider, because they were curious how friends would respond, because the act of reflection felt valuable independent of whether anyone saw the result. This contrasts sharply with the obligation-driven engagement of platforms or the validation-seeking that characterizes much social media use. The low stakes came not from constrained expression but from shifted attribution: participants could share substantive personal content while feeling that the platform, not their own need for attention, had prompted the disclosure.

The high-expression dimension emerged from the nature of the prompts themselves. Rather than capturing surface activities, questions accessed values, preferences, hypothetical reasoning, and self-reflection. Participants learned things about friends they would never have discovered through conventional social media. Crucially, users felt comfortable engaging in this identity-rich sharing even with loosely connected audiences—something that typically feels risky or inappropriate on platforms where norms favor either polished self-presentation or context-specific disclosure. This content felt more revelatory of identity than the curated highlight reels or mundane snapshots that dominate other platforms.

6.3 Designing for Youth Friendship Building

Our analysis revealed where design solutions for relationship-building experience trade-offs. The same features that supported authentic expression often created new tensions requiring users to navigate competing social needs. Drawing from these trade-offs, we offer guidance for designers seeking to create platforms that support relationship development across varying contexts and relationship types.

6.3.1 Calibrating Intentionality to Relationship Context. Uncertainty Reduction Theory helps explain why EXP's intentionality proved effective for some relationships but counterproductive for others. In established relationships, where partners have accumulated interaction history and demonstrated mutual interest, uncertainty about each other's intentions runs low [8]. Direct engagement—sending a question, leaving a private comment, choosing a specific emoji—reads as care rather than presumption, because the recipient has sufficient context to interpret the sender's motives charitably. Our participants described precisely this dynamic: question-sending felt "playful and natural" with close friends ($I_{kr,exp}17$) and signaled that "they thought of me" ($I_{us,exp}13$).

For weaker ties, however, uncertainty remains high. Without established rapport, even small gestures require interpretation: a sent question might signal friendly interest, romantic pursuit, or social obligation. The recipient cannot be sure, and the sender cannot be sure how the recipient will construe their intent. Under these conditions, the same directness that communicates care to close friends feels "too heavy" for acquaintances ($I_{kr,ctrl}08$). Participants recognized this asymmetry, noting that question-sending "inherently requires some basic familiarity to feel comfortable"

and comparing unsolicited questions to "talking to someone sitting next to you in lecture" ($I_{kr,exp}17$)—possible, but socially awkward without prior connection.

Plausible deniability addresses this asymmetry by distributing interpretive risk. When platform mechanics can explain an action—an algorithm surfaced this content, a notification prompted this response, a daily question provided this excuse—senders retain cover if the interaction falls flat. They can frame their behavior as casual platform use rather than deliberate social pursuit, protecting both parties from the discomfort of explicit rejection, overwhelm, or uncertainties. EXP's daily prompts provided partial cover of this kind: participants could reach out while attributing the action partly to the platform's encouragement. Yet the one-on-one nature of question-sending still made intentions too legible for some contexts, illustrating that scaffolding can reduce but not eliminate the social risks inherent in uncertain relationships.

This tension suggests that effective design must calibrate intentionality signals to relationship context rather than applying uniform interaction patterns. One approach involves providing multiple interaction pathways with different intentionality signatures: lower-commitment actions for peripheral connections, higher-commitment features for closer relationships. Another involves graduated visibility, where interactions begin with lower-intentionality signals that can escalate as mutual interest becomes established. The key insight is that ambiguity, which may seemingly blur design intentions, sometimes serves protective functions that platforms should preserve rather than eliminate.

6.3.2 Balancing Depth and Breadth. A fundamental tension emerged between features that supported deep engagement with close ties and those that enabled broader social discovery. EXP's profile-list feed exemplified this trade-off: it focused attention on individual users and eliminated concerns about overwhelming others' feeds, but it also reduced serendipitous exposure to acquaintances' content. Private comments enabled intimate responses but hid the social activity that creates community atmosphere. Close Friend-default reduced exposure.

This pattern reflects a broader principle: mechanisms that create depth often do so by adding friction that filters out weaker-tie interactions. Intentionality requires effort; effort selects for motivation; motivation correlates with existing relationship strength. The result is a platform that serves close friendships well while providing limited support for the peripheral connections that often serve as bridges to new relationships.

CTRL's scrollable feed proved more effective for building familiarity with peripheral connections through passive exposure and serendipitous discovery. For weaker ties, information being supplied appropriately without me having to search for it," as one participant put it, matters.

Designers must make deliberate choices about where their platform sits on this spectrum. Some contexts warrant prioritizing depth; others require the opposite trade-off. Most ambitiously, platforms might attempt to support both through architectural separation: distinct spaces or interaction modes optimized for different relationship types, with clear boundaries that prevent the norms of one context from bleeding into another.

6.3.3 Enabling Meaningful Reciprocation. Trust and intimacy grow when reciprocation feels genuinely prompted and clearly expressed. Social media's climate of distrust often stems from engagement-driven design that encourages performative interaction, making reactions feel obligatory rather than authentic [49]. When the intentions behind reactions remain ambiguous, users grow uncertain about how their sharing is received.

Our findings point toward two complementary design strategies. First, encourage sharing that sparks intrinsic curiosity. When content reveals something meaningful about the sharer—their values, preferences, unexpected dimensions of their personality—viewers have genuine reason to engage. The question-answer format achieved this by reframing self-disclosure as a collective norm—clarifying what was acceptable to share while offering playful, low-stakes

avenues for meaningful self-revelation. Second, provide response mechanisms that signal intentional engagement. Emoji reactions required deliberate selection, communicating that the responder had read the content and chosen a specific response rather than reflexively liking. Private comments enabled personal responses inappropriate for public display. Question-sending itself functioned as reciprocation, with recipients recognizing that senders had thought of them specifically.

6.3.4 Preventing Negative Calibration. Trust between users can erode through platform friction unrelated to the relationship itself. Design choices that make posting feel like public performance or "taking up space" in others' feeds create anxiety about sharing. Ambiguous read receipts generate uncertainty about whether non-response reflects disinterest or simply missing the content. Metrics that make social standing visible invite comparison that undermines authentic connection. Profile-list feeds eliminate concerns about involuntary feed intrusion, allowing users to post without worrying about overwhelming others, and make posting a personal, mutually committed exchange.

Context indicators like social battery communicate availability explicitly, providing scaffolded support for boundary-setting that might otherwise be socially awkward. Privacy controls with restrictive defaults normalize selectivity rather than making it feel like rejection. The future-posts-only setting for close friends exemplified thoughtful calibration: by allowing users to grant access to new content without exposing historical posts, it addressed concerns about retroactive vulnerability that might otherwise prevent users from expanding their trusted circles.

6.3.5 Ensuring Design Coherence. Alignment between design intentions and feature implementations matters substantially for user experience. Misalignments create confusion, frustration, and ultimately abandonment.

Both platform versions sent daily notifications, but only EXP provided clear, engaging content to interact with at that cadence. On CTRL, daily prompts to share felt like obligations without scaffolding, creating pressure without support. On EXP, the question format gave users something specific to respond to, making daily engagement feel natural rather than forced. The lesson is that notifications set expectations; if the platform cannot deliver meaningful content at the frequency it prompts users to engage, sharing feels obligatory and audiences become harder to sustain.

Similarly, features intended to communicate real-time context require update workflows that match their intended temporal granularity. Participants found social battery conceptually appealing but practically cumbersome because it required manual updates they consistently forgot. This points to a deeper design mismatch: if social battery is meant to convey a transient state rather than a stable trait, it should be ephemeral rather than persistent—expiring automatically rather than lingering until manually changed. When maintenance burden exceeds utility, users abandon features, and they fail to serve their purpose.

Coherence extends to overall platform identity. EXP's features collectively communicated a purpose—mutual understanding through structured conversation—that differed from mainstream social media's implicit purpose of broadcast self-presentation. When all features aligned with this purpose, participants understood what the platform was for and engaged accordingly. Designers should consider not only whether individual features serve their intended functions but whether the feature ensemble communicates a coherent platform identity that users can orient toward.

6.4 Limitations and Future Directions

Several constraints limit the scope of our findings and point toward important areas for future research.

The two-week crossover design provided valuable comparative insights but cannot capture longer-term dynamics. Relationship development unfolds over months and years; our study observed only initial responses to novel design features. The novelty itself may have driven some engagement, and this effect likely diminishes with extended use.

Conversely, benefits might compound over time as users develop fluency with interaction patterns. Longitudinal deployment studies could reveal habituation effects, changing interaction patterns, and whether the intrinsic motivation we observed persists or reverts to validation-seeking as platform norms develop.

The experimental setting with limited existing friend connections meant several features were underutilized. Close Friends audience controls saw minimal use because participants had few relationships within the platform to differentiate. More broadly, our findings consistently indicated that EXP's design better served existing relationships than new ones. Future work might explore hybrid approaches: graduated intentionality mechanisms that calibrate signal strength to relationship context, offering lower-intentionality affordances for first contacts while preserving meaningful intentionality for established relationships; or group prompts that enable discovery of compatible strangers through shared context rather than the vulnerability of direct outreach.

Our deployment involved small networks rather than organic social graphs at scale. Platform dynamics change substantially as networks grow: content volume increases, attention becomes scarcer, and algorithmic curation becomes necessary to manage information overload. Profile-list feeds become unwieldy with hundreds of connections, potentially reintroducing the algorithmic mediation our design sought to avoid. The intimate, person-focused interaction patterns we observed may not survive the transition to larger, more anonymous networks where natural accountability diminishes.

Finally, while our study included both US and Korean participants, we did not systematically analyze cultural differences. Social norms around self-disclosure, relationship initiation, and communication directness vary in ways that likely interact with design affordances. Beyond national culture, platform communities develop their own norms that shape how features are used. Future research might examine how design features interact with community characteristics, including age composition, pre-existing relationships, and shared interests.

7 Conclusion

This study demonstrates that intentional design choices can significantly reshape how young people engage with social media, moving beyond the false dichotomy of harmful or performative versus beneficial and authentic platforms toward understanding how specific features scaffold different types of social interaction. Through our crossover deployment with 99 youth participants across the US and Korea, we found that EXP's relationship-building features successfully created what we term "low-stakes, high-expression sharing"—enabling participants to share more frequently and authentically while reducing performance pressure compared to archetypal broadcast platforms. The daily prompts, question-sending, and other scaffolding mechanisms transformed posting from performance into mutual exploration, shifting participants' motivations from seeking external validation toward intrinsic satisfaction in self-expression and connection. Participants described EXP as more intentional, personal, and conducive to building genuine connections.

However, our findings also reveal fundamental trade-offs inherent in designing for authentic connection. The same features that promoted depth and intentionality sometimes came at the cost of breadth and social discovery, with participants noting that EXP felt more suitable for deepening existing relationships than forming new ones. These trade-offs follow a predictable logic: weaker ties carry greater uncertainty about mutual interest, making plausible deniability necessary to minimize perceived risk of social rejection; closer relationships, where mutual interest is established, benefit from intentionality that would feel presumptuous among acquaintances. By identifying these dynamics and providing concrete design recommendations grounded in empirical evidence, this research contributes to a growing understanding of how technology can better support meaningful human connections in digital spaces.

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A Demographics Data

Table 4. Summary of Study Participant Demographics (N=99)

Category	Details
Age	15 (3.03%), 16 (7.07%), 17 (9.09%), 18 (14.14%), 19 (13.13%), 20 (6.06%), 21 (12.12%), 22 (9.09%), 23 (16.16%), 24 (9.09%), 25 (1.01%)
Gender	Girl/Woman (61.62%), Boy/Man (35.35%), Non-Binary/Third Gender (6.06%), Unlabeled/Gender Fluid (1.01%)
Ethnicity	Asian or Asian American (71.72%), White (19.19%), Hispanic or Latino (7.07%), Black or African American (3.03%), Native American or Other Pacific Islander (2.02%), Other (1.01%)
Country	US (59.60%), Korea (40.40%)
Social Media Usage	Instagram (100%), Discord (60.61%), TikTok (49.49%), Twitter/X (45.45%), Facebook (42.42%), Snapchat (40.40%), Reddit (38.38%), BeReal (23.23%), Threads (21.21%), Tumblr (3.03%), KakaoTalk (1.01%), Naver Blog (1.01%), Naver Cafe (1.01%), YouTube (1.01%)

Notes: Percentages for *Gender*, *Ethnicity*, and *Social Media Usage* exceed 100% because participants were permitted to select multiple categories. While recruitment targeted individuals aged 15-24, one participant was 25; this individual was retained in the sample because they enrolled as part of a peer group, and we sought to avoid disrupting that group's participation.

B Bug Fix Log

Table 5. Change Log and Potential Impact on Study

Date Released	Change Summary	Change Scope	Potential Impact on Study (Level of Impact)
2025-03-31	Fixed a bug where the visibility chip did not display the correct value when editing a post. Fixed a bug where the audience setting (e.g., Friends / Close Friends) did not show the correct default option when editing a post.	Bug Fix (FE*)	Usability of post editing (moderate)
2025-04-01	Fixed a bug where the app did not properly process after checking push notification permissions.	Bug Fix (App)	Push permission flow interference (high)
2025-04-01	Added a feature that sends a daily survey link via notification and integrates it into the side menu.	Feature (FE & BE**)	Survey engagement EXPerience (moderate)

Continued on the next page

Date Released	Change Summary	Change Scope	Potential Impact on Study (Level of Impact)
2025-04-01	After completing a password change, pressing back on the Edit Profile screen now navigates users to the My page.	Bug Fix (FE)	Navigation flow improvement (low)
2025-04-01	Fixed an error that, in certain situations, caused the “Like” feature to fail.	Bug Fix (BE)	Like action failure (high)
2025-04-01	Fixed an issue that, in certain situations, caused the notifications list not to load correctly when grouping multiple actors.	Bug Fix (BE)	Notifications usability (low)
2025-04-02	Fixed an error where uploading a large profile photo failed after an initial error message, by resetting the file input.	Bug Fix (FE)	Profile photo upload reliability (moderate)
2025-04-02	Added a feature that records every username a user has had, so their username history is preserved.	Feature (BE)	Account history transparency (low)
2025-04-02	Increased the maximum number of recommended friends shown to 10.	Update (BE)	Friend recommendations usability (low)
2025-04-08	Changed recommended friends so that only participants can appear, using a provided user list.	Update (BE)	Recommendation accuracy improvement (low)
2025-04-12	Fixed a bug that caused the first English letter on iOS to be ignored.	Bug Fix (FE)	Text input usability (high)
2025-04-16	Updated navigation so that certain screens now direct users either to the friends list or the friends feed, depending on the user group. Fixed an issue where users in the default group were not correctly routed to the friends list from certain screens.	Update (FE)	Navigation flow adjustment (moderate)
2025-04-18	Modified sign-up flow for new users.	Feature (FE & BE)	Sign-up EXPerience (low)
2025-04-18	Fixed an error when repeated Like requests were made – if a Like already exists, the user now sees a toast message indicating they have already liked it.	Bug Fix (FE & BE)	Engagement feedback clarity (low)

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Date Released	Change Summary	Change Scope	Potential Impact on Study (Level of Impact)
2025-04-18	Fixed an issue where the birthdate confirmation button text overflowed during sign-up.	Bug Fix (FE)	Sign-up UI usability (low)
2025-04-18	Updated the recommended friend list to include the inviter for newly invited users.	Update (BE)	Recommendation accuracy improvement (low)
2025-04-19	Updated the persona section to collapse overflowed chips, fixing cases where scrolling did not work.	Bug Fix (FE)	Persona section usability (low)
2025-04-19	Updated the notifications page to remember the user's scroll position.	Update (FE)	Notifications browsing usability (low)
2025-04-19	Removed the daily survey notification.	Update (BE)	Survey notification adjustment (high)
2025-04-22	Fixed an error where users received a `question answered` notification even if they were not the intended audience.	Bug Fix (BE)	Notification relevance accuracy (high)
2025-04-27	Fixed a bug causing the `send question` button to stop working when navigating via `see more questions` in the modal.	Bug Fix (FE)	Question submission flow failure (high)

Notes: *FE = Frontend, **BE = Backend.
Dates are formatted as YYYY-MM-DD for consistency. If the table feels tight, wrap it with `\small` or `\footnotesize`.

C Interview Protocol

Brief Overview of Features.

- `CTRL`: scrollable feed
- `EXP`: with questions, emoji reactions, check-in, etc.

Interview Questions.

(1) Which version did you use first?
(2) Most memorable moment while using [first/second] platform
(3) General reactions to [first/second] platform
(4) Which existing platform felt most similar? Mix of which platforms?
(5) Likes and dislikes?
(6) What were the perceived values of each version? What did you think they were trying to achieve? Ideal user?
  (a) Explain from the moment you open the app until you close it.

   (b) Which version hurts more when there is no reaction? From who?
   (c) What were the perceived norms around posting, reacting, inviting, or personal space?
   (d) Liked feature but did not use because others were not using?
   (e) Seeing friends post many at a time - annoying?
(7) Which friend type more suitable? (close friends, friends & acquaintances, strangers)
(8) What effect did order have? When version changed, how did you feel?
(9) Why prefer `CTRL` or `EXP`?
(10) Procrastination / emotional labor for `EXP`?
(11) Recommend for what kind of friends?
(12) Desired features?

D Randomly Sampled Questions

These questions were randomly sampled from a larger pool of 500+ questions used in the study. Google Gemini 2.5 Flash [34] was used to sample the questions via the prompt "randomly select questions from here and make it into latex enumerated list. maybe about 50 questions? make it english." The first author then reviewed the output to ensure the questions existed and were appropriate for inclusion.

(1) What's your least favorite word in the English language?
(2) What's a random skill you've mastered that no one knows about?
(3) If you could teleport anywhere for 24 hours, where would you go?
(4) What's your most controversial food opinion?
(5) What's something you were obsessed with as a kid that you still secretly love?
(6) If you could instantly become fluent in any language, which would you choose?
(7) What's your go-to comfort food when you're having a bad day?
(8) What's something you do differently than most people?
(9) What's the most useless talent you have?
(10) What's the best concert/show you've ever been to?
(11) What song always puts you in a good mood?
(12) What's the worst movie you've seen recently?
(13) What's the most underrated show nobody talks about?
(14) Would you rather always have to whisper or always have to shout?
(15) What's a skill you wish you'd started learning earlier?
(16) If your life had a soundtrack, what would be the title of the current chapter?
(17) What's the most spontaneous thing you've ever done?
(18) What's a quality you value most in your friends?
(19) What's the most meaningful gift you've ever received?
(20) What's your idea of a perfect hangout with friends?
(21) What's a question you wish people would ask you more often?
(22) If you could tell your younger self one thing, what would it be?
(23) What three words would you use to describe yourself right now?
(24) What's something you're trying to improve about yourself?

(25) What's the best decision you've made in the past year?
(26) If you could time travel, would you go to the past or future? What year and why?
(27) If your life was a movie, which actor would play you?
(28) What's something you've seen online recently that made you think?
(29) What's a social media trend you secretly love?
(30) What's the most underrated show nobody talks about?
(31) If you could have any mythical creature as a pet, what would you choose?
(32) Would you rather have the ability to read minds or be invisible?
(33) If you had to have one superpower that would sometimes malfunction, what would you choose?
(34) Would you rather be famous for something impressive or infamous for something ridiculous?
(35) Would you rather live without music or without movies/TV?
(36) What's something you've changed your mind about recently?
(37) What's the most important lesson you've learned in the past year?
(38) What's a memory you find yourself returning to often?
(39) What's a quality in others that you're trying to develop in yourself?
(40) What's something that feels like home to you?
(41) What's a recent win you haven't shared yet?
(42) What's your go-to fun fact when introducing yourself?
(43) What's your biggest irrational fear?
(44) What's a decision you made that changed your life in a good way?
(45) If you could only use 3 apps for the rest of your life, which would you keep?
(46) What's your ideal way to spend time with your friends?
(47) Do you prefer reading, watching, or listening to stories?
(48) What's the best concert or live event you've ever been to?
(49) What's a career you secretly think you'd be amazing at?
(50) What's the funniest inside joke you have with your friends?

E Feature Adoption Rate

Table 6. Feature adoption rate by usage order. *Ratio* is the proportion of users within each group that have adopted the feature at least the specified number of times during the voluntary usage period.

Feature	Usage Group (by Usage Order)	App Version	Usage Count (≥N)	Ratio (%)
Responding to Prompts	EXP-FIRST	EXP	≥1	100.0
			≥3	93.3
			≥5	90.0

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Feature	Usage Group (by Usage Order)	App Version	Usage Count (≥N)	Ratio (%)
	CTRL-FIRST	EXP	≥1	82.6
			≥3	69.6
			≥5	52.2
Sending Prompts	EXP-FIRST	EXP	≥1	46.7
			≥3	26.7
			≥5	26.7
	CTRL-FIRST	EXP	≥1	52.2
			≥3	34.8
			≥5	26.1
Emoji Reactions	EXP-FIRST	EXP	≥1	43.3
			≥3	13.3
			≥5	10.0
	CTRL-FIRST	EXP	≥1	39.1
			≥3	17.4
			≥5	13.0
Private Comments	EXP-FIRST	EXP	≥1	10.0
			≥3	0.0
			≥5	0.0
	CTRL-FIRST	EXP	≥1	21.7
			≥3	4.3
			≥5	4.3
Status Update	EXP-FIRST	EXP	≥1	60.0
			≥3	36.7
			≥5	23.3
	CTRL-FIRST	EXP	≥1	39.1

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Feature	Usage Group (by Usage Order)	App Version	Usage Count (≥N)	Ratio (%)
			≥3	17.4
			≥5	8.7
Status Update (Mood)	EXP-first	EXP	≥1	46.7
			≥3	10.0
			≥5	3.3
	CTRL-first	EXP	≥1	21.7
			≥3	0.0
			≥5	0.0
Status Update (Music)	EXP-first	EXP	≥1	46.7
			≥3	20.0
			≥5	10.0
	CTRL-first	EXP	≥1	30.4
			≥3	8.7
			≥5	4.3
Social Battery	EXP-first	EXP	≥1	43.3
			≥3	16.7
			≥5	6.7
	CTRL-first	EXP	≥1	17.4
			≥3	0.0
			≥5	0.0
Persona†	EXP-first	EXP	≥1	93.3
	CTRL-first	EXP	≥1	73.9
Add Friend‡	EXP-first	EXP, CTRL	≥1	66.7
			≥3	26.7

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Feature	Usage Group (by Usage Order)	App Version	Usage Count (≥N)	Ratio (%)
			≥5	10.0
	CTRL-FIRST	EXP, CTRL	≥1	82.6
			≥3	34.8
			≥5	13.0
Regular Posts	EXP-FIRST	EXP	≥1	53.3
			≥3	13.3
			≥5	6.7
		CTRL	≥1	100.0
			≥3	66.7
			≥5	53.3
	CTRL-FIRST	EXP	≥1	56.5
			≥3	30.4
			≥5	8.7
		CTRL	≥1	95.7
			≥3	95.7
			≥5	78.3
Likes	EXP-FIRST	EXP	≥1	73.3
			≥3	50.0
			≥5	36.7
		CTRL	≥1	80.0
			≥3	70.0
			≥5	63.3
	CTRL-FIRST	EXP	≥1	56.5
			≥3	43.5
			≥5	30.4

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Feature	Usage Group (by Usage Order)	App Version	Usage Count (≥N)	Ratio (%)
		CTRL	≥1	95.7
			≥3	95.7
			≥5	87.0
Comments	EXP-FIRST	EXP	≥1	60.0
			≥3	33.3
			≥5	30.0
		CTRL	≥1	66.7
			≥3	53.3
			≥5	36.7
	CTRL-FIRST	EXP	≥1	52.2
			≥3	26.1
			≥5	8.7
		CTRL	≥1	69.6
			≥3	47.8
			≥5	30.4
Messaging	EXP-FIRST	EXP	≥1	20.0
			≥3	16.7
			≥5	6.7
		CTRL	≥1	13.3
			≥3	6.7
			≥5	3.3
	CTRL-FIRST	EXP	≥1	13.0
			≥3	4.3
			≥5	0.0
		CTRL	≥1	13.0

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Feature	Usage Group (by Usage Order)	App Version	Usage Count (≥N)	Ratio (%)
			≥3	4.3
			≥5	0.0

Note. For features that were only present in EXP, adoption is reported without version-specific separation. † For *Persona*, we report whether a user edited their persona at least once during the entire study period (not only the voluntary usage period) due to logging limitations. ‡ For *Add Friend*, phase-specific comparisons may be misleading because friendships established in Phase 1 carried over to Phase 2, leaving little opportunity for new additions. Adoption was therefore aggregated across voluntary usage periods of both phases (EXP and CTRL).