# Privacy for Groups Online: Context Matters

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The pervasive influence of online activities in our lives, encompassing personal connections, professional engagements, and e-commerce, has amplified concerns about privacy. However, existing privacy research has predominantly concentrated on the individual level, paying less attention to the privacy practices and strategies adopted by online social groups. This research gap calls for a renewed focus on understanding and addressing privacy challenges specific to online group settings.

In this paper we explore the privacy needs of online groups through the lens of Contextual Integrity. We perform two complementary studies: semi-structured qualitative interviews of Facebook Groups users (n=17), and a large-scale survey of individuals organizing in groups on Facebook, Discord, and Reddit (n=4486). We investigate the privacy needs of different contextual groups, and locate the presence of contextual norms, contextual member roles, explicit and implicit rules, and privacy concerns. We trace how this complex interplay informs privacy expectations, needs, and negotiations across groups. We find that technical systems provide limited tools to effectively enforce group privacy, allowing individuals to compromise privacy norms. Based on these findings, we offer recommendations to support the design of privacy controls for online groups.

CCS Concepts: • **Human-centered computing** → **Social networks**; • **Security and privacy** → **Social aspects of security and privacy**.

Additional Key Words and Phrases: Contextual Integrity, Norms, Platform Settings, Privacy, Rules, Social Groups

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## 1 Introduction

This paper focuses on *online groups* and the novel privacy concerns they raise. Online groups are clusters of individuals who co-locate on the Internet, around shared interests, hobbies, causes, and ideologies. In an increasingly digitized world, online interactions are an integral part of information sharing, community building, and social organizing. From connecting with loved ones, to remote work and e-commerce, the online realm encompasses a myriad of personal and professional activities, many of which have accelerated in the aftermath of the global pandemic [6, 36]. However, a growing reliance on digital communication and engagement has simultaneously amplified privacy concerns for online communities [1, 52, 57].

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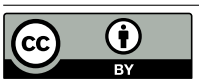


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Privacy, largely focused on individuals has long been a contested domain online. The privacy interests of groups emerge from individual privacy interests such as an individual's capacity to seclude themselves and limit information disclosures [18]. Group privacy interests, however, strive to extend beyond the individual to encompass individuals *in association with one another* in a group setting. Whereas individual privacy is governed by how much of the self can be shared, group privacy is concerned with regulating association and sharing patterns for members of a group to protect people's sociable habits [50]. Shared group spaces are a *sticky* property of social platforms and networks [56], and online groups wield considerable power on platforms [24]. Tightly interconnected communities drive network effects and augment engagement [20, 30]. Nevertheless, privacy for groups online – this paper contends – remains ambiguously defined and largely unprotected.

Thus far, scholarly explorations of group privacy has been primarily theoretical or community specific. For example, literature in Computer-Supported Cooperative Work (CSCW) has investigated niche groups such as emergency [37] and medical [11] communities, resulting in rich field work about those groups but limited insights into the complex *ecosystem* of group privacy more broadly. To contribute to this growing body of work, we analyze the privacy challenges, expectations, and needs of online group members across 3 platforms: Facebook, Discord, and Reddit. We choose these platforms because of their popularity, size, and unique design features for online groups. Our research is a broad empirical investigation of online group privacy practices informed by prior work and, shaped, in addition, by Nissenbaum's theory of Contextual Integrity (CI) [38]. CI posits that privacy is not a matter of personal preference, but intrinsically tied to the social context in which it occurs. We propose a contextual framing for online group privacy, driven by a close examination of CI's key parameters: informational norms, roles, ends and values. Our empirical studies seek to answer :

**RQ1**: What privacy challenges are perceived to confront online groups, generally?

**RQ2**: Are there distinctive privacy challenges for online groups based on size and social context?

**RQ3**: What insights do our findings provide for improved design of privacy tools and affordances for online groups?

We conduct 17 semi-structured interviews of Facebook group members to locate the privacy concerns of large and small scale groups. Based on our qualitative findings, particularly those that suggested variance in group experiences across group contexts and sizes, we performed a large scale survey. Our survey explored online group privacy (n=4486) using a representative panel of the US population across the three platforms stated above. Our results present novel empirical evidence of how members of online groups perceive and interpret contextual cues. We demonstrate how online group members identify written and unwritten rules of participation. We examine how the group context and platform design serves as normative guidance. We trace the presence of a range of user roles, both platform-defined such as *administrators* and *moderators*, and inherent to the context in which the online group is embedded such as *students*, *teachers*, or *medical professionals*.

In our discussion, we argue that the ability of group participants to articulate and enforce privacy norms online is crucial for a thriving community. By better understanding how online social groups express and enforce their appropriate information flows, our findings indicate that platforms can enhance design affordances and tools to assist groups more effectively to manage and enforce privacy expectations in group spaces. Expressing, managing, and enforcing privacy expectations that are appropriate for respective online groups is not only about privacy but about the promulgation of common and appropriate social norms, which, in turn contribute to group trust.

## 2 Background

### 2.1 Online Groups

Numerous online platforms enable their users to form *groups*. However, each platform refers to their online group formations using platform-specific terminology. In this paper, we refer to Facebook *Groups*, Discord *Servers*, and Reddit *Communities*. In spite of the apparent, similar functionality that platforms provide to create groups online, users may favor one platform over another due to the specific affordances each platform provides. Among these affordances, privacy controls may condition the choice of platform. For example, many online protest movements opt to organize on Reddit, due to the anonymity some of its members presume it affords [35]. Similarly, many education-based or gaming communities organize on Discord due to its open and flexible interface [27]. In the following sub-section's, we provide contextual knowledge of each social platform our research covers and the theoretical frameworks we apply.

### 2.2 Facebook Groups

Facebook self-identifies as a platform for connecting people [21], and Facebook *Groups* is one space where information sharing and community building occurs. As of August 2022, the number of Facebook Groups has surpassed 10 million, with over 1.8 billion people utilize the application monthly [29]. Although Facebook's popularity as a general social platform steadily declines, its *Groups* functionality results in many users staying on the platform long after they might have otherwise quit [29].

On Facebook, administrators choose from three types of group visibility: public, private, and secret. Public groups and their content are accessible to both Facebook users and anyone on or off the platform. Private groups are only accessible to Facebook users, i.e. posts and comments are only visible to active group members. Member lists are limited to active group members, while the names of administrators and moderators are labeled and are visible to anyone on the platform. Secret groups are invisible to the Facebook community at large and members may join invite-only. Privacy settings for *Facebook Groups*, as well as moderation, are managed by group organizers, administrators, and moderators within the options and affordances available.

### 2.3 Discord Servers

Discord is a growing *communication* platform for online social groups that offers real-time communication tools. The platform's core functionality lies in Discord *servers*, where users create dedicated spaces for diverse interests, discussions, and activities. As of 2023, there were 563 million active Discord users across approximately 20 million servers [8]. Discord supports user interaction through text, voice, and video channels. While Discord's early success can be attributed to the online gaming community [26], its highly versatile and adaptable server interface has elevated the platform to one of the most popular spaces for online social interactions.

Server organizers's can choose between public and private settings. Public servers are open discoverable, while private servers function as exclusive clubs and require an invitation for access. Discord's moderation features are robust and managed by server organizers, administrators, and moderators. These roles oversee content, user behavior, and community guidelines. Discord communities often establish additional roles to organize server members and establish a working hierarchy [44].

### 2.4 Reddit Communities

Reddit's platform objective is to aggregate content via open discussion and information sharing [9]. At present, Reddit hosts 52 million daily active users, 430 million monthly users, and over 138, 000

communities, or *subreddits* [43]. The majority of Reddit users choose anonymous pseudonyms, and the platform's design and community documentation further emphasizes that anonymity is critical to build healthy communities [16].

Subreddits are initiated and managed by users. While most subreddits are public, others opt for a more exclusive experience. Private subreddits restrict access to only approved members for a more intimate community experience, where posts and discussions are hidden from the public. Member lists are confined to active participants, and the subreddit's content is only visible to those granted access. Moderation practices on Reddit vary widely, and each subreddit crafting its unique set of rules and norms. Moderators wield significant influence, ensuring content aligns with the community's vision and values. While there are platform defined rules for content sharing on Reddit, rules for information sharing and norms on individual subreddits significantly diverge [10, 16, 43]. The decentralized nature of subreddit management underscores Reddit's commitment to user-driven content curation, supporting a diverse landscape of communities with distinct moderation approaches.

### 2.5 Privacy as Contextual Integrity

Drawing on social theory, social philosophy, and law, Nissenbaum's theory of *Contextual Integrity* conceives of social life as comprising distinct social domains or *contexts*, such as commerce, education, finance, healthcare, civic life, family, and friends [38]. A CI context is ultimately defined by its ends, aims, or goals, which further determine its role in society at large, as well as its values, be it equality, justice, or individual autonomy, among others. As such, we may argue that in a healthcare context the goal or aim is to cure and prevent illness, alleviate pain, as well as being committed to values of equity and patient autonomy. The precise composition of ends and values may differ from society to society and be open to political contestation, e.g. in an education context it is open to debate whether the goals are to enlighten or train, to teach rote skills or encourage creativity, or to generate workers as opposed to enable a responsible citizenry.

Shifting away from notions of privacy as information control or secrecy, CI conceives of privacy as the appropriate flow of information, meaning flow that conforms with contextual informational norms. Contextual informational norms define acceptable data practices and may range from implicit and weak—social disapproval of friends betraying confidences—to explicit and embodied—laws protecting journalists refusing to name sources or requiring physicians to maintain the confidentiality of health data. A complete statement of a contextual informational norm provides values for five parameters: data subject, data sender and data recipient (collectively referred to as *actors*), information type (topic or attribute), and transmission principle (the conditions under which information flows) [38].

Actors (subject, sender, recipient) are labeled according to contextual capacities or *roles*, such as physicians, educators, or political figures. Information types are labeled according to contextual ontologies, such as an educator's report or notes about a student's learning progress in an educational context. Transmission principles are the conditions or constraints under which a particular information type of data about a subject flows from senders to recipients. Transmission principles include confidentiality, reciprocity, consent or mandated by law, among others. CI (and therefore privacy) is achieved or preserved if all information flows within a particular context align with entrenched informational norms. Hence, to determine the appropriateness of an information flow, one must determine all five parameters characterizing such flow.

In presuming favor of entrenched informational norms to assess the appropriateness of information flows, in question, CI has a conservative bias. However, acknowledging that informational norms may become outdated in light of social changes (in values, ends, purposes, roles and traditions) and technological advances, CI includes a heuristic approach to evaluating whether disruptive

information flows (i.e. flows that do not conform with entrenched informational norms) may, nevertheless win out over entrenched norms. The heuristic prompts us to probe (1) whose interests are affected and how; (2) how contextual goals, purposes, and values are affected; and (3) how societal values, including fundamental liberties and rights, are affected. CI thus explicitly highlights the critical relationship between information flows and contextual ends [5, 38–40].

### 2.6 Group Privacy

According to Taylor et al. [50], group privacy refers to the collective ability of a group to control its personal and shared information. Group privacy involves protecting individuals' personal information within the group and safeguarding shared information that pertains to the collective entity itself. This definition of group privacy underscores the importance of collective autonomy and self-determination in controlling information within the group. It recognizes that groups, as distinct entities, have their own privacy interests beyond the privacy concerns of individual members. Further, this perspective considers the shared norms, values, and expectations that shape the group's privacy practices and the necessity for group members to collectively manage and protect their information [18].

Building on this notion, Bloustein and Pallone [7] posit that the concept of group privacy involves the protection of confidential information shared among two or more individuals against the desires and motivations of external parties. The contexts in which rules of group privacy are applied can range from casual neighborhood gossip to high-level negotiations with foreign powers. The authors also outline a distinction between individual and group privacy. Whereas the former focuses on an individual's right to withhold personal information, group privacy determines the nature of information sharing within a group. These groups recognize the "right to huddle", referring to the protection of a group's ability to gather and communicate confidentially within their own boundaries. Such boundaries enable groups to maintain trust, collaboration, and collective decision-making without undue external interference or scrutiny [7].

Maintaining group privacy is essential to preserving the integrity of certain social structures and settings outside of government control. While confidentiality within groups can stimulate openness, there are also settings within which public interests, such as accountability, may outweigh the need for confidentiality [7].

## 3 Related Work

There is an extensive body of academic research investigating privacy issues on social media platforms. While it is beyond the scope of this paper to provide a comprehensive overview of the existing literature, we trace four areas of scholarship that guide our work: (1) collective privacy management, (2) participation, (3) platform design, and (4) governance.

### 3.1 Collective Privacy Management

Scholars in the CSCW and Social Media Studies communities have explored how users navigate privacy concerns and manage their personal information while communicating and interacting with others on social platforms. Wang et al. [53] observe that the size of a person's social network is negatively related to self-disclosure. However, the strength of social ties and the network's density are positively associated with self-disclosure, suggesting that closer relationships and more interconnected networks encourage greater self-disclosure. Wisniewski et al. [55] similarly find that users whose privacy preferences were met reported higher levels of social connectedness, while users who had less privacy than they desired experienced lower levels.

In an early empirical study on group privacy management of Flemish youth organizations (2013), researchers found that users users employed a variety of strategies to regulate information flow

within their group such as temporal boundaries, and collective content management, and group membership [13]. De Wolf et al. highlights the presence of ambiguous implicit rules that emerge and are agreed upon over time. Importantly, this work found that implicit rules created significant privacy challenges for group members as they were often internalized or taken for granted [12].

Mansour and Francke [33] explore the perceptions and practices of privacy management within a large private Facebook group through qualitative analysis. This study applied Communication Privacy Management theory to understand individual, intragroup, and group-level privacy management practices. Researchers found that users express heightened concerns about sharing private information in the group due to the mix of known individuals and strangers, potentially geographically co-located. The paper identifies strategies employed at various levels to mitigate these risks. Additionally, it highlights the significance of contextual, temporal, and spatial factors in shaping participants' experiences of information disclosure [33].

In their qualitative study of privacy concerns of Facebook group users in Bangladesh, Sultana et al. [49] report on common group contexts and related privacy concerns. A majority of their study participants were members of personal and creativity-focused groups, or educational groups. The most common privacy concerns included collecting information via text messages and scrolling through profiles. To manage group privacy and boundaries, group administrators employed strategies such as join requests with locked profiles based on provided answers. Notably, administrators enforced group rules through a written code of conduct, language preferences (Bengali or English), and addressed issues such as aggressive behavior, harrassment, and spamming with zero tolerance policies [49].

### 3.2 Participation

Researchers have investigated the causes of non-participation in online communities. This phenomenon is described as "lurking" in early CSCW work on mass interaction on newsgroups [54]. Preece et al. [42] identify that non-participation can result from various factors, including individuals not feeling the need to contribute or wanting to acquire more knowledge about the group before engaging. Further, users may believe that observing without posting is more beneficial, encounter usability issues, or dislike the perceived community dynamics.

Ardichvili et al. [2] build on this phenomenon, and classify reasons for non-participation into four categories: interpersonal, procedural, technological, and cultural. Interpersonal reasons include the fear of facing criticism or negative feedback from others within the community. Procedural causes involve a lack of knowledge about best practices or missing guidelines for participating effectively in online communities. Technological reasons which pertain to challenges arising from insufficient technological skills or difficulties in navigating online platforms and cultural reasons include factors like an individual's preference for in-group interactions or a desire to maintain a positive public image or reputation. Similar barriers to participation exist on social coding sites such as GitHub [46].

Along these lines, Hoyle et al. [23] investigate the privacy concerns of content publishing social networking sites, focusing on the experiences of viewers and publishers. On the one hand, they observe that for viewers, the visibility of viewing behaviors to publishers has a chilling effect on participants, leading them to avoid viewing profiles due to privacy concerns. Further, individuals within such online groups prioritize their own privacy and take measures to protect it, even at the expense of fully engaging with the content available. On the other hand, despite finding information about their viewers useful, Hoyle et al. [23] find that publishers are mindful of the privacy expectations and preferences of their audience.

### 3.3 Platform Design

Scholars have found that managing group context in social media technologies represents a significant design challenge [48]. Stutzman and Hartzog [48] explored the practice of maintaining multiple profiles on social media, observing that users deploy a variety of creative and opportunistic strategies to effectively navigate group interactions, such as maintaining multiple social media profiles. They find that users adopted different strategies along a continuum of boundary regulation behaviors, including pseudonymity, practical obscurity, and transparent separation. These strategies were influenced by the specific motives driving the users' group context management practices. The authors explicitly call for privacy design that extends beyond the individual to consider group management across social media platforms [48]. Hoyle et al. [23] similarly argue that designing for privacy in online platforms requires careful consideration of privacy concerns for group members, as those are essential to encourage active participation and mitigate privacy-related barriers to engagement.

#### Governance

Several studies explored the complexity of privacy settings on Facebook and the various factors influencing users' decisions [3, 4]. Vitak et al. [51] show that users find custom privacy settings confusing, leading to self-censorship instead of selective sharing. Users generally prefer strong privacy settings as defaults and often make mistakes configuring privacy settings, resulting in mismatches between their expectations and actual settings.

Fiesler et al. [15], Hogan [22], Marwick and Boyd [34] all found that context collapse and self-disclosure heuristics are additional factors influencing privacy setting choices. Users often aim to present an idealized front to certain groups while avoiding unintended sharing with their entire network. Strategies such as abstaining from posting, sharing content deemed appropriate for everyone, or using granular privacy settings and multiple friends lists are commonly employed. Further, these strategies aim to control disclosure and audience while managing context collapse [15].

Supportive and inclusive policy and governance frameworks within online communities enhance user interactions and community well-being [41]. While policy typically refers to traditional laws and public policies, in the context of online communities, it encompasses all the processes through which user interactions are regulated. These processes are deeply embedded in collaborative environments and should be considered alongside design and practice when studying and creating systems [25]. In other words, policies play a key role in translating community values into user interactions [9].

Traditionally, rules for online platforms consist of externally imposed policies such as *Terms of Service* and lengthy *Privacy Policies*. However, these documents are frequently ignored and challenging to comprehend, despite their legally binding nature. Interestingly, online community members might react negatively if they were aware of these policies [17]. In addition to externally imposed rules, formal rules can also emerge from within the community, as seen in the highly collaborative community-created rules on platforms like Wikipedia [28].

While governance in online communities is often associated with formal rules, it also operates at the level of informal social norms. Prior work highlights the significance of social norms in regulating behavior within these communities. However, new users face challenges in learning these norms, which can lead to high dropout rates [31]. Violations of community standards not only drive away members but can also undermine the overall purpose of the community [45].

## 4 Methodology

In this section we describe the data collection for the qualitative study, as well as the follow-up survey study we performed using quantitative methods. The former involved semi-structured interviews with members of Facebook groups. While our findings provided us with novel insights, our sample size (n=17) was small and needed further empirical support. We drew guidance from these findings to tailor our survey questions, which focus on the nuanced privacy challenges and needs of group members across three platforms. Before beginning our research, we received approval from our Institutional Review Board for all study procedures.

### 4.1 Qualitative Study

We conducted semi-structured qualitative interviews with 17 participants (n=17) who were active members in one or more Facebook Group between May and June, 2023.

*4.1.1 Recruitment and Participants.* We recruited participants through online ads, public posters, and emails. We instructed interested participants to complete a screening questionnaire to assess their group membership and participation. The eligibility criteria included current and active membership in a Facebook Group, and the ability to join an online interview. From the pool of interested participants, we obtained a final set of 17 participants who participated in a 30-45 minute interview. Upon completion, we compensated participants with a $20 Amazon gift card.

*4.1.2 Interviews.* We employed semi-structured interviews to provide participants with the opportunity to express and elaborate on their group experiences freely. At least two members of the research team were present at each virtual interview. Appendix 8.3 provides the list of interview questions. If a participant belonged to multiple Facebook Groups, we interviewed them with respect to one specific group of their choosing. We conducted each interview on the teleconferencing platform Zoom. With explicit verbal consent from each participant, the Zoom interviews were recorded, and each interview was transcribed by the first author, in addition to summary and field notes.

*4.1.3 Data Analysis and Coding.* Our qualitative analysis is informed by social phenomenology [19] and the grounded theory approach [32]. An initial inductive close reading was conducted to allow themes to emerge from the data [47]. The themes were refined iteratively between the first author and second author, and the final codebook is comprised of twenty-six unique codes organized into four themes: participation, privacy, group norms and design. The primary researcher subsequently coded each transcript deductively. Further, matrix coding was employed to examine the intersections between codes and attributes such as group size or group visibility (e.g. public or private).

Under participation, frequent and infrequent posting, group size, and public or private group status were coded. The privacy theme focused on anonymity, general privacy concerns, personal information disclosures, and safety. The group norms theme investigated the presence and adherence to group rules, e.g. explicit or implicit rules, conformance and enforcement of rules, high or low moderation, and the presence of roles. Finally, codes in the design theme categorize the tools and features participants noted would enhance their group-experience on the platform (e.g. anonymous posting, direct messaging, discussion threads, labeled roles, searching, and verified participants).

### 4.2 Quantitative Study

Motivated by the instructive and timely findings from the qualitative study, we perform a large-scale survey to test generalizability of our findings across 3 social platforms. To this end, we fielded a 25-question survey on group privacy through the USC Understanding America Study (UAS). The UAS is probability-based, nationally representative, internet panel of approximately 10, 000 adults

(18-years and older). We included our questions in the December 2023 wave of the data collection, UAS Survey 590. All survey data is published by the UAS and available online.

*4.2.1 The UAS Panel.* UAS participants are selected using address based sampling (ABS), a method that uses postal records to select a random sample of residential addresses. Selected households without prior internet access are provided with tablets and broadband internet connections to be able to participate in the online survey. Panel members are surveyed via computer, mobile device, or tablet. For more details on our UAS survey (590) and UAS data collection methods, see https://UASdata.usc.edu.

*4.2.2 Survey Data.* Through a series of screening questions, we isolated respondents who had an account and were active members of a group on either Facebook, Discord, or Reddit. Between December 1 and December 31st, 2023, a selected set of 9,040 respondents answered the survey questions. Of those respondents with either a Facebook, Reddit, or Discord account, 34% were not part of a group on any of the three platforms. Thus our final data-set is comprised of 4,486 survey respondents who are members of one or more group. Of those, 3,821 decided to report about a *Facebook Group*, 371 about a group on *Discord*, and 285 about a group on *Reddit*. UAS provides survey weights that account for selection probabilities and nonresponse. The figures we present here are weighted using the survey weighting procedures in Stata/MP 18.0.

## 5 Findings

We structure our findings around the four themes observed in our qualitative findings: participation (contextual groups), group norms, privacy concerns, and platform design. At a high level, we find that there is significant variance across group contexts and sizes. Some groups operate in contexts with robust historical roots (i.e. education and healthcare); others within contexts less structurally supported (i.e. leisure and social). Further qualified by group size, we observe that there is great nuance in privacy needs across online social groups.

### 5.1 Contextual Groups

Table 1 presents a visual representation of the variance in group contexts and size to which our interview participants belong. We classify groups with <50 members as *small* groups (n=1), groups with 50-500 members as *medium* groups (n=4), and groups with >500 members as *large* groups (n=12). After assessing each participant's description of the group's purpose and objectives, we apply the CI framework, grounded theory, and social phenomenology to identify six broad contexts to organize the groups represented. These are commerce, education, health, leisure, politics and social. A broad framing of contextual groups helps us better analyze the diversity and contextual richness within these groups. For example, an education group would likely map to longstanding norms around information sharing and privacy in that context.

Table 2 highlights the distribution of group sizes across survey respondents, and Table 3 shows the distribution of their group contexts. Guided by our interview findings and CI, we offered survey respondents the same (6) options for group contexts.

### 5.2 Group Norms

Interview participants described a variety of rule setting strategies that guide norm formation within their groups. From their responses, we identify *implicit* and *explicit* rule setting strategies at play. Based on participant responses we define explicit strategies as clearly written rules and guidelines published by administrators or moderators. In comparison, implicit strategies refer to unspoken rules or norms that members infer from other's behavior in the group, the stated or assumed purpose of the group, as well as any other tacit sources of normative guidance.

Table 1. Interviews: Distribution of group membership, size and context (*Modified group name to preserve privacy)

| Id | Group Name | Size | Setting | Role | Contextual Group |
|---|---|---|---|---|---|
| P1 | Skidmore College Students Group | 50-500 | Private | Member & Moderator | Education |
| P2 | Buy/Sell NYC | >500 | Private | Member | Commerce |
| P3 | Affordable Seattle Housing | >500 | Public | Member | Commerce |
| P4 | Sri Lankan Health Professionals* | >500 | Public | Member | Health |
| P5 | Ladies of Luxembourg | >500 | Private | Member & Moderator | Social |
| P6 | Private Practice Colloquium | >500 | Private | Member | Health |
| P7 | Ask a Doctor* | >500 | Public | Admin & Moderator | Health |
| P8 | Solo Travel | >500 | Private | Member | Leisure |
| P9 | Half Asian or Pacific Islander | >500 | Private | Member & Moderator | Social |
| P10 | Lisbon Purchase Exchange Group | >500 | Private | Member | Commerce |
| P11 | St. Mary's Alumni Association* | 50-500 | Private | Member & Moderator | Education |
| P12 | Y Tubian | <50 | Private | Member | Education |
| P13 | CHI Meta | >500 | Public | Member | Education |
| P14 | Phillips Academy Alumni Group* | 50-500 | Private | Admin | Education |
| P15 | F1 Visa Slots New York | >500 | Private | Member | Politics |
| P16 | The Smith Family Group* | 50-500 | Private | Admin & Moderator | Social |
| P17 | All We Talk Is (Sports) Society | >500 | Public | Member | Leisure |

Table 2. UAS Survey: Distribution of group size based on the group that respondents chose to report about

| Group Size | Total % |
|---|---|
| < 50 | 14.9 |
| 50 - 500 | 31.6 |
| > 500 | 53.5 |

Table 3. UAS Survey: Distribution of contextual groups based on the group that respondents chose to report about

| Contextual Group | Total % |
|---|---|
| Commerce (e.g. trading, buying, selling) | 10.6 |
| Education (e.g. student council, tutoring, PTA) | 4.5 |
| Health (e.g. medical issues, fitness, diet) | 4.8 |
| Leisure (e.g. hobbies, sports, travel) | 20.8 |
| Politics (e.g. community issues, political organizing, elections) | 2.2 |
| Social (e.g. family, friends) | 29.3 |
| Other | 27.8 |

*Explicit Rule-Setting.* 14 interview participants reported that there were clearly stated or explicit rules in their respective groups. Some administrators and moderators reported adopting rules from a template of group guidelines that Facebook provides. P4 reported the presence of 4 rules from

Facebook's template: *Be kind and courteous, no promotion spam, no hate speech or bullying, respect everyone's privacy.* Other administrators and moderators opt to come up with their own rules for participation. P5 reported tailored rules such as *"please only post advertisements on Monday, no hate or animosity towards members."* P6 reported finding *"basic rules like be kind, no hate speech, no bullying, keep conversations on theme."* P9 mentioned *"zero tolerance policy for hate speech, no bullying, no spam."*

5 participants mentioned that their groups use *pinned posts* to define group rules. Pinned posts always appear at the top of the group's *Posts* page, so that newer posts cannot displace them. Pinned posts are visible to all group members. P10 reported that their group set rules using *"both pinned post and About page."* 2 participants identified the use of disclaimers that they encountered upon submitting a request to join the group, for example, P12 mentions that *"a disclaimer says there are rules around active participation, no bullying, and no hate-speech."*

Our survey findings reinforce these observations. 60.4% of total respondents reported the presence of explicitly written group rules. 25.9% were unaware if there were explicit group rules on the platform they use most frequently, and 13.7% reported that there were none.

As reported by our interview participants the actions and responsibilities of moderators are highly effective and play an integral platform-specific role. P12 noted, *"moderators are very active, always ensuring that everyone was heard and that questions were attended to in a timely manner."* P15 emphasized the moderators' swift response to problematic situations, stating, *"Moderators comment, remove, or send a direct message. If not handled quickly, other participants comment to nudge the scammer to remove the post or signal to other members that this is a scam."* Additionally, P2 acknowledged the effectiveness of moderators in maintaining the platform's quality, stating,*"there are active moderators and inappropriate posts are removed quickly."* P6 also highlighted how moderators go beyond mere enforcement, stating, "...sometimes the moderator will intervene and suggest conversations."

Our survey results affirm that moderators are highly active and effective. 87.8% of survey respondents indicated there were moderators for their group. When asked if explicit rules are applied by moderators, 64.5% said *Always* or *Mostly*. The larger the group size the more enforcement is reported in the quantitative survey. In groups with <50 members, 53.3% of the respondents said rules are always or mostly enforced. In groups with 50-500 members, 62.5% reported such enforcement, and in groups with >500 members, 66.6% reported enforcement. Differences between these groups are significant.

In sum, 15 interview respondents stated that they would find clearly written group rules most helpful. This was a compelling finding, and we probe this in our survey for further support. Within our quantitative results, of the participants who responded either that there were no written group rules, or that they were unaware if there were written group rules, 41.7% felt that written group rules would be helpful. In groups with <50 members, only 24.5% thought this was needed, 43.8% in groups with 50-500 members, and 42.5% in groups with >500 participants.

*Implicit rule-setting strategies.* All 17 interview participants acknowledged the existence of implicit rules governing group behavior. 4 participants referred to a group's purpose as an implicit source of normative guidance. P1, for example, stated that *"unusual behavior would be someone posting something irrelevant to the institution/school,"* whereas P3 claimed to do their best *"to abide by the group norms as defined by the group title and objectives."* Implicit rules include understanding that the group serves a clear purpose. P1, P2, P3, and P15 all indicate that membership in the group is goal-driven and as such, the group context signals normative behavior.

When asked about usual behavior or norms operating within a group, interview participants articulated typical interactions. For example, P14 shares that *"it is implicitly understood that things*

*won't be taken out of context, the community understands that this isn't a group to discuss everything, but a small community to discuss only relevant topics."* P4 states that *"most people share information like infographics, news, events. Everyone expects group to be knowledge sharing oriented and limited to sharing proximal interests."*

9 participants observed that the group relies more on implicit rules than explicit rules. For example, P16, stated that *"there are no explicit rules, it is expected that family members will be respectful,"* and P1 shared that there are "no rules defined, no one posts irrelevant information...unusual behavior has not happened."

Only 28.9% of survey respondents stated that there unwritten rules of conduct for their group. However, 78.4% of these respondents were familiar with these rules. Mostly, unwritten group rules operate in groups with <50 members. Among those who identified written rules, 45.9% agreed that some of these rules were about sharing personal information. 52.8% of survey respondents were unsure if there were unwritten rules of conduct.

### 5.3 Contextual Roles

We distinguish between *platform-defined* roles and *contextual* roles. By *platform-defined roles* we denote roles that the platform defines for all groups and establishes by design. These roles may come with a particular set of permissions and capabilities in terms of level of access, visibility, and control that individuals have within the group (e.g. member, moderator, administrator). Appendix 8.1 provides a summary of the capabilities and privileges of each of these Facebook roles. By *contextual roles* we denote roles that play a specific function within a social context as understood within the framework of contextual integrity. Hence, in a healthcare group, we may encounter doctors, nurses, patients or hospital administrators.

Interview participants highlighted the presence of various contextual roles in their respective groups. P10 identifies *"sellers, buyers, exchangers, and scammers,"* and P15 highlights *"students, 3rd party consulting services, lawyers, and scammers."* P9 lists *"activists, or casual poster, critics - people who offer critiques or shit-post,"* and P6 also identifies the presence of *"psychologists, psychotherapists, social workers, leaders, referees, bystanders, passive participants or observers."* Participants also observed both platform-defined roles and contextual-roles within their groups, e.g. P2 indicates *"administrators, moderators, buyers, sellers,"* and P17 *"fans, moderator, sports expert, sports professional."* Notably, P7 identifies a hierarchy in the roles within their education group, *"there are senior members that are professors, they are involved in oversight...member's with higher degrees of responsibility post more."*

Conversely, some participants shared that members of their large membership group do not fit explicitly defined roles *"beyond admins and moderators... we cannot justify all of the mental health practitioner roles within this group. Users can identify priority roles and flock to them for advice."* Or, P11, who shares that observable roles are limited to *"school administrators who participate and foster discussion."*

We investigate the presence of contextual roles in our survey to test our qualitative results. These findings largely support the qualitative insights, and a summary of these findings is detailed in Table 4.

### 5.4 Privacy Concerns

When prompted about their privacy concerns, the adequacy of privacy settings for the group as well other security and privacy considerations, interview participants' revealed a few trends.

One prominent trend is the desire for anonymity. By anonymity, we do not mean to imply that participants referred to a technical or legal understanding of anonymity. Rather, they expressed various concerns about revealing their identity and other identifying details. It is important to

Table 4. UAS Survey: Respondents who could identify the presence of contextual roles

| **Contextual Roles** | **Total %** |
|---|---|
| Commerce (e.g. sellers, buyers, exchangers) | 59.1 |
| Education (e.g. teacher, student, parent, tutor, company) | 55.1 |
| Health (medical professionals, patients, social workers) | 37.8 |
| Leisure (information seekers, information providers, helpers, organizers, observers) | 41.1 |
| Politics (e.g. activists, bystanders, critics, organizers, supporters) | 49.0 |
| Social (e.g. friends, friends of friends, family members, distant relatives) | 47.9 |

note that Facebook introduced the anonymous posting feature within the Groups application in 2017. Within these groups, either the anonymous posting feature was not activated by the Group administrator, or the participants were unaware of the feature entirely. P12 complained that *"full name disclosure is concerning, these students are vulnerable, and not all the students on the group know each other, as they go to different schools."* P3 observed that *"a key aspect would be the ability to switch between revealing identity or not,"* whereas P15 expressed a desire to *"not reveal personal identity, choose a username for the group that only the moderator could see not other participants unless you choose to reveal it to them."* P1, P2, P10, and P13 expressed similar concerns.

Other participants more generally expressed a concern about sharing too much personal information, e.g. P10 worried about *"too much exposure of personal information"* while P13 pointed out that *"people post addresses, and that is concerning."*

Conversely, some interview participants expressed that the platform adequately addresses their privacy concerns and provides satisfactory privacy settings for the group. According to P4, *"the group has it's ideal privacy and security settings."* P16 states that the *"privacy settings of the group are currently adequate,"* while P13 mentions that *"everyone can see group members and posts and are able to find the group. This is adequate for the group."* Further, P14 emphasized that *"...the group doesn't have privacy concerns because the group is about sharing information."*

Guided by the variance in these findings across groups, we investigated anonymity further in our survey. 22.3% of groups represented in the survey enabled anonymous posting, 38.3% did not, and 39.3% of respondents were unsure. We further asked respondents whose groups enabled anonymous posting (22.3%) if they would prefer if others could not post anonymously. The results revealed a nuanced distribution where 18.9% expressed a preference for restricted anonymity, and 81.0% favoring the ability of others to post anonymously. Finally, anonymous posting is sought most in political groups 38.5%, health 31.1%, and education 28.1%. Across all other group contexts, the desirability of anonymous posting falls below 20%.

Several interview participants added concerns about safety, and recounted how they minimized their participation at times. P10 worried that *"there isn't much safety, too much exposure of personal information."* P2 pointed out that *"buying and selling means people are from different parts of the city and they are strangers, this can get creepy or dangerous."* P9 highlighted safety issues arising within their group *"...post-Trump election, where many participants that were inciting racial violence."* Additionally, P15 expressed that *"the group is semi-private which is a safety concern because I'm sharing my full name and visa status. I have only posted once and probably won't post again."*

To better understand the intersection between privacy and participation, we asked survey participants if they could recall a time when they wanted to post or comment in their group but chose not to. 23.0% of survey respondents answered yes. Of these respondents, 23.3% stated that this was due to the fact that there were too many strangers in the group and 25.5% selected they

Table 5. UAS Survey: Responses of desired design features across small, medium and large groups

| Design Feature | Total (%) | Group Size <50 (%) | 50-500 (%) | >500 (%) |
|---|---|---|---|---|
| Labeled Roles | 31.9 | 22.4 | 33.4 | 33.7 |
| Anonymous Posting | 18.9 | 11.4 | 16.2 | 22.6 |
| Private Messaging | 37.9 | 32.6 | 41.5 | 37.3 |
| Written Information Sharing Rules | 35.6 | 26.8 | 37.4 | 40.1 |

did not want others to observe them. 55.7% reported other, and 2.8% felt that the group was not welcoming.

### 5.5 Platform Based Limitations

Numerous participants reported dissatisfaction with the platform's limited options for customizing rules and privacy settings. When asked if current privacy settings were adequate for the groups needs, P1 responded that *"Facebook does not allow for further settings and customization."* P10 observed that *"groups only have limited features as defined by Facebook."* Similarly, P6 pointed out that *"Facebook does not offer more,"* and P8 felt the privacy options are limited by the fact that *"Facebook does not offer anything else."* When explicitly asked about the features they would like to see, participants' responses generated the following codes in our qualitative analysis: anonymity, direct messaging (within the group), discussion threads, content filtering and searching, labeled roles, platform-verified participants, and sharing time-based content.

We generated a survey question to test the desirability of new features coded most frequently in the qualitative data. Table 5 supports the takeaways from our qualitative interviews, where labeled roles, anonymous posting, private messaging, and written information sharing rules are most desired across survey respondents. We break these results down further by group size. Our findings show that across all group sizes, private messaging and written information sharing rules would most enhance group experience on Facebook, Discord, and Reddit. Further analysis across three contexts reveals that all group members within the commerce context (regardless of group size) would prefer private messaging features (Figure 1). Labeled roles and anonymous posting are preferred within groups with <50 members, and groups >500 in commerce groups signal a preference for information sharing rules.

## 6 Discussion

Groups, as a social phenomenon, are not uniform. They can range from accidental collections of people to highly structured communities formed around a clearly-articulated common purpose and everything in between [18]. The fundamental thesis of CI is that flows of personal information are appropriate in the extent to which they promote the ends, purposes, and values of a given context. Privacy within CI requires flows to be described in terms of the parameters, sender, recipient, subject, type of information, and transmission principle. In any given instance, the first four are expressed in terms of respective contextual ontologies [38–40].

We present two high level privacy challenges for online groups: accounting for context, and inadequate tools for information sharing. We discuss how online group members identify participation rules, navigate contextual cues, and assume distinct roles within their groups (RQ2). For

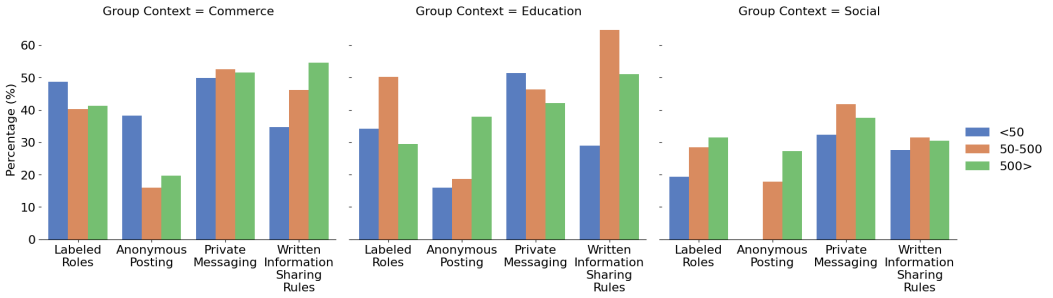


Fig. 1. Desirability of privacy features based on group size and context (Commerce, Education, Social) Anonymous posting is not a highly desired feature among all groups. However, Written Information Rules and Private messaging are highly desired, especially in large Commerce and Education groups.

each challenge we uncover, we draw on our findings to recommend a new privacy feature that will enable groups to better articulate and enforce their contextual privacy norms (RQ3).

## 6.1 Accounting for Context

Our research revealed four crucial contextual parameters that guide group norm formation: rules of conduct, the efficacy of rule enforcement, group size, and contextual group roles. The intersections of these parameters define the bounds of privacy challenges present in online groups. In studying three platforms for online groups, we find that contextual norms are difficult to identify and situate, and roles are too often implicit.

*6.1.1 Context Beyond Content.* Under the CI framework, a group's description or stated purpose would typically situate the context that defines participants privacy expectations [38]. For example, in Table 1, P8 described their solo travel group within a leisure context, however it could also be understood as a social context. Both leisure and social contexts lack structural support. Our findings suggest that additional parameters are necessary when the area of interest is a group. Factors such as group size and the degree to which rules are explicit or implicit are also crucial to understanding contextual group norms.[1]

Online groups enforce informational norms through various rule setting strategies. These strategies govern members' interactions and information-sharing practices, as observed by Feldman [14] and Nissenbaum [38]. In our qualitative interviews we found that groups with <50 members and between 50-500 members heavily rely on unwritten, or implicit rules. These smaller sized groups facilitate direct interaction and familiarity among members, and as such, unspoken or understood norms (implicit rules) guide group behavior. This aligns with findings from prior work on the presence of implicit rules within smaller groups [12, 31].

For the most part, the survey results reinforced key findings from the qualitative interviews regarding rules. However, in cases where rules are largely implicit, subsection 5.2 reveals that the ability for group members to parse unwritten rules raises a challenge for group privacy [12]. Whereas interview participants were explicitly probed to name examples of implicit rules within their groups, survey respondents were only asked a text-based yes or no question. Only a small subset of respondents identified unwritten group rules without prompting. Of those survey respondents

[1]As a matter of analogy, consider a group of friends, among which two are doctors, meeting at a local bar to talk about health issues. While the purpose may be promote this group's health and some group members may identify certain archetypal roles (i.e. doctors), this hardly constitutes a healthcare context.

who were able to identify unwritten rules, the majority (78.4%) stated these implicit rules were clear to them. This suggests that further study would reveal that online group members may have a greater awareness of contextually relevant implicit norms that enact without noticing.

Among larger groups, there is greater uncertainty about contextual norms. This uncertainty can disrupt the group's ability to reach consensus around ends and values [34, 38, 48]. Our findings from both study's show that large groups require explicit rules. Beyond some group size threshold, implicit rules are harder to enforce or communicate to members. In large groups, rules are more commonly adhered to and more actively enforced. When there are clear, observable, written rules, members are more likely to follow established norms. Members of larger groups, therefore, are better prepared to manage privacy expectations as explicit rules delineate clearer privacy boundaries [12].

*Design Recommendation: Written Information Sharing Rules.* Platforms can be helpful in providing the capacity to richly express prevailing information flow norms through *written information sharing rules*. Explicit rules can enable groups to define parameters based on information types relevant to the group context, such as event planning in a social group, or discussing local elections in a political group. Our findings show that groups with >500 members desire written information rules (see Table 5). Across contexts, written information sharing rules are most desirable in structurally supported contexts such as commerce, education and politics. Guided by Stutzman and Hartzog [48], addressing information sharing rules may lead to higher levels of engagement and satisfaction within groups online.

*6.1.2 Explicit Roles Assist in Rule Formation and Maintenance.* Clearly defined actors are one of the five necessary parameters for a complete contextual norm [38]. Therefore, labeling actors (subject, sender, recipient) in a group according to contextual roles can create clearer group rules and thus appropriate information flows.

Participants in both study's were able to identify contextual roles, a phenomenon also observed by Sultana et al. [49]. The roles participants could identify within their groups aligned with those one might expect from the group's context. Interview participants, for example, reported a range of context-specific roles such as sellers and buyers in a commerce group, or activists an bystanders in a political group, or doctors in a health group. Similarly, survey respondents selected context-specific roles for their respective groups such as teachers and students in an education group, and family members in a social group (see Table 4). However, these contextual roles are not typically declared through explicit design affordances. Most often participants either inferred them from contextual interactions or by explicit signalling by the group members.

Implicit and assumed roles influence information flows within the group. This is especially true for groups in contexts with richer normative structures (i.e. commerce, education, and politics, see Table 3). Respondents from these groups most consistently observed the presence of contextual roles. Our findings point to how limited platform features for contextual roles create challenges for privacy management.

*Design Recommendation: Labeled Roles.* Defining contextual roles can help resolve the complex interplay between group context and group rules. Labeled roles for group members can, for example, create a sense of security and safety among members by strengthening group privacy rules and norms. In our study, we surmised that online groups, which participants identified with particular contexts (i.e. social domains) would be associated with certain purposes and would benefit from greater expressivity in group roles. To the extent our subject pools allowed, we found this to be so. Groups with 50-500 members, and >500 members showed almost equal interest in labeled roles ( 33%). Across contextual groups, we observed yet again that contextually rich groups (i.e. commerce, education, and politics) would greatly benefit from role expressiveness.

### 6.2 Inadequate Tools for Information Sharing

Group privacy needs vary based on group context and size. Different groups, naturally have different needs. While users engage with the platform as is, trade-offs inherently occur [22, 34]. As outlined in subsection 5.4, a notable percentage of survey respondents refrained from posting or commenting. Reasons include discomfort with the presence of strangers, the perception that the group is unwelcoming, and the desire to minimize self-disclosure or broadcast personal opinions. While these privacy concerns closely align with findings from prior work [2, 51], we posit that preferences are contextually motivated.

All participants advocate for more control over personal information, however, as illustrated in Figure 1, political groups exhibited the highest demand for privacy measures such as anonymous posting. This underscores the sensitivity of political discussions and the need for more control over information sharing and overall group visibility. Health-focused communities closely followed, likely due to the confidential nature of health-related conversations. Education groups also displayed a substantial interest in anonymous posting [49], reflecting a shared need for privacy in educational contexts. Structurally supported contexts overall have a better grasp of their privacy needs. This is likely because they are guided by the ends, values, and purposes of that particular context.

*Design Recommendations: Anonymity and Private messaging.* All study participants expressed reservations about revealing their identities, citing concerns about vulnerability and unfamiliarity with other group members [2, 33]. Building on privacy management strategies outlined by Fiesler et al. [15] and Vitak et al. [51], we find that the option to toggle between identity disclosure and anonymity helps members manage information sharing. Privacy management tools such as anonymity options members support open, risk-free participation, while private messaging between group members supports the value of one to one communication, regardless of group context. These features are also relevant for all group sizes, as the size of one's social network is found to influence participation [53, 55].

### 6.3 Limitations and Future Work

We acknowledges certain limitations in our research. Firstly, the qualitative findings, drawn from 17 interviews, provide valuable insights but are limited in scope. While our quantitative survey results do allow inference for the general public in the U.S., the analysis does not break down group contexts or group size based on variables such as public or private groups. Further research is needed to understand the potential divergences in these kinds of privacy dynamics. Our analysis also refrained from a closer comparative examination of each platform.

Addressing these limitations sets us up for future work which will involve closely exploring the design affordances of each platform. Future work will also involve isolating each domain in the survey study, and supplementing these findings with qualitative data based on experts in each contextual domain. Further, examining posts within contextual groups over an extended period, such as one to three months will also provide valuable quantitative data within contextual groups, allowing for a deeper analysis of the dynamics and evolution of privacy-related behaviors.

## 7 Conclusion

By now, online groups are an integral part of social life, reflecting the teeming variety of ways that humans socialize. These groups vary in nature from purposeful, highly structured, domain specific, to loose associations of intimate friends, family, and happenstance, and everything in between. Although a significant number of social platforms afford group creation and participation, issues of privacy within and surrounding groups has not risen in prominence to the level of individual privacy. Contributing to an emerging body of work, the research reported in this paper applies

qualitative and quantitative methods, structured by the theory of Contextual Integrity, to obtain a deeper understanding of group privacy. Based on these findings, we offer design recommendations for enhancing group platforms with mechanisms that would empower groups to express and enforce privacy rules with the degree of richness and complexity they warrant.

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# 8 Appendix

## 8.1 Predefined roles' privileges on Facebook groups

- *Administrators:* Administrators have the highest level of access and control within a Facebook group. They possess all the capabilities of moderators but also have additional administrative powers. Administrators can manage group settings, invite or remove other members, promote members to the roles of moderator or administrator, pin important posts, create and edit group rules, and change various settings such as privacy and membership approval options. They can also moderate and remove posts and comments made by other administrators and moderators.
- *Moderators:* Moderators have elevated privileges and are responsible for enforcing the group's rules and maintaining its overall quality. They can view and moderate posts, comments, and media shared within the group. Moderators can approve or deny membership requests, remove posts or comments that violate the group's guidelines, and warn or mute members who are engaging in inappropriate behavior.
- *Members:* Regular members have limited privileges and access. They can view and interact with the group's content, including posts, comments, and media files. They can also invite others to join the group, create and participate in discussions, and share relevant content.

## 8.2 Screening Questions

- Full Name
- Email
- What is the name of the Facebook group(s) you are a part of?
- How long have you been a member of the Facebook group(s)?
- What kind of group member are you (E.g. Member, Administrator, Moderator)?
- How frequently do you post or participate in the listed group(s)?
- Are you over 18 years old?

## 8.3 Semi-Structured Interview Questions

*A. Participation.*

- What is the name of your group? Briefly describe your group.
- What is the size of your group? If you don't know, guess.
- Describe the purpose of the group. Why did you join?
- How often do you, or others post in your group?
- Do members of your group fit into explicitly defined roles? What are these roles?
- Do some people assume different roles and responsibilities?

*B. Privacy.*

- Describe your ideal safe space in an online group setting?
- Can non-members see group participants or posts?
- What are privacy or security concerns for your group? (Do you have any privacy or security concerns for your group?)
- What are the privacy settings for your group? Are they adequate for the group's needs, why/why not?
- What are the ideal privacy/security considerations for your group?
- What considerations does this group take to preserve participant privacy?

*C. Norms.*

- Does your group have rules for participation? What are they? Are they explicit or implicitly understood?
- How are rules expressed within this group? (Probe - at sign up, reminders by moderator, pinned post, etc.)
- Describe the norms operating within this group. What is considered usual behavior? What is considered unusual behaviour or interactions in the group?
- Before making a post do you consider how it might/might not meet the expectations of the group? Have you wanted to make a specific post but didn't because it wouldn't meet group rules?
- What happens if someone in the group breaks a group rule?

*D. Platform Design and Architecture.*

- Are you aware who the admins/moderators of your group are?
- How actively do they moderate? What does this involve? Have you ever contacted them about group dynamics/ behavior/posts or rules?
- Does this group have a presence on other apps (e.g. WhatsApp, Discord, or Reddit) because of the privacy or design flexibility that is available/afforded on the other platform?
- When posting in your group how might you indicate that you are posting about a sensitive topic (crime, violence, etc.)?
- If you wanted to make a post or communicate with some but not all members of your group, how might you do this?
- How might you make a post that you want everyone in your group to see?
- How would you change the design of the Facebook Group Interface to better suit the group's needs?

### 8.4 UAS Survey Questions

*A. Participation.*

- Do you have an account on Facebook, Discord, Reddit?
- Are you a member of a (Facebook group, a Discord server, a Reddit community or a subreddit)?
- What is the name of that group? If you prefer, you may also use a nickname.
- Is this group on (Facebook, Discord, or Reddit)?
- How big is this group?
- What is this group about? (Commerce, education, health, leisure, politics, social, other)
- Is your group a Public or Private group?
- Does the group have a moderator(s) (i.e. one or more members who are managing the group)?
- Does the group permit anonymous posting?
- IF NO, Would you like to be able to post anonymously?
- IF YES, Would you prefer if others could NOT post anonymously?
- Can you think of a time when you wanted to post or comment in the group but chose not to?
- IF YES, Why did you decide not to post or comment?

*B. Group Norms, Rules, and Privacy.*

- Are there written rules of conduct for this group?
- IF YES, Do you find these rules to be clear?
- IF YES, How often do members follow these rules?
- IF YES, Are these rules applied by the moderators of the group?
- IF YES, Are there written rules about sharing personal information about yourself or others?

- IF NO or I DON'T KNOW, Do you think it would be helpful to have written rules that tell you what you are not supposed to do in the group?
- Are there unwritten rules of conduct for this group? (e.g. rules that the group naturally follows over time)
- IF YES, Are you familiar with the unwritten rules?
- IF YES, Are there unwritten rules about sharing personal information? (Yes/No)
- Do you prefer written or unwritten rules for group conduct?
- Are there people with roles that are clear to all members of the group? (e.g. sellers, buyers, exchangers, scammers)
- Are there people with roles that are clear to all members of the group? (e.g. teacher, student, parent, tutor, ed tech company, other)
- Are there people with roles that are clear to all members of the group? (e.g. medical professionals, patients, social workers)
- Are there people with roles that are clear to all members of the group? (e.g. information seekers, information providers, helpers, organizers, observers)
- Are there people with roles that are clear to all members of the group? (e.g. activists, bystanders, critics, organizers, supporters)
- Are there people with roles that are clear to all members of the group? (e.g. friends, friends of friends, family members, distant relatives)

*C. Design and Interface.*

- Do you think any of the following would improve your experience? (Anonymous posting, written information sharing rules, labeled roles, private messaging)
- Would you like to see reminders of written group rules when you are online? (e.g. what you should or should not post in the group)
- Would you like to see reminders of unwritten group rules when you are online? (e.g. what you should or should not post in the group)
- If it were possible, would you participate with others to write privacy rules for your group?

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