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Channel Switching and Adaptive Behaviors in Multichannel Communication

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People often use multiple communication apps concurrently for messaging, yet how they use these channels together and the motivations for switching between them remain underexplored. To investigate this, we conducted a two-week diary study followed by interviews (N=17), examining channel-switching practices and the management of social boundaries. Our findings reveal that users switch between multiple communication channels with the same contacts, driven by factors such as different *topics*, *expectations* for fast or slow communication rhythm, specific *features* suited to the situation, and app-specific vibes that match their *mood* at the moment. Additionally, we identify *inertia*, where users tend to stay on the app where the last interaction occurred, as the opposite of active channel switching. Our findings show that users do not actively distinguish apps based on relationships. Instead, their contacts are dispersed across different communication apps due to *adaptive behaviors*. These behaviors include users continually adapting to unique relationships, evolving communication needs, and app changes over time. Based on these insights, we propose design implications for multichannel communication to help users manage cross-app communication flows effectively.

CCS Concepts: • **Human-centered computing** → **Empirical studies in HCI**.

Additional Key Words and Phrases: multichannel Communication, messaging apps, channel-switching, adaptive behavior

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1 Introduction

Early in the morning, Alice is already juggling messages from various communication channels. A WhatsApp group chat buzzes with weekend trip plans, an urgent work email awaits her attention on her laptop, and her friend Bob has sent two messages — one on Instagram about a funny cat video, and another on Telegram asking when they are meeting at the gym. For Alice, like many others, managing daily communication across multiple apps has become the norm.

In today's world, where the average adult regularly uses six different communication apps [32, 62] — for example WhatsApp, Telegram, Messenger, WeChat, Instagram, email, and SMS — this scenario of juggling multiple channels is increasingly common [4, 31, 32, 61, 72]. As messages scatter across apps and devices, users constantly switch contexts, often losing track of where a message was sent [92], or feeling overwhelmed by overloaded notifications [34, 66, 68]. This multichannel communication raises critical questions about how people navigate through these complexities with their social circles and how constant app-hopping supports their communication needs.

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In the past, the available communication channels and their functionality were limited, often requiring people to switch between channels to achieve their communication goals. For example, people switched from phone calls to fax for sending documents [27], or avoided using SMS due to high costs when internet-based messaging apps emerged [15]. Today's communication landscape comprises a plethora of apps such as WhatsApp, Telegram, Instagram, and Messenger. These apps offer extensive communication capabilities, including high-synchronicity messaging and the ability to transmit multimodal content such as text, audio, and video. Despite the similar features offered by different communication apps, people often connect with the same contacts across multiple platforms [31, 59]. This raises our first research question: (RQ1) *Why and how do people switch between multiple communication channels with the same contact?*

Previous research suggests that people often use different apps for different social groups, distinguishing their social circles by platform [5, 48, 61]. For example, individuals may talk with close relationships on one app and less close acquaintances on another [5], or dedicate specific apps to certain social circles, such as using WhatsApp for family and Telegram for friends [61]. However, more recent studies reveal substantial overlap in contacts across multiple platforms [59, 93] and a mix of social circles on apps like WhatsApp, where people interact with a variety of contacts [32]. This suggests a complex scenario where social boundaries between apps are blurred, creating a situation of everyone everywhere. This shift challenges the existence of clear social boundaries within today's digital communication channels and underscores the need for a refreshed understanding of how people manage these apps. Therefore, our second research question investigates: (RQ2) *What contributes to the blurred boundaries between different communication channels?*

As previous research suggested, multichannel communication presents a complex interplay between technology and human relationships. We tackle this complexity with two lenses: the switching between multiple channels to communicate with the same contacts, and the mixing of various types of relationships within a single app. Investigating the former enhances our understanding of people's communication needs and how different channels fulfill these needs (RQ1). The latter allows us to update our understanding of boundary management across different communication channels (RQ2). We aim to enrich Computer-Mediated Communication (CMC) research with real-world communication practices and inform future digital communication design.

We address the two research questions using an in-depth qualitative approach with 17 participants from diverse regional backgrounds who use multiple communication channels daily. First, we conducted a two-week diary study in which participants recorded their digital communication activities. We then followed up with semi-structured interviews, where they elaborated on their reasons for switching channels in specific conversations and how they managed multiple communication channels in their daily routines.

This work presents the following three major contributions. First, we identified five key factors influencing multichannel communication switching behavior: *topic*, *expectation*, *feature*, *mood*, and *inertia*. The first four drive the channel-switching behavior, and the last one discourages the channel-switching. Second, we highlight the *adaptive behaviors* that explain the blurred social boundaries between communication channels. These behaviors include participants continuously adapting to unique relationships, evolving communication needs, and the ongoing development of communication apps. Third, based on our findings, we propose design implications that help people manage messaging flows across multiple channels.

2 Related work

2.1 Messaging apps ecosystem

Communication channels have evolved significantly over the years. From early reliance on email, phone calls, and SMS to the rise of instant messaging apps like WhatsApp and WeChat, user preferences have shifted considerably [8, 15, 23, 28, 54, 76]. Today, a variety of apps beyond instant messaging platforms support private message exchanges, including social media apps like Instagram [39], discussion forums like Reddit [10], and live-streaming platforms like Twitch [85]. These apps facilitate real-time messaging and support exchanging various modalities, including text, audio, and video. As app functionalities expand and increasingly overlap, the distinction between communication apps and other apps has become less clear [65]. In addition to the increasingly ambiguous categorization of apps, users also appropriate apps for their own purposes. For example, the growing use of social media like Instagram to send one-to-one messages [32]. The evolving ways in which people appropriate — adopt, adapt, and integrate — communication apps into daily life [24] suggest a need to revisit how communication channels are used today, examining how both longstanding and newer apps blend into everyday communication practices.

The rise of a plethora of communication channels has led to the concurrent use of multiple similar apps. Despite most apps now offering comparable features, individuals continue to use multiple apps concurrently for communication [16, 62]. Earlier studies suggest that people use various communication channels in complementary ways, with each channel fulfilling distinct yet supportive roles within the communication process [25]. For example, individuals may rely on flexible text messaging for casual connection while reserving phone calls for in-depth, real-time conversations to sustain long-term friendships [70], as different channels can provide richer (e.g., phone calls) or leaner (e.g., text messages) media to meet diverse interaction needs [69]. However, when using similar media with comparable levels of richness, this framework does not fully explain how multiple channels are used together.

The concurrent use of multiple channels highlights the importance of an ecological perspective that considers digital communication channels as interrelated rather than isolated entities [44, 74, 84, 94]. This ecological perspective shifts the focus from examining individual channels in isolation [47, 63] to studying how apps are used together, offering deeper insights into the dynamic interactions within multiple communication channels [31, 32, 61]. The concept of the "messaging apps ecosystem" was introduced to describe this interconnected collection of messaging apps used for interpersonal communication. To study the messaging apps ecosystem, research primarily focuses on high-level management aspects, such as relationship distribution [61], as well as specific features like emoticon usage [31] and information tasks like content sharing [74]. However, it is underexplored how people actually orchestrate multiple channels for communication in daily practice, particularly how they use multiple channels together with the same contact.

Communication channels evolve rapidly, requiring continual updates to our understanding of the communication ecosystem, especially as more people use multiple channels simultaneously. Additionally, app usage is influenced by factors such as region, culture, and user base [52, 53, 56]. While various factors shape communication app usage and people appropriate each channel in their own way, identifying common patterns in how individuals navigate multichannel communication remains valuable. This work takes an ecological perspective to examine individuals' daily communication activities, focusing on how people use multiple channels with the same contacts to enhance our understanding of multichannel communication dynamics.

2.2 Grouping social contacts

Many studies have focused on how people manage relationships across multiple apps, emphasizing the role of relationships as a key factor in multi-app usage. Depending on the closeness of contact, individuals tend to allocate them to different apps [5]. Similarly, apps are often conceptualized as distinct communication places, each with its own membership rules, where users organize and manage their contacts to navigate through different social relationships [61]. Additionally, people present themselves differently across various contexts, managing their appearance to shape perceptions and achieve social goals, as described by self-presentation theory [30]. The identity they wish to portray also influences how they select and divide their audiences across different social media platforms [79, 94]. Beyond managing social circles, privacy [79] also emerges as a crucial motive for establishing and regulating boundaries across social platforms. People carefully manage different profiles and media accounts to interact with distinct audiences, employing varying degrees of pseudonymity, practical obscurity, and transparency [79].

However, social relationships are dynamic and fluid, which can challenge the boundaries between apps. The fluid nature of relationships was noted in the same study that posits people assign membership rules to different apps. Despite purposeful contact allocation, it was acknowledged that these boundaries can blur due to relationship fluidity [61]. As relationships evolve, people may switch to different apps depending on the stage of their relationship [4]. For example, two people might use Tinder when they first meet during the orientation stage, then transition to Facebook as their relationship moves into the exploratory affective stage.

Furthermore, a single contact is not confined to one app; people frequently interact with the same contacts across multiple platforms [59, 93], especially with close ties [4, 14, 70]. These studies indicate that the closer the relationship, the more communication channels are employed to complement each other in maintaining connection. Besides one person across multiple communication channels, recent studies also show that audiences on each platform tend to be mixed, with apps like WhatsApp being used to connect with a wide range of people [32]. These findings suggest that app boundaries may no longer be as clear-cut.

While allocating specific contacts to certain apps may seem ideal, the fluid nature of relationships and the overlap across communication channels add complexity to this approach. This raises questions about whether boundaries between apps hold and what influences them beyond simple contact allocation. To untangle this complexity, examining daily communication activities provides a crucial lens for understanding people's communication needs and channel boundary management across different apps.

2.3 The choice of communication channels

In multichannel communication, a central question is which channel is chosen and when. Research on media choice seeks to understand why individuals select particular communication mediums. Rich research has explored the appropriateness and effectiveness of various media for different types of communication under diverse circumstances [15, 19, 42, 78]. Several theories have been proposed to unpack the dynamics of media choice, such as Media Richness Theory, which suggests that media can be ranked on a continuum based on a blend of their capacity for synchronicity, conveying multiple cues, and accommodating linguistic variety [19]. For instance, face-to-face interactions are positioned at the 'rich' end of this spectrum, while standardized written reports are at the 'lean' end. This theory posits that individuals choose media based on the complexity of the communication message. Empirical studies support this theory, showing that richer media are favored when delivering more complex messages [42].

With the development of modern communication apps, many now offer nearly identical features, and technical differences between them have become minimal. As a result, functionality alone no longer distinguishes apps, and app properties by themselves may not fully predict app choice [21, 26]. Instead, social and emotional influences have emerged as important factors in media usage. Studies reveal the affective value people associate with different media and show how they appropriate these emotional aspects in their daily interactions [17, 61, 83, 86]. For example, in romantic communication, couples often prefer apps that allow them to add self-drawn content, enhancing their enjoyment beyond merely delivering information [17]. Nonverbal cues such as emojis and customized stickers are also popular in fostering emotional expression [86]. Additionally, social context, such as the formality of the conversation, plays a crucial role in app choice. For example, WhatsApp is often preferred for informal exchanges, while SMS is generally perceived as more formal [15]. Communication apps themselves carry symbolic meanings that align with different social contexts, making certain channels more appropriate for specific situations [83]. Situational factors also shape channel choice. In urgent work situations, employees typically choose synchronous channels like phone calls or face-to-face communication [77]. Likewise, for knowledge workers, the receiver's availability influences communication choices; synchronous methods, such as phone calls, are preferred when the receiver is available, while asynchronous options like email are favored when they are not [78].

While much of the rich media choice literature focuses on the selection of a single medium, in reality, people frequently use multiple apps simultaneously [4, 31, 32, 61, 72]. They may also switch between them during interactions [3, 60, 72]. For example, research shows that individuals might begin with instant messaging but switch to a phone call when a more interactive form of communication is needed, such as verbal conversation [60]. Couples, for example, often navigate between different channels to resolve conflicts, using this approach to reduce tension and manage relationship dynamics [3, 72]. Although many studies highlight that one person can connect with another through multiple channels [4, 14, 70], as discussed in previous section 2.2, the everyday practice of switching between channels with the same contact remains underexplored. There is still limited understanding of why and how people switch between multiple channels in their daily interactions.

Channel switching with the same contact reflects an ecological view of how multiple apps are used together and how people react to real-time interactions, as the medium becomes an integral part of managing ongoing conversations. This dynamic process goes beyond static, pre-determined choices, highlighting the fluidity of channel switching during interactions. By examining everyday communication practices, this work aims to expand on existing research and provide a more nuanced understanding of the real-time interplay in multichannel communication.

3 Method

To understand people's day-to-day multichannel communication, we first conducted a preliminary survey to screen participants and update our understanding of which media platforms they use as communication channels. With participants who agreed to proceed to follow-up studies, we conducted a two-week diary study, followed by in-depth interviews.

3.1 Preliminary survey

The preliminary survey provided up-to-date knowledge on the communication channels participants used and served as a screening tool for their selection. Through this self-reported survey, we asked participants to define the scope of messaging apps, including all digital channels they regularly use for sending messages. These channels were then included in the subsequent diary study.

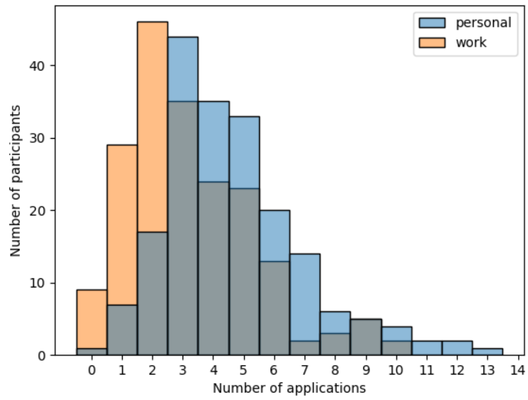

Fig. 1. The histogram shows the number of apps used by survey participants daily, grouped by for work and for personal use.

The survey included questions about demographics and the use of communication apps for work and personal activities. One example of apps for personal use is *“What digital applications do you use for messaging personal contacts (e.g., family, friends, acquaintances)?”* The survey was designed with Webropol survey platform, and posted through online and offline channels. The survey was open to the public from April 18 to May 11, 2023, and received in total of 194 responses. Respondents were from diverse backgrounds, varying in age, education, occupation, and country of residence (a detailed overview of the respondents’ demographic information is provided in Appendix Table 4). Based on survey results, Results of our survey showed that respondents use, on average, 4.8 apps for personal and 3.4 apps for work communication, in line with recent survey results [32, 38, 75]. Figure 1 shows an overview of the number of apps our respondents use. Among the reported apps, WhatsApp (76.6%) and Telegram (61.3%) are the top-used apps for personal messaging, followed by Discord (42.3%), SMS (42.3%), and Instagram (41.4%). For work messaging, Microsoft Teams is the most popular (50.5%), followed by WhatsApp (36.0%) and Slack (34.2%). These results provide an overview of our sample pool and highlight the phenomenon of switching between a wide range of apps for daily communication.

3.2 Participants

To recruit participants for the diary study, we sent invitation emails to 48 participants who expressed willingness to take part. The inclusion criteria were: a) they use at least five communication apps daily; b) they use different devices for communication. These criteria enabled us to focus on a representative user group proficient in using multiple communication apps across devices.

Twenty-four participants attended the briefing of the diary study, and twenty-two started the diary study, with four discontinuing participation within the initial three days. Among the remaining eighteen participants, one withdrew from the study midway due to personal issues and submitted seven days of diary records (the data from this participant, identified as P6, was used with her explicit consent for diary analysis, given the comprehensive and well-explained nature of the data), and one participant’s data was deemed invalid due to information credibility issues and a lack of proficiency in English to complete the interview (the study was conducted in English). The demographic information for the final 17 participants is presented in Table 1. Participants were compensated with a 30-euro Amazon digital gift card for completing the diary, and one extra 30-euro voucher was raffled among the participants who completed both the diary and interview study.

No	Age (G)	Occupation	Residence/Birth	Applications used to chat
P1	25-34 (M)	Software developer	Serbia/Serbia	WhatsApp, Telegram, SMS, Slack, Viber, Discord
P2	25-34 (F)	MSc student	USA/India	WhatsApp, Instagram, Microsoft Teams, Slack, SnapChat, iMessage, SMS, Messenger, LinkedIn
P3	25-34 (F)	Engineering manager	USA/USA	WhatsApp, SMS, Skype, Messenger, Telegram, Instagram, Microsoft Teams, Webex, TikTok, SnapChat, LinkedIn
P4	25-34 (M)	Ph.D. student	Netherlands/China	WeChat, Microsoft Teams, WhatsApp, Email, Slack, Instagram
P5	35-44 (M)	Movie director	Portugal/Portugal	Email, Messenger, Microsoft Teams, Discord, Twitter, SMS, iMessage, Instagram, Reddit
P6	25-34 (F)	MSc Student	Portugal/Portugal	Discord, WhatsApp, SMS, Twitch, Email, Reddit, Telegram, Messenger, Instagram, Skype
P7	35-44 (M)	Software developer	Germany/Germany	Gajim, WhatsApp, Microsoft Teams, Signal, Matrix, Conversations, SMS
P8	25-34 (F)	SoC design engineer	Finland/China	WeChat, WhatsApp, Instagram, iMessage, Telegram, Microsoft Teams
P9	25-34 (M)	Ph.D. student	Finland/Spain	Telegram, Microsoft Teams, WhatsApp, Instagram, WeChat, Email, LinkedIn, Discord, Slack
P10	25-34 (M)	MSc student	Finland/Spain	Telegram, WhatsApp, Email, Instagram, WeChat, Signal, Microsoft Teams, Webex
P11	25-34 (F)	Product designer	Finland/China	WeChat, Telegram, Email, WhatsApp, Microsoft Teams
P12	18-24 (M)	MSc student	Finland/Ireland	WhatsApp, Instagram, Messenger, Microsoft Teams, Telegram, Email, Discord, Tumblr, iMessage, Twitter, BeReal, SMS, Slack
P13	25-34 (M)	Software developer	Finland/China	WeChat, Instagram, Microsoft Teams, Telegram, WhatsApp, Email, Messenger, GitLab, Airbnb
P14	45-54 (F)	Administrative staff	Finland/Finland	WhatsApp, SMS, Signal, Slack, Microsoft Teams, Instagram
P15	25-34 (M)	Web developer	UK/UK	WhatsApp, Messenger, Microsoft Teams, Telegram, Tinder, SMS, Instagram, Amazon Chime, Twist
P16	25-34 (F)	Marketing specialist	USA/USA	WhatsApp, Messenger, Telegram, SnapChat, TikTok, SMS, LinkedIn, Microsoft Teams, Instagram
P17	25-34 (M)	IT manager	West Africa/West Africa	WhatsApp, Telegram, Messenger, iMessage, SMS, Microsoft Teams, WeChat, Slack, Tinder, Amazon Chime

Table 1. Demographic characteristics of 17 study participants.
Note: a) In the table title, *G* refers to gender following age information, and *Residence/Birth* refers to the country of residence and country of birth, respectively. b) For the *applications used to chat* the applications are ordered by the usage frequency and survey answers reported by participants. c) We report both country of birth and residence because application usage diverges in regional popularity [56], and we consider the location background as an influential factor for participants' application choice. P17 did not want to specify the country of birth and residence but only the region.

3.3 Diary-interview study

The diary study allowed us to capture participants' communication activities and helped them reflect on their use of multichannel communication in everyday life. The design of the diary was guided by Bartlett and Milligan's diary method [9]. The diary study was designed to capture communications activities that occurred in natural settings. Furthermore, it served as reference material for participants to reflect upon in the interviews [95].

Before the diary started, we hosted a briefing session with each participant. During this, the first author explained the study procedure and distributed study materials, including an instruction on diary keeping and a diary template. Each participant was provided with an information sheet and data privacy notice following the university guidelines, and signed consent was obtained before the start of the study. During the two-week diary study, participants were asked to keep a diary of all encountered communication activities every day. The diary entries were then used as a prompt to guide the discussion around communication activities and multichannel management during participants' interviews.

3.3.1 Diary design and procedure. We designed a diary template for participants to record daily communication activities. The template was provided in a spreadsheet for participants to record their experiences, and they were also encouraged to use diverse other means, such as audio recordings or written notes, to sample their experiences.

The authors first designed this template and then iterated it with five participants in a one-week pilot test (see Appendix figure 2 and 3 for the completed diary template). In this template, each row corresponded to one communication session, and each column corresponded to one type of information associated with the communication session. Participants were asked to record the following information: a) Columns to be answered with drop-down lists: "who initiated the conversation", "channel used", "relationship with the contact" (categories are adopted from [50]), and "device used"; b) Columns to be answered with open text: "time of the conversation", "contacts" (Participants were asked to use a unique and consistent identifier for each contact throughout the study, real names were pseudonymized for analysis), "conversation topic", "response speed", "feature used", "experience of app", "alternatives" and "open notes".

To motivate participants and manage progress flexibly, the researcher distributed one new diary spreadsheet via email each day at 23:00, adjusted to each participant's respective time zone. Each spreadsheet was dedicated to record as many communication sessions as possible. Participants can log the sessions either in time or retrospectively, determined by their daily routine. At the end of each day, the researcher emailed each participant individually to collect the spreadsheet and distribute a new spreadsheet for the coming day. This procedure enabled researchers to follow up timely on any questions from participants that arose throughout the diary study. In addition, we set two checkpoints, by the end of the first and second week, to collect participants' experience of this study.

Diary data overview. Over the course of the two-week diary study, a total of 1,902 data entries were collected, with each entry representing a communication activity. Among the 17 participants, six logged over 100 entries each, while the remaining participants averaged 70 entries per person. The diary entries captured various communication styles and channel-switching behavior. Topics covering planning and scheduling (354), content sharing (287), work discussions (175), and greetings (43). A detailed overview of the diary data is provided in the Appendix Table 2 and Table 3.

3.3.2 Interview procedure. Upon finishing two weeks of diary keeping, we first analyzed each participant's diary and marked unclear or interesting observations for further explanation. The first two authors discussed and completed this process. The results of the analysis were used to inform interview questions tailored to each participant, which were included in the interview protocol before each interview. Interviews were conducted remotely via Microsoft Teams and lasted for approximately 60 minutes. They consisted of two parts: First, a detailed discussion of communication behavior elicited by diary entries. Second, a discussion centering on participants' perspectives on their communication coordination practices. Examples of questions asked during the interviews include: *"Why do you choose to use [App] in [case A] ?"* and *"What are the benefits of using multiple channels?"* These two parts of the interview were not strictly sequential; for example, while clarifying certain diary entries, participants also discussed their overall strategies for managing multiple channels. The interview protocol is provided in Appendix A.

3.4 Data analysis

We collected diary entries, interview recordings, and additional experiences shared by participants. We first transcribed 914 minutes of interview recordings and organized all other data forms. We then compiled all the data into the qualitative analysis software Atlas.ti [6]. We combined both the interview and diary data for each participant, which enabled us to gain a comprehensive understanding of what occurred in specific conversations. We use Braun and Clarke's thematic analysis approach for data analysis [13]. The first author went over all the participants' profiles to gain overall familiarity with the data set. The initial coding scheme was generated in this process. Then, the first two authors met regularly to discuss and refine these initial codes over six weeks. The process was guided by research questions focused on why and how participants switched channels with the same contacts and the friction they faced with app boundaries. Based on this, the first author inductively coded the rest of the data set. Then the first two authors sorted the codes and diary excerpts into a collaborative illustration board for further discussion and theme identification. This approach led us to identify key drivers of participants' channel-switching behaviors and adaptations as they navigated and managed the boundaries across channels.

4 Findings

In the following section, we present our findings in two subsections, corresponding to the two research questions. Section 4.1 details five factors that impact channel-switching behavior with the same contact (RQ1). Section 4.2 illustrates the adaptation behaviors that explain the blurred social boundaries across communication channels (RQ2).

4.1 Switching between communication channels

Switching between channels with the same contact was common among our participants. The diary data showed that 16 out of 17 participants communicated with the same contacts across multiple channels. Through thematic analysis, we identified five key factors influencing switching behavior, with four factors driving the switches: *topic*, *expectation*, *feature*, and *mood*, and one factor that resists switching: *inertia*. As an additional observation, we noted the consequences of multichannel communication.

4.1.1 Topic-driven channel switching: align topics with the appropriate channel. Participants switched channels to chat with the same contact because certain topics were considered appropriate for some apps than others. For example, Instagram and TikTok were frequently utilized to share multimedia content like reels, posts, quotes, and pictures. In contrast, channels such as email, Teams, or Slack were preferred for important, professional exchanges. Meanwhile, WhatsApp, WeChat, and Telegram were favored for everyday conversations, planning, and discussing life matters. For example, P2, who frequently exchanged interesting reels and news with a friend on Instagram, reflected in a diary entry: *"I equally communicate with this person on WhatsApp, especially when I want to ask for advice."* (P2, diary excerpt). During the follow-up interview, P2 further explained, *"So for Instagram, it's like usually commenting on stories or sharing views mostly, and then for anything other than that, I would use WhatsApp."* (P2).

The suitability of specific apps for certain topics can be attributed to characteristics such as the formality, sensitivity, and importance of the conversation topic.

Topic formality influenced people's switches between different communication channels, particularly when navigating between personal and work settings. For example, P9 used Teams for work-related discussions to maintain professionalism but switched to Telegram or Instagram for casual chats with the same colleague-friend: *"When it's work-related stuff, I use Teams. And when I just want to chat with him or we're going to have lunch or something like that, I use Telegram."* (P9).

Topic sensitivity also played a role in multichannel communication. Some participants preferred to switch to a different app when discussing topics they considered sensitive, such as personal matters or private discussions (P3-4, P8). For example, some participants considered certain topics, such as political discussions, to be sensitive and were cautious about where they shared their personal views. Concerned about how discussions might be moderated on specific platforms, they opted to use alternative apps they felt were more suitable for such conversations.

> *"This is something a slightly a little bit sensitive because, you know, there's a lot of things you can talk about on [App A], but not on [App B]. For example, politics topics. [...] Once we have something to talk about, for example, some trending topic, trending news related to public activities or events, then it's probably we will just discuss it on [App A]. Yeah, [App B] is more like how about your life."* - P4

Topic importance influenced channel switching. Participants used WhatsApp for trivial topics like the weather or social plans but switched to email more serious matters, such as filling out forms or exchanging official documents. As P12 explained, *"If any message is going to be important, it'll be an email."*, reflecting his daily messaging with his mother on WhatsApp while opting for email for important matters. Similarly, some participants noted that email was particularly suitable for discussions that required thoughtful responses and in-depth consideration (P4, P7, P12).

4.1.2 Expectation-Driven Channel Switching: Assess Reachability and Responsiveness. We found that participants had varying expectations for different communication interactions. In some cases, they expected a quick and interactive response. While in other cases, they did not expect an immediate reply — or any reply at all. Their assessment of the required level of interaction guided their switch between communication channels, allowing them to adapt their usage to align with these expectations.

In situations where participants had more urgent matters expecting a quick response, they would switch to the channel where they knew the other person was most active. For example, P9 noticed one friend was more active on WeChat and switched channels to receive a quicker response: *"I think I needed to buy some product at a pharmacy, and I was at that moment, so I needed an immediate answer. But otherwise, I would use Telegram."*(P9). Switching channels for responsiveness could sometimes result in a chain of behaviors. For instance, P6, in her one-day diary, reported switching between three different channels to reach her parents. She noted:

> (Dairy excerpt) *"Sent message to family WhatsApp asking for a ride back home. No reply for 10 minutes, and then I messaged mom and later dad. No reply for a few minutes (and I was already on my way back on the train) and then I called my mom who couldn't pick me up, and then I called my dad."* - P6

In some situations, participants did not view the conversations as important and did not expect an immediate response, sometimes even feeling there was *"no need to reply"* (P5, diary excerpt commenting on a conversation where he shared information with an acquaintance). In these cases, participants switched to a casual or default channel they commonly used. Conversations did not involve continuous back-and-forth exchanges but had longer intervals between replies. For example, P8 chatted with a friend across different platforms over two weeks, including sharing videos and posts, but they rarely talked in real-time. Instead, they sent messages when they found something interesting, and the other person responded when free. As P8 described, *"the communication continues when each other is free. We share something with each other randomly and continuously."* (P8 diary excerpt).

In these 'no-need-to-reply' situations, a tacit agreement emerged among participants, forming an unspoken communication etiquette. Participants frequently highlighted the usefulness of emojis and quick replies in their diary recordings, as a way to engage with the conversation (P1, P3-4, P7 -14). Many viewed these quick actions as an important part of communication, allowing them to acknowledge messages politely, such as 'liking' a photo in a chat. As P13 noted, *"when I don't know what to say, I just choose an emoji to react."* (P13 diary excerpt).

Participants' expectations of their own communication capacity also influence how actively they engage with others via certain channels. When we inquired about their own response behaviors, we found that some participants muted their messaging app notifications due to the high volume of incoming messages and interruptions. Some participants muted all apps except for important channels, such as work-related ones (P1-2, P4-5, P8-12, P15), while others muted personal messaging apps during working hours (P16). With notifications muted, participants shared that they took the initiative to check their communication channels periodically, but prioritized certain channels. For example, P10 mentioned checking Telegram more often than Whatsapp, making it easier to reach through that platform.

> *"It's like if you reach me through WhatsApp, perhaps I see it once a day. If you reach me through Telegram, I will see it three or four or five times a day." - P10*

4.1.3 Feature-Driven Channel Switching: Leverage Technical Affordances Across Apps and Devices. App and device features were one reason participants switched between communication channels. Over time, they developed an understanding of which apps had the best features for specific purposes and formed habits around using certain apps on specific devices.

Participants identified unique advantages in different communication channels, commonly mentioning features like sticker collections, file compatibility, and photo and video quality. These features often guided their decisions to switch between channels. For example, Telegram was preferred for sending high-quality, uncompressed photos, which prompted users to switch to Telegram when sharing images, even though they might use WhatsApp for everyday chatting (P16-17). Some participants also switched channels mid-conversation to access specific sticker collections on another app (P1, P10-11). Similarly, WhatsApp was preferred for sending audio compared with Instagram's one-minute limit (P2), while Slack was favored for file sharing, leading participants to switch to it for communications involving file transfers (P17). Privacy features were also important, as P16 switched from WhatsApp to Snapchat for sharing private photos because of its automatic deletion function.

> *"Snapchat has, it deletes like your messages that are going, and deletes the selfie thing, I'm sorry to say this, I sometimes contact my significant other like if I want like send him some sexy photos which I know that will delete."* - P16

Device affordances also played a significant role in channel switching. Many participants had different apps installed on different devices, which influenced their use of communication channels (P1-3, P8-9, P12-15, P17). Depending on the situation, different devices were preferred, leading participants to switch to apps accessible on those devices. When on the move, mobile phones were favored. While in the office, participants often switched to channels that were already available on a laptop or PC during work hours. For example, P7 preferred messaging through Gajim on his desktop when communicating with his wife but switched to Conversations on his mobile phone when on the move.

Device-based channel switching also occurred within the same conversation. For instance, P12 was chatting with a colleague on Teams using her laptop but switched to WhatsApp on her phone midway to send a link and additional information, explaining that the switch was for device convenience.

> *"I was looking at something on my phone or it was another resource that I was accessing through the phone. So it was easier from my phone to share through WhatsApp, so probably had to do with this. Cause if you notice it's one is a phone and one is a laptop. I think it's just device-specific. So I noticed that I use my phone more on WhatsApp"* -P2

However, the perceived advantages of different channels were subjective, varying among participants based on individual priorities. For example, some participants preferred audio messages (P2-3, P5, P9, P15), while others did not (P4, P10). Similarly, device preferences were highly personal. Some participants favored mobile devices for the smooth experience of scrolling through apps and sending emojis and mobility (P1-4, P8-9, P11-17), whereas others preferred larger screens and keyboards for typing (P5-7, P10), which led them to use a different set of communication channels.

4.1.4 Mood-Driven Channel Switching: Meet Self Mood with App Vibe. We observed that participants' moods could nudge them to switch between communication channels and initiate conversations on different platforms. Each channel seemed to offer a distinct vibe for communication, prompting participants to match their mood with the perceived vibe of the app. Some participants described the vibes of different apps by comparing them to real-life environments. For example, P12 linked BeReal versus Instagram to *"chatting with somebody at a party versus chatting and then going out for coffee afterward"*, P11 compared Teams to *"sitting in the office"*, P14 characterized Teams as discussions *"in the same room"*, P10 compared email to *"throwing a paper to the person you have in front"*, and P1 linked Discord to *"hanging out with someone in real life, where you can join the voice conversation and leave, whatever. It's just, you're completely free"*.

As a result, this *mood of messaging* prompted participants to navigate between different communication channels. When feeling bored or cheerful, participants often visited social media channels with a *mood for Instagram* (P11) and initiated conversations by sharing interesting content (P8, P11). In contrast, during moments of frustration or procrastination, one participant shared that he would browse through apps with crowded group chats, looking for anything that might capture his attention (P12). This perception of mood often guided participants' decisions to switch, as they adapted their communication style and mindset to fit the vibe of the chosen channel.

> *"Basically the (different apps), I can put myself on the mood and I can put myself on the, like all the situation, or what I what, I'm looking at or what I'm replying to." - P10*

Another way mood influenced behavior was after a conflict on a specific social media platform. To avoid revisiting upsetting messages or awkwardness, participants sometimes moved to a different app. For example, P1 and P12 switched channels to avoid someone they did not want to engage with at the time. After arguing with a friend on WeChat, P13 opted to reconnect via Instagram, using a different platform to rebuild a positive mood.

> *"We had like a small fight before, so it was kind of awkward in chat history. But like the thing is that history on Instagram is empty. So I feel more comfortable in there to start a conversation. OK. It's like a new start."* - P13

Overall, moods acted as subtle triggers for channel usage, leaving a distinctive imprint on cross-channel conversations.

4.1.5 Inertia Resists Channel Switching: Keep Conversations Flowing. We observed a pattern of inertia to keep the flow of conversations when our participants communicate with others. Inertia is defined as the tendency to remain unchanged unless acted upon by an external force [88]. Here, we use inertia to refer to participants continuing to use the same channel where they most recently interacted, until it no longer suited the needs of the conversation.

This inertia often began with a single action. For example, when person A commented on person B's Instagram post, the post owner might reply, naturally extending the conversation on Instagram itself (P2, P9, P12, P14). As recorded in P14's diary, although she typically chatted with a friend on WhatsApp, they would naturally stay on Instagram if the interaction began with a comment on a post.

> (Diary excerpt) *"Her post reminded me about her and that's why I send her a message. (It started with) greetings after which we discuss about meeting in July, continues for about 30 min. "* - P14

One participant explained that, although he did not primarily use Instagram as a messaging app, conversations would occasionally be sparked by the platform's mechanisms.

> *"The conversation, it's kind of forced by the application, I will say. For example, if there is any story and I react to the story, the way Instagram handles that is that appears on the other person's as a conversation, or kind of, you know, private messaging. So usually if someone reacts or I react to someone, then that person maybe answers to that reaction, and then maybe we chat for a bit, [...] But I will say if I want to talk with them, I don't use Instagram, but if there is a video and then we comment about the video then we may use the conversation started from there."* - P9

Additionally, inertia was evident in cases where participants had multiple options for messaging a contact, they tended to initiate conversations on *"whatever we last messaged on"*(P12) to keep the continuity of their communication.

This inertia could be disrupted when one side suggested switching platforms or when technical limitations of certain channels were encountered. For example, P1 typically initiated chats on WhatsApp, but his relatives occasionally started conversations on SMS or Viber. When others initiated the conversation, he responded on the same platform, forming a new inertia. He explained, *"It was just that I replied on the same channel that she texted me."* (P1). As a result of this push-and-pull conversation inertia, P1's diary showed that he communicated with several contacts across various channels.

Inertia can also be broken by the technical limitations of a channel. For example, a conversation that starts on Instagram might shift to WhatsApp for better functionality and comfort (P9). P12 described a similar experience where a discussion that began on BeReal moved to WhatsApp as his friend followed the switch to continue the same conversation.

> *"BeReal is kind of weird 'cause it was like, if I comment, it's like a public comment. They do have a messaging feature now, but I don't really know how to use it and I haven't really used it. Also, I'm very good friend with him. I see him regularly, so I'm happy enough to just move into WhatsApp like he'll just follow along if I message him there instead."* - P12

Consequences of Channel Switching. Channel switching is driven by various factors and can lead to an overload experience. As illustrated above, four key factors influence participants' switching between multiple communication channels: *topic*, *expectation*, *feature*, and *mood*, and one factor that resists switching: *inertia*. While switching between apps provides participants with *"more options and degree of freedom to choose"* (P4), it also demands *"energy or time to actually form certain helpful and suitable strategy"* (P4). Our participants discussed various challenges in managing multiple communication channels, such as jumping between apps for content sharing (P8) or losing track of message overload across multiple platforms (P1, P3, P12-14, P16). To cope, many participants strategically muted certain channels. Additionally, the sheer number of apps posed difficulties. As one participant put it, *"having 7 million apps on my phone"* (P12) not only strained phone storage (P4, P7, P11-12, P14-16) but also led to chaos and confusion (P1, P7-9, P13, P15):

> *"The challenge is that sometimes I find it really hard to follow. Let's say that if I have multiple group chats, and I don't remember whether it is on WhatsApp or on Telegram." - P13*

4.2 Blurred Boundaries of Social Circles Across Communication Apps

In general, our results showed that most participants maintain overlapping and adaptive boundaries across individual communication channels. For example, P3 used WhatsApp to interact with a variety of social circles, including family, colleagues, friends, a significant other, and acquaintances. The only channels that showed exclusive social connections were professional-specific platforms like Teams. When asked about their attitudes toward having mixed contacts on a single app, some participants expressed a flexible approach to maintaining boundaries across communication channels. A few reported having *"no concerns"* (P14) or mentioned that they *"never think about how to manage it"* (P8), while others appreciated the convenience of having everyone on the same app (P2, P7, P11-12).

Upon further investigation into why participants had contacts from various relationships spread across multiple apps, we found that participants constantly adapted to the dynamics of unique relationships with individuals (section 4.2.1), evolving communication needs (section 4.2.2), and app updates (section 4.2.3). These dynamics collectively contributed to the dispersed distribution of relationships across communication apps and led to blurred boundaries in app management.

4.2.1 Adapt to people: unique and fluid relationships. Participants shared that their relationships were unique and fluid, making it difficult to define them clearly. Some relationships were multifaceted, such as a colleague who was also a friend (P9, P13), while others were evolving, like acquaintances becoming closer friends or romantic partners (P1, P4, P17). To navigate these dynamics, participants often added contacts to more communication channels.

In most cases, participants also had to adapt to their contacts' preferences, and the choice of channel was rarely their own. For example, P7 had a variety of contacts, ranging from service providers and acquaintances to friends and family, all on WhatsApp. He commented,

> *"I use whatever other people have. So there's no, for me. There's no difference between Signal and WhatsApp in who I have there, it's because it is 100% depends on them"*. - P7

Participants noted that they were generally flexible about using different platforms. As P2 reflected, *"I'm just trying to accommodate and match the other person's needs because I am like, more flexible on what platforms I use. I don't have like "ohh that's where I don't check"."* (P2)

Among our participants, although some initially had strong preferences for certain apps and even tried to persuade others to switch to their favored platform (P1, P7-9), they eventually gave up and became more flexible over time. For example, P1 convinced some of his contacts to switch to Telegram, noting, *"A few years ago I was a pain in the ass, and I was harassing people to switch."* (P1). However, they later reflected on this behavior and decided to stop pressuring others, acknowledging, *"At some point, I realized that it's not nice I have to push like a communication channel. I don't know, not friendly. So I stopped doing that."* (P9). As participants adapted to others' app choices, people became dispersed across different platforms.

However, the flexibility to adapt to others did not seem to bother participants as a disruption of app boundaries. In fact, some mentioned they actually wished for a single channel for everyone.

> *"I kind of like having everybody in one place. [...] Because I guess it's not really that I see it as like managing different relationships, but more like managing different conversations. I feel like my relationships feel separate from what I'm messaging."* - P12

Although participants did not intentionally try to separate social circles by app, in some cases, people on different platforms naturally distinguished themselves. For example, participants with friends from different countries often used distinct apps for each group, creating a regional distinction between platforms (P1, P4, P8-11, P13). Additionally, the unique characteristics of each app's user base contributed to differentiating audiences. For example, P11 described their Discord contacts as *"geeky"*, while P5 referred to theirs as *"cool"*. Similarly, P7 characterized their Signal contacts as *"nerdy"*, and P14 described theirs as *"privacy savvy"*. These perceptions shaped contact circles not only by relationships, but also by how participants associated each app with particular types of users.

4.2.2 Adapt to needs: diverse communication needs. We observed that communication needs varied from contact to contact. Even within the same type of relationship, participants had different interactions unique to each individual. For example, with some friends, participants frequently exchanged messages about hobbies and activities, while with other friends, conversations were less frequent and focused on deeper topics such as significant life events like family illnesses or relationships (P2, P5, P8-9, P12-13, P15-16). Accordingly, participants adapted their channel usage to meet these unique communication needs. With friends who were active on instant messaging, participants exchanged information daily across multiple channels. With friends who were less active, participants would communicate on a more fixed channel. Although both types of interactions were categorized as 'friend' relationships, one type spanned multiple channels, while the other remained confined to a single channel.

Communication needs with specific individuals were also fluid. As noted by our participants, bonding over specific activities or events might temporarily increase the need for communication and diversify the ways they communicate. These needs often stemmed from anticipated events, leading to more frequent communication with certain contacts. For example, P7 mentioned that during a two-week period, he joined a group for a music festival, which led him to actively engage on WhatsApp, where they organized schedules and chatted with individuals in the group. However, this was not his usual pattern of communication. Similarly, P1 also experienced evolving communication needs with an acquaintance he recently met during a kayaking activity, with their conversations spreading across multiple channels.

Participants allowed their communication to expand across multiple channels in a spontaneous, needs-driven manner. Despite the growing number of channels with the same contact, participants did not actively manage or streamline these connections, instead embracing the overlap and allowing each platform to serve different communication needs of a relationship.

> *"They all do different things, and none of them do everything. You know what I mean? So like Instagram is mainly like sharing photos and videos that other people have posted, so that we can discuss them. And BeReal is like, a snapshot of everybody's day so they're doing something interesting, then I see a little bit of that and then I'll message them on that. Whereas WhatsApp, it's just like peer-to-peer messaging or group chats and so like it's not as easy to share content from other platforms on it, because I have to screenshot it and send it in. So I don't know, they're all kind of different. I kind of like the separation of topics always happen by the fact that I talk to others through different platforms."* -P12

4.2.3 Adapt to apps: feature development across time. Over time, updates to communication apps contributed to the dispersal of contacts across multiple platforms. Participants shared that their app usage shifted as new apps emerged and older ones, like ICQ, QQ, and Facebook, were replaced (P1-2, P7, P9, P11-12). People also changed their phone numbers over time (P14). To adapt, participants had to make compromises and transfer their contacts to new channels. In the process, some contacts were lost. For example, P16 noted, *"my old-time friends. We don't have my contacts like my number."* (P16). Some participants followed their contacts to new apps. P14, for example, switched to Signal following her friends circle due to privacy concerns, *"All the privacy people escaped from WhatsApp and then I had to follow them to signal now"*(P14). However, not all contacts made the transition. As P12 explained:

> *"I only message a few people on Facebook Messenger and only my friends from school, ah from what I was like 18 and the only reason we do that is because Facebook message was popular when we were in school and we just never really moved away from it. They all have WhatsApp as well. I just don't message them on WhatsApp for some reason."* - P12

These changes contributed to the scattering of contacts across different channels, and this process was still ongoing. Some participants observed that apps continued to add new features, which they felt were becoming increasingly similar across apps. For example, P2 expressed concern about apps being the same.

> *"I feel like all of these apps are just becoming the same and copying feature. I really hope WhatsApp doesn't do that as well and becomes the same as everything else. Cause right now the only stories you see, like when people share their status, which is still ok, cause it's like I don't have like 500 people on WhatsApp. You know, I have a reasonable list of contacts that I keep in touch."* - P2

As more apps and features competed for attention and overlapped, some participants considered leaving certain apps (P2, P4, P10). However, concerns also arose about losing contact with people who primarily used those apps. For example, P14 deleted Facebook due to its overlap with Instagram but ended up losing contact with some people, *"Since I deleted my Facebook group, there's half of the people that now I don't know what they're doing. So they are basically completely out of my life."*(P14).

5 Discussion

In this section, we discuss the underlying needs driving the use of multiple communication channels through the lens of the five switching drives, highlighting the varied communication needs that emerge from switching behaviors (Section 5.1, in response to RQ1). We reflect how adaptability to evolving relationships, communication needs, and app updates leads to dispersed contacts across channels (Section 5.2, in response to RQ2). Based on insights from multichannel communication, we propose design implications to better support these diverse communication needs (Section 5.3).

5.1 People switch to accommodate different communication needs

In this work, we take an ecological perspective, viewing multiple channels as a connected messaging ecosystem rather than isolated apps to study multichannel communication. This study reveals five key factors that drive individuals to switch between channels with the same contacts. Underlying these factors is the need for distinct spaces to accommodate varied communication needs. Participants need different spaces for different *topics*, varying *expectations* and etiquette, specific *feature* affordances for different situations, and shifting *mood* states. People also demonstrate *inertia* that resists frequent switching, helping to maintain flow across channels. Next, we discuss each factor in more detail.

Topic: Compartmentalizing Topics by Apps. Participants switch between communication channels to address topics of varying formality, sensitivity, and importance. This behavior demonstrates an awareness of how topics align with different communication channels, reinforcing the idea that people choose the appropriate communication medium for the task at hand [29, 73]. The appropriateness of a channel depends on the situation [37], including both what is being said [86] and the medium through which the conversation takes place [89]. This evaluation of a topic appropriateness relies on tacit knowledge, as individuals interpret its nuances in highly personal and context-specific ways. While previous research has identified factors such as content formality as influencing one-time app selection [15, 83] and content importance as shaping information management within email [18], these studies primarily focus on users' initial choices or interactions within a single app. In contrast, our study takes an ecological perspective, showing that topics not only influence where conversations begin but also continuously shape interactions, prompting users to switch between channels while maintaining communication with the same contacts. This suggests that channel switching is not a rigid, rule-based process but rather a flexible, dynamic adjustment that occurs in real time.

Moreover, we identify a less explored factor influencing multichannel communication: topic sensitivity. Perceptions of topic sensitivity are highly individual, shaped by personal disposition and background [7, 71]. This sensitivity drives users to switch between apps they perceive as safer or better suited for controlling content and privacy, as seen in their tendency to change channels for sensitive conversations or intentionally select specific channels from the beginning for sharing private information, such as intimate photos. This behavior reflects broader privacy concerns in media usage, which have been studied in other contexts, such as individuals' disclosure behavior on social media [79] and the motivations behind app migration [32]. Our findings extend these discussions to private messaging, demonstrating that privacy decisions are not just about boundary regulation or one-time choices but continuously dictate real-time media switching behavior. This underscores the significance of privacy in channel switching and calls for further research into how privacy awareness and risk perception shape multichannel coordination.

Expectation: Switching Between Fast and Slow Communication Rhythms. Our findings show that people anticipate communication dynamics and choose channels based on expected reachability and responsiveness. In urgent situations, they switch to channels where recipients are more likely to be active, supporting prior findings on the use of phone calls for immediate matters [77]. Interestingly, beyond urgency, we found that slower channels offer participants the flexibility to engage at their own pace, with the expectation of slow or no replies. This suggests a "slow-mode" dynamic in communication, where users deliberately choose channels that accommodate more relaxed response times.

This fast-slow communication rhythm echoes prior research showing that people intentionally pace communication to manage concurrent conversations at work [67] and regulate attention and social dynamics [51]. However, our findings reveal that beyond pacing within a single channel, users actively switch channels as a strategic instrument to manage conversational rhythm, sustain engagement, and dynamically adapt even within one-on-one interactions.

In addition to expectations of different communication rhythms, we found that participants tailored their responses with varied etiquette, using lightweight expressions like emojis for situations that did not require a fast or in-depth reply. While emoji usage has been widely studied for its role in expressing emotions or personalization [31, 64, 90], our findings highlight an additional layer of etiquette associated with emojis. This suggests that these non-verbal cues help sustain social presence, subtly indicate attentiveness, and facilitate conversational flow by providing quick, low-effort acknowledgments. Their use reflects an implicit etiquette that helps manage responsiveness and continuity across multiple communication channels.

Feature Needs: Switching Apps and Devices to Fit the Situation. Our findings show that participants selectively combined features from different devices and apps to enhance messaging, based not only on technical capabilities but also on their individual perceptions of what makes a channel valuable. While prior research has explored the technical limitations of media [27] and the affective value associated with different communication apps [17], our study extends these perspectives by uncovering a synthesis of different types of perceived value that guides how users engage with multichannel communication. Rather than relying on a single criterion—such as synchronicity, usability, or emotional attachment—users dynamically assess and integrate multiple dimensions of value. These include technical affordances (e.g., superior photo quality), affective and social preferences (e.g., favoring an app for its emoji style), and the personal meaning attached to a specific channel. This integrative approach to channel selection reveals that multichannel messaging is not merely about choosing the most functional or emotionally resonant app—it is about strategically weaving together diverse forms of value to construct a personally meaningful and adaptive communication experience. This enriches the understanding of media complementarity, wherein media coexist and complement each other with varying levels of richness [25, 69], while also extending the meaning of combined use beyond productivity [74].

Additionally, our findings reveal the influence of the device feature on channel switching. For example, mobile devices are generally preferred for communication on the go, whereas desktops are favored in office settings, which further impacts app selection. Moreover, devices can be used in parallel. Users may, for instance, send a photo via WhatsApp on their phone while simultaneously participating in a Teams meeting on their laptop, engaging with the same person across multiple platforms. As people increasingly own multiple devices that support related tasks and enhance efficiency [43, 91], our findings suggest that they also engage in parallel communication across multiple devices. This simultaneous use of devices refines our understanding of how multitasking influences communication interactions.

Mood: Switching to Apps that Match the Moment. People experience a range of moods throughout the day, sometimes feeling cheerful, other times stressed. Unlike messaging topics, which can be assessed and are relatively predictable, mood is subjective and fluctuates continuously. These shifts in mood act as cues for switching between channels that align with one's state. In some cases, people may also avoid certain channels due to negative emotions from past interactions, a behavior also observed in prior research, where couples switch channels to resolve conflicts [72].

Our findings reveal that mood-channel alignment is shaped by the distinct digital atmospheres of communication apps. While previous research has acknowledged that platforms carry unique atmospheres [46, 61] and influence how interaction unfolds [36], our study extends this perspective by demonstrating that these atmospheres not only set the emotional tone for interactions but also influence users' channel choices. For example, *mood for Instagram* signifies turning to the platform when one's emotions align with its upbeat, visually engaging atmosphere. These mood-driven shifts emphasize the need for multiple channel options that allow users the flexibility to adapt their communication choices based on their emotional state.

The discovery of mood also offers insights for app design, suggesting that understanding the atmospheres that evoke specific moods can help apps define their unique value within the messaging ecosystem. This understanding presents an opportunity for adaptive system design by leveraging mood, inferred from contextual cues like message pace and wording [2, 35], or explicitly declared by the user, to better accommodate users' needs in the moment. Additionally, since emotions shape communication and influence online and offline activities [22, 57], this finding opens avenues for research on how mood evolves before, during, and after communication, and its impact on cross-channel interactions.

Inertia: Sticking with the Current Channel Until Prompted to Switch. Inertia, the opposite of active switching across different channels, acts as a resisting force that keeps people using the same channel where an interaction was initiated. In multichannel communication, inertia manifests in two forms.

First, inertia may suggest a trade-off between the effort of staying on a less ideal channel and the effort of switching to one better suited for chatting. This is evident especially when users keep messaging on social media like Instagram, despite these apps being primarily designed for sharing content with followers [32, 40]. If an interaction begins with a post comment, it may be easier to continue there, despite other apps being better suited for chat. Our findings show that one-on-one chats triggered by post comments are increasingly common on these platforms. Today, many social media platforms, like BeReal and TikTok, also support private messaging, despite their main focus on content posting [11, 81]. Meanwhile, instant messaging apps like WhatsApp and Telegram are integrating social features, such as daily stories [80]. As the line between social media and messaging apps continues to blur, this convergence invites future research into how conversational dynamics on social media differ from those on instant messaging apps.

Second, inertia also reflects a push-and-pull dynamic between both sides of a conversation. For example, Alice may initiate communication on her preferred channel, WhatsApp, thereby pulling Bob away from his favored channel, Viber. To keep the conversation flowing, Bob might simply follow along on WhatsApp, until the next time he initiates a chat on his preferred app. This reflects a reciprocal approach to multichannel communication, where both parties adapt to each other's choices, rather than one side always compromising. This reciprocal negotiation expands mainstream views on technology appropriation [24], shifting from individual interactions with technology to a relational dynamic where both parties shape each other's technology use in multichannel communication. This ongoing push-and-pull of app preferences, conversational leadership, and channel transitions illustrates how multichannel communication is continuously renegotiated.

Summary: Distinct Yet Interconnected Factors in Communication Switching. Bringing these five factors together illustrates how multiple channels work together and what people seek when switching. These factors, while identified as distinct, are interconnected. For example, the topic of an upcoming conversation can shape participants' moods. Likewise, important topics may require attention and set expectations for a quick response. What ties all these factors together is the participants' need for diverse communication channels that accommodate different types of communication needs. This echoes the concept of *communication places*, described as personal, idiosyncratic constructs that users build on top of different communication apps [61], primarily for managing social relationships. Our findings reveal that communication places extend beyond relationship management, shaping how diverse communication purposes unfold in daily life. People turn to different channels to fulfill various needs, assigning distinct roles to different apps. In turn, these roles transform apps into unique communication places—even when interacting with the same person. In the next section, we discuss how our findings contribute to and explain the increasing blurring and breakdown of relationship boundaries across communication channels.

5.2 Adaptation blurs the boundaries of social circles across apps

Our findings suggest that people are not actively sorting their contacts into different communication apps based on relationships. Instead, the boundaries between social circles are blurred, with participants flexibly engaging with contacts from various relationships on each app. Further analysis indicates that these blurred boundaries arise from participants' ongoing adaptation to unique relationships, evolving communication needs, and frequent app updates.

Each relationship is unique and constantly evolving, which often leads people to adapt to others' app preferences passively. As a relationship grows, interactions with the same contact tend to spread across multiple apps. The nuanced nature of individual relationships makes it challenging to clearly define or maintain boundaries by apps, leading to contact dispersion — a potential factor in boundary breakdown suggested by previous research [4, 61]. However, unlike earlier findings that suggested people prefer to manage social circles distinctly by app [5], our participants did not actively make an effort to manage the boundaries, nor did they view the blurred boundaries as a problem. Interestingly, distinct audiences still naturally emerged across different apps for our participants, shaped by characteristics such as user base (e.g., nerdy, geeky, privacy savvy) and regional differences. This shift toward flexibility with boundaries may simply indicate that people no longer view boundaries as necessary. Alternatively, it might be a form of disengaged coping [49] — when the effort of managing boundaries becomes too demanding, people may adjust their attitudes instead. This is often observed in interactions with everyday technology [20, 55].

Beyond relationships, we identified adaptation to evolving communication needs as a key factor driving the dispersion of contacts across different channels. This expands the understanding of communication channels beyond solely managing relationships [5, 61]. Our findings reveal that even within the same type of relationship, individuals can have distinct communication needs. For instance, Alice shares Instagram reels with some friends, while with other friends, she only plans gym activities. Although these contacts may share a similar level of closeness with Alice, they represent different communication needs. This highlights that each relationship carries unique communication needs that go beyond a simple categorization by relationship type. To address these specific interactions, individuals adapt their choice of communication channels based on content, such as conversation topics and the functional affordances of different channels. Recognizing the granularity of communication needs may help explain some gaps in past research, which often assumed that app use was mainly defined by relationships alone [5]. By focusing on how people manage channels based on their needs, our work shows that users are actually more flexible and adaptive in their communication choices.

The third dimension highlights adaptation to app updates. Our work reveals that adjusting to app changes is one of the reasons for scattered contacts. As communication apps have evolved rapidly in recent years, people have adapted their app usage for various reasons, such as migrating from WhatsApp due to privacy concerns [32]. However, migrating entire social circles to a new platform can be challenging. Some participants, for instance, had to accommodate contacts who had not transitioned from older apps, requiring them to balance their own preferences and adjust to using more or fewer communication channels. This dynamic was also observed in the migration from WhatsApp [32]. Previous studies have examined individuals' transitions between apps [15], but often do not account for whether their social circles migrate with them and how this impacts their communication ecosystem. Our findings show that adapting to rapid app updates creates friction for app management, as individuals must weigh their personal preferences for staying or leaving against the potential loss of contacts, making these trade-offs essential when updating their communication channel choices.

Overall, by revealing these three dimensions of adaptation behavior, we offer insights into the reasons behind the scattered communication patterns of 'having everyone everywhere,' addressing our second research question. Our findings reveal people's flexibility and spontaneous app-switching, suggesting a trend from distinguishing between channels to a more integrated, omnichannel approach. In this approach, channels are no longer limited by fixed boundaries but work together seamlessly to support the flow of interactions across apps.

5.3 Design implications

Our findings reveal that switching behavior across multiple communication channels is common in daily practices, with boundaries between channels becoming blurred. As people hold a flexible attitude toward blurred app boundaries, it raises the question: if social circles no longer confine channels, would it be beneficial to consolidate everything into a single app? On one hand, a unified approach could reduce the cognitive load of switching, as participants expressed confusion about tracking conversations across different channels [92]. On the other hand, placing everything in one channel might lead to feature overload [45], and users still value maintaining distinctions between channels to meet specific communication needs. Between a strictly unified and a multichannel approach, designers could aim to reduce feature-driven channel switching by creating cross-app hubs of functionality accessible from any application. For example, mobile keyboards such as Gboard [82] and Grammarly [1] serve as global hubs for text input, translation, and grammar checking across channels, while Dearboard [33] offers customizable emoji shortcuts designed for use by the user and their contacts across all shared channels. To balance reduced switching with the advantages of multiple channels, we suggest that, regardless of a single- or multiple-app approach, design should focus on supporting diverse communication needs and helping people manage them effectively across platforms.

One possible direction is to centralize the management of multichannel messaging history. As switching between multiple channels and navigating blurred boundaries of social circles across apps becomes the norm, individuals may face increased effort in organizing and managing scattered communication histories. To address this challenge, we propose a centralized approach that could be used to manage scattered communication, echoing similar ideas from previous research advocating for interoperability across apps [32, 61]. Interoperability generally refers to the integration between different communication apps to support cross-app communication. Some efforts have already been made toward interoperability. For example, previous research suggests enabling chat history transitions between apps [61]. Another study examines regulations and defines the scope of interoperability to include consistent message expressions across platforms, such as maintaining the appearance of stickers and emojis across-app for recipients, and providing users control over who can contact them on different platforms [32]. Foundations like Matrix are also actively developing cross-app communication solutions, such as standardized protocols for interoperability [58].

Along this line of supporting cross-app communication, we suggest a design alternative of creating a centralized hub where communication histories can be pulled and organized in a unified overview. Although this aligns with the interoperability narrative, the focus here is on easing management efforts from the user side to organize cross-app communication history. By enhancing the archiving and retrieval of communication history, a centralized hub can make it easier for users to reference past conversations across different platforms.

This approach may benefit not only everyday users in personal communication but also help address challenges in professional settings. In workplaces, communication is often spread across platforms like email, project management tools, messaging apps, and video conferencing. Research on workplace communication shows that this fragmentation hinders collaboration and lowers productivity [12]. A centralized communication hub could streamline workflows and prevent important conversations from getting lost amid various tools. Navigating the multichannel landscape can be challenging, with constant switching and mixed relationships across platforms. A centralized approach may help reduce fragmentation and keep users from feeling lost, enhancing the overall experience of managing digital communication.

5.4 Limitations

Our work contributes to a refreshed understanding of how multichannel communication occurs in day-to-day life, though it has certain limitations. First, like all qualitative studies, there are limitations related to participant sampling. We made efforts to diversify participant backgrounds, focusing on individuals who frequently engage with multiple communication channels. We were able to recruit 17 participants from diverse backgrounds and locations globally, aligning with diary method recommendations (more than 10 participants) [41]. While we do not claim that our findings are generalizable to a larger population, we believe our study offers nuanced insights into media usage patterns that alternative methods may not capture. Second, there is a limitation in the recall accuracy of diary entries — specifically, the extent to which participants' diaries reflect actual events. To address this, we carefully considered the balance between counteracting the recall bias and not infringing on participants' daily lives. Most participants consistently documented their entries multiple times throughout the day, often aligning with each communication session. By the study's conclusion, participants reported that keeping a diary of their communication activities had seamlessly integrated into their daily routines. This practice not only facilitated a heightened awareness of their involvement in communication activities but also proved instrumental in providing clearer details during the follow-up interviews.

Future research can benefit from validating our findings with a larger-scale population through quantitative methods. Additionally, given that our study focuses on individuals used to juggling multiple channels in their daily lives, the flexibility of blurred social boundaries across these channels may be a reflection of their communication habits. As previous research has shown, users vary between minimalism and hoarding in digital media management [87]. Exploring the opposite extreme — where individuals minimize their communication channels — may offer valuable insights into how dynamics differ among different user groups. We believe our findings will support further research in developing a more comprehensive understanding of how multichannel communication addresses user needs and the challenges in managing interactions across different channels.

6 Conclusions

This paper explores how people navigate multichannel communication in daily life, focusing on the dynamics of switching between channels with the same contacts and the factors that contribute to blurred boundaries across communication channels. Through a diary-interview study with 17 participants, we conclude with several key findings. First, we identified five primary factors influencing multichannel communication switching behavior: *topic*, *expectation*, *feature*, *mood*, and *inertia*. Participants switch channels to compartmentalize distinct *topics*, to meet varied *expectations* of communication rhythm, to selectively leverage specific *features* suited to the communication context, and to accommodate shifting *mood* states. Alongside, *inertia* acts as a resisting force, maintaining conversation flow across channels. Second, we highlight *adaptive behaviors* that explain the blurred social boundaries between communication channels. We found that participants continuously adapt to unique relationships, evolving communication needs, and the expanding array of apps, leading to increasingly blurred boundaries between platforms. Third, our findings lead to several design implications. We propose a centralized hub for users to manage cross-app communication histories and enhance interoperability. As multichannel communication becomes increasingly common, we believe our work not only contributes to current understanding but also inspires future designs that prioritize user-centered orchestration in multichannel communication.

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A Multichannel Communication: Follow-up Interview Protocol

NOTE:

- **Our interview includes customized questions based on each participant's diary. Customized questions are, for example,** ***Sometimes, you also chat with the same person but through different platforms, for example, you chat with your friend A on Instagram as well as WhatsApp and Telegram. What would be the trigger for you to start a conversation? and how do you decide where to reach her?*** **Here we list the universal interview protocol to demonstrate the general flow of the interview.**

Thank you for finishing the two-week diary study! It was really pleasant to share the journey with you. For today's follow-up interview, we'll have two types of questions. First, based on your diary submissions, we would like to ask you to clarify some unclear entries as well as some questions following up on your self-reported pattern. Second, with a two-week reflection, I believe you also have some ideas to share on the digital communication topic. We'll guide you with topics about strategies for channel usage and experience, and feel free to share your notes on this study!

This interview will be audio recorded for the purpose of research data analysis, and this recording will not be shared with any third party under any circumstances. Now we will begin the interview. (Start the recording)

[In each part, the numbered questions are primary questions asked for every participant in a structured order. The sub-questions for each primary question are possible follow-up questions to guide the discussion if needed.]

A.1 Explain and discuss communication behavior based on diary logs:

This section is customized based on each individual's diary entry and their unique multichannel communication patterns.

A.2 APP usage history:

- How long have you been using each application (over the last few years)?
- How did you start to use those applications? (For example, influenced by friends, requirements at work, etc.?)
- Have you used other services before and stopped using them? Why? (For example, some people turn to Signal from WhatsApp, why?)

A.3 The Strategy of Coordinating/Managing Different Channels.

(1) **What are your overall strategies for coordinating between different channels? What do you use each app for? Why: consideration behind?**
  (a) Time: How do you manage your usage time on different applications for communication?
    (i) How much time do you generally spend on each app? Are you aware of the spent time?
    (ii) How do you feel about the time spent on those apps? Is it too much or too little time?
    (iii) Any difference between work and personal social connections time-wise? Any influences between each circle? (for example, too much work-required communication and tired of personal social)
    (iv) Have you used any method to manage the time spent on digital communication through different apps?
  (b) Device: Why do you use [device] for [Apps]?
    (i) How does the experience differ between different devices?
    (ii) Are you using multiple devices for different communication channels, and why?

(iii) In what way do the single device/multiple devices help manage multiple communication Apps?
(iv) What is your preference for using which Apps on which devices? And what are the considerations behind the choice?

(c) Channel: Why do you choose to use [App]?
(i) How many, and what are the main communication channels, do you have to switch for chatting with different people? What are your coping strategies for engaging with people through multiple communication Apps?
(ii) We've learned from the diary data that you use XX regularly. Please share why you use this/these APP(s), and how it facilitates your work (social interaction)?
(iii) Would you prefer a different communication channel that better fits your purpose, if let you choose?

(d) Contacts: How are the contacts distributed over different channels? Overlapping?
(i) What are your methods for managing contacts, such as grouping them, sharing groups across communication channels, engaging with them, etc.?
(ii) Do you prioritize certain contacts with app usage? How? (for example, pin xxx on top, only allow xxx's notification)

(e) Topics: What (type of content) do you use [App] to talk about?

(2) **Experience in multichannel communication:**
(a) What are the benefits of using multiple channels?
(b) What are the challenges?

A.4 The Usage and Experience of Application Features:

(1) Usage of different versions (e.g., lite/international/web client on laptop)
(a) How do features differ on different versions?
(b) What features do you like/dislike about different versions?
(c) Would you want more features, what and why?
(d) Do you use paid/unpaid services?

(2) What is [App] for you? (Value proposition of the app)
(a) What does [App] mean to you? How would you define the value of [App]?
(b) Use three words to describe your experience and feelings about this [App]. (could be adj, noun)

B Diary template (Part I)

Digital communication daily dia

Example entries

Mandotory, each entry should be filled. You can use your own storytelling way to summarize one messaging event.

Time (when the conversation started and how long did it last)	Who initiates the conversation	Channel	Contacts (identifier such as nickname)	Relationship	Device	Topic	Response speed
Night around 11pm, just one min	I start the conversation	Telegeram	Lucy	Acquaintance	personal phone	I met her at a party, and we had a nice chat, so we exchanged our contacts. We chose telegram because she only uses telegram.	Immediately, we were face-to-face so we just replied with Hello to show that it was correctly added
Morning 9am, last for 5 mins	I respond to ...	Telegeram	Tim	Colleague	personal phone	I asked him to go to the gym together after work	around 3h, he replied around noon lunch time and then I immediately confirmed the time with him
around 11am, last throughout the day	I start the conversation	WhatsApp	Flowers (Group chat with 4 close friends)	Friend	work laptop	I saw an interesting video about dogs, it was so funny!!! I have to share :)	Friends commented on it from time to time since it's working hour, me as well. I'll reply and check this group chat whenever I take a break.
Late afternoon 4pm, 30min	I start the conversation	Slack	Scrum Masters(group chat, our 3	Colleague	work laptop, work phone	I sent them the daily summary word file of my work, and discussed about today's coding bug issue. Slack is easy to send	Quick, it was almost real-time, we have daily work discussions late afternoon, it's a daily routine
3pm, it took a while for me to see it, but ended quickly with my reply	I respond to ...	Teams	Coco	Superior at work	work laptop	Coco asked me to share the meeting notes	I saw it in 30min after she sent it, I replied and the conversation ended

Your diary, starting below

Time (When the conversation started and how long did it last)	Who initiates the conversation	Channel	Contacts (Identifier such as nickname)	Relationship	Device	Topic	Response speed

Fig. 2. The part one of diary template. Example entries were pre-filled at the beginning of the diary in color gray. Four columns were option-based questions using Excel drop-down lists: Who initiated the conversation, Contacts, Relationship, and Devices. The drop-down options were personalized based on each individual's self-reported survey answer.

C Diary template (Part II)

ry - xx, June

Mandatory, but if you don't have anything to comment on a specific entry you can leave it empty			Optional
What application features did you use and how did it work?	What is your overall experience of the interaction with this application?	Alternatives (Would you prefer a different communication channel if possible? If yes, which one, and why?)	Open-notes (Feel free to comment on anything you think relevant to the communication channel usage)
QR code works well	It was pleasant, smooth and quick	Yes. I prefer Signal because my other friends all use Signal.	-
Was ok, but I hope there could be some notification if he has read it or not, so I don't need to wait for so long unsure about whether he sees my message	Communication was smooth	No	We always schedule events via telegram since one time we mixed our work schedule with personal hangout through Teams. We realize it's easier to talk about work/personal on separate platforms.
Easy to share video, emoji is a big plus	Good	We might try Discord in the future as well since one friend recommended the other day	This group is always active, like everyday. I'm always online and it's just running in the background while I'm working. We share from time to time some funny videos, news or our daily life.
Very useful tool to share working documents	Good, just my daily work communication tool, I'm proficient in it	No, slack is very convenient for teamwork.	I'm online on Slack with both my work phone and work laptop during working hours. But the phone is only to get notifications, while the laptop is for files
the communication on Teams is difficult and slow. Because I have to switch the Teams account in order to talk to colleagues in a different organization.	Conversion going smooth, but it was frustrating that I spent unnecessary extra time on switching accounts.	I think email would be easier to archive files.	-
What application features did you use and how did it work?	**What is your overall experience of the interaction with this application?**	**Alternatives** (Would you prefer a different communication channel if possible? If yes, which one, and why?)	**Open-notes** (Feel free to comment on anything you think relevant to the communication channel usage)

Fig. 3. The part two of diary template. Example entries were pre-filled at the beginning of the diary in color gray.

D Diary data overview

No	Entries amount	Contacts amount	Devices
P1	216	58	phone (personal, work), laptop (personal, work)
P2	168	101	phone (personal), laptop (personal)
P3	84	40	phone (personal, work), laptop (personal, work)
P4	41	26	phone (personal), laptop (work)
P5	53	33	phone (personal), laptop (personal)
P6	67	51	phone (personal), laptop (personal, work)
P7	76	15	phone (personal), desktop (personal)
P8	135	43	phone (personal), laptop (personal)
P9	108	71	phone (personal), laptop (personal, work)
P10	147	51	phone (personal), laptop (personal, work)
P11	75	32	phone (personal), laptop (personal, work)
P12	363	95	phone (personal, work), laptop (personal, work), iPad, Smart-watch
P13	82	63	phone (personal), laptop (personal, work)
P14	82	55	phone (personal, work), laptop (work)
P15	70	59	phone (personal, work), laptop (work), iPad
P16	70	64	phone (personal, work), laptop (personal, work), iPad
P17	65	35	phone (personal, work), laptop (personal, work), Smart-watch

Table 2. Diary data overview of 17 participants. The *entries amount* refers to the total amount of entries contributed by the participant and *contacts amount* refers to the number of unique contacts the participant reached during the study period. *Devices* refer to the devices being used during the study. For the frequently used devices phones and laptops, we asked participants to specify the work and personal devices. Our participants also reported other device usage such as iPad or smartwatch, and there is no specification for personal and work usage.

Topic Category	Example entry	Count of entries (%)
Plan and schedule	*Planning to hang out tomorrow*	354 (18.6%)
Exchange information	*Informing neighbours about some works in the building*	333 (17.5%)
Share content	*He sent me a reel of a shark and we chatted*	287 (15.1%)
Work discussion	*Discussing about value proposition for product*	175 (9.2%)
Chitchat	*Today's weather in our respective locations*	120 (6.3%)
Interest and hobby	*The next episode of a show we started watching together*	117 (6.2%)
Share daily	*About what I ate for dinner*	105 (5.5%)
Catch up	*Catching up after long time*	102 (5.4%)
Send photo	*Photos from kayaking trip*	93 (4.9%)
Exchange favor	*He asked me to deliver something (a parcel)*	80 (4.2%)
Greeting	*Wished her happy birthday*	43 (2.3%)
Life matter	*My mother's surgery today*	42 (2.2%)
Post-activity follow-up	*He wanted to confirm if I arrived home safe*	24(1.3%)
Set up a call	*He asked if i was around so we could call*	15 (0.8%)
Get to know new people	*I just met her on Tinder app so I asked to know more about her*	7 (0.4%)
Others	*A spam message was sent in so I tagged an admin*	5 (0.3%)

Table 3. Topic categories with example entries and frequency count.

E Demographic information of survey participants

Attribute	Range	Sample size
Gender	Male	119
	Female	66
	Nonbinary	4
	Prefer to self-describe	3
	Prefer not to answer	2
Age	18-24	44
	25-34	129
	35-44	16
	45-54	4
	55 +	1
Education	High school graduate, diploma or the equivalent	13
	Some college, no degree	16
	Trade/technical/vocational training	2
	Associate degree	1
	Bachelor's degree	80
	Master's degree	75
	Doctorate degree	7
Country of residence	Austria	2
	Canada	1
	China	4
	Denmark	1
	Finland	74
	France	3
	Georgia	2
	Germany	28
	Hungary	1
	India	3
	Italy	3
	Netherlands	5
	Nigeria	1
	Norway	1
	Poland	2
	Portugal	5
	Scotland	1
	Serbia	1
	South Korea	1
	Spain	8
	Switzerland	1
	USA	32
	UK	11
	Vietnam	1
	Not specified	2
Number of apps for personal communication	0	1
	1–3	68
	4–6	88
	7–9	25
	10-12	8
	>12	4
Number of apps for work communication	0	9
	1-3	110
	4-6	61
	7-9	10
	10-12	2
	>12	2

Table 4. Demographic characteristics of survey respondents (N=194).

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