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Older adults' perceptions, needs, and uses of social media and messenger apps as sources of information and news: a qualitative multi-method study

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ABSTRACT

With the ongoing digitization of communication, older adults are increasingly integrating social media and messenger apps into their everyday information repertoires. However, fine-grained knowledge of their information use on these services remains scarce. This study investigates how older adults perceive social media and messenger apps as sources of information and news (RQ1), and what types of information they use, as well as the underlying information needs (RQ2). It reports findings from an innovative within-method qualitative interview study conducted with $n = 41$ German users of these services aged 60 and over. The study reveals older adults' distinct perceptions of these services' characteristics, such as personalization and incidental exposure, as well as their diverse information uses, extending well beyond domains like health or family. Having implications for both the use and production of digital messages aimed at older adults, our study offers valuable insights for communication researchers and practitioners across various subfields.

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Information use; messenger apps; news use; older adults; qualitative interviews; social media

With the ongoing digitization of communication, older adults – persons aged 60 and above (United Nations, 2017) – are increasingly integrating social media platforms and messenger apps into their everyday information repertoires (Kakulla, 2024; Müller, 2024). In response, researchers have begun to examine older adults' use of these services (e.g., Yachin & Nimrod, 2021; Zhao et al., 2023). Although existing studies provide valuable insights into the adoption of social media and messenger apps among older adults, many of them focus on general usage motives or isolated information types (e.g., health). Comprehensive knowledge of the diverse information types older adults use, as well as the perceptions and needs driving this use, remains limited.

Current research thus falls short of acknowledging that social media and messenger apps constitute distinct information environments that differ from traditional media (Kümpel, 2022; Valenzuela & Santos, 2024). Social media like Facebook – defined as

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disentrained, persistent channels of masspersonal communication (Carr & Hayes, 2015) – enable users to share content with broad yet often interpersonal audiences. Messenger apps like WhatsApp, by contrast, support more intimate, closed exchanges within small groups or dyads (Yamamoto et al., 2018, p. 2376). Despite these structural differences, the services are interconnected: not only do many social media platforms incorporate their own messenger features, but users also often forward or discuss content *from* their social media feeds *via* messenger apps (Kalogeropoulos, 2021). Additionally, both are united by a shift toward more personalized, individualized, and dynamic forms of news and information use – often occurring in semi-public or private settings.

To understand older adults' information use in these unique media environments, we situate our work within the paradigm of audience-centered research (Swart et al., 2022). It emphasizes individuals' *perceptions* of the informational characteristics of these services, such as personalization and incidentalness: whether and how users perceive these characteristics is crucial for how suitable they consider these services for certain information needs (Groot Kormelink, 2019). For instance, users who perceive algorithmic personalization as less practical compared to chronological sorting tend to consume less news on social media (Swart & Broersma, 2023). We therefore first ask how older adults perceive social media and messenger apps as sources of information and news (RQ1).

Given the wide variety of information sources and content types available on these services (Kümpel, 2022), a comprehensive understanding of information use must move beyond a narrow focus on news or journalism. Instead, it requires attention to what users *experience* as informative (Swart et al., 2022). We adopt the social definition of information proposed by Hasebrink and Domeyer (2010), conceptualizing it as both novel and useful from a subjective perspective. Specifically, we distinguish between four information needs and associated information types, ranging from undirected information needs (e.g., news) to group-related information needs (e.g., updates from friends). Building on this conception, we examine what types of information older adults use on these services and which needs this use fulfills (RQ2).

Methodologically, we employ an innovative within-method triangulated qualitative design, combining stimulus-based observations with self-confrontation and semi-structured interviews. Our sample consists of $n = 41$ German users of social media and messenger apps aged 60+. The study reveals older adults' nuanced perceptions of these services' characteristics, suggesting potential points of divergence from younger cohorts that warrant future research. Moreover, their information use extends well beyond domains like health or family. However, the relevance of different types of information (needs) varies between services and individuals. Building on these results, we discuss the particularities of older adults' information use in recent media environments and highlight implications for communication research.

Older adults' information use on social media and messenger apps

From an audience-centered perspective, understanding older adults' information use in personalized media environments requires focusing on their actual experiences, including (1) their perceptions of characteristics of these services, and (2) what they themselves experience as informative (Groot Kormelink, 2019; Swart et al., 2022). In the following,

we introduce key characteristics of social media and messenger apps, along with our broad understanding of information (needs).

Characteristics of information use on social media and messenger apps

The concept of perceptions refers to ‘the process by which organisms interpret and organize sensation to produce a meaningful experience’ of a stimulus (Pickens, 2005, p. 52) Perceptions are key to understanding human behavior, since they shape individuals’ attitudes and actions (Insko & Schopler, 1967) – and may substantially differ from reality (Pickens, 2005).

We focus on older adults’ perceptions of four characteristics that previous research has identified as particularly influential for information use, serving as key analytical categories in our study: personalization, sociality, incidentalness, and – specific to messenger apps – privacy.

Personalization

Personalization refers to the individualized nature of current information environments, shaped by *explicit* (i.e., active customization) and *implicit* (i.e., algorithmic inferences about user interests) mechanisms (Kümpel, 2022). While messenger apps allow for limited personal customization – such as selecting contacts for groups – they lack algorithmic personalization. Accordingly, the discussion of this aspect focuses on social media.

Research indicates that users often engage in explicit curation practices – including following, liking, or blocking – to cater their feeds to personal interests and to avoid undesired content (e.g., Anter & Kümpel, 2023; Merten, 2021). These findings suggest that users regard explicit personalization as a practical tool for managing their information environment. Importantly, these practices seem to be less common among older adults (Boulianne & Hoffmann, 2024).

The perception of implicit personalization is more ambivalent: Some users perceive algorithms as useful or at least neutral, while others are skeptical, associating them with economic motives or censorship (Swart, 2021). Additionally, some are annoyed by the unchronological order of posts, leading them to consume less news content on social media (e.g., Swart & Broersma, 2023). Importantly, while users are generally aware that content is algorithmically curated (Bergström & Belfrage, 2018), their understanding of how algorithms work is often limited (e.g., Swart, 2021), particularly among older adults (Cotter & Reisdorf, 2020).

Sociality

Content is curated not only through personal choices or algorithms but – on both services – also through social contacts. In this context, sociality emerges as a key characteristic, referring to the close link between information and social cues and recommendations such as shares, comments, or tags (Kümpel, 2022). We adopt a narrow conceptualization of sociality, focusing on the social *intermediation* of third-party content. For instance, a friend sharing a blog post about a sightseeing destination qualifies as socially curated; a selfie taken at the destination does not.

Users generally perceive *aggregated* recommendations on social media (e.g., number of likes or comments) as not particularly meaningful. At best, they function as heuristics

for deciding whether to engage with a given piece of content (e.g., Haim et al., 2018). In contrast, *personal* recommendations – such as shares, tags, or comments by friends – are perceived as relevant and can influence the perception and selection of content (e.g., Kaiser et al., 2021). However, Sveningssson (2015) found that young users often view socially curated feeds skeptically, fearing they reinforce one-sidedness. Her participants also tended to see social media as highly subjective, where opinions overshadow facts.

Although research on how older adults perceive sociality on social media and messenger apps remains limited, existing findings suggest that they tend to view it positively. For instance, studies show that older adults frequently share news or health-related information on these services to foster a sense of belonging (e.g., Yu-ting et al., 2022).

Incidentalness

The next characteristic arises from both personalization and sociality: incidentalness, describing how news exposure on social media is often (a) *unplanned* and (b) *secondary* to another activity: For example, a user might encounter a news article shared by a friend while scrolling through their feed for entertainment or social interaction (Boczkowski et al., 2018). This incidental exposure is not limited to social media; it also occurs on messenger apps, for instance, when someone opens WhatsApp intending to message their spouse, only to notice a news link posted in a group chat.

Several studies on younger adults show that they frequently encounter news incidentally on platforms like Facebook, Instagram, or TikTok (Bergström & Belfrage, 2018; Hendrickx, 2024). They often describe this experience as an ‘unavoidable convenience’ (Oeldorf-Hirsch & Srinivasan, 2022; see also Hendrickx, 2024). Accordingly, incidental exposure is associated with the news-finds-me perception, in which users assume they do not need to actively seek news because it will reach them anyway (see also Park & Kaye, 2021).

While most commonly examined in the context of *news*, we argue that incidentalness can also shape information use more broadly – as when users unexpectedly encounter travel tips in their social media feeds or receive a recipe forwarded by a friend on WhatsApp.

Regarding older adults, little research exists on their perception of incidental (news) exposure. However, available findings suggest that the news-finds-me perception is less common among them (Strauß et al., 2021). Instead, evidence indicates that older users often feel overwhelmed by the amount and diversity of information on social media (e.g., Ardèvol-Abreu et al., 2023). Therefore, they might perceive incidentalness not as convenient but as disruptive or even burdensome.

Privacy

While messenger apps share some characteristics with social media, they remain distinct in key ways. Among the features identified in the literature, *privacy* (Masip et al., 2021) stands out as especially relevant for information use on messenger apps. Defined by their chat-based structure, messenger apps enable secure, intimate communication with known recipients or ‘trusted ties’ (Yamamoto et al., 2018, p. 2376), fostering a sense of safety (Masip et al., 2021). Older adults, in particular, perceive them as intimate, controllable spaces compared to social media (e.g., Caliandro et al., 2021). These perceptions can

encourage sharing and discussion of news (Peng & Miller, 2023) and personal information (e.g., Swart et al., 2018).

As shown, existing studies offer initial insights into older adults' perceptions of social media and messenger apps. However, an integrated and overarching perspective is still missing. To address this gap, we propose the following research question:

RQ1: How do older adults perceive social media platforms and messaging apps as sources of information and news?

Information needs and uses on social media and messenger apps

The curated and dynamic nature of information use on social media and messenger apps necessitates a shift from solely focusing on news to what users *experience* as informative (Swart et al., 2022). Therefore, we adopt a social definition of information (Hasebrink & Domeyer, 2010), conceptualizing it as both novel and useful/valuable from a subjective perspective. Within this framework, four types of information needs can be distinguished, each tied to specific forms of information use (Hasebrink & Domeyer, 2010).

First, *group-related information needs* relate to social integration and involve information about close and extended social networks (henceforth: group-related information). For older adults, evidence suggests that social interaction is an important motivator for adopting Facebook or WhatsApp (e.g., Yachin & Nimrod, 2021). They use these services to stay informed about family and friends and to maintain ties with broader networks (e.g., Ardèvol-Abreu et al., 2023). Studies also indicate that they perceive messenger apps in particular as practical for exchanging personal information (Caliandro et al., 2021).

Next, *topic-related information needs* arise from personal interests and hobbies and lead to the use of content focused on specific subject areas (henceforth: topic-related information). Initial studies suggest that social media may play a prominent role. For instance, they report that older adults use them as sources of information on health issues (Braun et al., 2019) or travel (Fabricius & Eriksson, 2017). Yet, comprehensive research on topic-related information needs remains scarce.

Undirected information needs reflect a general desire to stay informed about one's broader environment, typically fulfilled through life management content (e.g., legal regulations) or news (henceforth: undirected information). The small number of studies that have investigated older adults' social media news use suggest that these needs are less prominent among older adults. Reasons might be concerns about misinformation (e.g., Lin et al., 2020), as well as the existence of established news repertoires that potentially make social media and messenger apps less important news sources (Bergström, 2020). Still, incidental exposure seems to occur – for example, some of Zhao et al.'s (2023) interviewees report that they occasionally stumble upon news shared by friends on social media or forwarded via messaging apps.

Finally, *problem-related information needs* emerge when users seek solutions for specific problems, such as looking up a product or recipe (henceforth: problem-related information). Older adults seem to be more likely to meet these needs through messenger apps. WhatsApp, for instance, is described as an 'organizational device' for quickly exchanging practical information (Caliandro et al., 2021, p. 63). Little research examines

how social media are used for this purpose, aside from occasional accounts of older adults searching for recipes or tutorials on platforms such as Facebook (e.g., Zhao et al., 2023).

As this overview shows, older adults' information use on social media and messenger apps has received growing attention. However, the available findings remain largely anecdotal. Many studies investigate information use as a 'byproduct' or focus on specific topics, such as health content. Comprehensive examinations of information use are still lacking. Therefore, we ask:

RQ2: What types of information do older adults use on social media platforms and messaging apps, and what information needs drive this usage?

Method: personalized stimulus-based qualitative observations with self-confrontation interviews

Our research is grounded in an audience-centered perspective that focuses on actual, everyday perceptions and experiences (Swart et al., 2022).¹ To capture this, we employ a within-method triangulated qualitative approach to explore how older adults perceive and use social media and messenger apps for information and news. Specifically, we combine stimulus-based qualitative observations – using a personalized social media feed – with self-confrontation (Kümpel, 2019; Schmid et al., 2025) and semi-structured interviews. A detailed overview of the methodology is provided in the supplementary material. While the observations and self-confrontations primarily explore older adults' information *practices* – which are addressed in the broader context of our research project – they also offer valuable insights into participants' perceptions and information usage habits.

Design

Semi-structured qualitative interviews are well-suited to exploring participants' perceptions and information-related usage habits on social media and messenger apps. They allow for in-depth insights into individual experiences while maintaining enough structure for comparability across cases (e.g., Roulston & Choi, 2018).

Embedded in the interviews, the self-confrontation component added a further layer of depth. Originating in psychotherapy and action psychology (e.g., Bailey & Sowder, 1970), self-confrontation involves reflecting on one's behavior using observational stimuli (Lim, 2002). In our study, participants were shown a personalized mock social media feed – created with the Mock Social Media Website Tool (Jagayat et al., 2021) – comprising 30 posts tailored to their interests and usage patterns (based on a prior screening survey, see below). The feed, resembling a hybrid of Instagram and Facebook, included link posts and stand-alone photo or video posts with minimal text (see supplementary material for an example). Participants scrolled through the feed as they normally would, while a researcher observed their actions (e.g., scrolling, clicking, liking) using a structured observation protocol with predefined categories and space for open notes. These observations served as prompts in the self-confrontation interview, where participants reflected on their thoughts and feelings during the feed exposure.

To identify suitable participants and personalize the mock feed, we administered an online screening survey that also obtained informed consent and scheduling information. Two researchers conducted the interviews between June and December 2024. Each lasted 45–75 min and was conducted either in person or via Zoom. Participants received €50 for completing both the survey and the interview.

Instruments

While the observations and the self-confrontation interviews yielded valuable additional insights, this section focuses on the semi-structured interview guideline, which served as the primary instrument for capturing participants' perceptions and information use.

The guideline focused on the messenger app and social media platform participants reported using most frequently in the screening survey. One section explored general *usage contexts* (e.g., typical situations or reasons for use) and *patterns* (e.g., intensity, engagement such as commenting or liking). Another section addressed participants' *perceptions of the services' characteristics*, incorporating theoretically derived features (e.g., personalization, sociality), while also leaving room for participants to raise personally relevant aspects.

The interview also covered the four *information needs* outlined by Hasebrink and Domeyer (2010) – group-, topic-, problem-related, and undirected information. Drawing on their screening responses, participants were asked to assess how well their preferred services supported each need and to describe the corresponding types of information they typically consume (e.g., sources, topics).

Participants

As defined by the United Nations (2017), older adults are those aged 60 and above. Accordingly, we recruited participants who were at least 60 years old and reported at least occasional use (i.e., less than once a month) of one social media platform (e.g., Facebook) and one messenger app (e.g., WhatsApp). Recruitment took place via newsletters and mailing lists from senior organizations, educational institutions, urban community spaces, and personal networks.

We conducted 41 interviews, achieving a balanced split between 'young-olds' (60–70 years, $n = 20$) and 'old-olds' (71+, $n = 21$), and a relatively balanced gender distribution (18 male, 23 female). While we aimed for variation in usage intensity, only 10 participants were infrequent social media users (meaning that they used it at most once per week), likely due to lower identification with the study topic. Still, the final sample reflects a broad user base diverse in age, gender, and platform experience.

Data analysis

We employed a qualitative content analysis combining deductive category assignment with inductive development (Mayring, 2014). The resulting codebook captures participants' *perceptions of social media and messenger app characteristics*, based primarily on our theory-driven categories, supplemented by inductive additions.

A second category group addressed *information needs and uses* based on Hasebrink and Domeyer's (2010) framework (i.e., group-, topic-, problem-related, and undirected needs). To situate the findings, additional categories covered participants' usage context (e.g., situations, duration).

The codebook was iteratively developed through close readings of a small, contrasting interview subset. After testing and refinement, it was applied to the full dataset. One researcher conducted the coding, followed by cross-case comparisons (e.g., regarding age, service, usage intensity).

To ensure transparency and reproducibility, we preregistered our analysis strategy – including procedures and data analysis plan – after data collection but before analysis, using the *Qualitative Preregistration Form* (Haven et al., 2020). It was frozen on 20 December 2024, and is available via OSF: <https://doi.org/10.17605/OSF.IO/6VA83>. All instruments, study materials, and a detailed overview of participants' demographics and usage patterns are available via the project's OSF repository: <https://doi.org/10.17605/OSF.IO/CSWQD>.

Results

RQ1: perceptions of social media and messenger apps as information sources

To structure our analysis, we draw on the theoretical constructs outlined above. Starting with *implicit personalization*, some participants – especially less frequent or older users – were unfamiliar with the term 'algorithm.' Most, however, showed a basic understanding, noting that their feeds reflect prior interactions (e.g., P7, P10) or that platforms assign them to interest categories (P4, see also P6). Still, many equated algorithmic curation with sponsored content (e.g., P1, P41).

Overall, participants view algorithmic personalization skeptically, mainly because it seems to undermine their autonomy. As one noted:

'I simply don't want that. If something interests me, I search for it. Everything else that's suggested – I assume it's not for me. [...] I'd be giving up a piece of my autonomy.' (P19, see also P15, P21)

Algorithmic recommendations are also perceived as overwhelming (e.g., P3, P4) or inappropriate, such as when interest is inferred after 'just stopping twice' (P1, see also P5, P31).

Still, some participants appreciated algorithmic curation, describing it as helpful and interesting (e.g., P16, P17). Few participants even actively 'trained' the algorithm – for instance, P13: 'When I want to see more from a certain page, I give it a Like.' This approach is most common among participants with basic algorithmic knowledge. Others, for whom algorithms remain less tangible, tend to ignore recommendations and 'just scroll past them' (P31, see also P41, P8).

Participants generally view *explicit personalization* as useful. They consider it a practical way to tailor their feeds and value the sense of self-determination it provides: 'I follow pages when they're helpful, and unfollow once they've served their purpose.' (P29, see also P4, P32). Similarly, they appreciate the customization options offered by messenger apps like WhatsApp, where they feel more in control of what they share and with whom (e.g., P24, P26).

Regarding *sociality*, personal recommendations, such as shared posts or tags, play only a minor role for our interviewees. Instead, they primarily experience sociality through group posts and comment sections. Two perceptual patterns emerge: One group values the diversity of viewpoints this enables. As one participant puts it: ‘Since anyone is able to express their opinion, you get a relatively broad spectrum’ (P3, see also P17, P35).

The other, larger group views sociality more negatively, associating it with anger, conflict, or hate. In some cases, this perception stems from personal experience. One participant recalled:

‘What continually leaves me speechless are many of the comments – especially when it comes to political topics, or really anything. [...] I try not to read them, but sometimes I just can’t believe it.’ (P13)

However, critical views of sociality were mainly expressed by older participants or infrequent users, likely reflecting broader skepticism toward social media or concerns about hate speech rather than specific incidents.

Participants’ perceptions of *incidentalness* are ambivalent, especially on social media. Some find the unintentional exposure to content overwhelming: ‘You get so much pushed onto you’ (P14, see also P2). These participants prefer targeted information use – visiting specific profiles, groups, or searching for topics of interest – rather than scrolling through their feeds. As one explained: ‘I don’t sit there flipping through X’ (P18, see also P36, P10).

Others, by contrast, appreciate incidentalness as entertaining and enriching. They also compare it to newspaper reading, highlighting that such serendipitous encounters are not unique to social media (Kümpel, 2022): ‘Facebook is like flipping through a newspaper’ (P31, see also P22). For them, aimless scrolling and the surprise of unexpected content are central: ‘That’s actually what matters most to me. I have the time now, and [...] I’m basically interested in everything’ (P22, see also P5, P9).

Lastly, regarding *privacy*, our interviews confirm existing research by showing that messenger apps are overwhelmingly perceived as ‘private tools’ (P4), used to communicate with a small, familiar circle in what feels like a safe space. As one participant noted: ‘WhatsApp is something intimate and small for me, and I’m very deliberate about who can see my status’ (P17, see also P3, P31).

Privacy also emerged as a central concern for social media – but primarily through its perceived absence. Many participants described social media as ‘public [...] not restricted’ (P23; see also P13, P6) and voiced concerns about lacking control over who sees their posts or engagement (e.g., likes). As we explore further below, such perceptions often discourage older adults from sharing or seeking group-related information on social media.

RQ2: information needs and uses on social media and messenger apps

With our second research question, we examine which information needs older adults fulfill through social media and messenger apps, and what types of information they use.

Our findings show that messenger apps – especially WhatsApp – are central for satisfying *group-related information needs*. Participants use them for a range of social exchanges: ‘Scheduling appointments, small updates, sending photos. [...] Having conversations’ (P14, see also P15, P25). Perceived as private and intimate, these apps also

encourage active sharing, often via the Status feature for posting life updates or recommendations (e.g., P10, P17).

The role of social media like Facebook is more ambivalent. Some use it to stay connected with specific individuals, often children, which sometimes even prompted their initial adoption. As one participant explained:

‘I follow my son across all platforms, except WhatsApp. (...) He is somewhat of a public figure, and (...) you can find information about him there. I don’t have much contact with him, so at least this way I stay updated about what he’s up to.’ (P19)

Beyond such cases, however, social media is less relevant for exchanging social information. A key reason is the aforementioned privacy concerns (e.g., P6, P24). Moreover, many view social information as trivial or out of place on social media. While they also limit such communication on WhatsApp ‘to what’s necessary’ (P16), they consider posts about travel or meals inappropriate for what they perceive as public spaces: ‘That’s a waste of Facebook’s capacity’ (P37).

Accordingly, our interviews show that older adults’ information needs extend well beyond social content. Social media in particular are used to satisfy a wide range of *topic-related information needs*, including sports (e.g., P11), culture (e.g., P8), and science (e.g., P22). Reflecting their perception of incidentalness, some participants focus deliberately on one or two topics (e.g., P28, P31), while others let themselves ‘drift’ (P23) through whatever interesting content appears (see also P12, P17).

Building on their mostly positive perceptions of explicit personalization, older adults follow relevant pages or individuals and participate in topic-specific groups to fulfill these needs. Some also belong to WhatsApp groups tied to offline networks, such as heritage or sports clubs (e.g., P9, P18). These groups are valued for their practical tips and as ‘safe spaces’ to exchange experiences and build connections. As one participant said about a health-oriented Facebook group:

‘When questions come up, you think, I’ve wondered about that too – so you check it out or read the comments. (...) Even when you think no one can really help, you sometimes find that others have the same problem and you end up finding a solution.’ (P26)

Turning to *undirected information needs* (i.e., news and general life management information), a clear pattern emerges for messenger apps: only a few participants share or discuss news on WhatsApp (P12, P23). A more ambivalent pattern emerges for social media. For some, ‘political matters are definitely a priority’ (P2, see also P15, P18), particularly on platforms like Twitter/X, which is perceived as news-oriented. These users value the diversity of opinions and see social media as a valuable news supplement (e.g., P9, P11). Others, however, reject social media as a news source – rarely due to disinterest (e.g., P16), but more often because they perceive it as less trustworthy or too hostile (e.g., P19, P24).

Regardless of their general stance, many participants consider Facebook a key source for *local* news. City- and region-specific groups provide timely, relevant updates, seen as more immediate than traditional outlets. As one participant put it:

‘Facebook is perhaps more specific for my local environment than the [regional newspaper]. I can find out within three minutes where the fire department has gone, or something like that. It’s a mirror of what’s happening around me.’ (P10)

Finally, regarding *problem-related information needs*, messenger apps are widely seen as organizational tools: our participants use them to coordinate daily tasks, such as school pickups (e.g., P1) or appointments (e.g., P9). Social media, by contrast, are often perceived as too superficial (e.g., P37), cluttered (e.g., P39), or unreliable (e.g., P40) for such purposes. Nonetheless, they are occasionally used for problem-solving, depending on context and platform. Some participants use YouTube's search function to look up specific information (e.g., P18, P27) or consult Facebook for opening hours or event updates (e.g., P8, P13).

Topic-specific groups also serve this need, as older adults use them for targeted questions. One participant explained:

'We travel a lot and it's helpful to join groups that are doing the same trip, so we can make plans or get tips about excursions. It's not really a general information source, but more for specific trips I'm planning.' (P24, see also P14, P30)

Thus, while social media are generally less central for problem-solving, they can be useful in specific contexts – and for some low-intensity users, groups even are the primary reason they use platforms at all (e.g., P8, P14).

Discussion

Amidst the growing use of social media and messenger apps among older adults (Kakulla, 2024; Müller, 2024), this study aimed to better understand how they use these services for information. We focused on their perceptions of key characteristics of these services – personalization, incidentalness, sociality, and privacy (RQ1) – and the types of information they use, along with the needs underlying this use (RQ2). Using a qualitative multi-method design, we adopted an audience-centered perspective (Swart et al., 2022), emphasizing everyday experiences over normative assumptions.

Insight I: older adults' distinct perceptions of social media and messenger apps

Regarding older adults' perceptions of social media and messenger apps, some parallels to what previous research found for younger users emerged – such as a general ambivalence toward characteristics of these services, which were seen as neither entirely positive nor negative (e.g., Schellewald, 2023; Sveningsson, 2015; Swart & Broersma, 2023). However, some of our findings point toward potential divergences from younger cohorts that warrant systematic examination in future comparative studies across age groups.

One notable finding is the partial or complete *lack of algorithmic awareness* – that is, recognizing that algorithms influence content delivery (Oeldorf-Hirsch & Neubaum, 2023) – among many participants, especially among the 'old-olds' (see also Zainab et al., 2022). Although these participants often described experiences clearly shaped by algorithmic curation, many did not identify them as such or conflated them with advertising. In contrast, studies on younger adults (Cotter & Reisdorf, 2020; Swart, 2021) tend to find considerable levels of algorithmic awareness and, to a lesser extent, algorithmic literacy—the ability to navigate algorithmic systems (Oeldorf-Hirsch & Neubaum, 2023). While our study design does not allow a direct comparison across age groups,

these divergent observations suggest a promising avenue for future research into age-related differences in algorithmic navigation.

A second potential difference concerns perceptions of incidentalness. Many participants reported feeling *overwhelmed by the unpredictability and volume* of unsolicited content, describing it as stressful or intrusive. One explanation is that older adults may experience forms of ‘technostress’ (Ardèvol-Abreu et al., 2023) when digital content unexpectedly disrupts routines, whether through a forwarded WhatsApp message or an algorithmically curated news item. This appears to contrast with findings on younger adults, who often perceive incidental exposure as convenient or practical (Oeldorf-Hirsch & Srinivasan, 2022; see also Anter & Kümpel, 2023). While we cannot draw definitive conclusions about age-specific differences based on our data, we propose this as a critical research question for future comparative investigations.

Privacy concerns emerged as salient in our sample. While messenger apps were generally seen as intimate, controllable spaces, social media like Facebook and Instagram were more often associated with anxiety about visibility. These findings echo previous research (e.g., Quan-Haase & Elueze, 2018; Zainab et al., 2022), which links such concerns to limited digital competence and perceived vulnerability. Our data partly supports this interpretation: several participants expressed fears about data security or the seemingly ‘unlimited’ reach of their content, even when these concerns were not grounded in direct personal experience. However, we also found that privacy concerns could reflect informed platform knowledge. For example, some participants noted that others could see their likes or comments on Facebook, but less likely on Instagram.

These insights into older adults’ perceptions of social media and messenger apps also hold broader relevance for communication research and practice – particularly regarding age-sensitive communication, be it in health campaigns or (political) advertising. For instance, while some participants were aware of algorithmic personalization, they often viewed it skeptically and felt overwhelmed by the incidental exposure to content it frequently entails. This suggests that communicators targeting older adults should prioritize services that offer greater user control and personal curation options. Given that messengers are perceived as more private and secure, features like WhatsApp Channels may represent a promising avenue for reaching older audiences.

Insight II: older adults’ diverse information needs on social media and messenger apps

Enabled by our broad conceptualization of information, our study shows that older adults use social media and messenger apps to fulfill diverse information needs, highlighting their relevance as both target audiences and active participants in various domains of online communication. Consistent with previous research (e.g., Yachin & Nimrod, 2021), *group-related information needs* – information about one’s social circles – frequently drive their use, underscoring the continued importance of relatedness in later life (see also Anter et al., 2025).

At the same time, our findings point to an equally strong, if not stronger, relevance of *topic-related information needs* for many participants, particularly on social media. They described using these platforms to access content related to personal interests such as history, cultural events, or sports, and viewed explicit personalization features (e.g.,

following specific accounts) as particularly useful for this need. This reflects an instrumental approach to information use: participants often regarded social media and messenger apps as tools for purposeful information seeking, while expressing disinterest in what they saw as trivial or overly personal content, like holiday snapshots. This supports Caliandro et al.'s (2021, p. 69) notion of 'unwanted sociality,' where content is expected to offer meaningful or informative value beyond entertainment.

Nevertheless, *undirected information needs*, such as staying informed about current events, are less prominent – except among politically interested participants or in cases where other sources (e.g., local newspapers) are lacking. This reflects the established media repertoires of many older adults, in which social media play a supplementary role (Bergström, 2020). Platform perceptions also matter – for instance, regarding sociality, the intertwining of information and socially embedded cues. Some participants value comment sections for their diversity of views; others find them polarizing or unhelpful and cite this as a reason to avoid news on social media.

Finally, *problem-related information needs* – tied to information for solving specific problems – are also relevant. Echoing prior work, participants overwhelmingly view WhatsApp as an 'organizational tool' (Caliandro et al., 2021, p. 61) for private, targeted coordination. For social media, the picture is more complex and shaped by perceptions of their characteristics. Facebook is often seen as unsuitable for problem-solving due to limited searchability, while some participants view YouTube as a go-to source for satisfying problem-related needs, supporting claims that it functions as a search engine (Ertemel & Ammoura, 2021).

Given this diversity of information needs among older users, future studies should investigate what specific *content* older adults use on these services. One promising approach is data donations (Boeschoten et al., 2020), which could yield rich insights into their everyday information encounters.

Insight III: benefits of an audience-centered approach

When considering the insights from both research questions, the value of our audience-centered perspective becomes clear. By focusing on both older adults' perceptions and experiences, we investigated how they perceive key characteristics and how these shape their information use. Our findings thus enrich existing classifications of information use characteristics on social media and messenger apps (e.g., Kümpel, 2022; Masip et al., 2021), offering a way to address the 'moving target' problem (Valkenburg et al., 2016) that communication researchers across all sub-disciplines are confronted with. Rather than treating services as static entities, research should focus on transferable characteristics that reflect the dynamic and evolving nature of current media environments.

Moreover, our findings highlight older adults' specific perceptions, understandings, and meaning-making strategies in personalized media environments – such as their vague definitions of 'algorithms' or the negative connotation many attach to 'entertainment' in the context of online information use. These insights are an important prerequisite for fostering mutual understanding between researchers and older participants, thus informing the design and implementation of research at the intersection of technology and aging.

These fine-grained insights were made possible by our multi-method design, which generated ‘thick data’ (Latzko-Toth et al., 2017), capturing not only usage but also the stories and perceptions behind it. Our method offers a promising approach for research in personalized media environments more broadly – whether examining young adults’ use of Snapchat for self-presentation or consumers’ perceptions of targeted ads.

Finally, our open approach avoided ageist stereotypes (Trentham et al., 2015) and revealed that older adults often hold well-informed perceptions of social media and messenger apps and use a wide spectrum of information. This provides a foundation for future audience-centered research into older adults’ online information behavior across various subfields of communication. Such studies are essential to reflect the diversity of older users and to develop a nuanced view of older net citizens – a demographic that will grow in relevance.

Note

1. This manuscript is part of a broader research project examining older adults’ information and news use on social media and messenger apps. The overall aim of the project is to develop a comprehensive understanding of how older adults perceive, experience, and use these services.

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Author contributions

CRedit: **Luise Anter**: Conceptualization, Data curation, Investigation, Methodology, Writing – original draft, Writing – review & editing; **Martin Fischer**: Conceptualization, Data curation, Investigation, Methodology, Writing – review & editing; **Anna Sophie Kümpel**: Conceptualization, Funding acquisition, Methodology, Project administration, Resources, Supervision, Writing – review & editing.

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Data availability statement

All instruments, study materials, and a detailed overview of participants' demographics and usage patterns are available via the project's OSF repository: <https://doi.org/10.17605/OSF.IO/CSWQD>. To protect the privacy of individuals that participated in the study, the data underlying this article cannot be shared publicly.

Ethical considerations

The hosting university's ethics committee does not require an IRB approval for an interview study.

Consent to participate

Written informed consent was obtained from every participant during a screening survey and before the interview.

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References

- Anter, L., & Kümpel, A. S. (2023). Young adults' information needs, use, and understanding in the context of Instagram: A multi-method study. *Digital Journalism*, 13(6), 1112–1130. <https://doi.org/10.1080/21670811.2023.2211635>
- Anter, Luise, Fischer, Martin, & Kümpel, Anna Sophie (2025). Older Adults' Information Use on Social Media: The Role of Psychological Needs and Personality Traits. *Research on Aging*, 47(9–10), 471–481. <https://doi.org/10.1177/01640275251341447>
- Ardèvol-Abreu, A., Delponti, P., Bonache, H., & Rodríguez-Wangüemert, C. (2023). Mobile instant messaging uses and technostress: A qualitative approach. *International Journal of Human–Computer Interaction*, 39(15), 3003–3015. <https://doi.org/10.1080/10447318.2022.2090525>
- Bailey, K. G., & Sowder, W. T. (1970). Audiotape and videotape self-confrontation in psychotherapy. *Psychological Bulletin*, 74(2), 127–137. <https://doi.org/10.1037/h0029633>
- Bergström, A. (2020). Exploring digital divides in older adults' news consumption. *Nordicom Review*, 41(2), 163–177. <https://doi.org/10.2478/nor-2020-0021>
- Bergström, A., & Belfrage, M. J. (2018). News in social media. Incidental consumption and the role of opinion leaders. *Digital Journalism*, 6(5), 583–598. <https://doi.org/10.1080/21670811.2018.1423625>

- Boczkowski, P. J., Mitchelstein, E., & Matassi, M. (2018). "News comes across when I'm in a moment of leisure": Understanding the practices of incidental news consumption on social media. *New Media & Society*, 20(10), 3523–3539. <https://doi.org/10.1177/1461444817750396>
- Boeschoten, L., Ausloos, J., Moeller, J., Araujo, T., & Oberski, D. L. (2020). *Digital trace data collection through data donation* (arXiv:2011.09851). arXiv. <https://doi.org/10.48550/arXiv.2011.09851>.
- Boulianne, S., & Hoffmann, C. P. (2024). Digital inclusion through algorithmic knowledge: Curated flows of civic and political information on Instagram. *Media and Communication*, 12, 1–19. <https://doi.org/10.17645/mac.8102>
- Braun, L. A., Zomorodbakhsch, B., Keinki, C., & Huebner, J. (2019). Information needs, communication and usage of social media by cancer patients and their relatives. *Journal of Cancer Research and Clinical Oncology*, 145(7), 1865–1875. <https://doi.org/10.1007/s00432-019-02929-9>
- Calianro, A., Garavaglia, E., Sturiale, V., & Di Leva, A. (2021). Older people and smartphone practices in everyday life: An inquire on digital sociality of Italian older users. *The Communication Review*, 24(1), 47–78. <https://doi.org/10.1080/10714421.2021.1904771>
- Carr, C. T., & Hayes, R. A. (2015). Social media: Defining, developing, and divining. *Atlantic Journal of Communication*, 23(1), 46–65. <https://doi.org/10.1080/15456870.2015.972282>
- Cotter, K., & Reisdorf, B. C. (2020). Algorithmic knowledge gaps: A new horizon of (digital) inequality. *International Journal of Communication*, 14, 745–765.
- Ertemel, A. V., & Ammoura, A. (2021). Is YouTube a search engine or a social network? Analyzing evaluative inconsistencies. *Business and Economics Research Journal*, 12(4), 871–881.
- Fabricius, S., & Eriksson, N. (2017). Young-elderly individuals' use of social media for travel purpose. *Tourism & Management Studies*, 13(1), 27–32. <https://doi.org/10.18089/tms.2017.13104>
- Groot Kormelink, T. (2019). *Capturing and making sense of everyday news use* [Doctoral dissertation, Vrije Universiteit Amsterdam].
- Haim, M., Kumpel, A. S., & Brosius, H.-B. (2018). Popularity cues in online media: A review of conceptualizations, operationalizations, and general effects. *Studies in Communication | Media*, 7(2), 186–207. <https://doi.org/10.5771/2192-4007-2018-2-58>
- Hasebrink, U., & Domeyer, H. (2010). Zum Wandel von Informationsrepertoires in konvergierenden Medienumgebungen. In M. Hartmann & A. Hepp (Eds.), *Die Mediatisierung der Alltagswelt* (pp. 49–64). VS Verlag für Sozialwissenschaften. https://doi.org/10.1007/978-3-531-92014-6_4
- Haven, T. L., Errington, T. M., Gleditsch, K. S., van Grootel, L., Jacobs, A. M., Kern, F. G., Piñeiro, R., Rosenblatt, F., & Mokkink, L. B. (2020). Preregistering qualitative research: A delphi study. *International Journal of Qualitative Methods*, 19, 1–13. <https://doi.org/10.1177/1609406920976417>
- Hendrickx, J. (2024). 'Normal news is boring': How young adults encounter and experience news on Instagram and TikTok. *New Media & Society*, 27(10), 5736–5754. <https://doi.org/10.1177/14614448241255955>
- Insko, C. A., & Schopler, J. (1967). Triadic consistency: A statement of affective-cognitive-conative consistency. *Psychological Review*, 74(5), 361–376. <https://doi.org/10.1037/h0020278>
- Jagayat, A., Gurkaran, B., Pun, C., & Choma, B. L. (2021). *Mock social media website tool* (1.0) [Computer Software]. <https://docs.studysocial.media>
- Kaiser, J., Keller, T. R., & Kleinen-von Königslöw, K. (2021). Incidental news exposure on Facebook as a social experience: The influence of recommender and media cues on news selection. *Communication Research*, 48(1), 77–99. <https://doi.org/10.1177/0093650218803529>
- Kakulla, B. (2024). *Older adults embrace tech but are skeptical of AI*. AARP. <https://doi.org/10.26419/res.00772.001>.
- Kalogeropoulos, A. (2021). Who shares news on mobile messaging applications, why and in what ways? A cross-national analysis. *Mobile Media & Communication*, 9(2), 336–352. <https://doi.org/10.1177/2050157920958442>
- Kumpel, A. S. (2019). The issue takes it all? Incidental news exposure and news engagement on Facebook. *Digital Journalism*, 7(2), 165–186. <https://doi.org/10.1080/21670811.2018.1465831>

- Kümpel, A. S. (2022). Social media information environments and their implications for the uses and effects of news: The PINGS framework. *Communication Theory*, 32(2), 223–242. <https://doi.org/10.1093/ct/qtab012>
- Latzko-Toth, G., Bonneau, C., & Millette, M. (2017). Small data, thick data: Thickening strategies for trace-based social media research. In L. Sloan & A. Quan-Haase (Eds.), *The SAGE handbook of social media research methods* (pp. 199–214). SAGE.
- Lim, S. S. (2002). The self-confrontation interview: Towards an enhanced understanding of human factors in web-based interaction for improved website usability. *Journal of Electronic Commerce Research*, 3, 162–173.
- Lin, Trisha T. C, Bautista, John Robert, & Core, Rachel (2020). Seniors and mobiles: A qualitative inquiry of mHealth adoption among Singapore seniors. *Informatics for Health and Social Care*, 45(4), 360–373. <https://doi.org/10.1080/17538157.2020.1755974>
- Masip, P., Suau, J., Ruiz-Caballero, C., Capilla, P., & Zilles, K. (2021). News engagement on closed platforms. Human factors and technological affordances influencing exposure to news on WhatsApp. *Digital Journalism*, 9(8), 1062–1084. <https://doi.org/10.1080/21670811.2021.1927778>
- Mayring, P. (2014). *Qualitative content analysis: Theoretical foundation, basic procedures and software solution*. http://www.ssoar.info/ssoar/bitstream/handle/document/39517/ssoar-2014-mayring-Qualitative_content_analysis_theoretical_foundation.pdf.
- Merten, L. (2021). Block, hide or follow – personal news curation practices on social media. *Digital Journalism*, 9(8), 1018–1039. <https://doi.org/10.1080/21670811.2020.1829978>
- Müller, V. T. (2024). Zahl der Social-Media-Nutzenden steigt auf 60 Prozent. *Media Perspektiven*, 28, 1–8.
- Oeldorf-Hirsch, A., & Neubaum, G. (2023). What do we know about algorithmic literacy? The status quo and a research agenda for a growing field. *New Media & Society*, 27(2), 681–701. <https://doi.org/10.1177/14614448231182662>
- Oeldorf-Hirsch, A., & Srinivasan, P. (2022). An unavoidable convenience: How post-millennials engage with the news that finds them on social and mobile media. *Journalism*, 23(9), 1939–1954. <https://doi.org/10.1177/1464884921990251>
- Park, C. S., & Kaye, B. K. (2021). What’s this? Incidental exposure to news on social media, news-finds-me perception, news efficacy, and news consumption. In Fuyuan Shen (Ed.), *Social media news and its impact* (pp. 157–180). Routledge.
- Peng, Z., & Miller, S. (2023). An examination of how social and technological perceptions predict social media news use on WeChat. *Journalism Practice*, 17(3), 554–573. <https://doi.org/10.1080/17512786.2021.1925948>
- Pickens, J. (2005). Attitudes and perceptions. In N. Borkowski (Ed.), *Organizational behavior in health care* (pp. 43–76). Jones and Bartlett Publishers.
- Quan-Haase, A., & Elueze, I. (2018). Revisiting the privacy paradox: Concerns and protection strategies in the social media experiences of older adults. *Proceedings of the 9th International Conference on Social Media and Society*, SMSociety ‘18, 150–159. <https://doi.org/10.1145/3217804.3217907>.
- Roulston, K., & Choi, M. (2018). Qualitative interviews. In U. Flick (Ed.), *The SAGE handbook of qualitative data collection* (pp. 233–249). SAGE Publications Ltd. <https://doi.org/10.4135/9781526416070>
- Schellewald, A. (2023). Understanding the popularity and affordances of TikTok through user experiences. *Media, Culture & Society*, 45(8), 1568–1582. <https://doi.org/10.1177/01634437221144562>
- Schmid, U. K., Kümpel, A. S., & Rieger, D. (2025). The remote self-confrontation interview method: Gaining insights into users’ perceptions of digital media content from a distance. *American Behavioral Scientist*, 69(10), 1221–1237. <https://doi.org/10.1177/00027642231205768>
- Strauß, N., Huber, B., & Gil de Zúñiga, H. (2021). Structural influences on the news finds me perception: Why people believe they don’t have to actively seek news anymore. *Social Media + Society*, 7(2), 1–21. <https://doi.org/10.1177/205630512111024966>

- Sveningsson, M. (2015). 'It's only a pastime, really': Young people's experiences of social media as a source of news about public affairs. *Social Media + Society*, 1(2), 1–11. <https://doi.org/10.1177/2056305115604855>
- Swart, J. (2021). Experiencing algorithms: How young people understand, feel about, and engage with algorithmic news selection on social media. *Social Media + Society*, 7(2), 1–11. <https://doi.org/10.1177/205630512111008828>
- Swart, J., & Broersma, M. (2023). What feels like news? Young people's perceptions of news on Instagram. *Journalism*, 25(8), 1620–1637. <https://doi.org/10.1177/14648849231212737>
- Swart, J., Groot Kormelink, T., Costera Meijer, I., & Broersma, M. (2022). Advancing a radical audience turn in journalism. Fundamental dilemmas for journalism studies. *Digital Journalism*, 10(1), 8–22. <https://doi.org/10.1080/21670811.2021.2024764>
- Swart, J., Peters, C., & Broersma, M. (2018). Shedding light on the dark social: The connective role of news and journalism in social media communities. *New Media & Society*, 20(11), 4329–4345. <https://doi.org/10.1177/1461444818772063>
- Trentham, B., Sokoloff, S., Tsang, A., & Neysmith, S. (2015). Social media and senior citizen advocacy: An inclusive tool to resist ageism? *Politics, Groups, and Identities*, 3(3), 558–571. <https://doi.org/10.1080/21565503.2015.1050411>
- United Nations. (2017). *World population prospects: The 2017 revision, key findings and advance tables (ESA/P/WP/248)*. Department of Economic and Social Affairs, Population Division. https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/files/documents/2020/Jan/un_2017_world_population_prospects-2017_revision_databooklet.pdf
- Valenzuela, S., & Santos, M. (2024). The meso news-space as a framework for studying mobile instant messaging services. *Digital Journalism*, 12(5), 729–734. <https://doi.org/10.1080/21670811.2023.2301356>
- Valkenburg, P. M., Peter, J., & Walther, J. B. (2016). Media effects: Theory and research. *Annual Review of Psychology*, 67(1), 315–338. <https://doi.org/10.1146/annurev-psych-122414-033608>
- Yachin, M., & Nimrod, G. (2021). Innovation in later life: A study of grandmothers and Facebook. *The International Journal of Aging and Human Development*, 92(4), 521–540. <https://doi.org/10.1177/0091415020940200>
- Yamamoto, M., Kushin, M. J., & Dalisay, F. (2018). How informed are messaging app users about politics? A linkage of messaging app use and political knowledge and participation. *Telematics and Informatics*, 35(8), 2376–2386. <https://doi.org/10.1016/j.tele.2018.10.008>
- Yu-ting, Y., Miao, Y., Yong-wei, Y., Qiong, Y., & Ting, L. (2022). Exploring urban empty-nesters' using WeChat influencing factors and quality of life: A qualitative descriptive study. *Geriatric Nursing*, 48, 183–189. <https://doi.org/10.1016/j.gerinurse.2022.10.008>
- Zainab, S., Mansoor, M., & Bukhari, M. (2022). Media literacy and senior adults' navigation into social media: Practices, participation and challenges. *Observatorio (OBS*)*, 16, 139–155. <https://doi.org/10.15847/obsOBS16Special%20Issue%20222218>
- Zhao, W., Kelly, R. M., Rogerson, M. J., & Waycott, J. (2023). Older adults using technology for meaningful activities during COVID-19: An analysis through the lens of self-determination theory. *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*, CHI '23, 1–17. <https://doi.org/10.1145/3544548.3580839>