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Review

Barriers to social media adoption among older adults: A systematic review

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ABSTRACT

Background: Older adults face multiple barriers that limit their engagement with social media.
Objective: This systematic review aims to identify, categorize, and synthesize the barriers to social media adoption among older adults.
Methods: A systematic search was conducted across six electronic databases without time restrictions. Studies were included if they involved participants aged 60+ years (or mean age 60+ years) and reported barriers to social media. Quality appraisal was performed using the Mixed Methods Appraisal Tool (MMAT). A total of 32 studies were included and synthesized thematically.
Results: Technical competency issues, including difficulties with device operation, updates, and Information and Communication Technology (ICT) literacy, were prevalent. Privacy and security concerns were consistently reported as critical obstacles. Educational support limitations, reduced learning speed, psychosocial factors (e.g., low self-efficacy), and socioeconomic constraints were also reported. This review synthesizes reported barriers and can inform the design of future studies and the development of strategies to promote digital inclusion among older adults.

1. Introduction

The increasing integration of digital technologies, and in particular social media, into everyday life has deeply altered the way that people communicate, sustain relationships, and share data. Nevertheless, this digital transformation has not been consistently embraced across all the ages. Older adults remain significantly less active on social media despite the potential benefits it may offer, such as reducing loneliness, improving access to information, and supporting intergenerational communication [1]. Several explanations have been proposed to account for this gap, including limited digital literacy, concerns about privacy and security, age-related physical or cognitive challenges, and the perception that social media offers limited personal value [2].

Previous systematic reviews have examined aspects of older adults' engagement with digital technologies. For example, Bhattacharjee et al. [3] focused primarily on digital skills acquisition, identifying challenges such as low self-efficacy, limited training opportunities, and cognitive constraints, but without a specific focus on social media contexts. Similarly, Newman et al. [4] explored older adults' experiences with social networking sites, highlighting perceptions of irrelevance and disinterest; however, their synthesis emphasized attitudinal factors rather than the broader structural and psychosocial conditions shaping adoption.

The present review extends this body of work in several important ways. First, it focuses specifically on social media adoption, rather than general digital technology use. Second, it provides an integrated, multilevel categorization of barriers, incorporating not only technical and psychosocial factors but also socioeconomic constraints and value- and communication-based preferences, which are often underexplored. Third, this review applies a two-stage search strategy including studies published up to 2025, offering a more up-to-date synthesis of the evidence. By combining these dimensions, the review advances a more comprehensive understanding of digital exclusion among older adults and provides a foundation for theoretically informed and practically relevant interventions.

While previous systematic reviews have examined older adults' digital skills or general social networking experiences, this review provides a more comprehensive and updated synthesis focused specifically

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Table 1
Inclusion and Exclusion Criteria Based on PICOS.

PICOS Element	Inclusion Criteria	Exclusion Criteria
Population (P)	Adults aged 60 years and older (or mean age ≥60); all genders, all ethnicities.	Participants younger than 60 years; studies focusing on children or adolescents.
Intervention/ Exposure (I)	Engagement with social media platforms (e.g., Facebook, Instagram, WhatsApp).	Studies not involving social media use (e.g., general ICT without social media focus).
Comparator (C)	Not applicable (observational focus on barriers).	N/A
Outcomes (O)	Barriers to social media adoption, including technical, educational, psychosocial, socioeconomic, and communication-related factors.	Outcomes not related to barriers (e.g., only benefits, usage frequency without barriers).
Study Design (S)	Primary research studies: qualitative, quantitative, or mixed-methods.	Review articles, systematic reviews, meta-analyses, research protocols, conference abstracts, editorials, commentaries, letters.

on barriers to social media adoption. By integrating technical, psychosocial, educational, socioeconomic, and communication-related dimensions across 32 international studies, this review offers a multidimensional framework that advances understanding of the complex and interconnected factors shaping digital exclusion among older adults.

1.1. Aims and objectives

This systematic review aims to identify, categorize, and synthesize the barriers to social media adoption among older adults. The specific objectives are to:

1. Systematically review and analyze all the primary studies examining how older adults engage with social media.
2. Determine and categorize the barriers in the adoption of social media by older adults and classify them as technical challenges, privacy and security concerns, educational gaps, psychosocial and socioeconomic factors and communication preferences.
3. Highlight gaps in the current literature and suggest areas for future research.

2. Methods

2.1. Design

The review process was carried out in line with the PRISMA 2020 reporting standards for systematic reviews and meta-analyses [3–5].

2.2. Inclusion and exclusion criteria

PICOS (Population, Intervention, Comparator, Outcomes, Study Design) approach was used to inform the inclusion and exclusion criteria [6]. For the purpose of this review, 'social media' refers to platforms that enable online interaction and content sharing, including social networking sites (e.g., Facebook, LinkedIn) and video-sharing platforms (e.g., YouTube). Some included studies addressed broader digital or ICT use; only findings explicitly related to social media adoption were extracted for synthesis. Detailed information on the inclusion and exclusion criteria can be found in Table 1.

2.3. Search strategy

A comprehensive literature search was performed across six electronic databases: PubMed, CINAHL, PsycINFO, Cochrane, EBSCO, and WILEY. Additionally, the reference lists of included studies and related systematic reviews were manually examined to identify further relevant publications, with no time limits. In addition to free-text keywords, database-specific controlled vocabulary terms (e.g., MeSH in PubMed and equivalent subject headings where available) were used to enhance search comprehensiveness and improve retrieval accuracy. Grey literature sources, including dissertations, conference proceedings, and non-peer-reviewed reports, were excluded to preserve methodological consistency and ensure that only peer-reviewed primary studies with established scientific rigor were included in the review.

A structured search strategy was developed using three concept groups: (1) social media platforms, (2) older adults, and (3) technology use/adoption barriers. These concepts were combined using AND, OR. The full search strings for each database are provided in Supplementary File 1.

All references were imported into Covidence Systematic Review Software (Covidence - Better Systematic Review Management, 2025). Prior to the commencement of the screening process, duplicate records were identified and removed. The titles and abstracts were screened in parallel by two independent reviewers using the established eligibility criteria. Full-text articles were then independently assessed by two reviewers. A consensus meeting was conducted to address any discrepancies, and a third reviewer was consulted to resolve any remaining uncertainties.

All steps of data extraction and quality appraisal were completed within the Covidence platform. Two reviewers independently screened and assessed each study using the Mixed Methods Appraisal Tool (MMAT) criteria provided in Covidence. Each study was rated according to design-appropriate criteria, with responses marked as "Yes," "No," or "Can't tell." Any differences in judgment were resolved through discussion, and, if necessary, a third reviewer was involved to help reach an agreement. According to the evaluation of the MMAT tool, the majority of the included studies demonstrated high proportions of positive responses. Among the four quantitative studies, 70% of the criteria received a "Yes" rating, while 15% were marked as "Can't tell" and "No", respectively. All 17 qualitative studies met 100% of the MMAT criteria, and for the 11 mixed-methods studies, 87.3% of the criteria were rated "Yes," and 12.7% were marked as "Can't tell," primarily due to insufficient reporting on integration and interpretation of mixed-methods components. No mixed-methods criteria received a "No" rating. (See Table 2). The MMAT was used to provide a descriptive assessment of methodological quality across the included studies. No studies were excluded on the basis of MMAT scores, and no weighting or sensitivity analysis was applied during the synthesis. All studies, regardless of their quality rating, were included in the thematic analysis.

Table 2
Quality Assessment of Included Studies by Study Design (MMAT).

Study Design	NUMBER OF STUDIES	MMAT PROPORTION YES (%)	NO (%)	CAN'T TELL (%)
Quantitative	4	70%	15%	15%
Qualitative	17	100%	-	-
Mixed – Method	11	87.3%	0%	12.7%

The review followed a two-stage search process. The initial search was conducted across all six databases (PubMed, CINAHL, PsycINFO, Cochrane Library, EBSCO, and WILEY Online Library) and covered all available records up to February 2022. This first stage identified 22 studies that met the eligibility criteria and is presented in PRISMA Flow Diagram 1. A second, updated search was then carried out between March 2022 and April 2025 using the same databases and search strategy. This update search identified an additional 10 eligible studies, as shown in PRISMA Flow Diagram 2. Together, the two PRISMA diagrams represent the complete study selection process and result in a final

Table 3
Studies Characteristics of Included Studies.

Author/ Year	Methods	Findings
[7]	***Population:*** 60 older adults aged 65–93 years; (53% female, 47% male) from three Victorian and three Queensland sites. ***Methods:*** Semi-structured qualitative interviews	Difficulty and cost. Use of Facebook to connect with others to pursue individual interests, feel like they were included in family events they were unable to attend due to physical frailty or geographical distance.
[8]	***Population:*** 1st focus group: 10 people aged between 55 and 80 years; mean age = 68.7 years. 2nd focus group: 7 people aged between 54 and 85 years; mean age = 81 years. ***Methods:*** Qualitative research design – Interpretative phenomenological analysis (IPA) with the use of focus groups.	Lack of trust in online activity and concerns about wanting to keep personal data secure. Providers of digital technology classes being isolating and insulting, quick pace of classes, judgmental attitudes, and inaccessible jargon.
[24]	***Population:*** 75 seniors participating in the social networking course at Chiang - Rai senior school, aged between 60 and 83 years old. ***Methods:*** Mixed – method: multidisciplinary research design combining both experimental and data collection components with machine learning classification modeling. Collecting data through surveys.	5 significant classification factors were identified, namely, age, daily internet time spending, number of applications, memory problem, and education background.
[9]	***Population:***15 seniors aged 70 to 92 years. ***Methods:*** Qualitative design: Semi- structured interviews digitally audio-recorded, followed by thematic analysis using a combination of inductive and deductive coding.	-Usability (encounter technological problems with their devices. They struggle with updates, passwords, Wi-Fi). -Ambivalent attitude towards social technology (is not as personal as other forms of communication).
[10]	***Population:*** 24 older people aged 65 to 98 years old from Italy. ***Methods:*** Students (master's degree programme in Media Education at Catholic University of the Sacred Heart) interviewed a family member aged > 65 years.	They experienced social media as somewhat problematic and had concerns about privacy and safety issues. The reasons for the unwillingness to learn new media literacies ranged from "laziness" to a self-perception of being unable to learn.
[11]	***Population:*** 41 adults older than 60 years (average age 67 years). ***Methods:*** 36 classroom sessions recorded during the learning intervention. In total, 22.5 h of video data were coded and analyzed in depth by using the NVivo 11 software**.**	The most important barrier was lack of experience, problems with usernames and passwords, problems transferring knowledge across devices and platforms, and facing technical problems and requirements. Other barriers were negative emotions related to the learning process.
[25]	***Population:*** Adults above 20 years divided into three age categories: younger adults (aged 20 to 44), pre-older adults (aged 45 to 59), and older adults (aged 60 and above). 40 participants in each category. ***Methods:*** Mixed methods design: Two-part research approach: (1) comparative analysis across age ranges to understand differences between age groups, and (2) targeted analysis within the older adult cohort. Use of semi-structured interviews and in-person questionnaires with questions that derived from the interviews themes.	-poor usability of e-participation system, including the lack of guidance from the government, poor notification and advertising, and insufficient feedback and reward systems. -poor internet accessibility, including the limited ability using electronic devices, lack of assistance, lack of devices themselves, health problems, illiteracy, high monetary costs, and the potential online risks and -personal attributes and lack of participation awareness.
[35]	***Population:*** 1080 completed questionnaires, individuals aged 50 and above (estimated Mean Age ≈62.28 years). ***Methods:*** Online questionnaire addressed to older adults distributed with a flyer at Hertfordshire, UK, after geographic stratification of towns.	Concerns regarding security as well as trust issues regarding OSN adoption.
[26]	***Population:*** 323 older ICT users aged 50+ (mean age 67 years). ***Methods:*** Questionnaire survey followed by in depth interviews, focus groups and storytelling.	- Lack of technical skills. - Physical difficulties – for example using the mouse or keyboard, or seeing the screen. - Remembering things – for example passwords. - Not knowing how to deal with computer security, such as viruses, and spam. -Problems with technology (E.g. blue screen errors).
[12]	***Population:*** 29 older adults; 12 between 55 and 65 years and 17 over 66 year of age. ***Methods:*** Ethnographic approach with semi structured, in-depth face-to-face interviews.	Perceived difficulty and a low level of self-efficacy associated to using SNS was identified as reasons for non-use. Perceived usefulness was a factor for not using SNS, since non-users regarded SNS as a tool for 'meaningless chatter', with little to no utility.
[27]	***Population:*** 135 residents, age from 61 to 99, residing in one senior living center in the Southwestern United States. ***Methods:*** exploratory mixed-methods case study. iPads and bi-weekly small group technology training sessions were provided to older adults.	Identified barriers were the reduced speed of learning and memory difficulties that impeded progress and necessitate special adaptations to the training curricula of the iPad technology for the older adults
[28]	***Population:*** 150 older adult participants, aged 55 and over (estimated mean age: 70 years), who were free to use different technologies during a six-month trial period. ***Methods:*** Pre-Post trial to identify and analyze the effects of introducing social media technologies to an older adult participant sample group, followed by focus groups.	Older adults perceived Skype as the most secure in terms of privacy. This was followed by Facebook as the 2nd most secure, and Twitter as the least secure in terms of privacy. The perception of privacy and privacy protection in relation to these applications may have possibly affected the older adult's use.
[36]	***Population:*** Representative random sample of 1103 seniors (65 years and older) covering all three major language groups in Switzerland (German, French and Italian). ***Methods:*** Quantitative, cross-sectional survey: Computer assisted telephone interviews (CATI) (60% response rate) as well as paper and pencil interviews (PPI) for those who had no phone line or were unwilling to participate on phone (25% response rate)	Dominant reasons for seniors not using the internet were concerns of potentially negative outcomes which are expected to be related to Internet use. Expecting the Internet to be complicated to use and difficult to understand. They also expect to face serious security threats and technical problems.
[13]	***Population:*** 20 retired women between 65 and 75 years old and living in the southwest of Germany ***Methods:*** Qualitative in-depth interviews and observations on technology followed by thematic analysis approach.	-Older women repeat stereotypes. -The influence can unfold beyond the social category of older women: reinforcing the gender perspective could influence younger women to feel they are not expected to be interested in technology.
[29]	**Population:** Average age of 71.58 years. Phase 1: Resident service coordinators of 10 housing centers—apartment or condominium complexes in New Hampshire and Maine that may restrict residency to age criteria.	A digital divide in ICT use among residents was found, characterized as use of social media and email in contrast to only using text messaging and telephone calls. ICT users who employed social media and email had more education,

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Table 3 (*continued*)

Author/ Year	Methods	Findings
	Phase 2: 91 residents of nine of the above centers. **Methods:** Mixed methods research design. Six faculty and student field researchers employed iPads using a Qualtrics program to administer questions to resident-participants.	were a few years younger than non-ICT users and had more frequent contact with friends and family.
[30]	**Population** Ten participants: Five men and five women between the ages of 68 to 82 years old. **Methods:** Mixed methods.	-Bodily functions (Sensory, Neuromusculoskeletal., Mental). -Activity demands (objects and their properties, space, required actions and performance skills, social demands). -Other (Attitude/ motivation, Knowledge, Support)
[14]	**Population:** Sixteen older adults aged between 60 and 80 years, were recruited from an existing community study. **Methods:** Qualitative analysis: Interviews. A thematic analysis conducted using the QSR NVivo.	-Personal attitudes: perceptions that the quality of interactions was compromised and its associated risks reduced their use.
[31]	***Population:*** 145 individuals >50 years old (mean age 71.17 years). ***Methods:*** Mixed-methods design. A web-based survey consisted of four parts.	Individuals not using social media indicated that the reasons they chose not to use other social media sites was due to lack of interest and/or lack of access to a computer. The remaining responses indicated concerns about security or identity theft, a belief that social media is too complicated, or a lack of time.
[16]	***Population:*** 57 participants (32 women, 25 men). Average age was 70, ranging from 59 to 91. ***Methods:*** Qualitative methodology. 57 interviews (semi-structured in-depth interviews) of adults aged 59 and older in three European countries – Hungary (HU), the Netherlands (NL), and Switzerland (CH).	1. Social Influence: -Change in family or friends' media preferences. 2. Lack of Interest: -Disinterest in trivial or political content. 3. Convenience: -Preference for simpler, consolidated apps (e.g., WhatsApp over Skype). 4. Time Constraints / Overuse / Overload: -Perception that social media is time-wasting.
[17]	**Population:** Twenty older adults (60 years or older). **Methods:** Qualitative study design.	Main barriers seem to be the perceived privacy invasions, such as constant telemarketing phone calls and spam emails
[32]	**Population:** 708 older adults (survey), plus 22 qualitative interviews. Age Range: 59–85 years old (mean age ≈ 71.8). **Methods:** Mixed – Method - 22 interviews and administering 708 surveys among older adults living at home.	-Fear of forgetting passwords, inability to use tech. -Fear of hacking, identity theft, losing control of personal data. -Fear of being ridiculed, overwhelmed, or feeling incompetent online -Fear of overspending, costs of upgrades or subscriptions.
[23]	**Population:** 20 older adults from Taiwan, the participants' ages ranged from 50 to 77 years, (mean age 63.85). **Methods:** Qualitative research: Semi-structure interviews about their experiences, motivations and challenges in using social media.	-Social influence is a major precursor for older adults' exposure to digital technology. -Both acceptance and barrier factors influence older adults' digital learning. -Older adults exhibit paradoxical hesitation toward technology.
[33]	**Population:** 4879 community–dwelling older adults, aged 65–79 years old. **Methods:** Mixed-methods design. Web–based, cross-sectional survey. Quantitative: Logistic regression to identify factors associated with nonuse of social media. Qualitative: Thematic analysis of open–text responses.	−15,4% of respondents did not use social media or video communication. -Significant predictors of nonuse: 1. Male gender (OR 1.60), 2. Advanced age (80+) (OR 1.88), 3. Living alone (OR 1.68), -Qualitative themes: 1. Technology was helpful in staying connected, 2. Virtual tools helped maintain routines.
[18]	**Population:** 40 older adults, 65–91 years old. **Methods:** Qualitative: In-depth semi-structured interviews.	- Barriers (Privacy Concerns): Unauthorized access to personal information: (38%); Misuse of information by companies or others: (28%); Government/ corporate surveillance: (18%); Fear of hacking: (20%); Scams: (13%).
[15]	**Population:** 46 older adults, 65–95 years (Mean age = 80.4 years). **Methods:** Qualitative exploratory study: Semi-structured, face-to-face interviews.	-Privacy Concerns. -Need for Media Richness. -Preference for Familiarity. -Triviality of Communication. -Time Commitment.-Frustration with Limited Skills.
[19]	**Population:** 22 older adults (age 71–92). **Methods:** Semi-structured, in-home interviews lasting approximately one hour.	Perception That Social Media Is for Younger People; Time Commitment and Reciprocity; Trivial and Unimportant Content; Privacy Concerns; Credibility and Negative Influence; Dislike of Constant Communication.
[20]	**Population:** 28 community-dwelling older adults from the Atlanta metropolitan area. The mean age of the sample was 72.44 years (range: 61–78). **Methods:** Semi-structured group interviews. The interviews were divided into three parts: Email, Social Networking Sites (specific platforms like Facebook, Twitter etc.), General Questions (challenges related to social networking sites). Participants also completed questionnaires before and after the interviews.	-Trust Issues, Privacy and Security. -Cognitive and Knowledge-Related Barriers. -Negative Emotional Reactions. -Perception of Content -Perceived Lack of Usefulness (Performance Expectancy - Not Helpful). -Complexity and Difficulty of Use (Effort Expectancy). -Social Influence. -Lack of Facilitating Conditions.
[37]	**Population:** 141 older adults, 55 years and older, Estimated Mean Age ≈ 65.5 years. **Methods:** Cross-sectional, descriptive study using a questionnaire-based survey.	Privacy Concerns: Most frequently cited reason by both users and non-users. Complex Interface: Facebook's User Interface (UI) is perceived as unintuitive and overwhelming. Lack of Confidence in Technical Skills: Strong correlation with non-use. Motor Impairments: Associated with reduced Facebook use.
[21]	**Population:** 22 older adults, age range: 64–86 years. **Methods:** Qualitative, participatory case study.	Lack of Cultural Competency Anxiety About Appearing "Old" Online. Low Social Media Self-Efficacy. Platform Architecture and Cultural Mismatch. Confusion About Social Contexts.
[38]	**Population:** 142 older adults (Mean age=72 years, range: 52–92). **Methods:** Survey based cross-sectional study.	Confidence with Technology: -Non-Facebook users had lower confidence with technology.-Older adults may find social media platforms overwhelming or difficult to use due to unfamiliarity with digital interfaces. Age Differences: -Non-users were significantly older than users (Mage = 75.3 vs. 66.5).
[22]	**Population:** 16 adults, ranging in age from 65 to 72 years. **Methods:** Qualitative approach using focus groups to gather data.	1. Physical and Cognitive Challenges 2. Privacy and Perceived Benefit. 3. Conceptual Barriers and Lack of Skills. 4. Need for Training and Support.
[34]	**Population:** 20 older adults aged 65 years and above. **Methods:** Qualitative, exploratory method as the first phase of a larger mixed-methods two-phase exploratory sequential design. Semi-structured interviews were conducted, audio-recorded, and transcribed verbatim.	1. Perceived Self-Efficacy and Fear (low confidence and patience). 2. Culture of Online Communication (useful tool but did not replicate face-to-face interaction). 3. Absence of Social Capital (a lack of support). 4. Physical Functioning (such as eyesight problems.

Table 4
Study, Region, Platform Focus, and Participant Age: Comparative Summary.

Study	Country / Region	Platform Focus	Participant Age
[7]	Rural Australia (Victoria & Queensland; 6 rural sites)	Information & Communication Technologies (ICTs) — computers, tablets, telephone, television; Internet-based tools such as email, Skype, Facebook, WhatsApp, online banking, online booking, telehealth	65–93 years (53% female, 47% male)
[8]	United Kingdom (participants recruited through a regional Age UK)	Digital technology & digital inclusion classes — computers, telephones/ smartphones, Skype, Facebook, Kindle, iPad, email, printer, television	54–85 years (Focus Group 1: 55–80; Focus Group 2: 54–85)
[24]	Thailand (Chiang Rai; senior school)	Social media / social networking skill learning — messaging, images/ video, calling, friends, sharing, profile, community page, timeline, settings, social networking dictionary	60–83 years old
[9]	Netherlands	Social technology platforms (WhatsApp, Facebook, Skype, Email, tablets, smartphones, landline, online games) used to support social connection among older adults	70–92 years old
[10]	Italy (Northern regions: Piedmont, Lombardy, Emilia-Romagna, Trentino Alto Adige, Friuli, Liguria, Valle d'Aosta, Sardinia)	Digital media use, media repertoires, digital competences, media literacy — smartphones, computers, internet use, messaging, social media, online information	65–98 years (average age = 75)
[11]	Costa Rica	ICT for healthy aging — blended learning intervention using Facebook, Blogger, Skype, Lumosity, Moodle, plus basic ICT skills (logging in, passwords, navigation)	60+ years (Mean age ≈ 67 years, range 60–?, sample of 41 adults)
[25]	China — Case study in Jixi, Heilongjiang Province	E-participation platforms used in urban planning — government websites, WeChat, Weibo, email, and other digital participation tools	Older adults aged 60+ (study includes interviews n = 13 and questionnaires n = 120 across age groups; older adult cohort = 60+)
[35]	United Kingdom — Hertfordshire	Online Social Networks (OSN) — specifically Facebook, plus general OSN adoption factors (internet access, devices, privacy, support)	50+ years (study focuses on "silver surfers," defined as adults aged 50 and above)
[26]	United Kingdom (multiple regions across England & Scotland)	General ICT use — computers, internet, email, digital devices; digital engagement and sustained ICT use	50+ years (participants aged 50–89, mean ≈ 67)
[12]	Australia — Mid-West Western Australia (caravanning routes)	Social Networking Sites (SNS) — Facebook, YouTube, Instagram, Twitter; SNS use while caravanning (active, passive, non-use)	55+ years (Grey Nomads; sample aged 55–65 and 66+)
[27]	United States — Southwestern U.S. (senior living center)	iPad technology & ICT use — iPads, email, Internet, social media (Facebook, Pinterest), videoconferencing (Zoom), e-books	61–99 years (majority 75+; participants from Silent, Baby Boomer, and G.I. generations)
[28]	Australia — Sydney metropolitan area + two regional locations (Lake Macquarie & Port Macquarie)	Social media technologies — Facebook, Twitter, Skype (training + 6-month trial)	55+ years (80% aged 65+)
[36]	Switzerland (nationally representative survey)	General Internet use / digital divide among seniors — Internet access, frequency of use, digital inequality	65+ years (subgroups: 65–69, 70–74, 75–79, 80–84, 85+)
[13]	Germany (Southwest Germany)	General technology use & perceptions — smartphones, laptops, computers, tablets, social media; focus on *interest* and *competence* with technology	65–75 years (women born 1943–1953)
[29]	United States — Northern New England (New Hampshire & Maine; rural & *peri*-urban subsidized housing)	ICT connectivity & use — email, social media (Facebook), texting, phone use, iPad-mediated surveys; broadband/Wi-Fi access	Older adults (mean age ≈ 72) — sample aged ~60–90+ (range implied; mean 71.6, SD 10.16)
[30]	USA (Ohio)	Mixed / Not specified (general use of PC and internet)	68–82 years
[14]	Singapore	Social media apps (WhatsApp, Facebook, YouTube, Instagram, Twitter)	60–80 years
[31]	United States	Facebook	50–91 years
[16]	Switzerland, Netherlands, Hungary (3 European countries)	General ICT use & disconnection (smartphones, social media, messaging apps, email, Skype, WhatsApp, Viber, Messenger)	59–91 years (mean ≈ 70)
[17]	United States	General digital privacy: web services, social media, online banking, scams, digital privacy threats	58–83 years
[32]	Australia	General digital engagement & digital risk perceptions: everyday digital activities, privacy/ security risks, digital competencies	59–85 years (mean ≈ 71.8)
[23]	Taiwan	Digital learning platforms, smartphones, tablets, computers; general digital learning & everyday digital tools	50–77 years (Mean age: 63.85)
[33]	Canada (Ontario)	Social networking websites & video communication apps (Facebook, Zoom, FaceTime, WhatsApp) used to connect with friends & family during COVID-19	≥55 years; mainly 65–79; substantial group ≥80
[18]	Canada (East York, Toronto)	Social media platforms (Facebook, Skype, Twitter)	65–91 years (mean age = 73.4)
[15]	United States (assisted living center in a U.S. university town)	Facebook	Mean age 80.4; range 65–95 years; 46 participants

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Table 4 (*continued*)

Study	Country / Region	Platform Focus	Participant Age
[19]	United States (participants recruited via U.S. university research database; interviews conducted in participants' homes)	Facebook, Twitter, LinkedIn, Words With Friends, JewishGen, News blog (general social media use)	Age range 71–92; mean age 80.9
[20]	United States (Atlanta metropolitan area)	Email; Social Networking Sites (Facebook, Twitter, LinkedIn, Instagram, Pinterest); Online health forums; Skype	Mean age 72.44; range 61–78; N = 28
[37]	International sample (online survey) + Portugal (3 senior institutions)	Facebook; Tablets; Television (as alternative access platforms)	Age categories: <60, 60–64, 65–70, 71–75, 76–80, >80 (N = 141)
[21]	Australia (Melbourne – inner & outer metropolitan suburbs)	Social media in general; Facebook; Selfie-taking & sharing; Digital literacy workshops	Age range 64–86; average age 73; N = 22
[38]	United States (metropolitan Atlanta area)	Facebook	Mean age 72; range 52–92; N = 142
[22]	United States (Midwestern U.S.; participants recruited from two Independent Living Communities)	Facebook, Twitter, LinkedIn (general social media use)	Age range 65–72; N = 16
[34]	United Kingdom (England, Scotland, Wales)	Social technology broadly: social media, social internet use, messaging apps, video calling	Age 65+; sample: 65–74 (n = 12), 75–84 (n = 8); N = 20

total of 32 included studies.

3. Results

3.1. Overview of the included studies

The majority of studies (17/32) used qualitative methods [7–23]. A further 11 studies (11/32) used a mixed-methods study design, [24–34]. Finally, four studies (4/32) used quantitative descriptive survey study design [35–38]. Detailed information on the characteristics of included studies can be found in Table 3, and Study, Region, Platform Focus, and Participant Age: Comparative Summary found in Table 4.

3.2. Data collection approaches

The most common methods of data collection were interviews [7,9,10,12–20,23,25,34]. Focus groups were used in one study [22], while surveys were conducted by eight studies [24,29–31,33,36–38]. Other methods included video recording classroom sessions [11], online questionnaire [35], and self-reported and workshops [21]. Additionally, one study combined interviews and surveys [32], another study combined in depth interviews, focus groups and storytelling [26] and another study combined pre- and post-training questionnaires, focus groups, and screening interviews [28]. Finally, one study used Interpretative Phenomenological Analysis (IPA) to explore older adults' lived experiences, alongside deductive content analysis to define digital technology from participants' perspectives [8].

3.3. Sample sizes and demographics

Sample sizes ranged from 4879 participants [33], to fewer than 100 participants in several studies [15,16,18,19,22]. The majority of the included studies targeted adults aged 60 years and older. Only a few studies included participants as young as 50, like the study by [35] (mean $_{\text{participant age}}$ =62), and the study by [38] (mean $_{\text{participant age}}$ = 72).

3.4. Research themes

The most frequently examined topics were barriers to technology use and adoption challenges [26,36], and Facebook-specific patterns of use or avoidance [15,37]. Other themes included where communication preferences and values [19,21], technology acceptance and self-efficacy [10,12], motivations for disconnection or media switching [16,23], relationships between technology use, loneliness, and social satisfaction [20,38].

3.4.1. Thematic synthesis of barriers

Across the 32 included studies, certain barrier categories were consistently reported across diverse contexts, while others appeared in a smaller subset of studies. Privacy and security concerns emerged as the most widely documented barrier, identified in at least seven studies [15,16,18–20,22,37], spanning different countries and methodological designs. Technical competency challenges were also frequently reported, particularly difficulties with device operation, passwords, updates, and ICT literacy, as described in studies [7,9,11,26,36]. Psychosocial factors such as low self-efficacy, fear of embarrassment, and negative learning emotions appeared in a moderate number of studies [11,12,23,32], suggesting a recurring but context-dependent pattern. In contrast, barriers related to communication values and perceptions of social media's relevance were identified in fewer studies, primarily qualitative ones focusing on interpersonal communication, including [15,21,22,19]. This distribution indicates that while some barriers are robust across settings, others may be more sensitive to cultural, social, or methodological differences.

3.4.2. Technical competency

Technical competency emerged as the most universal barrier, with seniors struggling with device operations, updates, passwords, and Wi-Fi connectivity [9], perceiving ICTs as difficult and costly [7]. Many perceived lacking ICT experience and literacy [11], having insufficient technical skills for problem-solving [26], and expecting internet technology to be complicated [36].

3.4.3. Privacy and security concerns

Security and privacy concerns were equally presented as pervasive obstacles. Participants expressed lack of confidence in online activities and personal data protection worries [8], reported privacy and safety issues [10], online risks [25], and security and trust concerns about social networking adoption [35]. Additionally, participants expressed worrying about viruses and spams [26], expected serious security threats [36], experienced privacy invasions [17], and feared hacking and identity theft [32].

3.4.4. Educational and support system limitations

The educational support system was found to compound barriers, with digital inclusion classes described as isolating and insulting with inappropriate pacing and inaccessible jargon [8], gaps in guidance and individual classroom support restrictions [11,25], and lack of adequate training for platform experimentation [22].

3.4.5. Physical and cognitive challenges

Physical and cognitive limitations were found to create additional layers of difficulty, including memory problems [26,27], physical difficulties with devices [26], reduced learning speed requiring special adaptations [27], and broader physical and cognitive factors affecting ICT use [22].

3.4.6. Psychosocial factors

Psychosocial factors were found to complicate adoption through

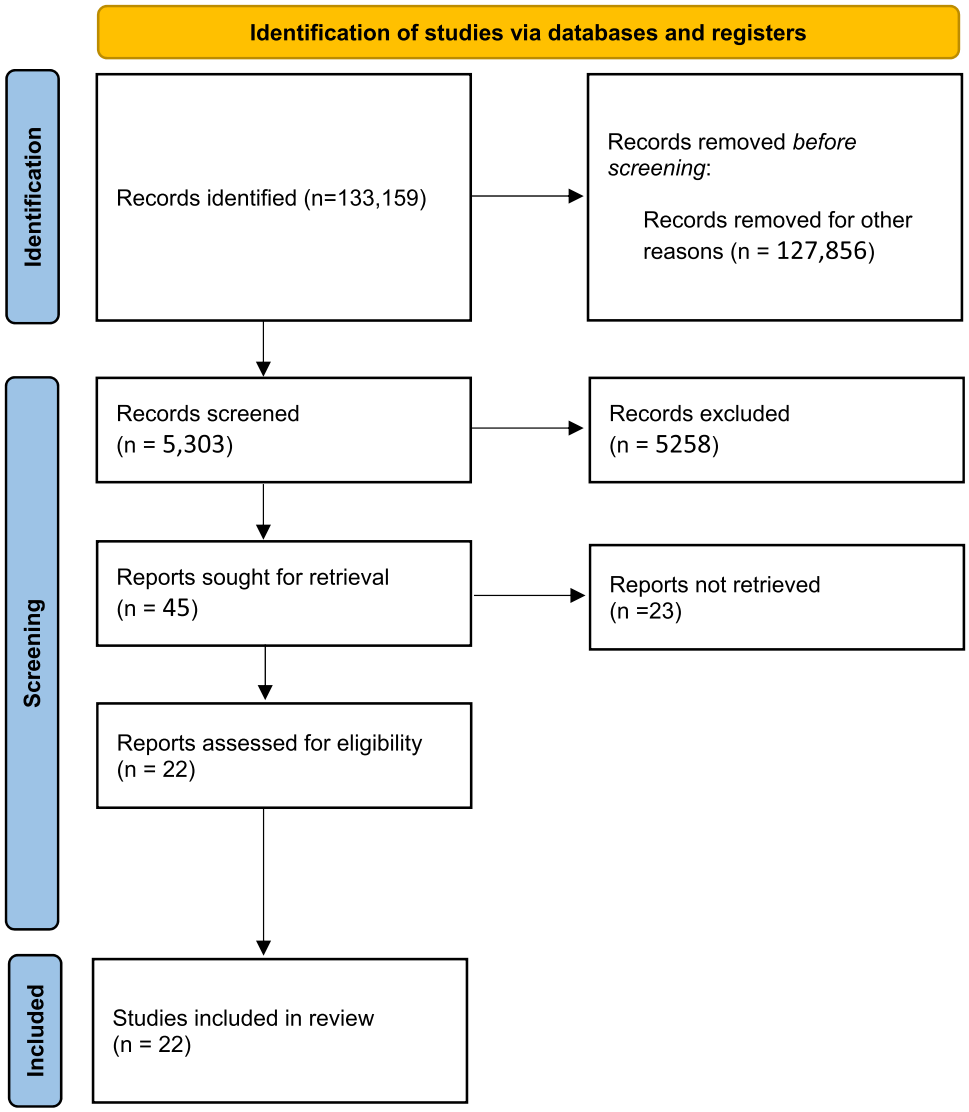

Fig. 1. PRISMA Flow Diagram.

negative learning emotions [11], internalized age-related stereotypes about learning capabilities [10], low self-efficacy and perceived difficulty [12], lack of interest and motivation [31], fear of ridicule and incompetence [32], and paradoxical technology hesitation [23].

3.4.7. *Socioeconomic and access issues*

Individual difference factors including age, internet usage patterns, application familiarity, memory challenges, and educational background [24] interact with socioeconomic and accessibility factors such as monetary costs [25,32], and device availability [25]. Privacy and security concerns emerged as the most extensively documented barrier across the research landscape, with seven studies identifying these concerns as primary obstacles to social media engagement among older adults [15,16,18–20,22,37]. One more substantial thematic group is the technical barriers, which were identified in four studies as significant influences restraining social media engagement [15,22,33,37]

3.4.8. *Perceptions of utility and relevance*

A crucial thematic area is considered to be social and communication values [15,19,21,22]. Finally, it is found that common explanations for social media avoidance among older adult relate to value and relevance issues [15,16,19,22,37].

While the thematic synthesis identifies recurring barrier categories across the included studies, the relative weight of each theme should be interpreted with caution. This review did not apply quality-based weighting or conduct sensitivity analyses, and all included studies were synthesized descriptively. Additionally, the evidence base is heterogeneous in terms of study design, populations, platforms, and geographical contexts, which may influence the prominence of specific barriers.

Finally, the findings of this review suggest that barriers to social media adoption among older adults operate across multiple interconnected levels. At the individual level, barriers include technical literacy deficits, physical and cognitive limitations, privacy concerns, and low self-efficacy. At the social level, communication preferences, family support, intergenerational learning opportunities, and social norms influence engagement. At the structural level, educational system limitations, financial constraints, access to devices and internet services, and age-unfriendly platform design further shape digital participation. This multi-level perspective highlights that social media adoption is influenced not by isolated factors but by interrelated influences across personal, social, and systemic domains.

4. Discussion

The present review aimed to recognize, categorize, and synthesize

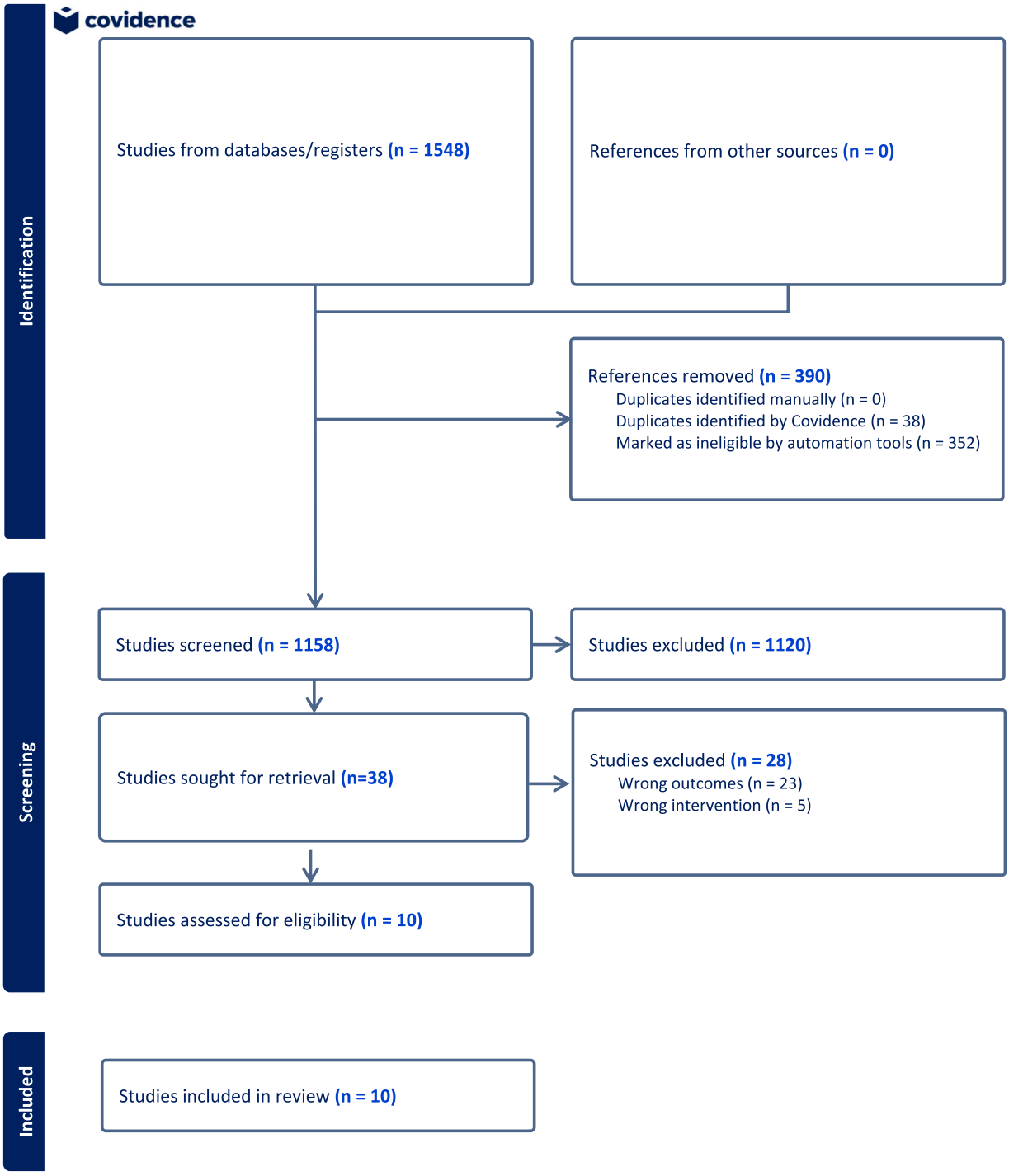

Fig. 2. PRISMA Flow Diagram.

the barriers affecting social media adoption among older adults. A complex and multidimensional range of barriers was identified from the results of an inclusive analysis of 32 studies, which constantly obstruct older adults from both embracing and sustaining engagement with social media platforms. The combined evidence from prior reviews [3,4] and primary research suggests that these challenges frequently co-occur across studies and appear to be interrelated, potentially contributing to patterns of digital exclusion among older adults.

These results highlight the necessity for effective involvements to emphasize not only on practical skills training but also improving confidence, offering education on security, incorporating age-appropriate learning procedures, and establishing universal support frameworks. Since the obstacles function synergistically, it is vital to address them systematically to diminish the continuing digital divide influencing older adults across diverse technological settings and geographical locations.

Although certain barriers, such as privacy concerns and technical difficulties, were more frequently reported across studies, the relative prominence of these themes should be interpreted cautiously. The synthesis did not involve weighting studies based on methodological quality or performing sensitivity analyses, and therefore does not imply that more frequently reported barriers are necessarily more influential. Furthermore, the included studies vary substantially in design, sample characteristics, and sociocultural context, which may shape the types of

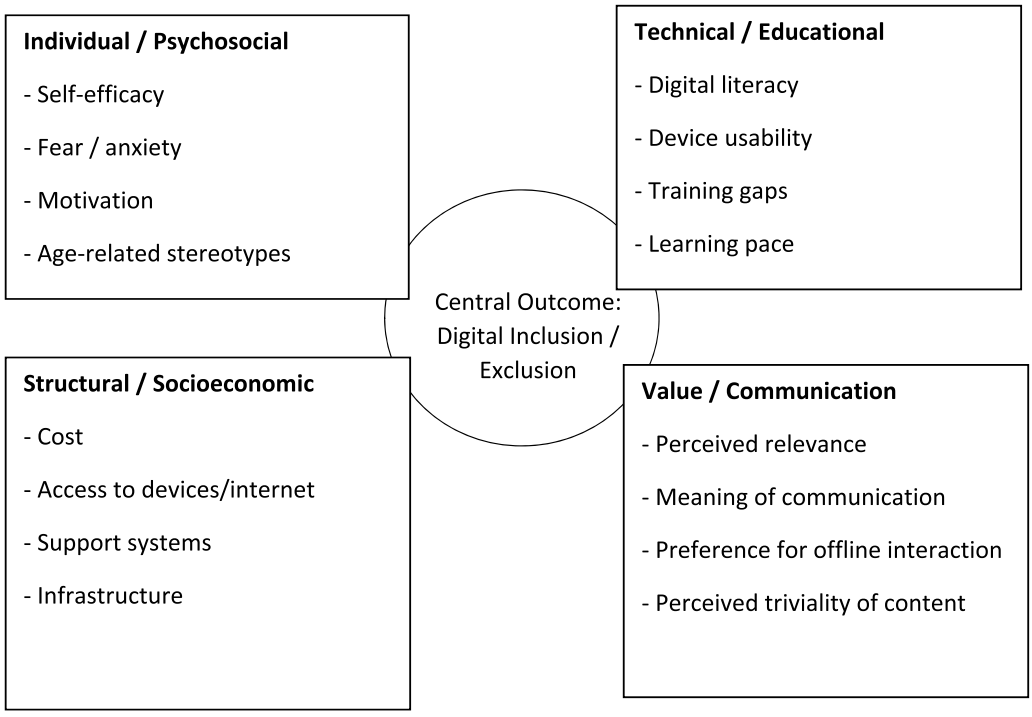

Fig. 3. Integrated Framework of Barriers to Social Media Adoption Among Older Adults.

barriers identified.

Overall, the implications discussed should be understood as hypothesis-generating, derived from a descriptive synthesis of heterogeneous studies, rather than as evidence of causal relationships or tested intervention effectiveness.

The heterogeneity of the included studies also suggests that cultural factors may moderate the salience of specific barriers. Norms surrounding privacy, interpersonal communication, and intergenerational support differ substantially across sociocultural contexts, potentially shaping how older adults perceive both the risks and the value of social media use. For example, in collectivist cultures where family-based digital support is more common, technical barriers may be less pronounced, whereas in contexts with stronger individual privacy norms, concerns about data protection may be more salient. These cultural moderators highlight the need for cross-cultural comparative research to better understand how social media adoption unfolds in diverse settings.

4.1. *Interconnected nature of barriers*

The interrelatedness of the obstacles is a key finding from this analysis, that older adults come across when embracing social media. Privacy and security concerns were among the most frequently reported barriers across several studies [15,16,18–20,22,37]. These concerns are often reported alongside limitations in technical skills [7,11,26,36] and inadequacies in educational support systems [8,11,22,25], suggesting patterns of co-occurrence and interconnection across the included studies, rather than independent or isolated challenges. For instance, older adults who struggle with technical abilities [9,26], are less prepared to realize or efficiently accomplish privacy settings, which impairs their concerns in relation to security [17,32,35], and leads them to avoid social media platforms altogether. This interconnectedness indicates that interventions aimed at addressing isolated barriers may be insufficient, highlighting the need for comprehensive, multi-faceted approaches that consider how technical, educational, and psychosocial challenges co-occur and interrelate.

Although the thematic synthesis highlights a coherent set of barrier categories, the heterogeneity of the included studies requires caution when interpreting the breadth and strength of each theme. The prominence of certain barriers—such as privacy concerns [15,16,18–20,22,37] and technical difficulties [7,9,11,26,36] —reflects their recurrence across multiple studies. In contrast, themes such as communication preferences and value-based resistance appear primarily in qualitative investigations [15,19,21,22], indicating that these barriers may be more context-specific. Psychosocial factors, including low self-efficacy and fear of embarrassment, were also reported in a moderate number of studies [11,12,23,32]. Therefore, while the synthesis provides a comprehensive overview of the barriers older adults encounter, the relative weight of each theme should be understood in relation to the uneven distribution of evidence across study designs, platforms, and cultural contexts.

To further synthesize the findings, a conceptual framework (Fig. 1) was developed to illustrate the multi-level categorization of barriers to social media adoption among older adults. The framework organizes barriers into four interconnected domains: (1) individual and psychosocial factors, (2) technical and educational barriers, (3) structural and socioeconomic constraints, and (4) value- and communication-based factors. These domains appear interrelated and may collectively contribute to the persistence of digital exclusion among older adults.

4.2. *The role of self-efficacy and psychosocial factors*

The findings of this review suggest that self-efficacy and psychosocial factors may play an important role in shaping social media adoption among older adults. Low self-efficacy and perceived difficulties emerge as significant hindrances [11,12,23], often exacerbated by ingrained age-related stereotypes regarding learning abilities and technological proficiency [10,13]. These observations align with the systematic review by Bhattacharjee et al. [3], which identified low self-efficacy as a primary challenge in the acquisition of digital skills among older adults. Additional psychological obstacles that exceed ordinary technical challenges are considered to be the feelings of inadequacy and fear of ridicule online, as well as worries about being overwhelmed [32]. Notably, the research suggests that these psychosocial obstacles can

serve as both, causes and effects of technical difficulties, creating a self-perpetuating cycle where negative experiences diminish confidence, subsequently reducing the willingness to engage with technology and further limiting opportunities for skill development Fig. 2.

4.3. Value systems and communication preferences

A particularly significant finding is the fundamental disconnection between older adults' communication values and the traits of social media platforms. The research indicates that many older adults prefer traditional, meaningful forms of communication [9,14,15] and perceive social media as impersonal or unsuitable for fostering close relationships [4,15,19,21,22]. Therefore, this value-based resistance denotes a distinctly different category of barrier compared to those related to technical or educational issues, as it reveals core philosophical differences in relation to the nature and purpose of social interaction rather than merely skill deficiencies. The study which was conducted by Newman, Stoner, and Spector (2021) recommends that effective interventions must not only explain how to use these particular platforms but also illuminate their relevance to older adults' specific communication needs and relationship-maintenance goals Fig. 3.

4.4. Educational and support system failures

This specific research constantly highlights important shortcomings in the existing educational and support systems intended to facilitate older adults in engaging with digital technologies. Digital inclusion classes are frequently defined as isolating [8], while restrictions on individual support through classroom sessions [11] and insufficient training for particular platforms [22] intensify these challenges. These results advocate that current educational policies may unintentionally strengthen instead of improve obstacles to adoption. The emphasis on repetition, practice, and peer support as aiding elements [11] designates that effective educational interventions may benefit from an essential reform to integrate age-appropriate teaching approaches and tailored learning strategies.

4.5. Implications for theory and practice

The results carry significant implications for both theoretical frameworks and practical intervention development. Notably, the research challenges basic models of technology adoption that focus mainly on individual-level factors, encouraging instead more comples models that consider the interaction between personal traits, social contexts, and technological features. The documentation of contradictory resistance toward technology [23] indicates that older adults may simultaneously recognize benefits while revealing unwillingness, proposing that adoption decisions include complex cost-benefit analyses that spread beyond functional considerations.

The findings suggest that future interventions may benefit from considering multiple barriers simultaneously; however, further empirical research is needed to evaluate the effectiveness of such approaches. This research supports hybrid communication models that combine traditional and digital methods [15,19,21,22] instead of trying to entirely replace well-known communication norms. Furthermore, the emphasis on basic privacy panels, transparent data practices, and age-friendly interface design [15,16,18–20,22,33,37] proposes that technological solutions must complement educational and support initiatives.

Cultural context may also moderate the salience of specific barriers, as differing norms surrounding privacy, communication styles, and intergenerational support can shape how older adults perceive and engage with social media. For example, in collectivist cultures where family support and intergenerational learning are stronger, technical barriers may be partially mitigated, whereas in societies with heightened concerns about individual privacy or preferences for traditional communication, privacy fears and perceived irrelevance may be more pronounced (Chen & Hartt, 2021), (Han et al., 2021), (Wang, 2024).

These findings suggest that effective interventions could benefit from a multi-level approach. Educational programs may consider providing age-sensitive, personalized digital literacy training combined with privacy and cybersecurity education. Social interventions may benefit from fostering intergenerational support, peer mentoring, and community-based learning opportunities. At the structural level, policymakers could focus on promoting affordable internet access, device availability, and age-friendly platform designs to reduce systemic barriers. Addressing these factors simultaneously may improve digital inclusion more effectively than isolated interventions.

4.6. Linking findings to technology adoption and digital inequality frameworks

The findings of this review can be meaningfully interpreted through established models of technology adoption, particularly the Technology Acceptance Model (TAM) [20,23,35] and the Unified Theory of Acceptance and Use of Technology (UTAUT) [20,23]. Key constructs such as perceived usefulness and perceived ease of use (TAM) are reflected in older adults' concerns about the relevance of social media and the complexity of its interfaces. Similarly, UTAUT components including performance expectancy, effort expectancy, social influence, and facilitating conditions are evident across the identified barriers, particularly in relation to low self-efficacy, limited support systems, and social norms surrounding technology use.

However, this review also extends these models by highlighting factors that are less explicitly addressed within them. In particular, the importance of communication values and preferences suggests that adoption decisions are not based solely on functional or instrumental considerations but are also shaped by deeper beliefs about the nature of social interaction.

Furthermore, the findings align with digital divide frameworks [34, 35] which conceptualize inequality not only in terms of access but also in terms of skills, usage, and outcomes. The identified barriers correspond to second- and third-level digital divides, where disparities in digital literacy, confidence, and meaningful engagement persist even when access is available. The interconnected nature of these barriers supports the view that digital exclusion among older adults is a multi-dimensional and cumulative process, requiring integrated rather than isolated interventions.

Overall, this synthesis both supports and extends existing theoretical models by demonstrating that social media adoption in later life is shaped by a complex interaction of technical, social, structural, and value-based factors.

4.7. Limitations and considerations

Although this analysis offers valuable insights, various limitations warrant acknowledgment. The research focusing on obstacles to social media adoption among older adults has several methodological and conceptual limitations that should be considered when interpreting the findings. Concerns in relation to sample representation are important, as studies display substantial variability in defining "older adults," with participant ages fluctuating from 60 to over 80, while gender discrepancies continue across studies, with females being overrepresented, thus limiting generalizability. The evidence base is skewed toward certain platforms, particularly Facebook, and studies conducted in high-income contexts, which may limit the generalizability of findings to other social media platforms and diverse sociocultural settings. Additionally, methodological concerns arise due to heavy reliance on self-reported data, which introduces the potential for social desirability and recall biases and may not precisely reveal real usage behaviors or technical competencies. Finally, limitations are obvious in platform-specific research concentrations, predominantly in relation to Facebook-

centric studies, which may not be pertinent to other social media platforms with diverse features and user interfaces.

Although study quality was appraised using the MMAT, the thematic synthesis did not apply formal weighting based on methodological quality scores, and all included studies contributed broadly to the identification of thematic barriers. As a result, variations in methodological rigor across studies may not have been fully reflected in the relative emphasis of specific findings. Future reviews may benefit from incorporating quality-weighted or quantitative synthesis approaches to further strengthen comparative rigor.

Taken together, these limitations suggest that while the identified themes offer a valuable framework for understanding barriers to social media adoption among older adults, their transferability may vary across populations and technological contexts. Future research employing more standardized definitions, objective measures of digital competence, and cross-cultural comparisons would strengthen the evidence base and support more generalizable conclusions, particularly given the current concentration of studies in Western contexts [7,9,15,18,20,22].

Finally, while these findings offer valuable practical insights, recommendations for intervention and policy should be interpreted with caution, as the reviewed evidence is primarily observational and descriptive rather than evaluative.

5. Conclusion

This systematic review demonstrates that the barriers to social media adoption among older adults are multifaceted and deeply embedded in complex interactions among individual characteristics, social contexts, technological features, and structural factors. The persistence of these obstacles across several research contexts and populations underscores their enduring nature and suggests that addressing the digital divide among older adults will require sustained, comprehensive, and theoretically informed approaches, which future research can evaluate. The findings of this review have direct implications for clinical practice, policy development, and community-based interventions aimed at improving the health, wellbeing, and social interaction of older adults. Future research is crucial, with longitudinal studies urgently needed to understand how obstacles and attitudes develop over time, particularly as technology-experienced cohorts age and as social media platforms develop.

Authorship / credit authorship

Theologia Tsitsi develop the study designed, coordinated the review process, assessed the quality of studies, and critically revised the manuscript for accuracy and clarity.

Koralia Michail* (Corresponding Author) contributed to screening and acted as an assessor by resolving conflicts that occur during the study selection and appraisal.

Martha Kyriakou helped with the preparation and formatting of the manuscript as well as with management of references.

Sotiris Avgoustis conducted the systematic search, duplicate removal, and title, abstract and full-text screening. He also helped in extracting data and evaluating quality with MMAT (Mixed Method Appraisal Tool).

Eleni Papoui conducted the systematic search, duplicate removal, and title, abstract and full-text screening. She also helped in extracting data and evaluating quality with MMAT (Mixed Method Appraisal Tool).

The project was coordinated by Ekaterini Lambrinou, who also provided strategic guidance and helped prepare the final revision of the manuscript.

All authors participated in thematic synthesis, were involved in the drafting and revising of the manuscript, and read and approved for submission the final version.

Informed consent

Not applicable.

Ethical statement

Not applicable.

Studies on human and/or animal statement

Not applicable.

Declaration of the use of generative AI and AI-assisted technologies in scientific writing and in figures, images and artwork

Generative AI tools (ChatGPT, OpenAI) were used solely to assist with language editing and phrasing improvements during manuscript preparation. No AI tools were used for data analysis, interpretation of findings, or the creation of figures, images, or artwork. The authors reviewed and verified all AI-assisted text to ensure accuracy and integrity.

Approval ± registration number

Not applicable.

Data statement

All data analyzed in this systematic review are publicly available from the original published studies cited in the manuscript. No new primary data were collected.

What this paper adds

This paper provides an updated systematic synthesis (including studies up to 2025) of barriers to social media adoption among older adults.

It goes beyond prior reviews by offering a multi-level framework of barriers, integrating technical, educational, psychosocial, socioeconomic, and value- and communication-based factors.

It highlights the interconnected nature of these barriers, showing how digital skills, privacy concerns, and limited support systems appear to be interrelated.

It introduces the often-overlooked role of personal values and communication preferences, demonstrating that non-adoption is not only a skills issue but also reflects differing conceptions of meaningful social interaction.

It provides a conceptual basis for designing holistic digital inclusion interventions tailored to older adults.

Application of study findings

The findings of this review provide indicative insights that may inform the development of interventions aimed at supporting social media adoption among older adults. However, given the descriptive nature of the included evidence, these implications should be interpreted cautiously, and the effectiveness of such approaches requires further empirical evaluation.

This review synthesizes reported barriers and can inform the design of future studies and the development of digital inclusion strategies.

This work may guide future gerontological research by highlighting descriptive patterns of barriers and informing the design of studies that explore strategies to address technical, psychological, and social aspects of digital inclusion in later life.

Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: This work was carried out within the framework of the Erasmus+ project SeniorVlog – Inspiring and Empowering Seniors to become Vloggers and conquer the Internet (Project No KA2–2021–1-PL01-KA220-ADU-000,028,293), co-funded by the Erasmus+ Programme of the European Union. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.jarlif.2026.100077.

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