Digital Literacy and Information Disorder: Understanding Older Adults' Interaction With False Information on Social Media

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Abstract. This paper investigates how older adults engage with social media and how they deal with misinformation and disinformation. Many older adults today rely on platforms like Facebook and WhatsApp to stay informed, but often struggle to distinguish the truth from false information online. This research, therefore, focuses on why older users struggle to identify false information online. It also examines how digital literacy, trust in information sources, and emotional responses factor into their decisions. A mixed-method was employed. Researchers distributed a questionnaire to 20 elderly users aged 60 years and older and conducted interviews with the same participants to add more depth. They analysed the data using simple statistics and thematic analysis. The results indicate that many elderly users struggle with fact-checking and sometimes believe messages passed along by friends or family. But the more digital skills people had, the more cautious they were about sharing and the more questions they asked. This study suggests the need for basic, applicable media literacy education even for older adults. Helping them fact-check being misled.

The following research questions guide this study: 1) How do older adults respond to misinformation and disinformation on social media? 2) What factors influence their trust in the content they receive and share on social media? 3) In what ways does digital literacy affect their ability to deal with false or misleading information?

By addressing these questions, the study aims to shed light on how older adults interact with social media amid widespread misinformation and disinformation. It also hopes to suggest practical ways to help improve digital literacy and critical thinking skills among this age group.

Keywords: Older Adults; Misinformation; Disinformation; Social Media; Falsehoods.

INTRODUCTION

Understanding Misinformation and Disinformation. Misinformation and disinformation are two types of false information that often appear on social media. Misinformation refers to false or incorrect information that people share without knowing it is erroneous. They usually believe it is true and do not mean to mislead others [1]. On the other hand, people intentionally create and share false information as disinformation. The goal of disinformation is to deceive, confuse, or harm others. Both types of false content are common in the digital world. They often take the form of rumours, edited photos, videos taken out of context, or made-up claims. The people who create or share them may have different reasons. Sometimes it is for political gains, sometimes for religious or personal interests, and at other times, to create fear or division in society [2].

The Role of Social Media on Misinformation and Disinformation. Social media has made it easy for people to share information. Platforms like Facebook, WhatsApp, and X (formerly Twitter) allow users to forward messages, videos, and posts in seconds. While this helps people stay informed, it also allows false information to spread widely before it can be corrected. One major issue is that most users do not take the time to read or check what they share. Authors [2] found that many people forward posts without reading them correctly or verifying the source, making it hard to

stop the spread once it begins. Social media platforms also use systems that show users more of what they already like or believe; this is called a filter bubble [3]. It means users mostly see things that support their views and less of what might challenge them [3]. In such spaces, people often accept false messages as truth because they do not question them.

False content often spreads faster than accurate information. People like to share surprising stories or emotional content. Authors [4] found that lies spread faster because they are more exciting or shocking, making it harder to stop false news once it starts spreading. Even though some platforms now use warning signs or fact-checking labels, these efforts are not enough. Authors [5] say that warning labels can help reduce belief in false news, but they do not always stop people from sharing it. Once a false message goes viral, it is very hard to correct the damage. Authors [6] explain that people often cling to the first thing they see, even when they are later shown the truth. During important events like elections or health crises, people spread false messages more frequently. For example, during the COVID-19 pandemic, individuals and groups widely shared many wrong claims about the virus and vaccines. Authors [7] found that false posts received more views and attention than accurate ones.

The Spread of False Information Among Older Adults. There are several reasons why misinformation and disinformation spread so quickly. One reason is that people often believe information that supports what they already think, a phenomenon known as confirmation bias. When a message agrees with someone's personal opinion or values, they are more likely to accept it without asking questions [8]. Another reason is that writers often craft false information to appeal to people's emotions. They design some stories to make people feel fear, anger, or hope. When people are emotional, they do not always stop to verify the truth before passing it on; this is common with shocking headlines, dramatic photos, or sad messages that invite sharing. Also, people tend to believe information that comes from those they trust. Many people share content forwarded by family members, religious leaders, or close friends without verifying its accuracy. Older adults, in particular, trust such sources and are less likely to question messages sent through WhatsApp or other platforms [9].

In Nigeria, the situation is more serious because of low digital literacy among many users. Misinformation has led to problems such as health fears, political violence, and religious clashes [10]. Some messages have even caused panic or led to wrong health choices, especially during times like the COVID-19 outbreak. Furthermore, false information affects adult users. They are more likely to be affected by false information on social media. Many of them have not used digital tools for most of their lives, so they may find it hard to understand how the internet works. Some struggle with memory, focus, or understanding fast-moving online content [11]. Research shows that older adults often forget where a message came from, a phenomenon known as source forgetting or source amnesia [9]. They may remember what they read, but not whether it came from a trusted source or a random online post. Because of this, they may believe something is true if they have seen it more than once.

Emotional reasons also play a role. Many older people use social media to stay in touch with family and friends. If a message looks caring or helpful, they may forward it quickly; this happens more when they feel lonely or want to stay connected to others [12]. Visuals, emotional language, and trusted senders make them more likely to believe and share false content [13]. Some older adults also have strong trust in traditional sources such as radio, newspapers, and church leaders. When this trust carries over to the internet, they may believe anything that looks official or sounds convincing. However, not all older people are the same. Factors such as education, past work experience, curiosity, and access to digital training affect how they handle online information [14].

Curbing Misinformation and Disinformation on Social Media. Researchers believe that helping people understand how digital media works is one of the best ways to reduce the spread of false content. Authors [14] stress the importance of digital literacy. When people know how to check facts, understand sources, and use social media wisely, they are less likely to believe or forward wrong messages. Authors [16, 17] also suggest that people should be taught how to think clearly and behave responsibly online. For older adults, learning methods must match their needs and experience; this means using simple steps, practical examples, and personal guidance. When el-

derly users feel more confident online, they are less likely to be misled.

Digital Literacy in the Elderly. Digital literacy means being able to find, understand, evaluate, and use information using digital tools like phones and computers, especially the internet. For older people, this is an essential skill because news and information now spreads very fast online. Social media and other online platforms are now familiar places where people talk and share ideas. Older people need to understand how to use these platforms effectively so they can distinguish between what is true and what is false.

Research shows that many older people struggle with digital tools. Authors [18] explain that although more older adults now use the internet, many remain unsure about using digital devices, making them more susceptible to online lies, scams, or misinformation. Authors [19] found that older people's digital skills vary. Their skills depend on factors such as their level of education, the type of job they held before, and whether they have easy access to phones, computers, or the internet. Many of them ask their children, grandchildren, or friends for help, which means they cannot always do things online on their own.

Authors [20] point out that when older people do not understand how the internet works, they may either trust everything they see or trust nothing at all. Some of them believe anything that looks nice or sounds emotional, while others stop trusting everything they see online; this shows that many older people find it hard to judge the quality of what they read or watch online. There is a need to teach them more about how to handle information online. Digital literacy is not just about pressing buttons on a phone or computer. It also means knowing how websites choose what to show, how messages get shared, and how to check if something is true.

Cognitive or Psychological Traits in Older Adults and How That May Affect Media Consumption. As people grow older, their thinking and emotions can change. These changes can affect how they understand and respond to things they see or hear in the media. Older people may find it harder to remember things, take longer to understand new information, and may not easily notice when something is confusing or not true [11]. Because of this, they can more easily believe false information, especially when the message aligns with

their pre-existing beliefs or sounds emotional. Authors [9] found that older people often believe false news online, not because they are foolish, but because they forget where they first encountered the information. This phenomenon is called source forgetting. When people remember information but forget who said it or where it came from, they may wrongly believe it is true, especially if they have seen it many times [9]. As people age, they tend to trust familiar things more than verifying their accuracy.

There are also emotional reasons why older people may believe or share incorrect information. Some of them feel lonely or want to stay connected to their loved ones. As a result, they use social media more to connect with family, friends, and their community [12]. When they see something online that looks emotional or kind, they may trust it without verifying its truth. Authors [13] found that messages with emotional words or pictures are more believable to older people. Some older people also grew up trusting newspapers, radio, and other formal sources. When they start using the internet, they may trust everything equally. This habit can make them believe things they see on Facebook or WhatsApp without checking. Authors [21] say that this strong trust in information can prevent them from asking questions or looking more deeply into what they see.

However, not all older people are affected in the same way. Factors such as the amount of schooling someone has, their health, experience with technology, and their curiosity can affect how they interact with media [14]. Knowing about the changes that come with ageing helps us understand why some older people are at risk of believing false information and how to better support them in using media.

Trusting in Online Content Among Demographics. Older adults are affected by false information, too. Trust plays a crucial role in how people decide what to believe online. Older people often trust online content more easily than young users, especially if the post looks professional or comes from someone they know [22]. Research has revealed that older adults may not always check the reliability of what they read online. Authors [23] explain that many people judge a post by the website's appearance, the logo used, and the writing's friendly tone. Older people who did not grow up using the internet may rely on these signs more than younger users. That makes it

easier for them to believe false news that is made to look real.

Research further reveals that older users may not know how social media chooses what to show them. Authors [24] observe that many older adults do not understand how social media algorithm works; this means they do not know that the content they see is based on their online habits. Because of this, they might only see one side of a story again and again. After a while, they may believe something is true just because they keep seeing it. Emotions also affect trust. Authors [8] found that people are more likely to believe stories when those stories trigger strong emotions, such as fear, anger, or hope.

Older adults who are lonely or isolated may feel more connected to emotional content, making them more likely to believe or share it. This connection can disrupt logical thinking or fact-checking. Not all older users fall for false posts, but many still lack the skills to examine what they see online. As the authors [25] highlight, the solution to online trust is not just about issuing warnings. It is about helping them build confidence and showing them how to check sources, evaluate claims, and navigate digital spaces safely.

Theoretical Framework: Media Literacy Theory. This study adopts Media Literacy Theory to guide its focus. The theory concerns how people find, understand, and respond to messages across different media. It helps explain how individuals manage the large volume of digital content they encounter daily, especially when it contains false or misleading information [26]. Media Literacy Theory sees people not as passive receivers, but as active users who can learn to question and examine what they see and hear. A single scholar does not formulate the theory. Instead, it developed over time through the work of many scholars, researchers, and institutions. Still, some critical names in this field include Marshall McLuhan and Len Masterman. McLuhan is known for saying, "The medium is the message." He believed that media tools shape how people think and behave, and his ideas helped lay the foundation for what would later become media literacy.

At its centre, media literacy is about learning how to ask good questions about messages. It includes skills such as checking where a message comes from, understanding what it is trying to do, spotting ways it tries to convince people, and recognising when a message might be one-sided or biased [27]. These skills are essential for people who may not be accustomed to digital spaces, such as older people. When these users understand how to spot false or tricky information, they are less likely to fall for it. The theory also points out that context matters. For older people, this includes their experience with digital tools, whether they have received training, and how easy it is for them to use new technology. Many older adults may not have learned how to question online content. As a result, they might believe or share things just because they look familiar, seem genuine, or evoke an emotion; this is why they need help that fits their needs and habits [28].

Another part of the theory looks at how people make meaning from messages. It explains that all media content is created for a reason and that people understand it differently depending on who they are. Things like culture, past experiences, or personal beliefs can shape how people know what they see. Older adults might trust something just because it reminds them of the past or comes from a place they respect; this can make them more likely to believe false information if it feels familiar or comforting [29]. The theory teaches people to go beyond the surface and think more deeply about what they see and hear.

Lastly, the theory reminds us that the media is constantly changing. As technology grows and platforms change, people need to keep learning how to use and understand these evolving tools. This idea of ongoing learning is essential for older users who might feel left out of today's fast-moving digital world. Using this theory, this study examines how older people use social media, their struggles in judging what they see, and how these struggles may increase their risk of believing or spreading false information.

METHOD

This study employed a qualitative case study design to provide a detailed, real-life understanding of how older individuals use social media and navigate misleading information. The research involved 20 participants aged 60 and above, selected through purposive sampling from local churches, health centres, and community groups. To be eligible, participants needed to be active users of platforms like WhatsApp, Facebook, or YouTube. Researchers collected data through semi-structured interviews lasting 20–30

minutes, conducted in quiet settings primarily in English, with local-language clarifications when needed. These conversations explored the platforms used, the types of content believed or shared, fact-checking habits, emotional responses to being misled, and perceptions of online safety. With participant consent, the interviews were recorded, transcribed, and then analysed using thematic analysis. This process identified recurring patterns, leading to themes such as "trust in platforms" and "emotional reaction to false news." The researchers interpreted these themes through the lens of Media Literacy Theory to understand how digital skills and critical thinking influence older adults' interactions with online content.

RESULTS AND DISCUSSION

This section of the paper presents the data gathered from the interviews. The findings are discussed under key themes, drawing examples from the data.

1) Strong Trust in People They Know. Most participants said they trusted anything from someone they knew well. One woman said:

"If my pastor sends something, I just take it. Why would he lie?"

Another person mentioned:

"When it's my daughter that sent it, I don't question it at all."

This type of response was prevalent. In fact, about 12 out of 20 respondents said they usually trusted information from their children, church groups, or community leaders. They mainly talked about WhatsApp because they use it for church discussions and family chats. It seems like the trust built over the years with these people now continues online. They believe those same people would never lie to them, even when online. According to the author [26], people do not just read messages. They read them based on their life experience, the people they care about, and their feelings about the sender. But this strong trust often makes them stop thinking critically. As one man put it,

"Why should I doubt it? It came from someone I know." Another said, "It was from our prayer group. I don't think they'll share something fake".

The danger here is that false information spreads easily in private spaces where no one checks it.

Older people, due to trust, become both victims and carriers of incorrect information. That is why media training for them should not focus solely on apps. It should also help them think more carefully, even when they trust the sender.

2) No Habit of Checking Information. Many of the people interviewed admitted they hardly check whether what they read or share online is true. One woman said:

"I just forward messages if they look serious. I don't even know how to check them. As long as the message looks important, I believe it. I go with it."

Most participants said they do not bother checking. Some said they do not even know where to start, while others felt it was too stressful or unnecessary. Only three people said they had ever tried to verify a message. Even then, they did not do it often. What was surprising was that even people who had once shared false information continued doing so later. Although they recognised that misinformation misled them, they continued their habits unchanged. One respondent said:

"Yes, I have been corrected before, but not everything needs checking. Some things sound true."

This shows that awareness alone is not enough. Just knowing that fake news exists does not stop people from falling for it. Many older people go with what feels urgent or accurate, even if it is false. They do not always think about checking. Authors [9] noticed that older adults sometimes find it harder to judge what is reliable. As people grow older, their minds slow down a little, and this can affect how they understand things online. For older adults, digital learning should not be limited to phone and app use. They need help learning how to ask simple questions like, "Where did this come from?" or "Is this really true?" Because without that habit, false messages keep spreading.

3) Power of Religious and Political Messages. Religion and politics came up many times in the interviews. Many participants said they were quick to believe anything that mentioned God, prophecy, or corruption in government. Some even said they had shared messages about the end times or claimed a big miracle was coming. One woman said:

"When I see something about God's anger or a coming disaster, I take it seriously. I don't want to ignore what might be from God."

Another man added:

"If it says something bad about politicians, I share it. Most of it is true anyway."

At least 15 of the 20 people said they had shared messages like these, sometimes without fully reading them. They told those messages felt "real" or "urgent." In their minds, such things are not just online talk; they connect with their values and life experiences; this is very important. Older people do not always see these messages as random. For them, religion and politics are personal. They grew up with strong beliefs, and now those beliefs affect how they use social media. Author [27] observes that people understand messages through their culture and identity; this is clearly evident here. When something touches what they already believe, they are more likely to trust and share it, even without checking it. To make media training work for older people, it needs to take these emotional connections seriously. It is not enough to teach skills. We must also understand how feelings and beliefs shape what people do online.

4) How They Felt After Being Misled. Some older adults said they had shared incorrect information before, which made them feel bad. One woman said:

"I was so embarrassed. My grandson told me it was fake. I wanted to delete the message, but it had already gone out."

Another said:

"That message gave me fear. I kept thinking something terrible was about to happen."

Of the 20 respondents, 15 said they felt ashamed, and five said they became more careful afterwards. A few even stopped using social media for some time. They felt confused or anxious and did not want to make the same mistake again; this shows that false information can do more than confuse people. It also affects how they feel and even how they use technology. For some, it made them doubt themselves. Others said they no longer trusted certain kinds of messages, supporting the authors' argument [12] that older adults, especially those who live alone or feel isolated, are more emotionally affected by what they read online. Furthermore, one woman said:

"Since then, I now read things more slowly. I do not rush forward anymore."

REFERENCES

This may seem like a small change, but it shows that some learning is happening. Even though most people did not completely change their habits, a few did start thinking more carefully. Still, if there is no clear guidance or support, many older people will keep falling into the same trap. They need more than just internet access. They need someone to explain how to handle emotional messages intended to scare or trick them.

CONCLUSIONS

This study examined how older adults engage with misinformation and disinformation on social media. Guided by Media Literacy Theory, it found that many of them rely heavily on familiar sources, rarely check facts, are strongly influenced by religious and political content, and often react emotionally to what they read. While they are not passive users, their trust and emotional responses shape how they interpret information. However, most lack the skills to question what they see online, making them more likely to believe and share false content. The findings show that media literacy for older adults should include not just technical know-how, but also the ability to think critically, recognise bias, and manage emotional reactions. Though the study focused on a small group, it sheds light on a group often overlooked in discussions around misinformation and digital literacy.

Based on these findings, this paper suggests the need for simple media literacy programmes tailored to older people, teaching them to check facts, spot reliable sources, and understand how false information spreads. Educators should introduce these efforts in familiar settings such as religious centres, health clinics, and community groups, with trusted leaders guiding the sessions. Developers should design user-friendly tools, like WhatsApp-based fact-checking options, so that older users do not need complex skills to verify information. Families also have a role to play by helping older members understand digital content better through regular conversations and support. Since many elderly users respond emotionally to what they see online, media education should also help them handle such feelings and think calmly before reacting or sharing. Future research should involve more people from different backgrounds, using both personal stories and data to give a clearer picture of how older adults use social media.

1. Wardle, C. (2017). *Information disorder: Toward an interdisciplinary framework for research and policy making.* Council of Europe,

2. Tandoc, E. C., Lim, Z. W., & Ling, R. (2017). Defining "Fake news." *Digital Journalism, 6*(2), 137–153. doi: 10.1080/21670811.2017.1360143

3. Pariser, E. (2011). *The Filter Bubble: What the Internet is Hiding From You.* Penguin UK

4. Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science, 359*(6380), 1146–1151. doi: 10.1126/science.aap9559

5. Clayton, K., Blair, S., Busam, J. A., Forstner, S., Glance, J., Green, G., Kawata, A., Kovvuri, A., Martin, J., Morgan, E., Sandhu, M., Sang, R., Scholz-Bright, R., Welch, A. T., Wolff, A. G., Zhou, A., & Nyhan, B. (2019). Real solutions for fake news? Measuring the effectiveness of general warnings and Fact-Check tags in reducing belief in false stories on social media. *Political Behaviour, 42*(4), 1073–1095. doi: 10.1007/s11109-019-09533-0

6. Lewandowsky, S., Ecker, U. K. H., Seifert, C. M., Schwarz, N., & Cook, J. (2012). Misinformation and its correction. *Psychological Science in the Public Interest, 13*(3), 106–131. doi: 10.1177/1529100612451018

7. Cinelli, M., Quattrociocchi, W., Galeazzi, A., Valensise, C. M., Brugnoli, E., Schmidt, A. L., Zola, P., Zollo, F., & Scala, A. (2020). The COVID-19 social media infodemic. *Scientific Reports, 10*(1). doi: 10.1038/s41598-020-73510-5

8. Pennycook, G., Bear, A., Collins, E. T., & Rand, D. G. (2020). The implied truth effect: attaching warnings to a subset of fake news headlines increases perceived accuracy of headlines without warnings. *Management Science, 66*(11), 4944–4957. doi: 10.1287/mnsc.2019.3478

9. Brashier, N. M., & Schacter, D. L. (2020). Ageing in an era of fake news. *Current Directions in Psychological Science, 29*(3), 316–323. doi: 10.1177/0963721420915872

10. Aondover, E. M., Uchendu, C., Onyejelem, T. E., & Omolara, O. (2024). Propagation of False Information on COVID-19 among Nigerians on Social Media. *Linglit Journal: Scientific Journal of Linguistics and Literature, 5*(3), 158-172,

11. Grady, C. (2012). The cognitive neuroscience of ageing. Nature Reviews. *Neuroscience, 13*(7), 491–505. doi: 10.1038/nrn3256

12. Wu, B. (2020). Social isolation and loneliness among older adults in the context of COVID-19: a global challenge. *Global Health Research and Policy, 5*(1). doi: 10.1186/s41256-020-00154-3

13. Garrett, R. K., Weeks, B. E., & Neo, R. L. (2016). Driving a wedge between evidence and beliefs: How online ideological news exposure promotes political misperceptions. *Journal of Computer-Mediated Communication, 21*(5), 331–348. doi: 10.1111/jcc4.12164

14. Bessi, A., Zollo, F., Del Vicario, M., Scala, A., Caldarelli, G., & Quattrociocchi, W. (2015). Trend of narratives in the age of misinformation. *PLoS ONE, 10*(8), e0134641. doi: 10.1371/journal.pone.0134641

15. Bakir, V., & McStay, A. (2017). Fake news and the economy of emotions. *Digital Journalism, 6*(2), 154–175. doi: 10.1080/21670811.2017.1345645

16. Lewandowsky, S., Cook, J., Ecker, U., Albarracín, D., Kendeou, P., Newman, E. J., Pennycook, G., Porter, E., Rand, D. G., Rapp, D. N., Reifler, J., Roozenbeek, J., Schmid, P., Seifert, C., M., Sinatra, G. M., Swire-Thompson, B., van der Linden, S., Wood, T. J., & Zaragoza, M. S. (2020). *The Debunking Handbook 2020*. Retrieved from https://digitalcommons.unl.edu/cgi/viewcontent.cgi?params=/context/scholcom/article/1247/&path_info=DebunkingHandbook2020.pdf

17. Roozenbeek, J., Schneider, C. R., Dryhurst, S., Kerr, J., Freeman, A. L. J., Recchia, G., Van Der Bles, A. M., & Van Der Linden, S. (2020). Susceptibility to misinformation about COVID-19 around the world. *Royal Society Open Science, 7*(10), 201199. doi: 10.1098/rsos.201199

18. Anderson, M., &. Perrin, A. (2017). Technology use among seniors. *Pew Research Centre.*

19. Hargittai, E., Piper, A. M., & Morris, M. R. (2018). From internet access to internet skills: digital inequality among older adults. *Universal Access in the Information Society, 18*(4), 881–890. doi: 10.1007/s10209-018-0617-5

20. Choi, N. G., & DiNitto, D. M. (2013). Internet use among older adults: association with health needs, psychological capital, and social capital. *Journal of Medical Internet Research, 15*(5), 97. doi: 10.2196/jmir.2333

21. Morrow-Howell, N., Galucia, N., & Swinford, E. (2020). Recovering from the COVID-19 Pandemic: A Focus on Older Adults. *Journal of Aging & Social Policy, 32*(4–5), 526–535. doi: 10.1080/08959420.2020.1759758

22. Guess, A., Nagler, J., & Tucker, J. (2019). Less than you think: Prevalence and predictors of fake news dissemination on Facebook. *Science Advances, 5*(1). doi: 10.1126/sciadv.aau4586

23. Tseng, S., & Fogg, B. J. (1999). Credibility and computing technology. *Communications of the ACM, 42*(5), 39–44. doi: 10.1145/301353.301402

24. Neter, E., & Brainin, E. (2012). EHealth Literacy: Extending the digital divide to the realm of health information. *Journal of Medical Internet Research, 14*(1), e19. doi: 10.2196/jmir.1619

25. Koohikamali, M., & Sidorova, A. (2017). Information Re-Sharing on Social Network Sites in the Age of Fake News. *Informing Science the International Journal of an Emerging Transdiscipline, 20*, 215–235. doi: 10.28945/3871

26. Potter, W. (2004). *Theory of Media Literacy: A Cognitive Approach.* SAGE Publications.

27. Hobbs, R. (2010). *Digital and Media Literacy. A Plan of Action.* The Aspen Institute.

28. Livingstone, S. (2004). Media literacy and the challenge of new information and communication technologies. *The Communication Review, 7*(1), 3–14. doi: 10.1080/10714420490280152

29. Aufderheide, P. (1993). *Media Literacy. A Report of the National Leadership Conference on Media Literacy.* Communications and Society Program, the Aspen Institute.