The Misinformation Paradox: Older Adults are Cynical about News Media, but Engage with It Anyway

Imani N. S. Munyaka, Eszter Hargittai and Elissa M. Redmiles

Abstract. Misinformation can be easily spread with the click of a button, but can cause irreversible harm and negatively impact news consumers' ability to discern false information. Some prior work suggests that older adults may engage with (read, share, or believe) misinformation at higher rates than others. However, engagement explanations vary. In an effort to understand older adults' engagement with misinformation better, we investigate the misinformation experiences of older adults through their perception of prior media experiences. Analyzing 69 semi-structured interviews with adults ages 59+ from the US, the Netherlands, Bosnia, and Turkey, we find that people who have decades of potential exposure or experience with both online and traditional news media have reached a state of media cynicism in which they distrust most, or even all, of the news they receive. Yet, despite this media cynicism, the older adults we study rarely fact-check the media they see and continue to read and share news they distrust. These findings suggest that this paradoxical reaction to media cynicism, in addition to prior explanations such as cognitive issues and digital literacy, may in part explain older adults' engagement with misinformation. Thus, we introduce the misinformation paradox, an additional area of research worth exploring.

1   Introduction

News has long been an important tool for a democratic society (Christians et al. 2009). Yet, the general public has a negative perception of news quality (Fisher 2018; Kohut et al. 2011) and misinformation is credited with eroding civil society by worsening divisiveness within a society (Babaei et al. 2018; Bail et al. 2018; Liu and Weber 2014; Pickard 2019; Ribeiro et al. 2019).

A significant body of prior work has sought to develop technologies to detect and prevent misinformation from reaching potential victims and spreading (Hassan et al. 2017; Jain, Sharma, and Kaushal 2016; Tacchini et al. 2017). Yet, human perception and action remains one of the primary mechanisms used to defeat misinformation. Thus,

prior work has investigated how people detect misinformation and how misinformation affects their perceptions of media (Flintham et al. 2018; Stefanone, Vollmer, and Covert 2019; Wagner and Boczkowski 2019; Wathen and Burkell 2001). Most of these studies have examined working-age adults' perceptions and behavior around misinformation.

While valuable, these studies may not generalize to older adults' (age 60 and older) perspectives since older adults may draw on more years of experience or exposure to news media when evaluating information. Studying older adults can offer insight into both the experiences of a sizable portion of the global population and, potentially, the future of media perception after decades of offline and online media evaluation. Limited prior work on older adults related to misinformation has been quantitative (Barbera 2018; Grinberg et al. 2019; Guess, Nagler, and Tucker 2019; Osmundsen et al. 2021), finding across multiple platforms that older adults are more likely to engage with (read, share, or believe) misinformation than younger adults (Pehlivanoglu et al. 2022). Yet there is much to learn from deeper qualitative investigation into the *why* behind this behavior, including understanding older adults' misinformation strategies and overall news media perceptions and behavior.

We analyze interviews with 69 older adults aged 59–91 from the United States, the Netherlands, Bosnia, and Turkey to address these questions. Participants were asked to discuss their concerns about the credibility of information they encounter online and offline; how, if at all, they addressed those concerns (e.g., through fact-checking); and any negative experiences with misinformation they had or had heard about. Then, thematic analysis was used to identify prevalent themes in the participant responses. Drawing on this analysis, we explore the following research questions:

1. Given their decades of access and exposure to digital and non-digital news media, what heuristics do older adults use to evaluate the information with which they engage?

2. How do older adults explain their perception and consumption of, and trust in, news media?

Our results suggest that older adults are cynical about news media and do not trust news media. This cynicism often led participants to skip the fact-checking process. When they do choose to fact-check, older adults evaluate the information from news media through triangulation and source credibility, methods found to be commonly used by younger adults in prior work (Flintham et al. 2018). Paradoxically, although older adults are cynical about news media, and are aware of misinformation, they read and interact with information they mistrust anyway. This misinformation paradox behavior—continued engagement with media despite a high degree of cynicism about that media—was consistent across older adults from all four countries we studied: the US, Netherlands, Bosnia, and Turkey.

2 Related Work

Managing misinformation and the resulting consequences has proven to be both beneficial and difficult. Researchers have identified how some media consumers identify misinformation in specific contexts (Flintham et al. 2018), what makes some information believable, and the impact misinformation has on various aspects of society (Lewandowsky et al. 2012; Lemos, Bitencourt, and Santos 2021). As a result of these studies, researchers have reason to believe older adults were partially responsible for the spread of political misinformation during the 2016 presidential election in the

United States and were more likely to visit websites with misinformation before the 2020 election (Barbera 2018; Grinberg et al. 2019; Guess, Nagler, and Tucker 2019; Osmundsen et al. 2021; Brashier and Schacter 2020).

Prior research suggests that age-related factors, such as cognitive ability, digital literacy and social beliefs, contribute to the way older adults respond to misinformation (Brashier and Schacter 2020). Prior work has found that, compared to young adults, older adults are more likely to include misinformation in a memory after it is suggested to them and are less confident in the accuracy of their memories (Mitchell, Johnson, and Mather 2003). Prior work posits that this susceptibility to false memories may relate to age-related cognitive ability, which can make it difficult to identify the truth after exposure to false information (Roediger III and Geraci 2007; Loftus 2005) and correctly recall the source of information (Mitchell, Johnson, and Mather 2003). However, now that more information is available online, older adults can use their digital skills to determine the credibility of information they remember or receive (Seo et al. 2021). Although useful, this can be challenging since some older adults have difficulty gaining the necessary skills to participate in online activities (Schreurs, Quan-Haase, and Martin 2017), while those who do have them may have difficulty determining content credibility (Seo et al. 2021). This is potentially due to older adults' social norms as they are more likely to trust people in their social network and thus the trust the content shared by them (Brashier and Schacter 2020). This may have impacted the spread of and engagement with misinformation during the 2016 presidential election in the United States, during which time prior work found that older adults were heavily engaged with, exposed to, or shared misinformation on Twitter in 2019 (Grinberg et al. 2019), and seven times more likely to share information from fake news sources on Facebook (Guess, Nagler, and Tucker 2019). This trend has persisted, with studies examining the period between 2016 and 2018 (Allen et al. 2020) as well as the period leading up to the 2020 presidential election in the United States (Moore, Dahlke, and Hancock 2022) continuing to find that older adults are more likely to read or visit websites containing misinformation.

In addition to some studies suggesting that older adults are more susceptible to false information (Vraga and Tully 2021; Fioni 2021; Brenan 2020), prior work has also found that some older adults are less likely to trust the news. In 2017, a Pew research study examined how adults across various age groups approach the information they encounter online (Horrigan 2017). The study found that 33% of older adults (those over age 59) were "Wary" in their approach to information: they were less likely to adopt technology and had the lowest level of trust in information sources while only 12% of older adults were 'Confident' in their digital skills and had high levels of trust in information sources. The remaining older adults studied sat between these two extremes in their approach to online information. In comparison, 31% of young adults (age 18–29) were 'Confident' while 16% were 'Wary'.

Thus, older adults may not only be susceptible to engagement with fake news sources or misinformation (Guess, Nagler, and Tucker 2019), but may simultaneously mistrust information sources (Fletcher and Park 2017). We call this phenomenon the misinformation paradox, due to its similarity to the privacy paradox (Acquisti, John, and Loewenstein 2013; Barnes 2006; Schudy and Utikal 2017). In the privacy paradox, people indicate that they want their privacy protected but behave in ways that violate their privacy. In the case of information credibility, when people express suspicion and distrust toward information sources, but engage with misinformation content in the same ways they engage with content they trust, we characterize that as the misinformation paradox.

To our knowledge, this misinformation paradox in older adults is underexplored. As a

first step toward filling this gap, we use qualitative methods to investigate older adults' experiences with misinformation, perceptions of the credibility of news media, and their evaluation methods for information credibility.

3   Methodology

Given our focus on how older adults reason about the credibility of news media from print, the Internet and broadcast media, semi-structured interviews are a helpful method as they allow eliciting details about people's perspectives and experiences. This section describes our multi-country data collection, the interview protocol, our coding and analytical procedure, and our sample. We draw on data from a larger study examining various aspects of older adults' communication practices. We analyze interviews with 69 adults aged 59–91 conducted in the United States (38), the Netherlands (18), Bosnia (7), and Turkey (6). Following qualitative methodology, our sample size was determined by theoretical sufficiency, sample size guidelines, and our goal to have the same number of participants within and outside of the U.S. (Vasileiou et al. 2018). Many interview studies about Internet use tend to be restricted to single-country samples. To capture a wide range of participant sentiments and experiences, we aimed to recruit a sample that was diverse along multiple axes. Thus, we included people from different cultures. Specifically, we interviewed participants from countries with differing press freedoms, religious contexts, and digital influences and structures: Turkey and Bosnia where half of the population identifies as Muslim (Pew Research Center 2015), the World Press Freedom Indices (Reporters Without Borders 2020) are 50.0 (difficult) and 28.5 (problematic), respectively (a higher index indicates more restriction on journalistic freedom), and 74% and 70% of the population uses the Internet, respectively (The World Bank, n.d.); the Netherlands, an EU member state that is half-secular, and otherwise majority Christian, which is the 5th most open media ecosystem in the world with a World Press Freedom Index of 10.0 (good), and where 93% of the population is online; and the US, a majority-Christian country, a World Press Freedom Index of 23.9 (satisfactory), where 89% of the population is online. Our goal is not to do cross-country comparisons, but rather, to represent the themes and similarities drawn from a collection of more diverse perspectives than are usually present in existing work.

Data collection

Interviews took place between the last days of 2018 and March 2020 (before Covid-19 lockdown measures). Researchers contacted older adults via personal networks, flyers in neighborhoods, social media groups, and then through snowball sampling. Most interviews took place in person at participants' homes or at an agreed-upon location (e.g., café, library) although just under half of the US interviews happened over the phone or video chat. The interviews lasted on average one hour. They were all conducted in the participant's first language, audio-recorded, transcribed, and translated to English when applicable. Participants received 20 USD, 20 EUR, 20 BAM, or 40 TRY (country equivalent based on purchasing parity) for their participation. After the interview, respondents completed a short online survey covering sociodemographics and Internet experiences to get some sense of the overall demographics of the sample and their online experiences.

Analytical and coding procedures

The interview protocol contained questions about various aspects of older adults' communication practices. For this paper, we specifically focus on questions about participants' experiences with and perceptions of news media. To complete thematic analysis of the data, we used an open-coding process to analyze the interview transcripts. First, two researchers reviewed the data and then coded 76% of the transcripts and reconciled diverging codes through discussion. Similar to prior work, since agreement was achieved through discussion, interrater reliability measures were not used (McDonald, Schoenebeck, and Forte 2019). Then, one of the researchers coded the remaining interviews using the reconciled codes. Next, the two researchers met to discuss the coded data and identify the most prevalent themes. As is best practice for qualitative research, we present and explain the themes found in our analysis along with supporting participant quotes and refrain from presenting statistical or other quantitative analysis of the data set, aside from summarizing the participants' demographics (McDonald, Schoenebeck, and Forte 2019). Additionally, since this work focuses on the perspectives of older adults, we discuss and evaluate our results from within that scope. We encourage future work to investigate misinformation perspectives between adults of different age groups.

Sample characteristics

The mean and median age of participants in our sample are both 69. Just over half of respondents are women (55%). Two thirds (65%) had completed a college degree, a similar number (67%) are retired. Just under 60% live with a spouse, a fifth live on their own, the rest live in larger households. Regarding their Internet experiences, the vast majority (90%) have been online for five or more years, they spend an average of fifteen hours a week online, and range widely in their general Internet skills averaging 2.8 on a 1–5 point scale with a 1.3 standard deviation. Two thirds had never taken a course or workshop about the Internet. The average number of devices from which they can access the Internet is 2.4 and the vast majority (93%) have Internet access at home. While this group may be more experienced with the Internet than the average older adult, for the purposes of this study this is helpful as it is important to include people who have enough such experiences to engage with news online whether by way of consuming it or sharing it.

Ethical considerations

This project meets the ethical guidelines for human subjects research at the University of Zurich. Respondents provided informed consent orally at the beginning of the interviews included on the recordings. The interview data used in this research was not collected under the type of consent that allows direct sharing of interview transcripts due to the sensitive and personal nature of the information shared during these conversations. We include representative quotes from the interviews in the results section. We also include the interview questions that prompted the data analyzed in this paper in the appendix.

4   Results

Finding 1: This generation of older adults has reached a state of media cynicism: they have little trust in the news they receive.

Most participants exhibited a complete and universal lack of trust in the media they see. They appear to have reached this lack of trust due to repeated past negative experiences with misinformation and their perceptions of the present media environment. As a result, they considered most of the information they receive likely to be false. Participants even went so far as to claim that all news media content was invented, or even mere "fiction" as one participant suggested (man, 63, U.S.).

> "It's like the fishy thing. I got burned once, and then, just my automatic response right now is, "Oh, that sounds fishy." (woman, 66, US)

> "Everything is always exaggerated, everything is always said for advertising. I used to trust it, I would accept it as it is, but no one trusts it right now, in this environment. I don't trust anything, I don't." (woman, 70, Turkey)

> "Mass media today produces nothing but opinions and they don't do empirical evidence...I tell everybody I read about fiction, and I do a little bit, but not much. But history is fiction. Yeah. Science is fiction to a point...So no, I'm very skeptical about anything and I would like to see the evidence proven." (man, 63, US)

> "My sister-in-law, always [posts] very big stories, which she has read on the Internet... Well, it seems to me that [the stories are] very exaggerated. And in 9 out of 10 cases that is the case... So I take everything a bit skeptically." (man, 72, Netherlands)

Finding 2: Media cynicism may cause loss of motivation to fact-check.

Many participants expressed that uncovering the truth was pointless since they had already decided that most or all information they saw was potentially false. Primarily, participants report using their understanding of a topic and intuition to determine the probability that information they see is incorrect. Only if they perceive the information as potentially incorrect and have time available, interest, and the self-efficacy to evaluate the content, do they feel motivated to fact-check.

> "I'm not sure that I worry about things [incorrect information] like that. If I see something that is somewhat credulous, I'll say, "Gee, that's incredulous," and I'll ignore it. I'm not going to get involved with trying to change that." (man, 76, US)

> "[Evaluation,] that will require way too much work, I just have other, more fun things to do! [laughs] I think, if it were about me personally, or about people I care about, it would be different." (man, 70, Netherlands)

> "I would [evaluate] if it was something that I really cared about or felt I needed to have the right answer." (woman, 73, US)

> "No [I don't fact-check]...It all boils down to some of my own information, how I am informed, and my own understanding...even though I'm probably not always right." (man, 59, Bosnia)

Finding 3: When older adults do fact-check, they use triangulation and source identification to determine the accuracy of information just like younger adults.

Older adults from all four countries rely on source credibility as a proxy for information credibility. Most participants also rely on lateral reading (Wineburg and McGrew 2019) or triangulation (Zaryan 2017): looking at whether multiple sources provide the same information to verify accuracy. These techniques mirror those of younger adults (Flintham et al. 2018).

> "I try to go to a reputable source and then look at a number of them, so yes, I do go online to research things, but I try to be judicious in what I read, what I consider to be a reasonable source." (man, 70, US)

> "If it happens that I have doubts, I try to look into another source to find out...by addressing or going on other sites or to other sources. But that doesn't always work, that's not always possible." (man, 72, Netherlands)

Finding 4: Misinformation paradox: older adults continue to stay engaged with news despite their cynicism.

Despite considering all—or in rare cases most, if not all—news information untrustworthy, the older adults we interviewed continued to engage with the news, including correcting misinformation they observe if they have a sufficiently close relationship to the person sharing the content. We propose that this resembles the privacy paradox, a well-studied behavior in which people express strong privacy preferences yet continue to interact online in privacy-violating ways (Acquisti, John, and Loewenstein 2013; Barnes 2006; Schudy and Utikal 2017). Our results suggest the existence of a similar misinformation paradox in which even complete distrust of news media does not result in disengagement from that media.

> "I guess I don't trust any of it...[but] like I mentioned [I still read] The New York Times." (man, 68, US)

> "Honestly, there are both true and fake news. It's really hard to find an authority to decide on whether they are fake or not... The setting/environment that we are living in is never free... I mean, I watch [TV news] but whatever we are living in real life is shown differently on television. That's why I don't believe in them." (woman, 68, Turkey)

> "'I took [my post] down when I realized that it was not accurate. And I hate that I [posted] that...Sometimes I've commented on something that's been inaccurate because I liked it, and then I have found it inaccurate and then I go take my comment down. And I try to, when I see something blatantly inaccurate, sometimes I'll go to Snopes and say, 'Here's the reference, this is wrong. Will you take it down?' if it's one of my friends or somebody I know." (woman, 65, US)

Finding 5: Older adults from different countries respond to misinformation similarly.

We find similarities in how older adults from countries with different cultural and religious influences both perceive the news and approach evaluating information. Regardless of national context, as evidenced in the quotes included above, participants expressed extensive media cynicism and used the same mechanisms for deciding whether to evaluate a news story and to determine its credibility. We are not aware

of any prior work studying misinformation and media perception among older adults from multiple countries, and thus, the commonality we observe is of note. Thus, we also encourage future work to investigate quantitatively how country of residence might impact user interaction with misinformation in news media.

5   Discussion

We find that participants in this study of older adults fact-check information using the same techniques as younger adults: they lean heavily on their perception of source credibility (Flintham et al. 2018) and use triangulation (Zaryan 2017). Additionally, as with younger adults (Duffy, Tandoc, and Ling 2019), older adults may correct themselves or correct others, particularly those close to them. Where older adults might differ, however, is in their perceptions of and reactions to news media. While some research suggests that both age groups are skeptical of news information (Vraga and Tully 2021; Fioni 2021; Brenan 2020), the older adults we study have reached a state of media cynicism: they believe little to none of the news information they engage with regardless of the source. This perhaps suggests that negative perceptions of media quality found in prior studies of American (Wagner and Boczkowski 2019) and African (Wasserman and Madrid-Morales 2018, 2019) adults may progress to total disbelief by the time news consumers in current times reach more mature ages.

We argue that media cynicism resembles privacy cynicism. Privacy cynicism is the zenith of the privacy paradox in which negative experiences with digital privacy progress to such a point that users begin to engage in fewer privacy-protective behaviors despite still interacting online in ways they consider privacy-violating (Hargittai and Marwick 2016; Hoffmann, Lutz, and Ranzini 2016; Lutz, Hoffmann, and Ranzini 2020). In a similar way, our participants believe that much of the information they engage with is false, but have reached a state of media cynicism in which, while they still heavily engage with news content, they feel it is rarely worth their effort to investigate the truth of this information.

Prior research on working adults illustrates the beginning of this paradoxical behavior, finding that people are more likely to share misinformation as their overall trust in media erodes (Fletcher and Park 2017). However, prior work has not observed the ubiquity of media cynicism we find among our older adult participants(Tsfati and Cappella 2005; Valenzuela et al. 2019; Wagner and Boczkowski 2019). Thus, we argue that the misinformation paradox is a continuum, with a state of media cynicism reached in older age by this generation of news consumers. We hypothesize that such media cynicism may contribute to prior findings showing that older adults are more likely to share or engage with misinformation than younger adults (Barbera 2018; Grinberg et al. 2019; Guess and Munger 2020; Osmundsen et al. 2021). While scholars have argued – although not empirically investigated—that such sharing is a result of low digital skills or declining cognitive abilities among older adults, we hypothesize that if even digitally-skilled older adults believe that all of the news they see is false, they may engage with misinformation not out of lack of knowledge, but rather within the context of their cynicism. Our findings have implications for both social media companies and researchers. The prevalence of media cynicism among our participants underscores the need to significantly reduce the burden placed on readers to evaluate and assess the credibility of information. While platforms are beginning to take steps to provide heuristics for readers to validate information accessibly (Facebook 2020; Koren 2019), and academics have proposed such solutions in the past (Hartwig and Reuter 2019; Pennycook and Rand 2019), more work is needed. For example, platforms could surface information used for lateral reading or triangulation such as on which and how many

other sites the same information has appeared. While such approaches serve to prevent future generations from reaching a state of media cynicism, older adults make up 12% of today's global population and will make up 22% of the population by 2050 (World Population Aging, 2017). Thus, platforms should also consider interventions to address the consequences of media cynicism among the current generation of older adults such as reminders about how other users may unsuspectingly believe the content they share (Seo, Xiong, and Lee 2019). For researchers, our findings suggest underlying nuance in the study of news interaction log data. Such data should not be understood as an all-out belief and endorsement of content. People may also engage with content because they find it outrageous (Duffy, Tandoc, and Ling 2019) or simply assume others take it with a grain of salt just like they do. Having laid this foundation, future work can assess quantitatively the impact of the media cynicism identified here on news consumers' engagement with news content. Additionally, our study was about older adults' perceptions of news media with a specific focus on misinformation, we invite future work to investigate behaviors related to true news or general news engagement including explorations regarding whether the misinformation paradox we identify may generalize to all news, and comparisons in behavior and perceptions between age groups.

6   Conclusion

While technologies are being developed and deployed to mitigate issues of misinformation, the primary burden of evaluating information remains social action, either institutional or individual. Given their decades of exposure and access to news media, older adults' practices could potentially offer a lens into the future of information evaluation and media perception, which we investigate through 69 semi-structured interviews in four countries with differing cultural and media contexts. We find that older adults of this generation may have reached a state of media cynicism: most of our participants consider all media untrustworthy—even "fictional"—yet, they still engage with it. This behavior may exemplify the zenith of a broader misinformation paradox: At the point of media cynicism, older adults deeply distrust the news they see, but continue to engage despite this cynicism. Our work offers implications for increasing the ease with which users can evaluate the authenticity of information, and to develop interventions specifically designed to combat media cynicism in older adults. Additionally, our results suggest that in addition to age-related cognitive issues, digital literacy, and challenges with social change, older adults' interaction with misinformation may also be explained by a misinformation paradox. Having identified this factor at play, we encourage future research to evaluate more formally and simultaneously the different factors that contribute to older adults' susceptibility to misinformation.

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Authors

Imani N. S. Munyaka is an Assistant Professor in the Department of Computer Science and Engineering at the University of California, San Diego. Her research focuses on social equity with security and privacy tools.

Eszter Hargittai is professor and holds the Chair of Internet Use & Society in the Department of Communication and Media Research, University of Zurich. Her research looks at inequalities in Internet use with a special focus on differences in people's Web-use skills. Her book Connected in Isolation: Digital Privilege in Unsettled Times is out in 2022 from MIT Press.

Elissa M. Redmiles is a Faculty Member & Research Group Leader at the Max Planck Institute for Software Systems. She leads the Safety & Society research group, which focuses on understanding and mitigating inequities that arise in users' digital safety-related decision-making processes and experiences.

Data Availability Statement

Not applicable

Ethical Standards

Research studies at the University of Zurich are allowed to proceed as long as they meet the requirements for human subjects work as per the Zurich Cantonal authorities. This study met those requirements and complied with the ethical requirements of the research institution.

Appendices

Appendix A: Interview questions pertaining to the research questions of this paper

1. Thinking about both online and offline contexts, do you ever worry about whether information you receive is true/accurate/credible? Think about what you receive in postal mail, what you see and hear on TV and the radio, on advertisements.

2. Is there any particular information you're most concerned about?

3. Do you ever try to check the accuracy/credibility of information you find online or information you hear in other ways?

   - Prompts: for example do you look for information about "fake news" or an offer you received through an advertisement?

   - If no: Why not?

   - If yes: How do you check? Can you give an example of having done this?

4. Have you ever had any bad experiences with [misleading, inaccurate, false] information?

   - Prompts: Have you ever believed something you read online and then later found out it wasn't true? Could you tell me a little bit about this?

5. Have you heard any stories from other people about misleading, inaccurate, or false information online? Please tell me some details.