

# N&MRC Submission to the Senate Select Committee on Information Integrity on Climate Change and Energy

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News & Media Research Centre  
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# SCOPE OF THE SUBMISSION

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We appreciate the opportunity to respond to the Select Committee on Information Integrity on Climate Change and Energy's Inquiry. The aim of our feedback is to inform a broader understanding of the information ecosystem and how citizens experience and respond to misinformation.

The News and Media Research Centre ([N&MRC](#)) at the University of Canberra advances public understanding of the changing news media landscape and advocates for a media system that builds trust, inclusivity and diversity, to defend and repair the social fabric. In this submission, we draw upon the following research projects:

- [Digital News Report: Australia](#), a national annual online survey of more than 2,000 adult Australians that monitors changes in consumption, as part of a global study of 48 news markets by the Reuters Institute for the Study of Journalism at the University of Oxford.
- [Gender Gaps in News Consumption and Engagement](#) (2023)
- Adult Media Literacy in Australia ([2021](#), [2024](#))
- [Online Misinformation in Australia: Adults' experiences, abilities, and responses](#) (2024)
- [Libraries and Media Literacy Education](#) (2023)
- [Media Literacy in Australia: A Qualitative Study](#) (2021)
- Stay Smart Online (unpublished research, 2025)
- Political Misinformation and Media Literacy: Australian Election 2025 (unpublished research, 2025)<sup>1</sup>

Based on these studies and our expertise, our submission focuses its responses on the following questions and provide recommendations:

- (a) the prevalence of, motivations behind and impacts of misinformation and disinformation related to climate change and energy
- (e) the role of social media, including the coordinated use of bots and trolls, messaging apps and generative artificial intelligence in facilitating the spread of misinformation and disinformation
- (f) the efficacy of different parliamentary and regulatory approaches in combating misinformation and disinformation, what evidence exists and where further research is required, including through gathering global evidence
- (g) the role that could be played by media literacy education, including in the school curriculum, in combating misinformation and disinformation.

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<sup>1</sup> A public report will be published on 23 October 2025. The team is more than happy to provide the Committee with a private briefing from any of the published and unpublished research.

# RESPONSE TO THE TERMS OF REFERENCE

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## The prevalence of misinformation<sup>2</sup>

*Response to (a) the prevalence of, motivations behind and impacts of misinformation and disinformation related to climate change and energy.*

### Australians lack confidence in their ability to verify misinformation

Audience perceptions and beliefs are more important to understanding the impact of misinformation than measures of the volume of misinformation on online and social media platforms. This is because misinformation does not impact on populations in a uniform manner, and individuals vary in their susceptibility to engaging with and sharing it. The central problem is that people may not recognise misinformation as such and believe it to be true, or share it without caring if it is true or not. While concern about misinformation is high among Australians, evidence suggests their recognition and awareness of it is very low.

In the *Political Misinformation and Media Literacy: Australian Election 2025* study, we asked respondents in the two weeks before the federal election day (3 May 2025), how often they came across misinformation about the election. Sixty percent of respondents reported encountering misinformation occasionally, sometimes or very often and 19% did not experience misinformation. But more importantly 21% did not know if they came across misinformation or not. People with low political efficacy (34%) and no media literacy education (27%) are much more likely to say they ‘don’t know’ if they saw election misinformation or not. This suggests that experience with misinformation is related to an individual’s levels of media literacy training and confidence in navigating the complex online environment.

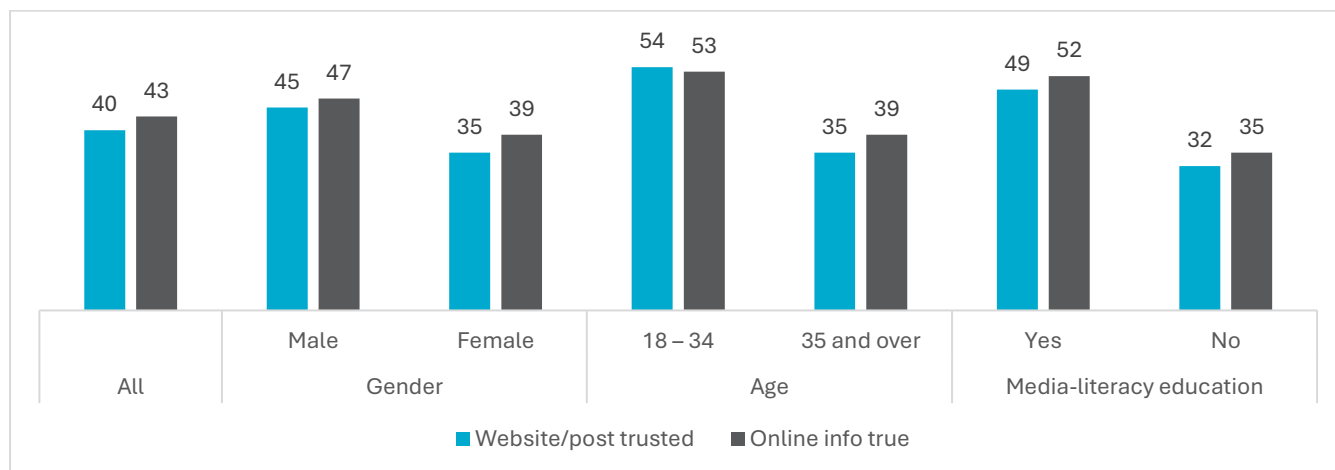
Our data shows that confidence in telling fact from fiction online is quite low, with only 40% saying they are extremely or quite confident they can check if a website or a social media post can be trusted, and 43% are confident they can check if information online is true (see figure 1). As this figure shows, women, people over 35 and those with no history of media-literacy education or training, were all less likely to say they were confident determining if a website or social media post could be trusted, or if information they found online was true.

Confidence in one’s ability to verify information is low, but the actual ability is even lower. In another study, *Online Misinformation in Australia*, we tested people’s ability to verify online misinformation. About half (45%) of the respondents were unable to take any of the basic steps required to verify information online or on social media. Just over half (52%) demonstrated very basic skills. Only 3% demonstrated a well-developed ability to identify misinformation using information verification skills and critical thinking. The great majority of adult Australians scored poorly on all the tasks, with 97% scoring less than four points out of a possible eight points.

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<sup>2</sup> In this submission, we refer to misinformation as an umbrella term to include all types of false and misleading information including misinformation, disinformation and malinformation.

Figure 1: Confidence in verifying information online (% Extremely / quite confident)



Source: *Political Misinformation and Media Literacy: Australian Election 2025*

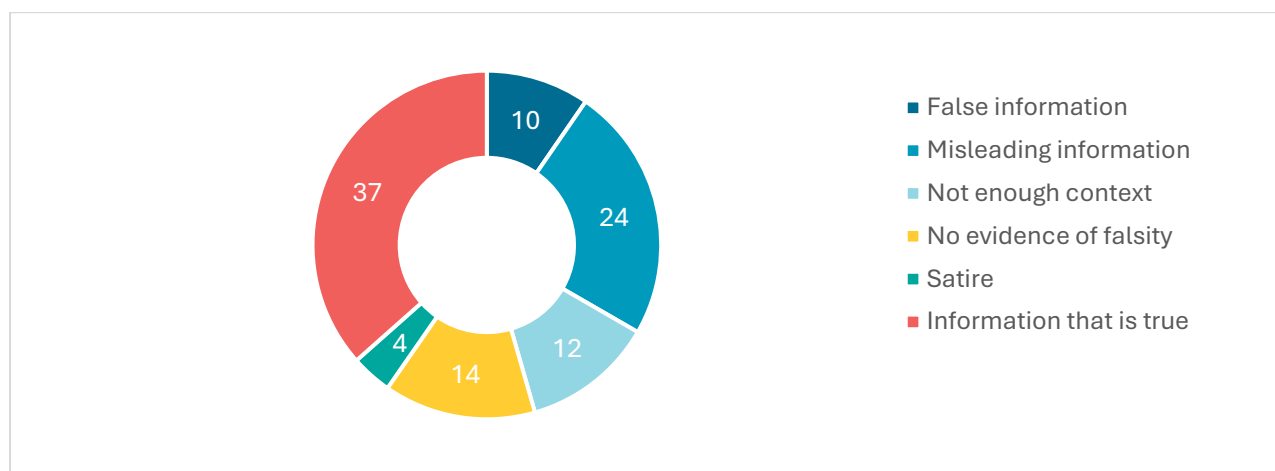
[Q29] How confident are you in your ability to perform the following tasks? [Base: n=2003]

### Misinformation experience is embedded in people's daily news and information consumption

The most powerful misinformation isn't spread solely by anonymous internet trolls. Rather it is shared by prominent actors with higher degrees of connectedness within and across media platforms. Additionally, misinformation are not always outright lies, rather they are more likely to be snippets of information decontextualised in a misleading way. Thus, misinformation can often be shared unwittingly and can blend in with what seems to be factual information.

As part of the *Political Misinformation and Media Literacy: Australian Election 2025* study, we conducted a media diary task and collected n=254 media items from 38 participants between 26 April to 2 May 2025. This diary task asked respondents to send us daily examples of what they perceived to be election misinformation. Of the 254 media items provided to us by respondents as 'misinformation', only 10% were verified as false information by an expert fact-checker and 24% were classified as misleading. Overall, 37% of the examples that respondents identified as 'election misinformation' were verified by an expert fact-checker as correct information. This suggests that, broadly, people's perceptions of misinformation are very loose and that it is often tied to their identities and beliefs, rather than complex verification or fact-checking behaviours (see figure 2).

Figure 2: Analysis of users' misinformation examples (%)

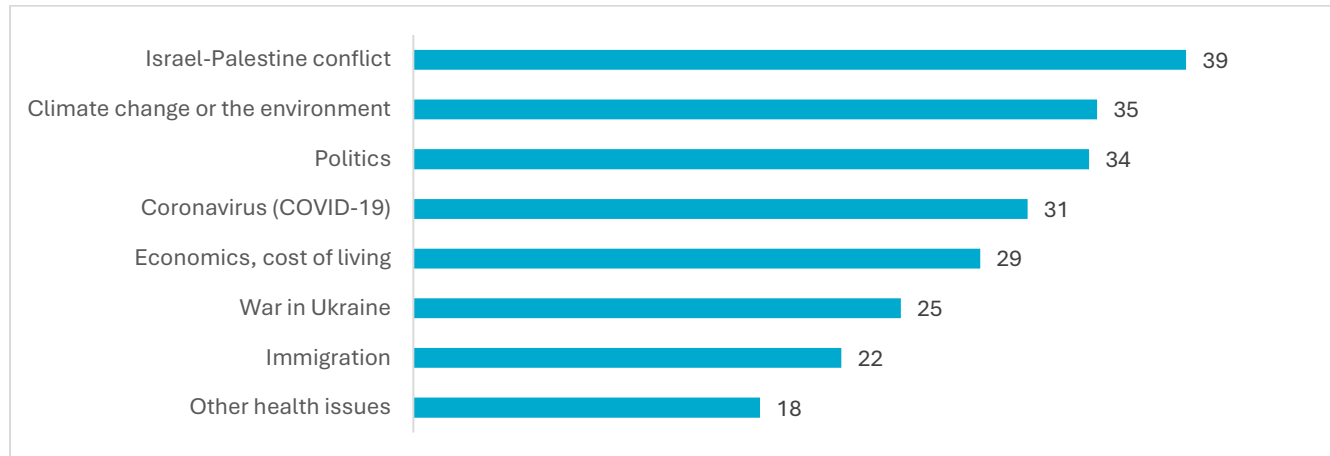


Source: *Political Misinformation and Media Literacy: Australian Election 2025* [Base: n=254]

Note: When calculating percentages, we rounded the figures, which means in some cases the total may not add up to 100%.

We also know that what media audiences identify as misinformation is context and issue dependent. In the *Digital News Report: Australia 2024*, we asked what types of misinformation topics people encountered in the past week. The 2024 survey was conducted in January of that year. The top responses at that time were misinformation about the Israel-Palestine conflict (39%) followed by climate change (35%) and politics (34%) (see figure 3).

Figure 3: Topics of misinformation (%)

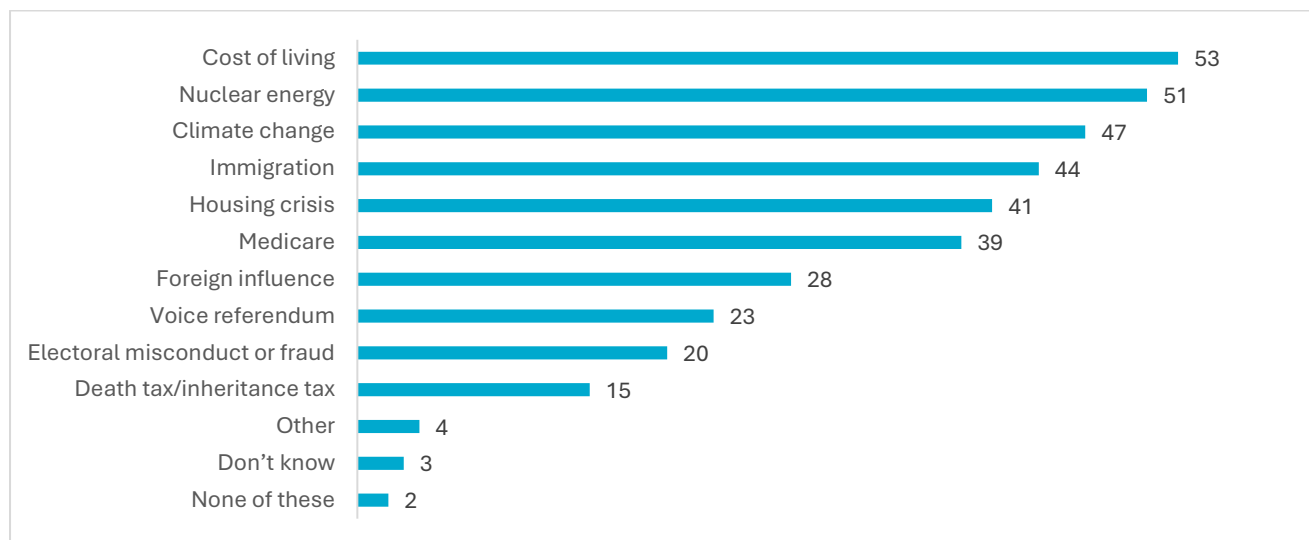


Source: *Digital News Report: Australia 2024*

[Q\_FAKE\_NEWS\_2021a] Have you seen false or misleading information about any of the following topics, in the last week? Please select all that apply. [Base: n=2003]

When asked in the context of an election, the topics of misinformation ranged from cost of living (53%), nuclear energy (51%), climate change (47%) to Voice Referendum (23%) and death tax (15%) (see figure 4).

Figure 4: Topics of election misinformation during 2025 federal election (%)



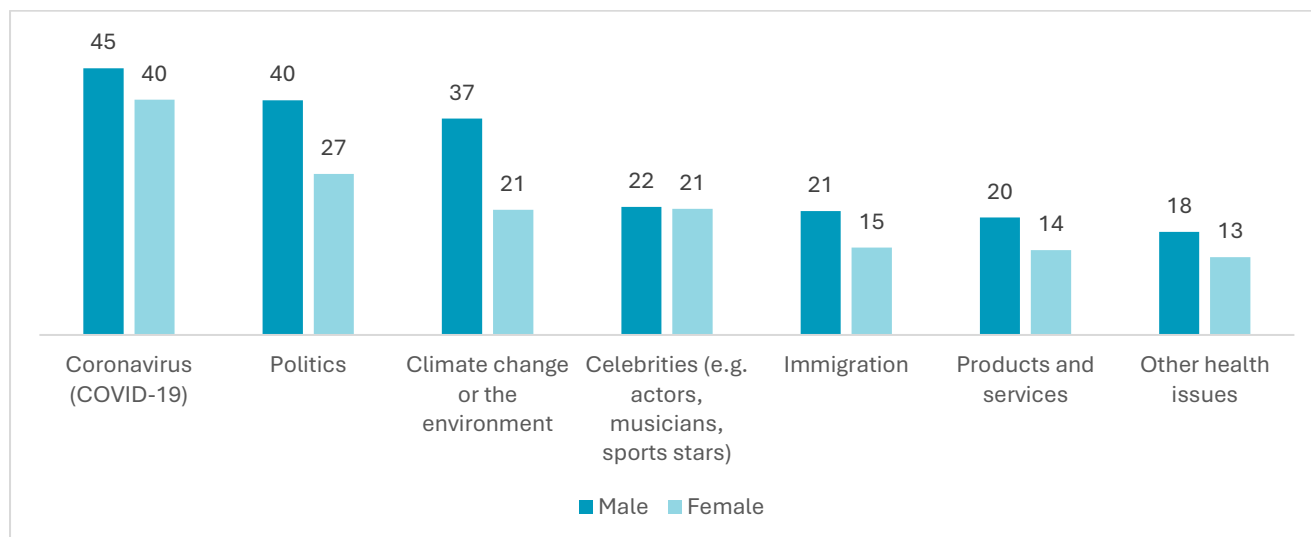
Source: *Political Misinformation and Media Literacy: Australian Election 2025*

[Q18] What topics of misinformation did you come across? Select all that apply. [Base: n=1194, those who say often to occasionally encounter misinformation]

Climate and environment issues are one of the top topics of misinformation that Australian audiences encounter. Just after the COVID-19 pandemic, when asked about the topics of misinformation, COVID-19 and politics were the top topics followed by climate change issues. We found that the experience of misinformation regarding climate change is gendered. The *Gender Gaps in News Consumption and Engagement 2023* report reveals that men (37%) are significantly more likely than women (21%) to say they

came across misinformation about climate change. The gender gap is greater compared to other topics (see figure 5).

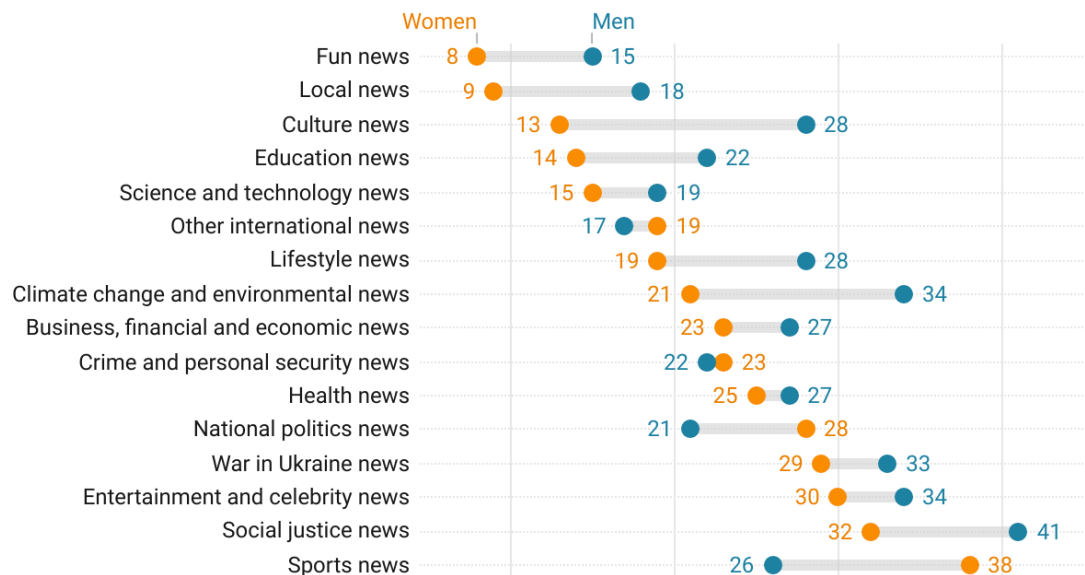
Figure 5: Experience of misinformation topic by gender (%)



Source: *Women and News special report Gender gaps in news consumption and engagement 2023; Digital News Report 2022-2023* [Q\_FAKE\_NEWS\_2021a] Have you seen false or misleading information about any of the following topics, in the last week? Please select all that apply.

The experience of and concern about misinformation is strongly related to news avoidance. Men are also more likely to avoid news about climate change (34%) compared to women (21%). This may be because women have greater interest in climate change and environmental news (38%) compared to men (33%), partly because men who have experienced climate change misinformation have lost interest in the topic (see figure 6).

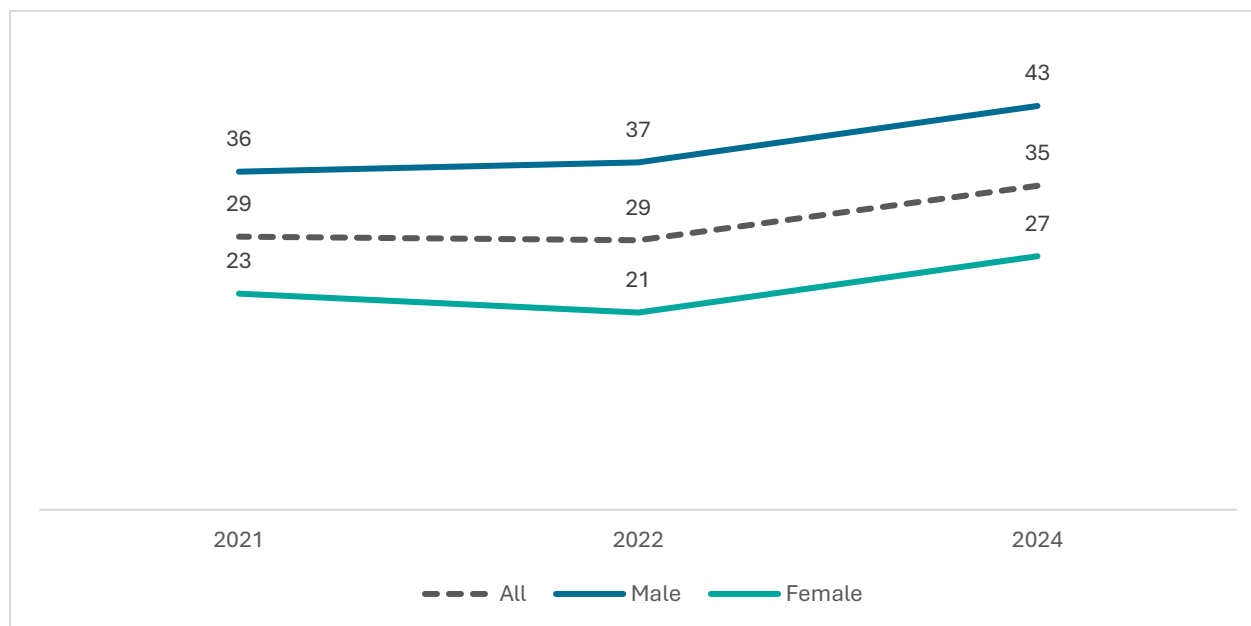
Figure 6: News avoidance topics by gender (%)



Source: *Women and News special report - Gender gaps in news consumption and engagement 2023; Digital News Report 2023* [Avoidance\_topics\_2023] You said that you try to actively avoid specific news topics. Which of the following news topics are you trying to avoid? Please select all that apply.

According to the *Digital News Report: Australia*, the gap between men and women in their experience of misinformation about climate change and environment has widened since 2021 and by 2024 43% of men have seen misinformation about climate change (see figure 7).

Figure 7: Experience of climate change and environment misinformation by gender 2021-2024 (%)



Source: *Digital News Report: Australia 2021, 2022, 2024* [Base: 2021 = 2,036; 2022 = 2,039; 2024 = 2,003]

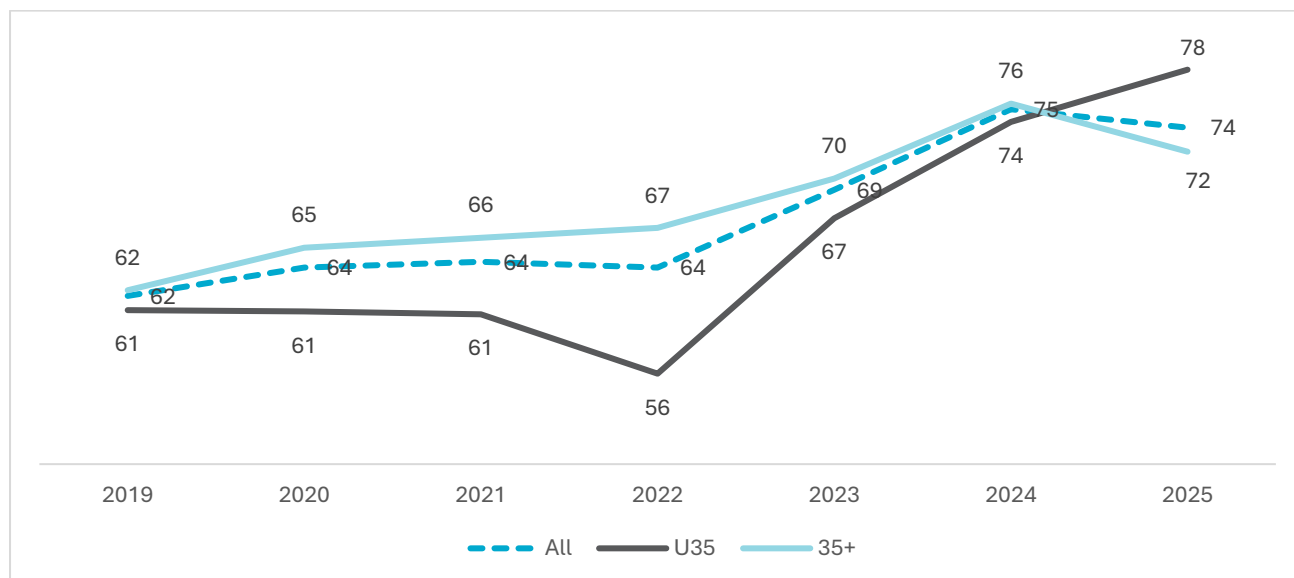
### Concern about misinformation results in increased disengagement among citizens within society

Irrespective of how much misinformation media users are actually exposed to and whether they are able to accurately distinguish it from other types of information, subjectively feeling highly threatened by misinformation can lead to insecurities navigating the information environment<sup>3</sup>. Concern about misinformation is rising and Australia has the highest concern globally. The concern among people under the age of 35 has risen sharply in the past few years and reached 78% in 2025 (see figure 8).

This is possibly because younger people are more likely to use social media as a source of news and the uncertain information environment on social media platforms are adding to their concern about the veracity of information they encounter online. As the reliance on social media platforms to access news increases, the concern level will likely go up as well.

<sup>3</sup> Hoes, E., Aitken, B., Zhang, J., Gackowski, T., & Wojcieszak, M. (2024). Prominent misinformation interventions reduce misperceptions but increase scepticism. *Nature Human Behaviour*, 8(8), 1545-1553. <https://doi.org/10.1038/s41562-024-01884-x>

Figure 8: Concern about misinformation (% Tend to agree/strongly agree)



Source: *Digital News Report: Australia 2019-2025*. [Q\_FAKE\_NEWS\_1] Please indicate your level of agreement with the following statement. "Thinking about online news, I am concerned about what is real and what is fake on the internet." Strongly disagree, Tend to disagree = Not concerned; Neither agree nor disagree; Tend to agree, Strongly agree = Concerned. [Base: n= 2006]

Concern about misinformation is a signal that people are dissatisfied with the information environment and that they feel they don't have trusted sources to go to and verify information. There is a clear link between concern about misinformation and people's trust in news. Those who are concerned about misinformation have lower trust in news in general (43%) and trust in the news they choose to consume (49%), compared to those who are not concerned (57% and 64%). Furthermore, those who are concerned about misinformation are much more likely to avoid news (71%) compared to those who are not concerned (53%) (see figure 9).

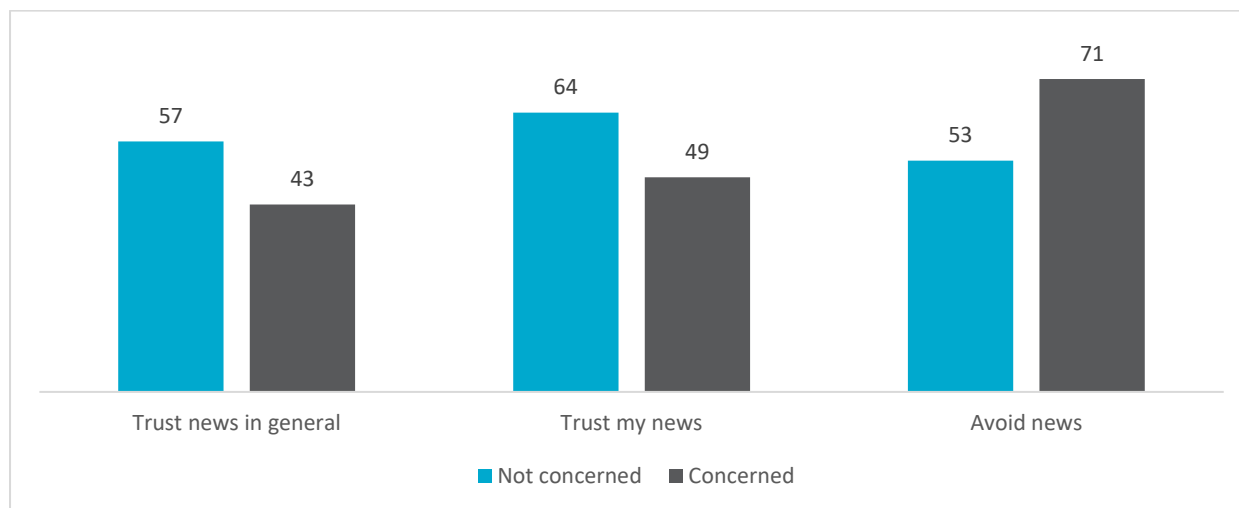
The consequences of the prevalence of misinformation and the lack of trusted sources of news are disengagement with news and information, and a decline of trust in news and public institutions. News avoidance can result in uninformed citizens, which is a risk for a democracy<sup>4</sup>. Research has shown that news avoidance has increased in recent years and that this avoidance is seemingly in conjunction with the dramatic increase in available news<sup>5</sup>.

<sup>4</sup> Castro, L., Strömbäck, J., Esser, F., Van Aelst, P., et al.. (2022). Navigating High-Choice European Political Information Environments: a Comparative Analysis of News User Profiles and Political Knowledge. *The International Journal of Press/Politics*, 27(4), 827–859. <https://doi.org/10.1177/19401612211012572>; Goyanes, M., Ardèvol-Abreu, A., & Gil de Zúñiga, H. (2023). Antecedents of News Avoidance: Competing Effects of Political Interest, News Overload, Trust in News Media, and "News Finds Me" Perception. *Digital Journalism*, 11(1), pp. 1–18. <https://doi.org/10.1080/21670811.2021.1990097>; Perreault, G., Stanfield, K., & Luttman, S. (2020). "Why the h\*\*l is There a White House Correspondents' Dinner?" Boundary Work in Political Journalism. *Journalism Practice*, 14(9), 1142–1158. <https://doi.org/10.1080/17512786.2019.1685901>; Skovsgaard, M., & Andersen, K. (2020). Conceptualizing News Avoidance: Towards a Shared Understanding of Different Causes and Potential Solutions. *Journalism Studies*, 21(4), 459–476. <https://doi.org/10.1080/1461670X.2019.1686410>; Strömbäck, J., & Shehata, A. (2018, September 26). Political Journalism. *Oxford Research Encyclopedia of Communication*. <https://oxfordre.com/communication/view/10.1093/acrefore/9780190228613.001.0001/acrefore-9780190228613-e-859>.

<sup>5</sup> Damstra, A., Vliegthart, R., Boomgaarden, H., Glüer, K., Lindgren, E., Strömbäck, J., & Tsifti, Y. (2023). Knowledge and the News: An Investigation of the Relation Between News Use, News Avoidance, and the Presence of (Mis)beliefs. *The International Journal of Press/Politics*, 28(1), 29–48. <https://doi.org/10.1177/19401612211031457>; Edgerly, S. (2022). The head and heart of news avoidance: How attitudes about the news media relate to levels of news consumption. *Journalism*, 23(9), 1828–1845. <https://doi.org/10.1177/14648849211012922>; Park, S., Fisher, C., Fletcher, R., Tandoc, E., Dulleck, U., Fulton, J., Stepnik, A., & Yao, S. P. (2024). Exploring responses to mainstream news among heavy and non-news users: From high-effort pragmatic scepticism to low effort cynical disengagement. *New Media & Society, online first*. <https://doi.org/ezproxy.canberra.edu.au/10.1177/14614448241234916>; Skovsgaard, M., & Andersen, K. (2020). Conceptualizing News Avoidance: Towards a Shared Understanding of Different Causes and Potential Solutions. *Journalism Studies*, 21(4), 459–476.



Figure 9: Trust and news avoidance by concern about misinformation (%)



Source: *Digital News Report: Australia 2025*. Excluded 'neither'. [Base: n=2006]

[Q6\_2016] Please indicate your level of agreement with the following statements: "I think you can trust most news most of the time" "I think I can trust most of the news I consume most of the time" (% Trust: Tend to agree; Strongly disagree). [Q1di\_2017] Do you find yourself actively trying to avoid news these days? (% Avoid news: often, sometimes, occasionally avoid)

## Social media and misinformation

*Response to (e) the role of social media, including the coordinated use of bots and trolls, messaging apps and generative artificial intelligence in facilitating the spread of misinformation and disinformation.*

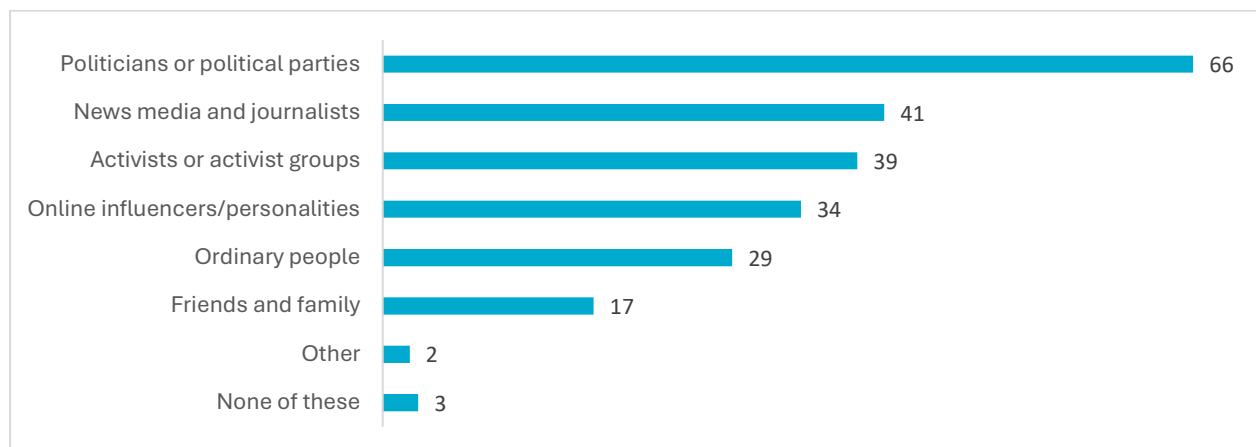
### Creators and distributors of misinformation are diverse

People are influenced by their social networks. When beliefs are based on false information this can create a vicious cycle in a social network where someone is exposed to misinformation and passes it on, which is then shared by others in the network<sup>6</sup>. The reason social networks are important, though, is because it reinforces the identity of individuals. People often reinforce their identity through information consumption along with others around us that are like-minded.

However, the distribution of misinformation is not solely on particular social media platforms. It is very common in the political discourse, during election campaigns, in various topics and in all forms of media. When asked where they encountered political misinformation, the top response was from 'politicians and political parties' (66%) and 'news media and journalists' (41%). These two categories were higher than 'activists' (39%) or 'influencers' (34%) (see figure 10).

<sup>6</sup> Van Bavel, J. J., Harris, E. A., Pärnamets, P., Rathje, S., Doell, K. C., & Tucker, J. A. (2021). Political Psychology in the Digital (mis)Information age: A Model of News Belief and Sharing. *Social Issues and Policy Review*, 15(1), 84-113. <https://doi.org/https://doi.org/10.1111/sipr.12077>

Figure 10: Sources of election misinformation during 2025 federal election (%)



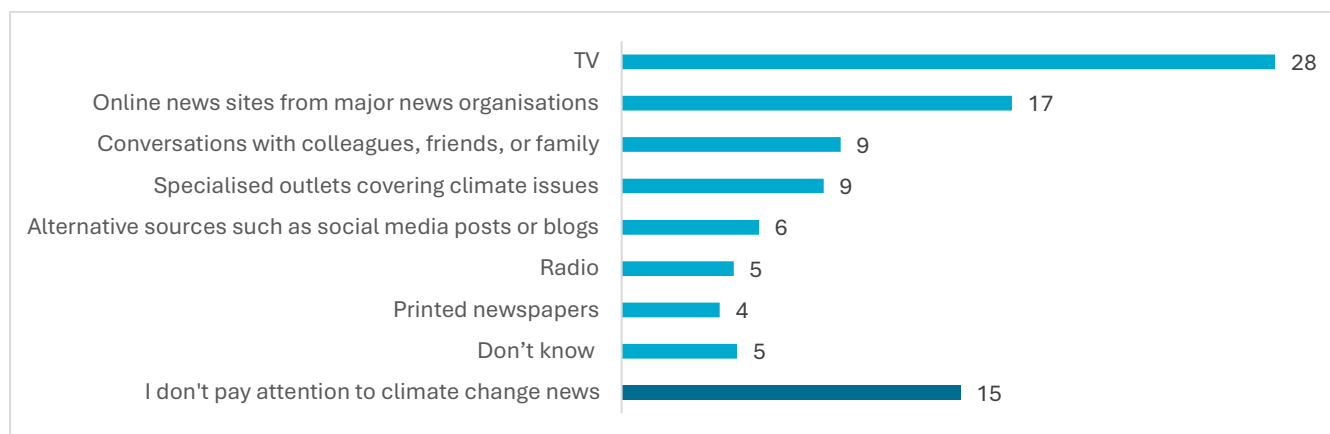
Source: *Political Misinformation and Media Literacy: Australian Election 2025*. [Q16] Who were the source(s) of the false or misleading information? Please select all that apply. [Base  $n = 1,194$ , those who say often to occasionally encounter misinformation]. [Base:  $n=2003$ ]

Another factor that influences the spread of misinformation is the void in the information environment. Especially when there is emerging knowledge, such as during the early days of the Covid-19 pandemic, misinformation can quickly fill the epistemic void. Therefore, it is critical to have a healthy news environment where people can go to trusted sources to cross-check and verify information they find online.

### As people increasingly rely on social media to get news and information the problem of misinformation is likely to get worse

In our *Digital News Report: Australia 2020*, we asked respondents about their sources of climate change news. Over half (54%) said they relied on traditional and online news outlets, with TV the most common source (28%). However, one quarter (24%) reported paying more attention to non-news sources, such as conversations with colleagues, friends or family, specialist outlets, or alternative channels including social media posts and blogs (see figure 11).

Figure 11: Source of news on climate change (%)

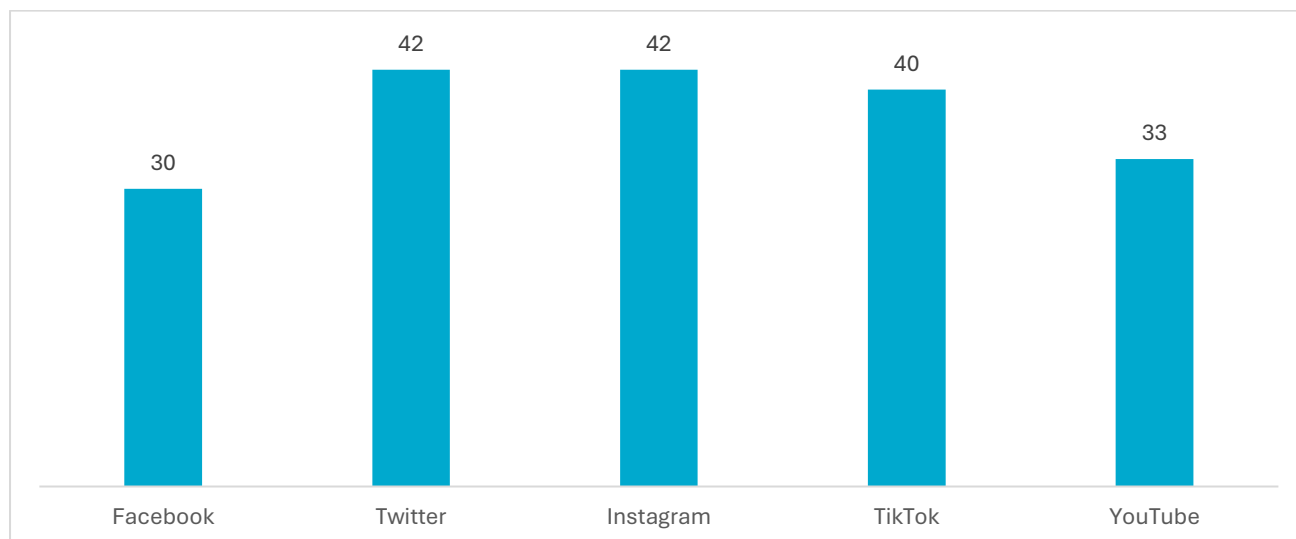


Source: *Digital News Report: Australia 2020*

[C2\_2020] When it comes to climate change, which of the following sources of news, if any, do you pay most attention to? Please select one.

We asked the types of content they pay attention to when people are on social media. When on Twitter and Instagram, 42% of people said they mostly pay attention to climate change news followed closely by TikTok (40%) users. A large proportion of people who access these social media platforms are paying attention to news and information about climate change (see figure 12).

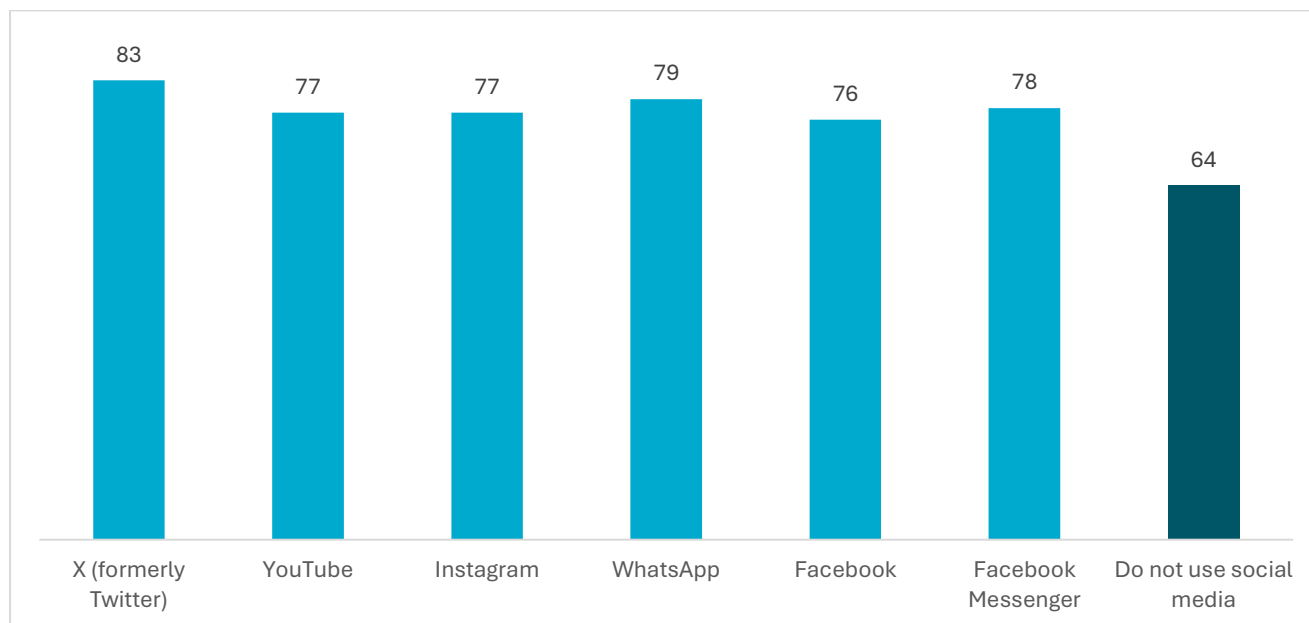
Figure 12: Climate change news on social media by platform (%)



Source: *Digital News Report: Australia 2023*. [Q12\_Social\_subjects] You said that you use [Facebook, Twitter, Instagram, TikTok, YouTube] for news... When it comes to news on [Facebook, Twitter, Instagram, TikTok, YouTube], what types of content do you mostly pay attention to? Please select all that apply.

Those who use social media as a source of news are less likely to have trust in news, and that their concern about misinformation is higher than those who mainly rely on traditional news sources. Those who use social media platforms tend to have higher concern about misinformation compared to those who do not. The average concern is 74%, which indicates those who use social media platforms in general have higher concern about misinformation (see figure 13).

Figure 13: Concern about misinformation by social media platform use (% Tend to agree/strongly agree)



Source: *Digital News Report: Australia 2025*. [Q12A] Which, if any, of the following have you used for \_any purpose\_ in the \_last week\_? Please select all that apply; [Q\_FAKE\_NEWS\_1] Please indicate your level of agreement with the following statement. "Thinking about online news, I am concerned about what is real and what is fake on the internet. [Base: n=2006]

### People go to sources to verify misinformation; however, there are few trusted sources to rely on

When people come across news online that they suspect may be false and *decide* to check it, more than one third (39%) said they turn to trusted news sources, official websites, and search engines. Fewer seek out fact checking websites (28%), people they trust (23%), and comments from others (18%). Those who have received

any form of news literacy education are much more likely to turn to trusted news sources (50%) and official sources (51%), compared to those who have not (36% and 36%). Generally, those without news literacy education are much less likely to verify information overall (see table 2).

Table 1: Misinformation verification (%)

	All	Received news literacy education	Did not receive news literacy education
A news source I trust	39	50	36
Search engine	39	43	38
Official source (e.g. government website)	39	51	36
A fact-checking website	28	35	27
Somebody I know and trust personally	23	28	21
Comments from other users	18	27	16
Wikipedia	16	24	14
Social media or video network	14	26	9
An AI chatbot	6	13	4

Source: *Digital News Report: Australia 2025*. [Q\_fake\_verify\_1] Imagine you came across something important in the news online that you suspect may be false, misleading, or fake. If you decided you wanted to check it, where would you usually go? Please select all that apply. [Base: n = 2006]

However, it is important to note that when people encounter misinformation, the top response is to ignore it (44%). Only one in four choose to discuss it with someone they trust or check other news media sources (see figure 14). People don't bother checking the facts, but the experience of encountering misinformation will have an impact on their level of trust in the information environment. The fact that most people say they do not engage in any kind of verification behaviours—such as checking other sources, going to a fact-checking website, or discussing it with people they trust—suggests that identification of misinformation may be based less on critical reasoning and more on informal heuristics, sentiment, or context cues.

Figure 14: Responses to election misinformation (%)



Source: *Political Misinformation and Media Literacy: Australian Election 2025*

[Q19] When you came across the false or misleading news and information about the election, what (if anything) did you do after seeing it? Select all that apply. [Base: n = 1,194, those who say very often to occasionally encounter misinformation]

## Regulatory responses

*Response to (f) the efficacy of different parliamentary and regulatory approaches in combating misinformation and disinformation, what evidence exists and where further research is required, including through gathering global evidence.*

### **We can learn from experiences in other countries; however, we need Australian case studies**

There has been no single global approach to combatting misinformation, and in all cases, this requires a multi-faceted approach. Some jurisdictions enforce legislation aimed at improving transparency and/or to criminalise the spreading of misinformation. Others implement a range of non-legislative means, such as media literacy and public education campaigns, to build resilience of their citizens, while many implement a combination of both, involving a range of stakeholders to establish a ‘whole of society’ approach to combat misinformation.

We recognise that it is an urgent issue, but regulatory approaches cannot be developed in haste. We can learn from global examples such as EU’s Digital Services Act and UK’s Communications Act and Online Safety Act. They both look a long time with sufficient consultation processes based on research evidence.

EU’s Code of Practice on Disinformation is a framework agreed upon by a broad range of stakeholders – online platforms, search engines, the advertising industry, fact-checking, and civil society organisations, etc. In February 2025, the Commission and the European Board for Digital Services endorsed the official integration of the voluntary Code of Practice on Disinformation into the framework of the Digital Services Act (DSA).

EU’s Code of Practice on Disinformation (CoPD) has three components:

- Empowering users – tools to help identify misinformation, media literacy initiatives
- Empowering the research community – access to data, collaboration with the academic community
- Empowering the fact-checking community – integration of fact-checking into platforms

The United Kingdom Government passed the *Online Safety Act 2023* (OSA) on 26 October 2023. The OSA places a new duty of care for online platforms to remove illegal content (including foreign interference) or content that is harmful to children. Under this approach, platforms will only be obliged to take down misinformation if it violates their terms of service. The OSA takes a proportionate approach to mis- and disinformation by focusing on addressing the greatest risks of harm to users, whilst protecting freedom of expression. In addition, in the *Communications Act 2003*, Ofcom includes duties to promote media literacy<sup>7</sup>. As this legislation is in place, they can implement policies and programs in various ways including Ofcom’s media literacy by design model<sup>8</sup>. This model consists of labels, overlays, prompts, notifications and resources with four platforms pledging to have an inbuilt media literacy service.

Studies confirm that factual misperceptions can be corrected<sup>9</sup>. There are three types of corrective information: (1) forewarning and labelling; (2) prebunking interventions (inoculation) and (3) fact-checkers that

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<sup>7</sup> <https://www.legislation.gov.uk/ukpga/2003/21/part/1/crossheading/media-literacy>

<sup>8</sup> <https://www.ofcom.org.uk/media-use-and-attitudes/media-literacy/best-practice-design-principles-for-media-literacy>

<sup>9</sup> Chan, M. P. S., Jones, C. R., Hall Jamieson, K., & Albarracín, D. (2017). Debunking: A meta-analysis of the psychological efficacy of messages countering misinformation. *Psychological Science*, 28 (11), 1531–1546. <https://doi.org/10.1177/0956797617714579>; 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 Behavior*, 1–23.

verify the claims (debunking). There are, though, positives and negatives in these. Nudging and labelling can be effective<sup>10</sup> but are less effective correction strategies than debunking in mitigating persuasive misinformation effects<sup>11</sup>. Forewarning may be ineffective because it hampers the cognitive effort required to refute the information and people may simply disengage with the message. Later, when they see similar misinformation, it may then have a negative impact.

In Australia, the Australian Code of Practice on Disinformation and Misinformation has been in place since 2021. This voluntary industry code is a commitment from technology companies to take measures to reduce the harm caused by online misinformation and disinformation to Australians. However, Reset Tech Australia's experimental research concludes that there are severe shortcomings and that the Code is not working<sup>12</sup>. Without regulation in place, it is difficult to make changes that would fill the shortcomings of the Code. We need more research on the effectiveness of labelling, prebunking and debunking as well as empirical evidence grounded in independent research to inform better regulation and policies.

### **To solve the problem of misinformation, we need a wider societal approach**

There are two broad approaches to the solution of misinformation as a social problem. The first approach is to combat misinformation through detection and removal of harmful content and the second is to be able to live with misinformation. Recognising that misinformation will likely be a problem no matter how much we try to reduce or remove it from our information ecosystem, we need to develop a strategy so that citizens can respond adequately. We need both approaches and there are three ways to achieve this. *First*, is to have the legal and regulatory environment to enable pro-active measures to reduce misinformation. Consumers have the right to know how a product or service is made, and the ingredients of those products and services. This should apply to digital platforms, where they are transparent about their algorithms of microtargeting and any harms of using such algorithms (such as addictive behaviour). *Second* is to amplify factual, quality information that can counteract misinformation. Digital platforms have a duty of care in this regard. Adequate warning labels about their products and services as well as educating consumers about how algorithms work is needed. *Finally*, we can improve people's media literacy level so that they can discern misinformation and know how to respond with confidence.

To combat misinformation, we need a multi-pronged approach, with each actor focusing on different certain aspects of the solution:

- Government – ensure fair competition and regulate market power imbalance
- Platforms – ensure a transparent and safe online environment
- Users – develop and maintain media literacy skills

They are equally important and must be implemented simultaneously to be effective. One without the other won't be as effective.

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<https://doi.org/10.1007/s11109-019-09533-0>; Wood, T., & Porter, E. (2018). The elusive backfire effect: Mass attitudes' steadfast factual adherence. *Political Behavior*. <https://doi.org/10.1007/s11109-018-9443-y>.

<sup>10</sup> Butler, L. H., Prike, T., & Ecker, U. K. H. (2024). Nudge-based misinformation interventions are effective in information environments with low misinformation prevalence. *Scientific Reports*, 14(1), 11495. <https://doi.org/10.1038/s41598-024-62286-7>; Pennycook, G., & Rand, D. G. (2022). Nudging Social Media toward Accuracy. *The ANNALS of the American Academy of Political and Social Science*, 700(1), 152-164. <https://doi.org/10.1177/00027162221092342>

<sup>11</sup> van Huijstee, D., Vermeulen, I., Kerkhof, P., & Droog, E. (2025). Combatting the persuasive effects of misinformation: Forewarning versus debunking revisited. *New Media & Society*

<sup>12</sup> Reset Tech Australia (2024). Misinformation and Disinformation Will Not Be Combated With Industry Codes.

<https://au.reset.tech/uploads/Combatting-Misinformation-and-Disinformation-Needs-More-Than-Industry-Drafted-Codes.pdf>

There is strong support among Australians for intervention in all of these areas. According to our *Political Misinformation and Media Literacy: Australian Election 2025* study:

- 69% agree there is a need for adult media literacy education.
- 70% agree that the government should take steps to restrict false information on social media, even if it limits people from freely publishing or accessing information.
- 75% believe that social media companies should take steps to restrict false information online, even if it limits people from freely publishing or accessing information.

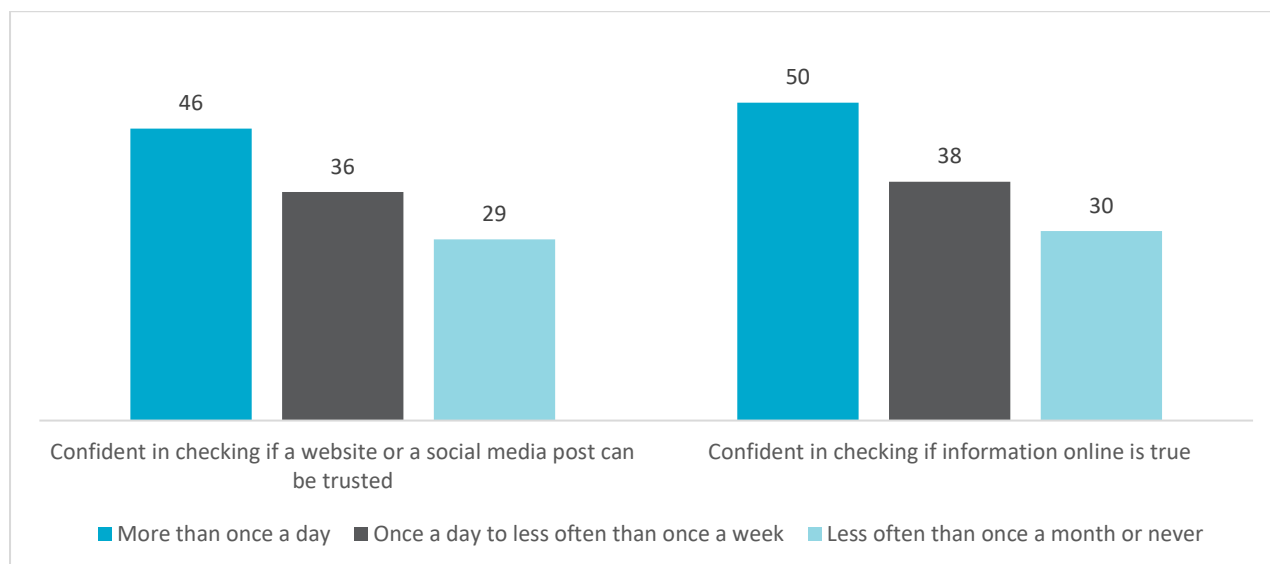
### A healthy news ecosystem plays a crucial role in mitigating the impact of misinformation

In addition to regulatory efforts, we also need to ensure a flourishing news and information ecosystem where citizens have a diverse range of trusted news sources to go to.

In an online environment, people have access to an overabundance of information online, but the range of information is not balanced. There are both ‘data deficits’ and an ‘over-supply’ of information. When such voids exist but there is a high information demand, misinformation can quickly fill the space<sup>13</sup>.

To use climate change as an example, offline news use is associated with lower false beliefs about climate change, while online and social media use are not<sup>14</sup>. This is possibly because news can protect people from misinformation by exposing them to reliable information and by debunking false information. In fact, those who access news more than once a day are much more likely to have confidence in their ability to verify information online and on social media. They are also more likely to have the confidence to know which sources to trust (see figure 15).

Figure 15: Confidence in media ability by news access (%)



Source: Source: *Political Misinformation and Media Literacy: Australian Election 2025* [Base: n = 2003]

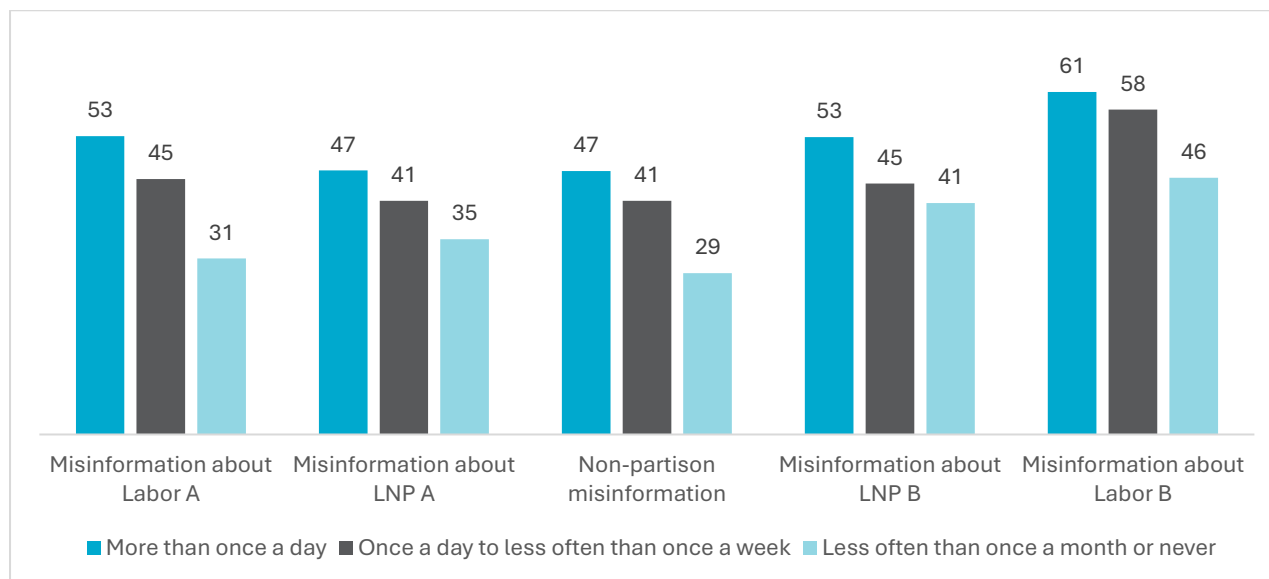
In the same study, we presented people with various professionally fact-checked examples of misinformation and asked them if they thought they were misinformation or not. Only about half of the respondents said ‘yes’, the professionally fact-checked examples were misinformation. Many others said they were either ‘not sure’ or ‘no’, they didn’t think they were misinformation. However, those who are heavy news consumers – those who

<sup>13</sup> Ecker, U., Roozenbeek, J., van der Linden, S., Tay, L. Q., Cook, J., Oreskes, N., & Lewandowsky, S. (2024). Misinformation remains a threat to democracy. *Nature*, 630(8015), 29-32. <https://doi.org/https://doi.org/10.1038/d41586-024-01587-3>

<sup>14</sup> Ejaz, W., Altay, S., Fletcher, R., & Nielsen, R. K. Trust is key: Determinants of false beliefs about climate change in eight countries. *New Media & Society*, 0(0), 14614448241250302. <https://doi.org/10.1177/14614448241250302>

access news more than once a day – are much more likely to identify the fact-checked articles as misinformation compared to those who access news less often (see figure 16). Having access to trusted sources of news is an effective way to mitigate the impact of misinformation. Therefore, strengthening the news industry and recovering trust are necessary conditions for combatting misinformation.

Figure 16: Identifying fact-checked examples of misinformation by news access (%)



Source: *Political Misinformation and Media Literacy: Australian Election 2025* [Base: n = 2003]

## The importance of media literacy education

*Response to (g) the role that could be played by media literacy education, including in the school curriculum, in combating misinformation and disinformation.*

### Media literacy and news literacy

Media literacy is the ability to think critically about the content we create and consume, both online and offline. It is an essential skill to participate in society. It builds resilience, empowers individuals and protects them against harmful misinformation. Media literacy is not just a technical skill, it is a civic capacity essential to pluralism, democratic resilience, and informed self-governance.

Media and digital literacy efforts are increasingly focusing on young people, and few initiatives are designed for adults, especially older people, regional populations, culturally diverse communities, and those with special needs.

News literacy is a similar concept to media literacy. It is defined as the knowledge and skills necessary to navigate news environments<sup>15</sup>. News literacy has always been important as we all live in a world where most of the information we process is mediated. It has become much more important in the digital environment where people encounter an overwhelming amount of information, most of which is not vetted. It is such an important life skill to thrive in the online environment, especially with new technologies like Generative AI.

<sup>15</sup> Tully, M., Maksl, A., Ashley, S., Vraga, E. K., & Craft, S. (2021). Defining and conceptualizing news literacy. *Journalism*, 0(0), 14648849211005888. <https://doi.org/10.1177/14648849211005888>



A more focused educational program on news literacy may be effective in mitigating the impact of misinformation compared to a more general media literacy training, as it specifically deals with the information environment and can help stimulate more critical skills related to the production and distribution of news and information.

There are significant differences in the attitudes and behaviours between those who have received news literacy education and those who have not. They avoid news less and have a higher trust in news. They are three times more likely to pay for news. News literacy education seems to improve people's confidence in engaging with news. Those who received news literacy education are three times more likely to talk about news with other people online, and more than twice as likely to share news stories on social media<sup>16</sup>. Having confidence in media abilities encourages them to engage in more civic activities.

### **Media literacy can help people identify misinformation and respond to it better**

Education often teaches that there are no easy solutions for complex social problems. When people receive adequate education, they can build a comfort level of dealing with complexity and feelings of self-worth, which makes people less vulnerable to uncertainty. Conspiracy theories often appeal to people's vulnerability and uncertainties. That is why education is so important in tackling the spread of conspiracy theories. Learning to exercise analytical thinking prevents people from resorting to simplistic explanations and solutions<sup>17</sup>. Cognitive reflection is an important element of processing information analytically<sup>18</sup>. News and media literacy focuses on the aspect of critical thinking, which makes it effective in reducing the spread and impact of misinformation.

An important trait that can help people recognise misinformation is intellectual humility. Intellectual humility is the propensity to recognise the limits of one's knowledge and openness to new information. It involves acknowledging that your initial beliefs may be incorrect and being open to revising them in light of new evidence<sup>19</sup>. Rather than tying a belief to the ego, intellectual humility enables people to be aware of their own fallibility without feeling threatened<sup>20</sup>. It is effective in reducing the impact of misinformation because it means that one is open to other people's opinions and also results in a tendency to verify information if something is dubious.

In fact, those who have received media literacy education are much more likely to come across misinformation in the first place – possibly because they have the ability to discern facts from fiction – and when they do, they are much more likely to check other media to see if the information they found is true (see figure 17).

<sup>16</sup> Park, S., Fisher, C., McGuinness, K., Lee, J., Fujita, M., Haw, A., McCallum, K. & Nardi, G. (2025). *Digital News Report: Australia 2025*. Canberra: News and Media Research Centre, University of Canberra. 10.60836/md4e-k570

<sup>17</sup> van Prooijen, J.W. (2017). Why Education Predicts Decreased Belief in Conspiracy Theories. *Applied Cognitive Psychology*, 31(1), 50-58. <https://doi.org/https://doi.org/10.1002/acp.3301>

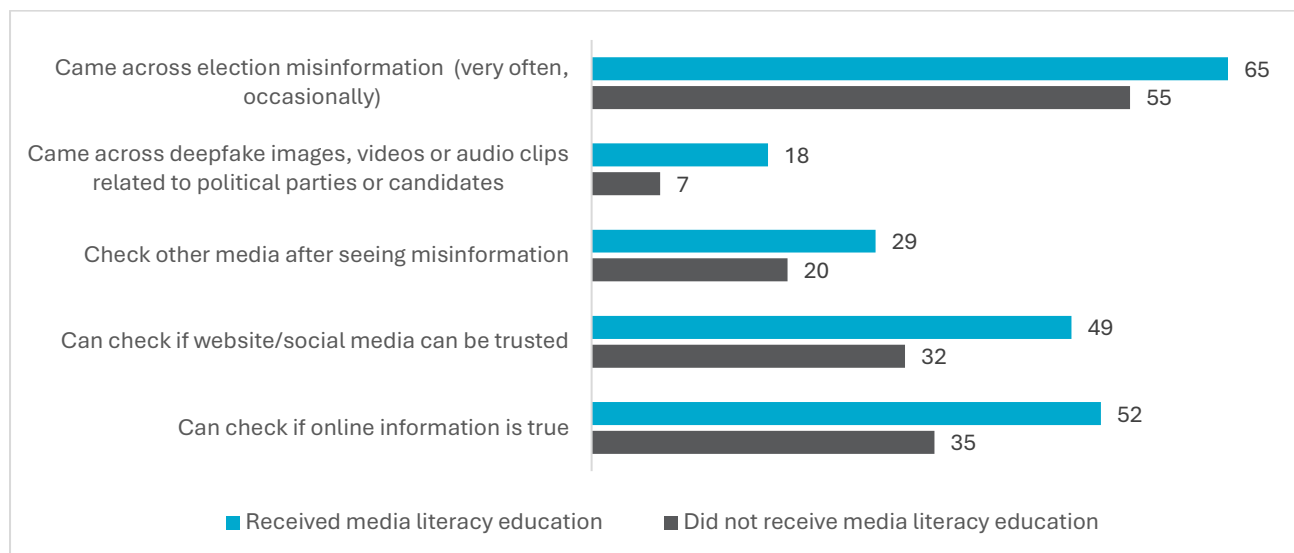
<sup>18</sup> Facciani, M. (2025). *Misguided : Where Misinformation Starts, How It Spreads, and What to Do about It*. Columbia University Press.

<sup>19</sup> Leary, M. R., Diebels, K. J., Davisson, E. K., Jongman-Sereno, K. P., Isherwood, J. C., Raimi, K. T., Deffler, S. A., & Hoyle, R. H. (2017). Cognitive and interpersonal features of intellectual humility. *Personality and Social Psychology Bulletin*, 43(6), 793–813.

<https://doi.org/10.1177/0146167217697695>

<sup>20</sup> Krumrei-Mancuso, E. J., & Rouse, S. V. (2016). The Development and Validation of the Comprehensive Intellectual Humility Scale. *Journal of Personality Assessment*, 98(2), 209-221. <https://doi.org/10.1080/00223891.2015.1068174>

Figure 17: Experience of and responses to misinformation by media literacy education (%)



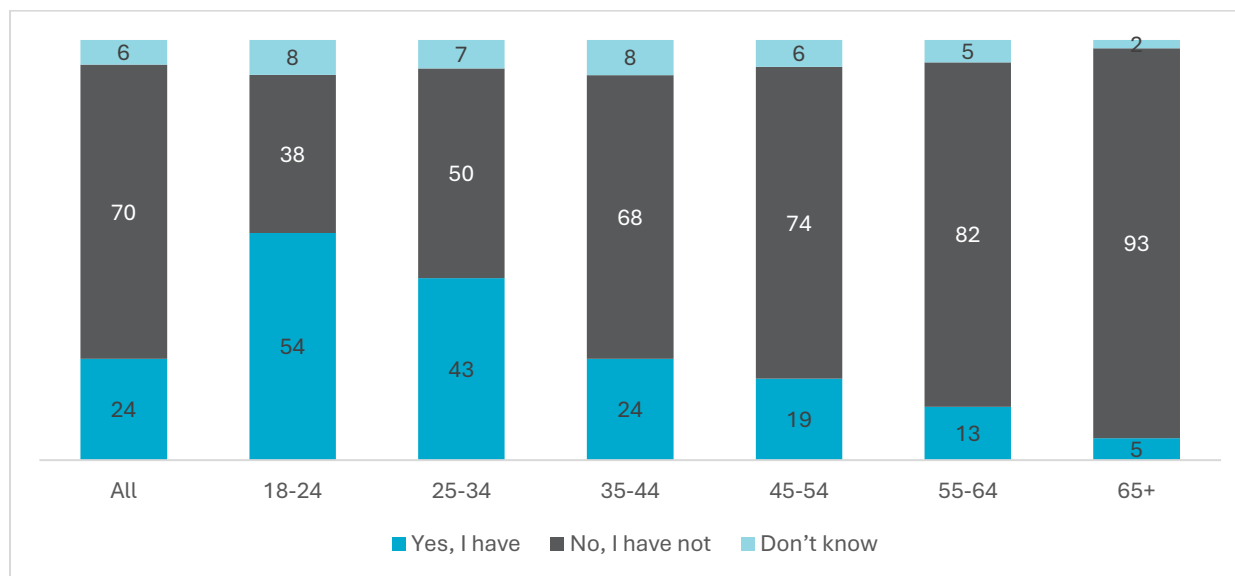
Source: *Political Misinformation and Media Literacy: Australian Election 2025*

Q15. In the two weeks before the federal election day (May 3, 2025), how often did you come across false or misleading news or information about the election? [Q20] During the 2025 federal election campaign, have you encountered any deepfake image, videos or audio clips related to political parties or candidates? By deepfakes we mean images, videos, or audio that have been edited or generated using artificial intelligence, AI-based tools or AV editing software. [Q19] When you came across the false or misleading news and information about the election, what (if anything) did you do after seeing it? Select all that apply. [Q29] How confident are you in your ability to perform the following tasks? [Base: n = 2003]

However, in Australia people have rarely had the opportunity to be trained in news or media literacy, particularly among older cohorts. When asked whether they received any type of education or training – formal or informal – about how to use the news, and this might include how to develop a critical understanding of news, and how to analyse and assess the quality of sources, the majority of Australians (70%) say they have not had any news literacy education or training. Almost all (93%) of those aged 65+ have not received any news literacy training (see figure 18). Vulnerable communities, including older Australians, regional populations, people with a disability, and culturally and linguistically diverse communities, are disproportionately affected, lacking the tools to navigate complex information environments<sup>21</sup>.

<sup>21</sup> Park, S., Lee, J. Y., Atkinson, S and Su, J. (2021). *Media Literacy in Australia: A Qualitative Study*. Canberra: News & Media Research Centre, University of Canberra.

Figure 18: News literacy education by age (%)



Source: *Digital News Report: Australia 2025*. [Q\_fake\_news\_literacy] Have you ever received any education or training on how to use news (e.g., critical media understanding, analysing sources, news literacy etc.)? This could have been at school, college or university, online or offline, or in a formal or informal setting. [Base: n = 2006]

### Why news and media literacy education can be effective

As part of the *Stay Smart Online* project, our team developed a media literacy intervention module based on the concept of intellectual humility<sup>22</sup>, which is a proven method to build awareness of one's own bias. The training module builds people's confidence in identifying misinformation and boosts their comfort levels with understanding artificial intelligence (AI) and social media algorithms through which misinformation is known to flourish<sup>23</sup>.

We tested a one-hour module with 79 Australian adults aged 55+, and results showed an average 23% increase in media literacy scores immediately following participation. The module includes topics known to be the subject of misinformation, including climate change and energy, health, and finance.

Participants felt more confident when they took their own bias into account when consuming information and media. Participants also reported increased trust in credible news, greater confidence in civic dialogue, and reduced susceptibility to online manipulation.

This impact was reflected across demographic variables, as well as climate change perspective and political leaning. While media literacy levels rose most among participants who agreed climate change was caused by humans (19.7%), they also rose among those who neither agreed nor disagreed with anthropogenic climate change (15.8%). Among the small sample size of people who disagreed climate change was human-induced, media literacy levels still rose following training (13.2%). Levels rose among participants of every political leaning, but the most significant increase was in people who identified with the political centre.

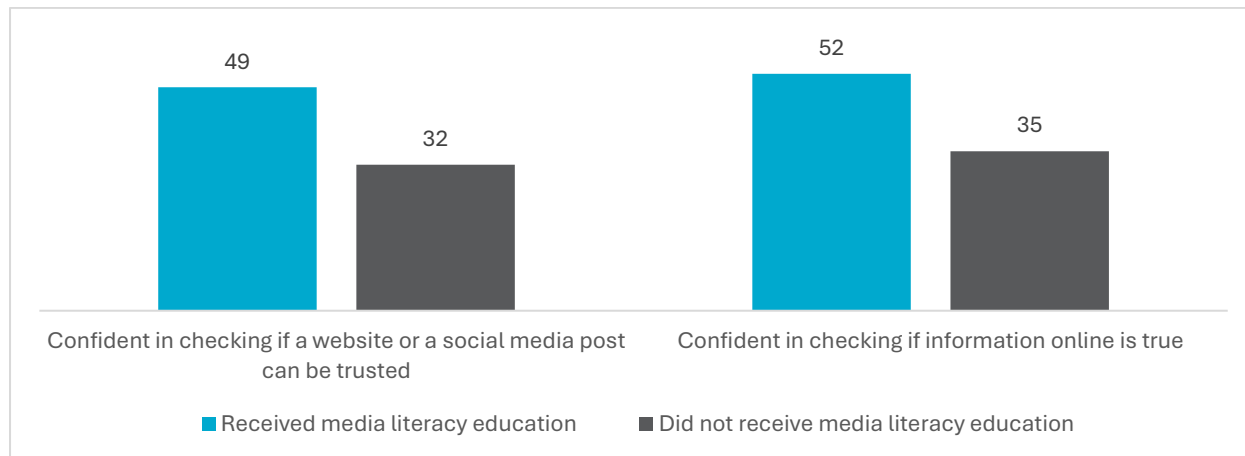
<sup>22</sup> Leary, M. R., Diebels, K. J., Davisson, E. K., Jongman-Sereno, K. P., Isherwood, J. C., Raimi, K. T., Deffler, S. A., & Hoyle, R. H. (2017). Cognitive and Interpersonal Features of Intellectual Humility. *Personality and Social Psychology Bulletin*, 43(6), 793-813. <https://doi.org/10.1177/0146167217697695>

<sup>23</sup> Lazer, D., Baum, M., Grinberg, N., Friedland, L., Joseph, K., Hobbs, W. & Mattsson, C. 2017. Combating Fake News: An Agenda for Research and Action. The Shorenstein Center on Media, Politics and Public Policy, Harvard Kennedy School. Northeastern University and Harvard University <https://shorensteincenter.org/combating-fake-news-agenda-for-research/>

Participants' overall media literacy levels were tested again three months after the initial training module and still showed a statistically significant increase, albeit at a lower level than those recorded immediately following exposure to the module. This suggests media literacy interventions to combat misinformation need to be reinforced over time.

Media literacy education can also improve confidence in people's media ability. Those who have received media literacy education are much more likely to say they can check if a website or social media post can be trusted (49%) or check if information online is true (52%), compared to those who have not received any media literacy training (32% and 35%) (see figure 19).

Figure 19: Confidence in media ability by media literacy education (%)



Source: Political Misinformation and Media Literacy: Australian Election 2025

## RECOMMENDATIONS

Our research on news, misinformation and media literacy clearly shows that the impact of misinformation driven by unregulated market dynamics, on our information ecosystem and democracy is an urgent societal issue. Climate change is a topic that is often tied to one's values and belief systems, which makes people particularly vulnerable to disinformation campaigns around the issue. And while coordinated disinformation campaigns are increasingly spreading false information to mislead and influence public opinion on climate change, we would like to emphasise that unintentional spread of misinformation is also a critical matter related to the problem of disinformation. Misinformation is often spread by ordinary citizens, without the intent to harm, and without knowing that it is false information. Therefore, the boundaries between mis- and disinformation are not easy to determine, nor is it important. More critical is the need to make sure that ordinary citizens have access to a diverse and healthy news ecosystem where they can make informed choices about various issues. They also need to be equipped with media literacy skills to discern quality information from misinformation. However, our research shows that currently this is not the case.

Based on our research, we recommend the following:

### 1. The problem of misinformation requires a whole of society approach.

There are three key elements that need to be prioritised:

- Government regulation to ensure transparency and fair competition to ensure harmful content can be minimised on social media and online platforms.
- Proactive self-regulation of social media and online platforms including transparency in algorithms and effective content moderation.
- Educating the public in their media literacy skills, both in and out of schools.

## **2. Climate change misinformation cannot be separated from the overall information environment.**

In a high choice, hybrid information environment, people's news and information consumption occur within a wider context of everyday media activities that include news, information, entertainment and communication. People encounter misinformation, including climate change issues, within their daily information consumption and through their social networks. To ensure people have access to factual, quality information about climate change, the whole information ecosystem must be taken into consideration as well as how and why certain groups may be vulnerable to the spread of misinformation.

## **3. A trusted, and healthy news ecosystem is the antidote to misinformation.**

Misinformation is a phenomenon that we must live with – it is not going away. However, there are measures to reduce the spread and impact of it. Misinformation flourishes when people lack trusted sources of information to check facts. Improving access to diverse and reliable information by strengthening the news industry to provide quality, trusted news is an important step to reduce the impact of misinformation.

## **4. Educating the Australian public on media literacy – and in particular news literacy – is urgently needed to mitigate the spread and impact of misinformation.**

Some groups are more vulnerable than others. For example, older adults, those who have low education, low income, and live in the regions tend to have lower media literacy levels. People with a disability and those from culturally and linguistically diverse backgrounds also need special attention in how we deliver media literacy education. These groups need to be prioritised.

## **5. Quality news ecosystem and news literate citizens are closely related.**

For reliable information to reach its intended audience news literacy is key. It enables citizens to make critical judgments about the information they consume using diverse, trusted sources, and this makes them resilient to misinformation.

## **6. More research is needed into people's experiences, both positive and negative, and how misinformation can shape people's beliefs and identities in the long term.**

Misinformation research from a user's perspective is still at its early stages. More empirical research on everyday citizens is needed to fully understand the experience and impact of misinformation on Australians.