

Civic Information Literacy Tools

News and Media Research Centre submission to the Australian Parliament's Joint Standing Committee on Electoral Matters' inquiry into civics education, engagement, and participation in Australia

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About this submission

1. The News and Media Research Centre (N&MRC) in the Faculty of Arts and Design at the University of Canberra welcomes the opportunity to respond to the Joint Standing Committee on Electoral Matters' inquiry into civics education, engagement, and participation in Australia. The N&MRC produces the Australian arm of the internationally-known annual *Digital News Report*. It has also been at the forefront of the co-development with University of Canberra Faculty of Education colleagues and primary and secondary school teachers of innovative information literacy methods, which were implemented in four ACT primary and secondary schools in 2022.¹ An updated version of these methods, co-developed in 2024 with teacher-librarians in two ACT 'colleges' (high schools), is presented in this submission.² The submission is also informed by N&MRC's participation in an international consortium investigating deliberation online with colleagues from ANU, QUT and Hochschule Bielefeld.³

Submission overview

2. In the Internet age, the larger the amount of potentially relevant but weakly authoritative information, the more urgent is the need for effective and cognitively viable information processing skills. Civics education in the Australian school curriculum and civics engagement campaigns in Australian society therefore suffer from a fatal flaw: neither takes into account the fact that our information environment is under attack by foreign and domestic malicious actors. These actors produce or relay disinformation about Australian democratic institutions and electoral events to increase distrust in institutions and erode Australia's multicultural identity and social cohesion.
3. This failure to account for the impact of the information environment on civic understanding is exacerbated by the fact that the Australian curriculum is applied by states and territories, so its implementation varies widely. Further, when information literacy is on the school curriculum, strategies rely on critical methods that are ineffective in an online environment where attention is precious, and finite; they increase cognitive overload, hindering effective information processing.
4. Absent a whole-of-nation response, there will no longer be a consensus regarding how Australians determine what is true about core electoral and non-electoral issues. This is a national crisis which requires new thinking, challenging traditional methods and processes.
5. Specifically, there is an immediate need for civic information literacy tools that are effective when information is over-abundant (they must be fast) and which have broad community acceptance (they must be non-partisan and transparent). Developing such tools and ensuring they have as wide adoption as possible will not only benefit Australian institutions; it will also allow Australia to fulfil its regional leadership mission by providing a democratic alternative to authoritarian counter-narratives.
6. This submission outlines prevailing approaches to countering information pollution, summarises the information literacy methods for schools developed at the University of Canberra since 2021, and makes three key recommendations:
 - a. Creation of a national body for the Australian information environment, amongst whose tasks would be the development of effective and non-partisan civic literacy tools.
 - b. Widespread diffusion of such tools via public information campaigns, via the use of public libraries as diffusion hubs and via inclusion in territory, state and federal public service induction and training programs.
 - c. To address variable implementations of the national education curriculum, creation of a mandatory Civic Literacy Certificate comprising civics basics and information literacy tools.

¹ Co-Developing a New Approach to Media literacy in the Attention Economy. ACT Education Directorate-UC Affiliated Schools Research Program (2021-2022); funding also provided by the US Embassy in Canberra's Public Affairs Program.

² Building Information resilience: A collaborative project with ACT Teacher-Librarians. ACT Education Directorate-UC Affiliated Schools Research Program (2024-2026).

³ Bots Building Bridges (3B): Theoretical, Empirical, and Technological Foundations for Systems that Monitor and Support Political Deliberation Online. Volkswagen Foundation, Artificial Intelligence and the Society of the Future (2021-2024).

Australian policy and educational responses to information pollution

7. The 'information environment' is a socio-political space in which information is created, stored and exchanged (including in the form of data/knowledge/intelligence) between individuals, organisations and governments (including information exchanged between humans, humans and non-humans, machines-and-humans and machine-to-machine). A democratic information environment needs to privilege accurate information and to encourage shared understanding.⁴
8. Whether produced by foreign interference or domestic extremists, weaponised disinformation aims to shatter social cohesion by increasing sectarian grievances and divides and to undermine trust in the institutions of electoral democracy. The diffusion of disinformation is accelerated by the open Internet and will be supercharged by generative AI such as Large Language Models. Recent examples include threats to public health via the spread of disinformation around COVID-19 vaccination, which hindered the adoption of basic safety measures; the targeting of Australian public servants, e.g. Australian Electoral Commission staff during elections or the Voice referendum; disinformation about climate change; attempts to worsen religious/ethnic divisions in society; and other attempts to increase distrust in institutions.
9. Attacks on the democratic and truth-based Australian information environment have not been met by adequate policy responses. This has several causes. Policy-makers may be wont to consider disorder in the information environment as a 'social media issue', rather than a structural crisis. They may also experience a feeling of powerlessness in the face of globally hegemonic digital media platforms. In addition, Australians frequently adopt a siloed way of thinking about threats in the information environment, which are addressed in terms of cybersecurity, disinformation, social cohesion, foreign interference, data, privacy and criminal exploitation. Silos extend to organisations, as agencies do not naturally share information. When analysis occurs in a truly integrated way, best current practice is often to coordinate through interdepartmental taskforces or similar mechanisms. These are usually built around a single issue, and non-enduring.⁵
10. The Australian education system is also struggling to meet the challenges posed by information pollution. The National Assessment Program Civics and Citizenship (NAPCC), which is part of the National Assessment Program administered by the Australian Curriculum, Assessment and Reporting Authority (ACARA), does not include information literacy, i.e. methods to determine whether a statement is factual or a source is credible.
11. When information literacy is on a school's curriculum, implementations vary widely between states, territories, and private / public schools. A survey of 1,069 school children found that only 20% of Australian students aged 8-16 had received lessons at school in the past year to help them judge the trustworthiness of news stories.⁶ This finding is confirmed every year by University of Canberra first-year students, who report vastly different learning journeys when it comes to information literacy.
12. In any case, the instruction students receive is poorly suited to deal with our toxic information environment. ACARA's 'Digital Literacy' (formerly ICT) General Capability has a key 'Investigating' element whose 'Evaluate information' component is described as follows: 'students are careful and critical of the information that they encounter when online, and exhibit discernment in their evaluation of the reliability and credibility of online information'.⁷
13. Previously the Australian Curriculum's Civics and Citizenship (7-10) component of the 'Information and Communication Technology (ICT)' Capability similarly stated that 'students develop the knowledge and

⁴ Asia-Pacific Development, Diplomacy & Defence Dialogue (2024) What does it look like for Australia to use all tools of statecraft in the information environment. Canberra: www.asiapacific4d.com

⁵ Ibid.

⁶ Notley, T., Dezuanni, M., Zhong, H. F., & Chambers, C. (2020). News and young Australians in 2020: How young people access, perceive and are affected by news media. Research Report, Sydney, Western Sydney University and Queensland University of Technology.

⁷ ACARA (2021) Australian Curriculum: General capabilities – Digital Literacy (previously ICT). Consultation - introductory information and learning continua, p.8.

skills to use digital technologies to research and source information on civics and citizenship, including critically analysing that information'.⁸

14. Such strategies align with other Australian curriculum General Capabilities such as 'Critical and Creative Thinking' and 'Ethical Understanding', which privilege deep, critical engagement with concepts. A commonly used information-checking methodology in Australian education thus uses the memorable acronym of C.R.A.A.P. ('Is it current, relevant, authoritative, accurate? What is its purpose?'). C.R.A.A.P. presents students with a checklist of website design clues, with some questions people might ask themselves when initially arriving at a webpage including: 'Are there ads? Is it a .com or a .org? Is there scientific language? Does it use footnotes?'
15. This 'checklist' approach is problematic. Several of these questions no longer lead to proof of reliability. Anyone can design a professional-looking webpage, or use spellcheck. Further, compiling questions leads to cognitive overload and hinders effective information processing, so students often latch onto the most visible signals, resulting in poor decisions – for example, that a URL ending with '.org' is inherently more reliable than one ending in '.com'.⁹ An extensive checklist approach is also poorly suited for our information-rich world, in which a wealth of information creates a poverty of attention. Deep, critical methods are ineffective in information environments where attention is precious, and finite.

Civic information literacy at the University of Canberra

16. In 2022, a N&MRC-Faculty of Arts and Design/Faculty of Education project funded by the ACT Education Directorate – University of Canberra Affiliated Schools Research program and by the US Embassy in Canberra taught students in four primary and secondary ACT schools basic civic information skills.¹⁰ This civic information literacy program innovated in two key respects.
17. Firstly, it taught students to 'think like a fact-checker'. This means that students should not engage with dubious content 'vertically', either by scrolling down a webpage, by looking at an 'About' page, or by analysing a claim in depth. Instead, students should learn about a source of information by leaving the webpage, opening another tab on a browser, and searching elsewhere: a concept known as 'lateral reading'. If the claim or source is found to be reliable, students can investigate in more depth, but if it is not, they should move on.
18. Lateral reading is part of the Civic Online Reasoning (COR) framework, developed by the Stanford History Education Group.¹¹ COR recognises the importance of the Internet as a source of political information and refers to the ability to effectively search for, evaluate, and verify social and political information online. What matters is not what students know, but the steps taken to verify claims. The term 'civic' is meant to differentiate COR from broader media literacy efforts and to emphasise the key role that finding credible information plays in democratic decision-making.¹²

⁸ <https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/information-and-communication-technology-ict-capability/>

⁹ Caulfield, M. (2020, December 1) The truth is in the network, Project Information Literacy, Smart Talk Interview, no. 31. <https://projectinfolit.org/smart-talk-interviews/truth-is-in-the-network/>

¹⁰ Cunneen, R. & O'Neil, M., Co-developing a new approach to media literacy in the attention economy. Faculty of Education, University of Canberra.

¹¹ Wineburg, S., McGrew, S., Breakstone, J., & Ortega, T. (2016). Evaluating information: The cornerstone of Civic Online Reasoning. Stanford History Education Group. <https://purl.stanford.edu/fv751yt5934>

¹² 'Civic online reasoning does not seek to prepare students to become professional fact-checkers. Instead, it teaches students some of the evaluative approaches that allowed fact-checkers to find better information more efficiently. Civic online reasoning features three questions that were at the heart of fact-checkers' approach. First, students should ask, "Who is behind this information?" They should read laterally to probe the author or organization presenting the information and consider their qualifications, motivations, and perspective on the issue at hand. When students locate sources they decide may be trustworthy, they should ask, "What is the evidence?" and examine whether sufficient evidence is provided from reliable sources to support the claims made. Finally, students should routinely ask, "What do other sources say?" If they are uncertain about a source or claim, they should turn to the wider resources of the Internet and seek additional, reliable sources. As they search, students should exercise click restraint, or slow down on search results, to make a wiser choice about where to begin their research.' McGrew, S., & Breakstone, J. (2023). Civic Online Reasoning across the curriculum: Developing and testing the efficacy of digital literacy lessons. *AERA Open*, 9, 23328584231176451.

19. Lateral reading has been shown to augment the capacity to determine the credibility of digital news and social media posts (by investigating the source of a website, critiquing evidence, and locating reliable sources) of middle school students,¹³ high school students,¹⁴ university students¹⁵ and preservice teachers.¹⁶ Another study found that introducing lateral reading skills meant students were more likely to prefer a more credible source of information over a less credible source when two sources were presented, whereas few students improved in their ability to assess a single deceptive website. This led the authors to conclude that skills-based information literacy instruction, though highly effective, must be paired with foundational knowledge about how the Internet is structured and about different kinds of online sources.¹⁷
20. Our second innovation was that we recommended using Wikipedia for the verification of claims. Though ‘anyone can edit’ the online encyclopaedia, volunteer editors (‘Wikipedians’) ensure that edits conform to policies such as neutrality - no subjective opinion is allowed - and verifiability: all information must be supported by a reliable source, such as an academic article or a book published by a legitimate publisher. Trusted editors can place articles on their ‘Watch List’; they will then be alerted every time the article is modified, and unverifiable modifications will be eliminated.¹⁸
21. Studies have shown that medical science articles on Wikipedia are as correct as scientific publications.¹⁹ However, despite Wikipedia’s quality improving substantially over time, ‘it is still perceived in a static and dated way, as from the time of its inception’.²⁰ This was indeed one of the most consistent and persistent findings in our research: negative perceptions of Wikipedia’s reliability are widespread in the school teaching community. Many teachers are unaware of the Wikipedia community’s strict enforcement of editorial policies.
22. In contrast, the free encyclopedia’s focus on reliable sources and appropriate referencing resonates with teacher-librarian practice. Indeed teacher-librarians were consistently supportive of our approach. Whereas information literacy has no real place in the Australian curriculum, rendering its integration into teaching programs challenging, practices such as searching databases, creating inquiry questions, correct referencing, and academic integrity are core teacher-librarian business. Teacher-librarians also manage access to schools’ reliable epistemic environments (e.g., academic databases), as opposed to their unreliable ones (e.g., the open Web), so are keenly aware that these distinct environments mandate different information processing approaches.
23. Our current ACT Education Directorate - University of Canberra Affiliated Schools Research project is being co-developed with teacher-librarians in two ACT colleges, and informs the following recommendations.

¹³ McGrew, S., & Breakstone, J. (2023). Civic Online Reasoning across the curriculum: Developing and testing the efficacy of digital literacy lessons. *AERA Open*, 9, 23328584231176451.

¹⁴ Axelsson, C.-A.W., Guath, M., & Nygren, T. (2021). Learning how to separate fake from real news: Scalable digital tutorials promoting students’ Civic Online Reasoning. *Future Internet* 13, 60; McGrew, S. (2020). Learning to evaluate: An intervention in civic online reasoning. *Computers & Education*, 145, 103711.; Wineburg, S., Breakstone, J., McGrew, S., Smith, M. D., & Ortega, T. (2022). Lateral reading on the open Internet: A district-wide field study in high school government classes. *Journal of Educational Psychology*, 114(5), 893.

¹⁵ Breakstone, J., Smith, M., Connors, P., Ortega, T., Kerr, D., & Wineburg, S. (2021, February 23). Lateral reading: College students learn to critically evaluate internet sources in an online course. *The Harvard Kennedy School Misinformation Review*.

¹⁶ Weisberg, L., Kohnen, A., & Dawson, K. (2022). Impacts of a digital literacy intervention on preservice teachers’ civic online reasoning abilities, strategies, and perceptions. *Journal of Technology and Teacher Education*, 30(1), 73-98.

¹⁷ Kohnen, A. M., Mertens, G. E., & Boehm, S. M. (2020). Can middle schoolers learn to read the web like experts? Possibilities and limits of a strategy-based intervention. *Journal of Media Literacy Education*, 12(2), 64-79.

¹⁸ Morgan, J. (2019). Research: Patrolling on Wikipedia/Report - Meta. https://meta.wikimedia.org/wiki/Research:Patrolling_on_Wikipedia

¹⁹ Buchbinder, R., & Bourne, A. (2018) Content analysis of consumer information about knee arthroscopy in Australia. *ANZ Journal of Surgery*, 88, 346-353; Kräenbring, J., Penza, T. M., Gutmann, J., Muehlich, S., Zolk, O., Wojnowski, L., Maas, R., Engelhardt, S., & Sarikas, A. (2014) Accuracy and completeness of drug information in Wikipedia: A comparison with standard textbooks of pharmacology. *PLoS ONE*, 9(9): e106930; Rajagopalan, M. S., Khanna, V. K., Leiter, Y., Stott, M., Showalter, T. N., Dicker, A. P., & Lawrence, Y. R. (2011) Patient-oriented cancer information on the internet: A comparison of Wikipedia and a professionally maintained database. *Journal of Oncological Practice*, 7(5), 319-23; Thomas, G. R., Eng. L., de Wolff, J. F., & Grover, S. C. (2013) An evaluation of Wikipedia as a resource for patient education in nephrology. *Seminars in Dialysis*, 26(2), 159-63.

²⁰ Jemielniak, D. (2019) Wikipedia: why is the common knowledge resource still neglected by academics? *GigaScience*, 8, 1-2.

Recommendations: Public engagement

19. We echo the call made in a recent AP4D options paper, to which N&MRC contributed, for the creation of a national body for the information environment.²¹ This body should coordinate work across government and engage in dialogue with non-government actors such as industry, civil society, non-governmental organisations and academics. Part of this body's remit would include contributing to Australian policy responses to social media platforms' impacts on the dissemination of disinformation, but we have chosen to omit this factor from our submission in order to focus on actions which can be accomplished without the need for international cooperation.
20. Another key task for a national body for the information environment would be the creation of a set of effective and non-partisan civic information tools to help Australians determine which claims and sources are legitimate, and worth their attention. In addition to representatives from the education and research sectors, this process should involve stakeholders such as the Australian Library and Information Association (ALIA), ABC Education, the Museum of Australian Democracy, etc.
21. Effective and non-partisan civic information tools should be made widely available via public education campaigns. In addition to media communications, public libraries could act as hubs for community dissemination and engagement.
22. Effective and non-partisan civic information tools should be incorporated into the training of Australian defence, law enforcement, and public service personnel.
23. Finally, we must recognise that much political deliberation occurs online, and that it is necessary to support people, and particularly volunteer editors (e.g., on Wikipedia) and volunteer moderators (e.g., on Reddit) who not only process informational claims, but also perform the important and often thankless task of curating information environments. We therefore recommend that civic information tools to identify and counter hate speech should be developed and made widely available via media communications and public information campaigns in public libraries and other government sites.

Recommendations: Education

24. Civic information literacy skills should be formally included in the Australian curriculum.
25. Funding for teacher-librarian positions in schools should be maintained, and imparting civic information literacy skills should be included in their mandate.
26. To remedy variable implementations of curriculum across States and Territories, we suggest that effective and non-partisan civic information tools should be included in the primary and/or secondary curriculum in the shape of a mandatory Civic Literacy Certificate.
27. We now suggest examples of civic information tools for information processing (#1) and for countering hate speech (#2). Figure 1 (p. 9) provides an overview, which also includes basic introductory civic education concepts. Figure 2 (p. 10) provides a more detailed view of what core skills a Civic Literacy Certificate might include.

Civic information literacy tools # 1 information processing: Fact-checking

28. To be effective and have wide community acceptance, civic information tools should be *fast*, *transparent* and *non-partisan*.
29. Fast: in the 'attention economy' time is precious. Deep engagement with dubious claims is a poor strategy, as it represents time better spent elsewhere. Instead, students must acquire the means to quickly decide which claims are worth their attention. Lateral reading is fast.

²¹ Asia-Pacific Development, Diplomacy & Defence Dialogue, op. cit.

30. Transparent: the notion that cabals are manipulating information in secret is foundational to the conspiratorial rejection of 'elite' politics, science and news media. Reliable, trustworthy information must therefore strive to be transparent. Members of the Demos UK think tank wrote in 2010: 'Conspiracy theories are a reaction to the lack of transparency and openness in many of our institutions. The more open our institutions, the less likely we are to believe we are living in a conspiring world'.²² Wikipedia epitomises transparency.²³
31. Non-partisan: to be accepted by primary and high school students, teachers, parents and other stakeholders, information literacy tools should not promote, or appear to promote, any social or political perspective. Lateral reading's focus on verification satisfies this criterion.
32. In addition, we distinguish between information environments where epistemic certainty is high (e.g., academic databases) and where it is unknown (e.g., Web, social media).
33. We summarise our information processing civic information literacy tools below (see Figures 1 and 2 for more detailed descriptions).
 - a) *Reacting* according to the epistemic environment
 - b) *Choosing* how to read (vertically or laterally)
 - c) *Checking* trusted sources
 - d) *Questioning* emotional manipulation

Civic information literacy tools #2 information curation: Counter speech

34. Large social media platforms have relatively clear definitions of what is deemed to be hate speech, e.g. the discriminatory exclusion and dehumanization of people, and inciting violence, hate, and harassment. When hate speech occurs one always has the option of deleting it to limit the spread of hateful language and ideas. However, deletion or censorship risks restricting freedom of expression and some comments do not clearly fall into the abovementioned definitions of hate speech. Nevertheless, they require a response, because of their implications.
35. Broadly speaking, hateful comments and ideas can be differentiated into three categories.
 - a) Criminally prosecutable
 - b) Guideline or policy violation
 - c) Gray area, general incivility, or harmful misinformation
36. Criminally prosecutable comments should be reported to the authorities and then deleted. Violations of platform or community guidelines should be reported to the platform operator and punished accordingly. In all other cases, it might be beneficial to engage with hateful language and ideas to initiate a constructive debate, bring forth counter points and positively influence the authors as well as bystanders. Any counter-engagement with hateful language or ideas is commonly referred to as 'counter speech'.²⁴
37. Counter speech is employed by NGO activists, professional community managers, and private users aiming to combat hateful ideas and language and promote a constructive debate culture. This can take the form of systematic campaigns or of spontaneous reactions. Counter speech techniques are generally not precisely defined and applied based on personal experience or vague guidelines. While

²² Bartlett, J. & Miller, C. (2010) The power of unreason: conspiracy theories, extremism and counter-terrorism. Demos, p. 39. <http://www.demos.co.uk/publications/thepowerofunreason>

²³ A Wiki is a database which can be collaboratively edited and where every change is archived: on Wikipedia every change with its author and date appears successively in the article's 'History' page. If a reader clicks on a line, the two versions of the article appear side by side. Every article also has a 'Talk' page where 'Wikipedians' collectively resolve content disputes. In short, the editorial process is transparent and auditable.

²⁴ Benesch, S., Ruths, D., Dillon, K. P., Saleem, H. M., & Wright, L. (2016). Considerations for successful counterspeech, Dangerous Speech Project; Cepollaro, B., Lepoutre, M., & Simpson, R. (2023). Counterspeech, Philosophy Compass.

there is evidence that counter speech is generally effective, the effectiveness and appropriateness of specific techniques has not been extensively investigated.²⁵

38. We summarise our information curation civic information literacy tools below (see Figure 1 for a more detailed description). They can be used individually, consecutively, or in combination.
 - a) Denouncing
 - b) Empathizing
 - c) Debating
39. Denouncing hateful language and ideas is crucial in any situation. This can be done by simply stating their unacceptability, or by explaining why a comment was potentially harmful.²⁶ The message can be underlined by warning of the possible consequences of such a comment, e.g. personal consequences such as sanctions, or loss of face.
40. Empathizing can be useful to build a bridge to the author of a hateful comment by expressing understanding for the author without endorsing what they have written.²⁷ Also, invoking compassion for the people affected can induce reflection of possible consequences of hateful language and ideas.
41. Debating is only possible if a comment has enough 'substance'. A common approach involves debunking a statement by presenting contradictory facts or pointing out logical contradictions within an argument.²⁸ Presenting additional facts and asking critical questions may lead to more in-depth exchanges.²⁹
42. It can be difficult to assess which counter speech approach is the right one. *Denouncing* is almost always necessary, but a blatant statement can close the door to further debating or empathizing. *Empathizing* can be difficult when confronted with hateful statements. *Debating* requires that a comment has enough actual substantial content to be addressed and can easily escalate into lengthy, challenging arguments.
43. On an individual level, experience and sensitivity are important, especially when trying to empathize with the author of a hateful comment. If one is not equipped for a deeper argument, it may be best not to enter into a lengthy debate, but one can't go wrong by simply expressing disagreement with hateful content.

Concluding remarks

44. We hope that this submission will inform policy and education responses to the grave threat posed by malicious disinformation to the Australian information environment and rules-based democratic order. We would be happy to provide further information to the Committee if deemed useful.

²⁵ Baider, F. (2023) Accountability issues, online covert hate speech, and the efficacy of counter-speech. *Politics and Governance*, 11(2); Garland, J., Ghazi-Zahedi, K., Young, J.-G., Hébert-Dufresne, L., & Galesic, M. (2022) Impact and dynamics of hate and counter speech online. *EPI Data Science*, 11(1), 3; Sasse, J., & Grossklags, J. (2023) Breaking the silence: Investigating which types of moderation reduce negative effects of sexist social media content. *Proceedings of the ACM on Human-Computer Interaction*, 7(CSCW2), 1–26; Schäfer, S., Rebasso, I., Boyer, M. M., & Planitzer, A. M. (2023) Can we counteract hate? Effects of online hate speech and counter speech on the perception of social groups. *Communication Research*, 00936502231201091.

²⁶ Stockmann, D., Schlosser, S., & Ksatryo, P. (2023). Social media governance and strategies to combat online hate speech in Germany. *Policy & Internet*, 15(4), 627–645.

²⁷ Hangartner, D., Gennaro, G., Alasiri, S., Bahrich, N., Bornhoft, A., Boucher, J., Demirci, B. B., Derksen, L., Hall, A., Jochum, M., Munoz, M. M., Richter, M., Vogel, F., Wittwer, S., Wüthrich, F., Gilardi, F., & Donnay, K. (2021). Empathy-based counterspeech can reduce racist hate speech in a social media field experiment. *Proceedings of the National Academy of Sciences*, 118(50), e2116310118.

²⁸ Debunking can be informed by strategies outlined in the *Debunking Handbook*, such as not foregrounding incorrect information. See <https://skepticalscience.com/debunking-handbook-2020-downloads-translations.html>

²⁹ Ziegele, M., Jost, P., Bormann, M., & Heinbach, D. (2018). Journalistic counter-voices in comment sections: Patterns, determinants, and potential consequences of interactive moderation of uncivil user comments. *Studies in Communication and Media*, 7(4), 525–554.

Figure 1. Civics and citizenships basics, Civic information literacy tools, Civic counter speech tools

CIVICS AND CITIZENSHIP [CIVIC LITERACY CERTIFICATE part A?]		
Key Civics Notions (TBC)		
Democratic system – civic institutions e.g. political pluralism, free and transparent elections, free press, independent judiciary, etc.	Democratic values – civic beliefs and attitudes e.g. respect, inclusion, multiculturalism, information literacy, etc.	
INFORMATION LITERACY TOOLS [CIVIC LITERACY CERTIFICATE part B?]		
Evaluating the information environment		
Environment A – e.g. library, peer reviewed databases, ... → facts are distinct from opinions	Environment B – e.g. Web, social media, TV → facts, or opinions presented as facts?	
Choosing a reading strategy		
Vertical reading: critical engagement with ideas, reading in depth, etc.	Lateral reading: evaluating the credibility of a source by comparing it with other sources	
Checking in trusted sources		
Encyclopedia: BRIT, MCQ – experts compile evidence, editors check; restricted access	Online encyclopedia: Wikipedia – volunteers update content based on rules, admins ban vandals; open access	Other trusted sources: record of evidence-based reporting, transparency e.g. ABC, BBC, NYT, SBS...
Reflecting on the emotional impact		
Emotional manipulation: Are triggers such as music, images, words, ad hominem attacks, etc., being used? Why are they trying to make you angry or sad?		
COUNTER SPEECH TOOLS		
Assessing the level of hate speech		
Criminally prosecutable → report to the authorities	Guideline or policy violation → report / ban account or other appropriate sanction	Gray area, general incivility, or harmful misinformation → respond with counter speech
Applying counter speech		
Denouncing <ul style="list-style-type: none"> • Highlighting unacceptability • Warning of consequences 	Empathizing <ul style="list-style-type: none"> • Showing understanding • Evoking compassion 	Debating <ul style="list-style-type: none"> • Debunking / presenting facts • Pointing out inconsistency

Figure 2. Four civic information literacy tools: detailed presentation

