



Office of the Prime Minister's Chief Science Advisor
Kaitohutohu Mātanga Pūtaiao Matua ki te Pirimia

Terms of Reference

He Uru Kahikatea

Building young people's resilience through critical thinking and digital citizenship skills

He Uru Kahikatea - a stand of Kahikatea tree. This whakataukī, and the title of the report, speaks to the idea that the root system of a stand of Kahikatea trees are as deep and tangled as the tree is tall - which keeps them resilient/strong in the face of environmental challenges. The use of this proverb as the report's title is a nod to collective action, collaboration, and the power of community and whole whānau approaches to this kaupapa.

Background

Access and susceptibility to false online information, including information that is misleading, harmful and hateful, is a rapidly growing global challenge.¹ The increased use of the internet and social media by children and young people poses a significant risk for Aotearoa New Zealand. These threats from polluted information include the undermining of social cohesion, well-being, and a well-informed citizenry. The threat is very real. The [Disinformation Project](#) has been monitoring this growth. Their recent report shows how the February-March 2022 parliamentary protest was projected on social media, seeding and spreading the false and harmful information that underpinned the protest.² Despite these real and pressing challenges, the tools and community building afforded by the internet and social media can also provide the means to increase digital citizenship skills.

This general area was addressed by Sir Peter Gluckman in 2018, who released a report prepared by the Chief Science Advisors (CSAs) for Education, Health, Justice, and Social Development³ which foreshadowed many of the issues we see today. The CSA for the Ministry of Education, Professor Stuart McNaughton, has continued this work and recently highlighted the central role of education in mitigating the risks and increasing positive digital skills by promoting critical thinking and critical

¹ False and harmful information includes misinformation (use of false information that people didn't create, but without the intention to hurt others); disinformation (false information created with the intention of harming a person, group, or organization, or even a country), and mal information (true information used with ill intent). Wardle, C. & Davakhana, H. (2018). <https://rm.coe.int/information-disorder-toward-an-interdisciplinary-framework-for-research/168076277c>

² Hannah, K., Katutura, S. & Taylor, K. The murmuration of information disorders: Aotearoa New Zealand's mis and disinformation ecologies and the Parliament Protest. (2022). <https://thedisinfoproject.org/wp>

³ Gluckman et al., (2018). A Commentary of Digital Futures and Education, Office of the PM's Chief Science Advisor.

literacies.⁴ A working paper by him, and other members of the Science Advisors Forum⁵ proposed a multi-pronged approach to reducing the threat, including legislative and regulatory approaches. This project will build on these reports.

A key part of a preventive and long-term solution to the changing online environment is an educational focus across the life course and at each level of provision, from classroom instruction through to the national curriculum. A similar national approach was adopted by Finland in the Good media literacy: National guidelines for 2013-2016, when they added information literacy and strong critical thinking to the national school curriculum at all year levels. These guidelines were updated in 2019.⁶ This, and other approaches overseas, will be assessed as part of an evidence base of how our young people can be equipped with critical thinking and digital citizenship skills while understanding that in the Aotearoa context, we need to draw on the strengths of a community and collective approach.

This report will focus on the education system, one important part of the response to polluted information online, and the development of our young people as digital citizens. But this alone does not address the challenges that young people face in the digital world. Some of the wider work currently occurring across the government includes the Christchurch call, online radicalisation, youth mental health, digital safety, and the work of the classification office. There is also work occurring at a local level by schools and wider communities to equip whānau and young people. The project will shine a light on the good work going on at this level.

Building young people's resilience is used as a frame for this report. Critical understandings of the term resilience, including by indigenous researchers, have outlined two issues. One is how the term can unduly place emphasis on the individual to better respond to the environment rather than changing the environment itself. The reality is that young people face an online environment that is largely outside their individual control. While change is needed to improve the online environment, even with significant changes, there will continue to be some level of polluted information and harassment. This report will focus on how young people can be best equipped to navigate this environment while acknowledging that the environment itself should change and understanding resilience can occur on a collective and individual level. A second issue is the traditional Western framing of resilience as something inherent or not in the individual. An indigenous conceptualisation instead proposes that resilience is also our capacity as a collective to navigate our way through psychological, social, cultural, and physical adversities in ways that sustain our collective well-being.

Aim of project

This project seeks to, through an education lens, provide a localised and detailed evidence synthesis of how to support young people in Aotearoa to:

- a) develop critical thinking skills which will help them to be more resilient to online manipulation and harassment, including conspiracy theories and critically engage with how algorithms and

⁴ Stuart McNaughton, (2022). [Digital-Literacy-a-review.pdf \(education.govt.nz\)](#)

⁵ Stuart McNaughton (Chief Science Advisor, Ministry of Education), John Roche (Chief Science Advisor, Ministry for Primary Industries), Hema Sridhar (Chief Science Advisor, Ministry for Defence), and Jessica Berentson-Shaw (The Workshop). (2022). Dealing with misinformation in the digital age: Prevention and intervention for Aotearoa New Zealand. (Link to follow)

⁶ Ministry of Education and Culture. (2019). Media literacy in Finland. <https://national-policies.eacea.ec.europa.eu/youthwiki/chapters/finland/68-media-literacy-and-safe-use-of-new-media>

- advertising impact what they see online and
- b) increase their digital citizenship skills and understand how to use the internet to interact positively with others.

It will support the specific objectives of an education system approach to:

- Reduce young people's susceptibility to inappropriate, inaccurate, and dangerous ('polluted') information through increased levels of critical thinking and literacy skills.
- Develop digital citizenship skills (including self-regulation, social and emotional skills, and peer-to-peer support) for using the internet and especially social media.
- Provide interventions that reduce the harmful and hurtful effects of online messaging.
- Develop system-level changes in response to the Royal Commission of Inquiry into the terrorist attack on Christchurch masjidain findings that education has a significant role to play in preventing such events.⁷
- Provide strategies for young people to support their peers in the online environment.
- Ensure that young people have a critical understanding of the digital context they are navigating.

It will draw on the international and national evidence base, drawing on research and knowledge of Māori researchers and practitioners who bring a strengths-based and community focussed approach to foster resilience in young people.

Draft scope

If this project is of interest to the PM, the scope, objectives, workstreams, and authors for the project will be finalised in conjunction with experts in Te Ao Māori perspectives, such as the Mātauranga Iwi Leaders Group with the Ministry of Education/Te Tāhuhu o te Mātauranga. This expertise will be essential for developing appropriate advice for educational provisions in Māori medium education. We will also seek diverse perspectives, including from the Pacific, LGBTQI+, disabled, and refugee communities.

Summary of workstreams

- 1. Context:** This workstream will analyse the global and local context and explain the approach taken for the report. It will also provide the definition of key terms such as forms of harmful and hateful information, 'resilience', and digital citizenship skills. This work stream will also outline those things, which although important to the wider issues discussed, are out of scope for this specific report.
- 2. Curriculum and instructional changes:** This workstream will outline how changes currently underway by the Ministry of Education/Te Tāhuhu o te Mātauranga, including the 'curriculum refresh' process and development of the 'Common Practice Model' for instruction, can support the objectives and what changes or new directions might be needed.

⁷ The relevant chapter from the Royal Commission is here: <https://christchurchattack.royalcommission.nz/the-report/findings-and-recommendations/chapter-5/> Recommendation 36 is: Invest in opportunities for young New Zealanders to learn about their role, rights and responsibilities and on the value of ethnic and religious diversity, inclusivity, conflict resolution, civic literacy and self-regulation

- 3. School programmes and interventions:** This workstream will describe what school-wide programmes and interventions currently provided by the Ministry of Education/Te Tāhuhu o te Mātauranga, may directly or indirectly contribute to the objectives.⁸ It will review the evidence for how these might be best used or what new approaches are required in the context of international evidence. It will also examine workforce familiarity with tools and approaches. Are teachers using aware of the skills and tools they need, and are they using them? It will also outline other programmes and interventions relevant to this work occurring across the government.
- 4. National uptake, coherence, and consistency:** One of the major challenges to address is how to guarantee consistent and equitable implementation across New Zealand, with local adaptation where necessary. This workstream will examine the challenges of scaling successful policies and reducing inequities.
- 5. Engagement with parents and whānau:** The current generation of parents is the first to have to consider how best to develop these new forms of resilience. This work stream will examine examples of best practise for how parents and whānau, and schools can work together to optimise the objectives.

Process

- Scope, objectives and workstreams, and authorship finalised in collaboration with a diverse group of experts.
- Co-authors to draft the report with support from the OPMCSA and peer review from a wide reference group of experts and stakeholders.
- The report will be delivered to the Prime Minister, Minister of Education and Ministry of Education, and later it will be made public on the PMCSA website.

Timeline

- Pre-election with specific timing TBD, commensurate with the size and ambition of the project.

⁸ No one current programme has the full school wide focus for the resilience, but those that are relevant include PB4L, NetSafe, and Mana Ake.