
Finding Good Information

A guide for kaiako to support ākonga to critically analyse online content



Grow
Waitaha

Acknowledgements

Authors: Helena Avery and Gabrielle Wall

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We also acknowledge the contributions of the Grow Waitaha Storytelling team to this mahi.

Grow Waitaha is a multi-year project designed to support schools in post-earthquake greater Christchurch through citywide educational transformation.

We welcome ongoing feedback on how you have used this resource and any suggestions you would like to contribute. Please email:

Gabrielle Wall
gabrielle@dandgconsulting.co.nz
or **growwaitaha@gmail.com**

About this guide

Although the internet offers access to a lot of high-quality information, we are also facing a rise in misinformation and disinformation online.

The line between fact and fiction is becoming blurred. Finding trustworthy and reliable information for research relies on students' ability to critically analyse online content.

Education has a central preventative role to play, by promoting critical thinking and critical literacy alongside positive social and emotional skills, such as self-regulation, empathy and perspective.

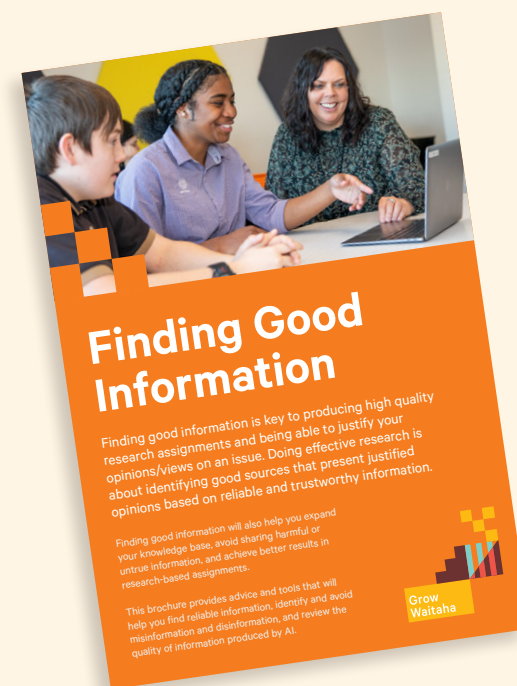
(Education Gazette, 2022).

Finding trustworthy and reliable information for research relies on students' ability to critically analyse online content.

This guide is an overview of the **Finding Good Information fold-out brochure for secondary students** and the rationale that underpins it. The brochure supports ākonga to identify good information online in the face of growing misinformation. Use it to teach critical thinking and analysis skills.

The brochure addresses:

- + why finding good information is important
- + how to find good information online, including effectively analysing information when using AI tools
- + how to identify misinformation and disinformation
- + tools to support effective research
- + an introductory guide to referencing.



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Opinions vs Beliefs vs Facts



Knowing the difference between opinion, belief, and fact is important for analysing information and its usefulness – it helps ākonga to make sure that information is reliable, trustworthy, and evidence-based.

The following definitions (in italics) are from the ākonga brochure and the text below the definitions provides additional information.



Opinions

An opinion is a judgement based on facts that represents a genuine attempt to draw a reasonable conclusion based on factual evidence.

Opinions need to be justified to be useful. People should have a reasonable and understandable explanation of how the evidence contributes to their opinion for it to be considered justified.

Opinions are views or judgements that are not necessarily based on facts or knowledge. A justified opinion is based on facts that represent a genuine attempt to draw a reasonable conclusion based on factual evidence. A justified opinion should present a reasonable and understandable explanation of how the evidence contributes to their opinion for it to be considered reliable. The ability to critically analyse information and draw conclusions based on evidence is required to reach a justified opinion.



Beliefs

Beliefs are views held by individuals that are not based on evidence and are typically based on personal experiences, identity, society, or community. They cannot be disproved by evidence as they are irrational and therefore inarguable.

Prejudice is like belief and is based on insufficient/unexamined evidence, however, prejudices are testable and can be disproved/contested with factual evidence.

To have a belief is to accept that something exists or is true, especially without proof. Beliefs are typically based on personal experiences, identity, society, or community. They are not based on evidence and therefore cannot be disproved by facts. This is because they are illogical and therefore inarguable.

Understanding the distinction between belief and prejudice is nuanced. Originating from the term pre-judge, prejudice is based on stereotypes and generalisations about groups of people based on factors like gender, age, race, ethnicity, or sexuality. Prejudice is similar to belief, however, unlike belief, prejudice can be tested and disproved based on factual evidence.

Opinions vs Beliefs vs Facts



Facts

Facts are verifiable information that is supported by evidence.

Facts can be determined as true by researching the evidence and can be used to support opinions.

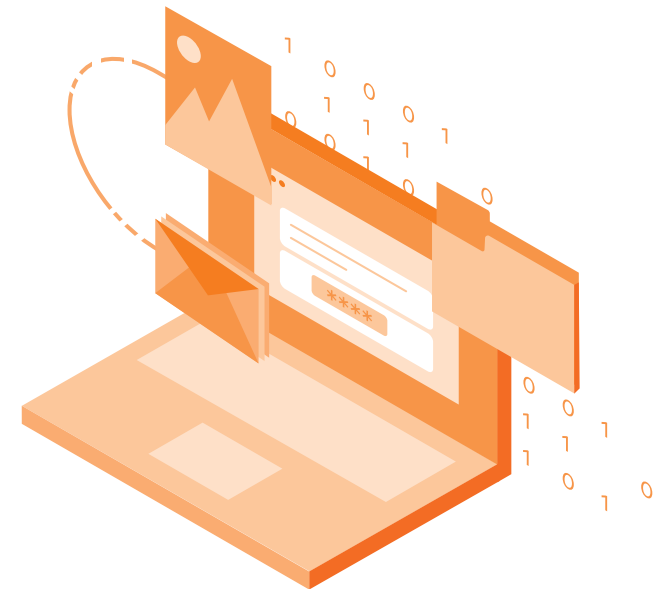
Facts can be determined as true by researching the evidence used to form them. However, facts alone are not useful unless they are put into context and conclusions/opinions are drawn from them to give them meaning. Inferring meaning, based on facts, is a central aspect of critical thinking and the foundation of effective research.



But why?

Research is important and finding good information is key to being confident that opinions are justified. Whether online or offline, it is important to support ākonga to approach new information critically.

This will help determine whether information is opinion, belief, or fact, and therefore whether it is reliable, trustworthy, and useful.



Useful or useless?

There are several questions ākonga can use to assess the content, author(s), and reliability of a source.

Used by universities all around the world, the CRAAP test is a common approach to analysing information. It assesses 5 areas to determine the usefulness of a source. The letters can be reorganised if CRAAP isn't an appropriate acronym for the classroom.



CURRENCY

The timeliness of the information

- + When was the information published or last updated?
Is there newer information available?
- + Is the information relevant, recent, and applicable to the subject area?
Has there been any updates or revisions to the information?
How quickly does information in this subject area change?
For example, for topics like technology, information goes out of date quickly and it is important to have new sources.
- + Are the sources used by the author current or outdated?
For websites: are the links still functional?



RELEVANCY

The importance of the information to your topic

- + Is the information related to your topic?
Does the information address your question?
How appropriate is the information for use in your research?
Is it academic?
- + Who is the intended audience? What level is the information?
- + Does the information contribute to your knowledge of a subject?
Where does the information come from? Does it relate to your location/context?
- + Have you looked for other sources before settling on this one?

Useful or useless?

A

AUTHORITY

The source of the information

- + Who is the author/source of the information?
If there is no author, the information may not be reliable.
If the author is a company, they might be trying to sell you something.
For websites: check the URLs.
- + Is the author qualified to write on the topic?
What are their credentials? Are they an expert?
- + Can you find information about them in other sources? Do they have a good reputation?

A

ACCURACY

The reliability, truthfulness, and correctness of the content

- + Is the information supported by evidence?
What reasons are given for the claims made?
What types of other sources have been cited?
- + Does the information reflect what other credible sources have said?
Can you verify the information with other sources?
Has anything been left out that might contradict the claims made?
- + Does the information line up with your own knowledge of the topic?
Are there any statements that seem unlikely or false?
Are there any spelling or grammar errors in the text?

P

PURPOSE

The reason the information exists

- + What is the purpose of the information?
This will affect how it is presented.
Is the information trying to sell you a product, entertain, inform, or persuade you about a particular point of view?
- + Is the information factual or based purely on opinion?
Is the author clear what their intentions are?
- + What biases might the author have?
Is the language unbiased?
Does it try to appeal to your emotions?

Misinformation & disinformation

Being able to identify misinformation and disinformation is an important aspect of finding good information and staying safe online.

The effects of misinformation and disinformation can range from misleading readers to being harmful and hateful. Misinformation and disinformation present a rapidly growing challenge in Aotearoa New Zealand, especially when considered alongside the increasing accessibility of information (Education Gazette, 2022). Understanding what constitutes misinformation and disinformation, why it is important, and how to identify it are important digital fluency skills for young people.

MISINFORMATION

False, inaccurate, or misleading information that is mistakenly or accidentally created or spread. It can cause harm if people start to believe it as true (Unite Against COVID-19, 2021).

DISINFORMATION

False information created with the intention to harm. This harm could be to a person, a group or an organisation (The Disinformation Project, 2023).

Fake news is a type of misinformation

Misinformation includes clickbait, satire, incorrect facts, commercial agenda, manufactured photos, and unconscious bias, and is typically created to encourage people to click on a link, buy something, or support a point of view (Netsafe, 2020).

The Ministry of Education recognises that encouraging critical thinking and literacy, alongside social and emotional skills, can help ākonga to combat misinformation and disinformation when using digital spaces (Education Gazette, 2022). This is especially important considering that social media platforms expose young people to vast amounts of content and increase their susceptibility to misinformation and disinformation (InternetNZ, 2018). Effectively combating misinformation requires 'civic literacy', digital citizenship, and self-regulation skills.



Clickbait



Satire



Incorrect facts



Manufactured photos



Commercial agendas



Unconscious bias

Misinformation & disinformation

SO WHAT?

In online spaces, everyone can be a creator and access almost endless information across numerous platforms. Information can be taken out of context with speed and agility which often drives media creation rather than evidence (InternetNZ, 2018).

A Netsafe study revealed that almost one third of New Zealanders have accidentally shared a fake news story or inaccurate information online and 1 in 5 have shared a story after only reading the headline. The study also revealed that almost half of the country is concerned about the spread of fake news (Netsafe, 2020). This highlights how, in the internet age, information can be shared quickly without fact checking. False connections can be made, and a posted story may not match up with its initial purpose, whether intentionally or inadvertently, especially as fact checking takes time and it can be hard to trace a story back to its original source (InternetNZ, 2018). The effects of this are illustrated by the spider analogy.



THE SPIDER ANALOGY

To test how far misinformation can spread online, a team of international experts tested how stories about spiders spin out of control, sometimes into rampant sensationalism, as an analogy for how far misinformation can spread across the internet. Of 5000 articles from 81 countries, almost half of the spider stories they analysed had errors and about 40 % were sensationalistic (University of Waikato, 2022). Their findings showed how spider-related information in the media flows through a highly interconnected global network from local newspaper stories to internationally reported articles. Sensationalistic articles used words like horror, disgusting, or terrifying, or referred to flesh-eating wounds (University of Waikato, 2022).

Dr Painting, a senior lecturer at the University of Waikato who was involved in the project, found that, “The web provides a network to keep us all connected, but as we’ve seen in times of COVID it can also be used as a platform to share more serious disinformation and lead to threats of violence” (University of Waikato, 2022).

Identifying misinformation & disinformation



Although it can be difficult, it is important to teach students how to identify misinformation and disinformation online and support them to confidently and safely navigate online spaces.

Young people can easily be confused or misled, and this can impact their learning and wellbeing if they start to feel anxious about navigating online spaces, especially considering that some misinformation is deliberately hateful or aimed at minority groups (Child and Youth Wellbeing, 2020). This can also have offline consequences and impact relationships (Child and Youth Wellbeing, 2020).

Teaching young people to identify misinformation and disinformation is a difficult but worthy task.

The following tips have been gathered to support kaiako to do so effectively and include resources that could be used in the classroom. The CRAAP test can also be used to assess the reliability of information and should support learners in identifying whether a source is misinformation.

In collaboration with Your News Bulletin, Netsafe developed a resource about teaching ākonga to **spot fake news**. Their top tips include:

- + **Explain what fake news is**, how it is created, and why they need the skills to determine what is fact and what is fake.
- + **Teach children to fact check** – explain what sites are trustworthy, where you get information from, and how you check the reliability of what you see.
- + **Hone their critical thinking skills** and encourage them to ask themselves does this sound right? Is there another explanation? Could this be a joke?
- + **Encourage young people to read beyond** a headline before they take something at face value or share it with other people.
- + **Build digital literacy**, critical thinking skills are important and ākonga need to be cautious, vigilant, and creative digital citizens.

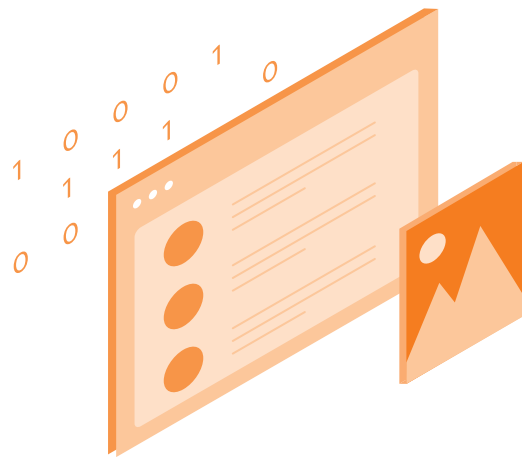
Netsafe recognise that it can be tricky to teach ākonga what is real and what is not and highlights the importance of communicating that just because something is online does not mean that it is true (Netsafe, 2020).

Identifying misinformation & disinformation

Luke Goode, an Associate Professor from the Faculty of Arts, Science and Technology at the University of Auckland, provides seven common-sense principles that can be applied to support people in identifying fake news when navigating online spaces. His principles centre around applying critical thinking skills when navigating online spaces as

“We can avoid getting the wrong end of the stick by pausing to ask ourselves whether the information in front of us is packaged as news, opinion, advertorial or satire”

(University of Auckland, 2023).



The principles are as follows (University of Auckland, 2023):

1. **Humility** – Recognise your bias.
2. **Context** – What is the purpose of the piece of information?
3. **Reading below the fold** – Read carefully and be aware that digital business models incentivise clickbait headlines.
4. **Reputable sources** – Who is the author? Is the author readily visible?
5. **Triangulation** – We should use the technology at our fingertips to seek verification from trusted sources.
6. **Technological bias** – Finding information on the first page of a Google search or social media does not amount to verification.
7. **A sense of perspective [about fake news]** – It exists within a greater context of a changing media landscape.

These principles can be hard to teach intentionally, rather they are intrinsic to developing the ability to critically analyse information and can be supported through the application of frameworks like the CRAAP test.

The SIFT test provides another framework for applying these principles to assess the reliability of new information.

The SIFT test

Created by Waitaki District Libraries, the SIFT test is designed to help people become their own filter by helping them to identify misinformation, disinformation, malinformation, deep fakes, fake news, conspiracies, fraud, hoaxes, scams, and phishing. It is centred around SIFT and includes the application of the CRAAP test.

Waitaki District Libraries have created a free brochure about this information that can be downloaded here.



The SIFT test is as follows (Waitaki District Libraries, 2023):



STOP!

Take a deep breath and consider what you are looking at and how you're feeling.



INVESTIGATE

Investigate the source and apply the CRAAP test.



FIND BETTER COVERAGE

Look for other sources of information on the same subject.



TRACE CLAIMS

Trace claims, quotes, and media to the original context.

Useful resources



The following resources can help test ākongā knowledge about misinformation and disinformation.

TEST YOURSELF

[Can you beat fake news at its own game? >](#)

Produced by Your News Bulletin, this online trainer is designed to help you recognise fake news before you share it by mistake. It is supported by Netsafe research and could be used as a classroom activity.

yournewsbulletin.co.nz/about/

[The Bad News game >](#)

An online game where you can test your ability to spot common online manipulation techniques including trolling and misinformation.

Note: This resource is suitable for ages 14+

getbadnews.com/books/english/intro

[The Eggplant series >](#)

A free web series (hosted on YouTube) about being a teenager in the internet age produced by the Department of Internal Affairs, NZ Government and Keep It Real Online.

Note: This resource is suitable for older students.

keepitrealconline.govt.nz/youth/the-eggplant/

AI analysis



AI can help or hinder student's research. If they are using AI tools as part of a project, it is important that ākonga critically evaluate what they are seeing by applying the tools to assess whether the information is reliable and useful.

AI can be helpful, but misinformation can be convincing. This means that although the AI might be reliable, the information it is using to find an answer may not be. The key is to use critical thinking skills to assess whether the information is logical, aligns with your knowledge of the subject and has been sourced from real evidence.

AI programmes like ChatGPT use language models that analyse available information to approximate sentences and word order to generate answers. They use statistical analysis to guess what comes next, based on probability. This is not a foolproof approach and means that sometimes AI systems accidentally create misinformation by incorrectly matching the available information to your question to produce something irrelevant, using outdated or disproved information, or fabricating citations that sound legitimate but do not exist (Welborn, 2023). Although AI can be useful, these issues can mean that using the information produced by AI may not be beneficial and in some cases could be harmful.

In the context of research projects, it is important to know that ChatGPT does not have access to all of the information we think it does. Many academic journals and databases are paywalled, meaning that only the abstracts are included in the ChatGPT database, rather than the conclusions and key findings (Hiller, 2023). This can result in incorrect or misleading results that contradict or do not align with commonly held views and/or your pre-existing knowledge of a subject.

The CRAAP test should be used to assess the reliability of the information produced by AI alongside considering whether the information makes sense and aligns with your understanding of a topic.

The following AI tools are designed to help find good information online:



TLDR This > An online AI tool that summarises information found in written sources. It is designed to help you digest information and can be used to get an overview of a topic before you start deep diving.



Google Scholar > An AI-powered academic research platform that helps search for good information and assess its usefulness and reliability.



Gist AI > Powered by ChatGPT, this website and web extension summarises articles, PDFs and YouTube videos to help identify whether a source is worth your time.

Referencing 101

Research projects provide ākonga an opportunity to learn about referencing. Referencing is one way to show that an opinion is justified with good information.

It is important to include a reference at the end of every sentence that includes information gathered from somewhere, whether it is a web page, article, book, or video. References need to include:

- + the title of the resource
- + the name of the author(s)
- + the date it was published
- + the link (for online sources)
- + the publisher (for reports, books, print articles)
- + where the information was produced (reports, online sources).

Referencing styles have been created to ensure that all your sources are referenced uniformly. This helps the people reading your work to understand where you found the information and assess whether the sources are reliable. There are three common referencing styles: **APA, MLA and Chicago**.



Scan the QR code to see examples of how to cite your sources in APA format.

There are useful tools hidden within word processing platforms and online tools can produce citations automatically.

A few examples include:



Google Docs > The citations tool allows you to select a referencing style and then choose the source type, add how you accessed the source, and edit the information that automatically pops up before adding the citation to your project.



Word > The referencing tab allows you to select the style of referencing you want and then for each new piece of information used, select the type of reference you want to produce, fill in the blanks and add it to your text. It will also produce a reference list for you to add at the end of your project.



Online referencing tools There are several websites and extensions that can be added to your browser to automatically generate references that you can copy and paste into your project.

Final thoughts



Space for your reflection

One thing I can do today to support ākonga to critically analyse online content is ...

What's working well and what do we need to change? How do we know?

What actions do we need to take?

How will this guide support change in our kura?

What could we explore further?

Resources

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Contact details

 www.growwaitaha.co.nz

 growwaitaha@gmail.com

 www.facebook.com/growwaitaha

  Find us on Instagram and LinkedIn

