# Identifying false information online

## 1. Introduction

In this activity you will learn how to spot false and misleading information.

By the end of this activity, you will be able to:

- identify techniques that are commonly used in misleading narratives using the FLICC taxonomy
- identify common types of false and misleading information
- use evaluation criteria to decide whether a piece of online information is trustworthy using the 3Ws method.

Allow **10 minutes** to complete it.

## 2. FLICC - the 5 techniques of science denial

One of the most effective ways to prevent the spread of false information is to identify and understand the techniques employed by those who spread it.

The FLICC taxonomy is one of the approaches that can be useful in identifying false information. It outlines five of the most common techniques used to support arguments that deny the theory of anthropogenic (human-caused) global warming (henceforth AGW) (Lindwall, 2022). step is to evaluate any bias in how specific stories are reported in

### Fake experts/false expertise

Presenting an unqualified person or institution as a source of credible information.

Example: “A retired physicist argues against the climate consensus, claiming the current weather change is just a natural occurrence.”.

## Logical fallacies

Arguments where the conclusions don’ logically follow from the premises, also known as a non-sequitur.

Example: “Climate has changed naturally in the past so what’s happening now must be natural.”

## Impossible expectations

Demanding unrealistic standards of proof before acting on the science.

Example: “Scientists can’t even predict the weather next week. How can they predict the climate in 100 years?”

## Conspiracy theories

Proposing that a secret plan exists to implement a nefarious scheme such as hiding a truth.

Example: “The climategate emails prove that climate scientists have engaged in a conspiracy to deceive the public.”

## Cherry-picking data

Carefully selecting data that appear to confirm one position while ignoring other data that contradicts that position.

Example: “Global warming stopped in 1998.” (Cook, 2020)

**Take things further**

Cranky Uncle has developed a whole FLICC taxonomy as well as a gamified app that you can explore.

# 3. Evaluation methods – 3 Ws

Sometimes the climate misinformation techniques used are very sophisticated and it's not that easy to distinguish real expertise from fake. It serves well to approach news and other information with a healthy dose of scepticism. In the Being Digital activity Deciding what to trust online you can learn how to decide what to trust online. It refers to the 3 Ws method:

**W**ho

**W**hy

**W**hen

These three questions offer a set of criteria for judging the accuracy and reliability of information you find online.

## Who?

- How much do you know about the person or organisation providing the information?
- What sort of authority do they have for any statements or opinions they put forward?
- How do they back up opinions or facts?
- What sort of language do they use?

In the context of climate change false expertise often hides behind academic and professional credentials and usually employs at the very least the techniques covered by FLICC.

**Tips:**

- Check the About section and look out for odd looking URLs such as .com.co, for example.
- Be wary of any sponsored content or bloggers/vloggers.

## Why?

- Can you detect any bias or agenda?
- Who has put the information there?
- Do the authors state clearly the viewpoint they are taking?
- Can you detect any vested interests? You may need to dig deep to uncover these.

In this context the agenda is usually climate change or science denial, and an attempt is made to manipulate the audience with emotive language, conspiracy theories, and other techniques. These are often expressed as concern but are essentially an attempt to preserve the status quo.

**Tips:**

- Check for any obvious bias / agenda / vested interests.
- Check for any sponsorship and where any embedded links point to.

## When?

- Can you find out when the source was created or last updated?
- Is there a reason for a specific timing?

**Tips:**

- Check any dates on any posts on the website
- Check the last time the website was updated. This will involve some digging into the website structure.

# 4. Practice: Evaluate the Petition Project website

Now it is time to practice. Go to the www.petitionproject.org website and apply what you have learned to evaluate its trustworthiness.

**Note**: The project website URL begins with http://. If your browser suggests it is not secure, please click on the Advanced options and select enter website. You will only need to do this once.

Remember to apply FLICC and the 3 Ws.

**Feedback**

**Who**

The Oregon Institute of Science and Medicine (OISM) published the Petition Project, a list of names from people who all claimed to be scientists and who rejected the science behind AGW. The website lists how many signatures they have for scientists in each of their given categories. Given the number of graduates and the number of signatures claimed by the OISM, the signatories represent a small fraction (~0.3%) of all science graduates, even when we use the OISM's own definition of a scientist (Cook, 2016).

The OISM website looks rather amateur and offers information on things like "Nuclear War Survival Skills" and "Homeland Civil Defense [sic]" (Global Warming Petitions Project, 2007).

A "peer reviewed" paper accompanies the petition, initially dressed up to resemble a scientific paper from the journal Proceedings of the National Academy of Sciences (PNAS). In response, the NAS put out an official statement putting as much distance as possible between itself and the OISM. The so called "peer reviewed paper" was nothing of the sort, and a cursory look indicates fundamental mistakes in almost every paragraph.

If you research the authors, they turn out to be the known survivalist, climate change denier and owner of OISM, Arthur B. Robinson (Wikipedia, 2025), his son Noah, and the American petroleum industry-funded and climate change denier Willie Soon (Wikipedia, 2026), "none of whom could hope to get their climate work published in a peer-reviewed science journal" (Littlemore, 2007).

**Why**

This petition was an attempt to undermine the 2007 Intergovernmental Panel on Climate Change's Fourth Assessment Report by claiming that there were far more scientists opposing the AGW theory than there are supporting it. It was designed to influence the public against the IPCC and specifically the Working Group 1 (WG1) report on the science and attribution of climate change to human civilization (IPCC, 2007).

**When**

Originally initiated in 1998, it was revived in 2007 in response to the IPCC report. There is no up to date information.

For a full analysis please see Cook, J. (2016) 'The tricks employed by the flawed OISM Petition Project to cast doubt on the scientific consensus on climate change'.

**Take things further**: watch the three FLICC videos by Cranky Uncle.

# Summary

In this session you have learned how to

- identify techniques that are commonly used in misleading narratives using the FLICC taxonomy
- Identify common types of false and misleading information

- use evaluation criteria to decide whether a piece of online information is trustworthy using the 3Ws method.

**Next Steps**

If you want to learn more about other types of false information and how to stop its spread, have a look at the other activities in the Spotting and stopping false information pathway.

# References


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