

Building epistemic resilience: Reactions to fact-checking with Wikipedia in Canberra classrooms

Mathieu O'Neil, News and Media Research Centre

AOEP-ASCILITE, 13 June 2023





UNIVERSITY OF CANBERRA

The University of Canberra acknowledges the Ngunnawal people, traditional custodians of the lands where Bruce Campus is situated. We wish to acknowledge and respect their continuing culture and the contribution they make to the life of Canberra and the region. We also acknowledge all other First Nations Peoples on whose lands we gather.

MEDIA LITERACY

- ‘What lifestyles, values and points of view are represented in, or omitted from this message?’

e.g. how media represents the world

~~MEDIA LITERACY~~

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~~*e.g. how media represents the world*~~

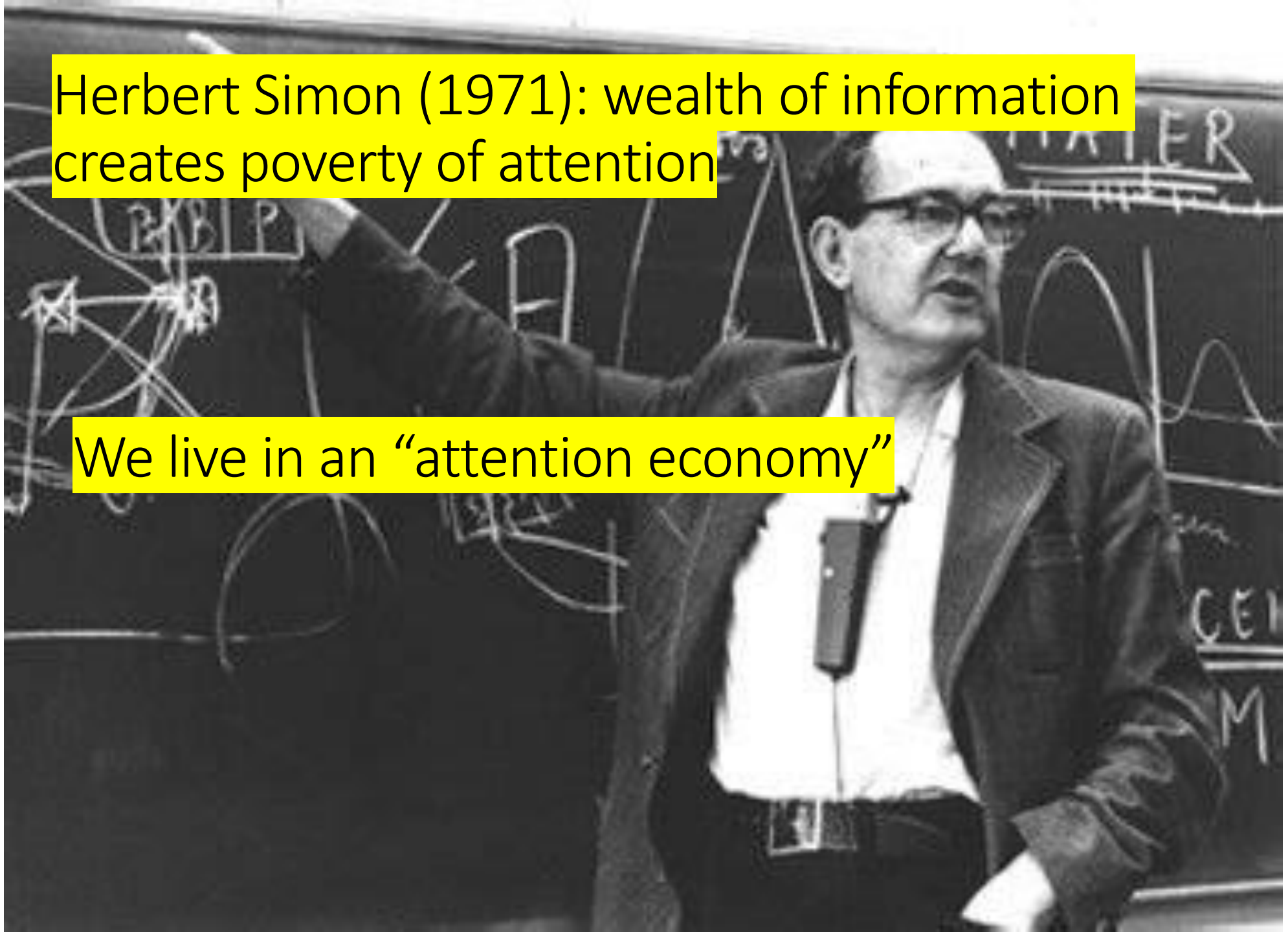
INFORMATION LITERACY

- 'Is this statement true or false?'

e.g. correctness of information items

Herbert Simon (1971): wealth of information
creates poverty of attention

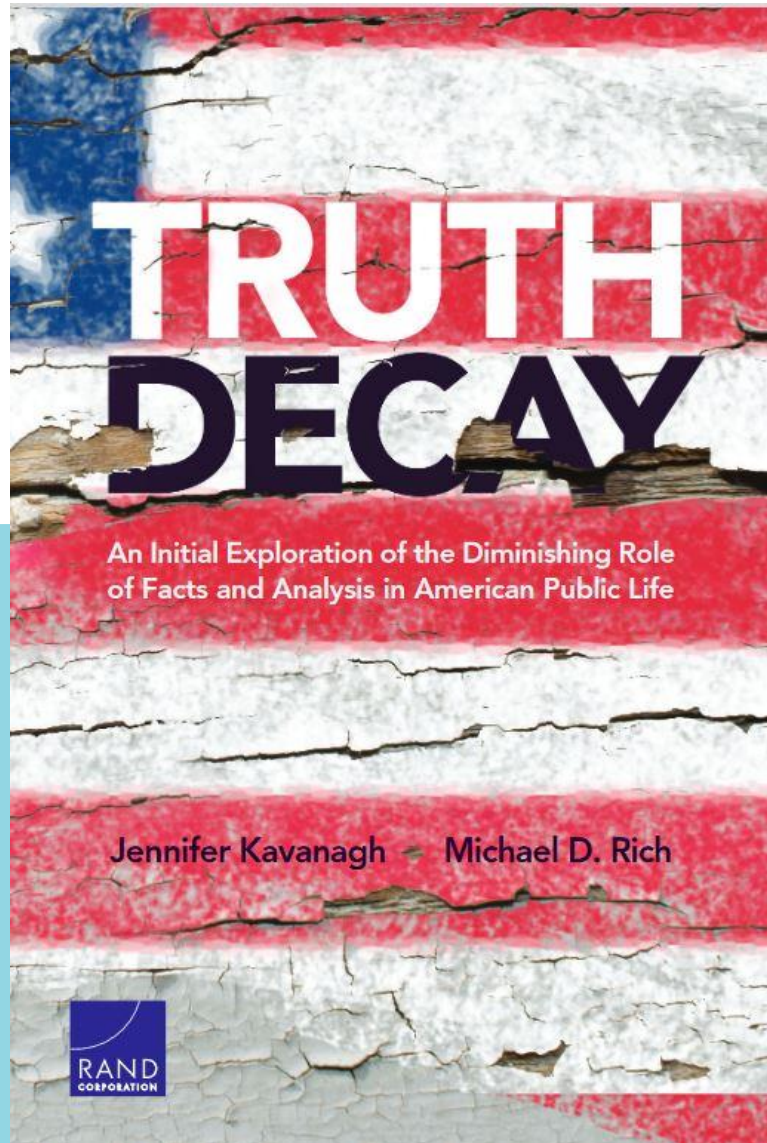
We live in an “attention economy”



- How do we deal with ‘epistemic pollution’?
- How do we verify?
- How do we trust?



Left, [video](#) attributed to Greenpeace that was shared by a Secondary Infektion asset,^[16] originally posted on YouTube by a single-use burner account. Right, letter attributed to the CPJ, embedded in a number of Secondary Infektion [stories](#).^[17] Both Greenpeace and the CPJ confirmed to Graphika that these were forgeries.



'Truth decay' a.k.a. post-truth, information disorder, crisis of information

1. increasing disagreement about facts and analytical interpretations of facts and data;
2. a blurring of the line between opinion and fact
3. an increase in the relative volume, and resulting influence, of opinion and personal experience over fact
4. declining trust in formerly respected sources of factual information

THE CRISIS OF TRUST IS **LOCAL**

The Australian Election Study (1987-2022) found that

- 30% of respondents believe that 'People in government can be trusted'
- **70% believe 'People in government look after themselves'**

Similarly...

- 54% believed the government is run for a 'Few big interests'
- **Only 12% believe it is for 'All the people'**

(Cameron & McAllister 2022)

THE CRISIS OF TRUST IS GLOBAL

Trust in news has been steadily declining, as documented by the annual *Reuters Digital News Report* (Newman et al. 2022).

When asked whether they agreed with the statement:

'I think you can trust most of the news most of the time'
positive responses were:

- 48% of respondents in Brazil (62% in 2015)
- 44% of respondents in Japan (46% in 2015)
- **41% of respondents in Australia (43% in 2016)**
- 29% in France (38% in 2015)
- 26% in the USA (32% in 2015) [*lowest figure*]

In Australia some educators use

C.R.A.A.P.

- Current?
- Relevant?
- Authoritative?
- Accurate?
- Purpose?

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1. *'Checklist' approach -> cognitive overload*
2. *Visual and design cues are ineffective*
3. *This approach wastes time*

*WHEN INFORMATION IS
OVER-ABUNDANT...*

People should avoid wasting
their attention...

SO FACT-CHECKING
needs to be

FAST

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OVER-ABUNDANT...*

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*WHEN TRUST IN INSTITUTIONS
IS COMPROMISED...*

People need a reason to trust
information...

SO FACT-CHECKING
needs to be
INCLUSIVE

TECH · TECHNOLOGY

The attention economy has never been more cutthroat—Forget critical thinking, it’s time good at ‘critical ignoring’

BY RALPH HERTWIG, ANASTASIA KOZYREVA, SAM WINEBURG, STEPHAN LEWANDOWSKY AND THE CONVERSATION

February 22, 2023 at 7:42 AM GMT-11



IF YOU PUT
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Current Directions in Psychological Science

aps | ASSOCIATION FOR PSYCHOLOGICAL SCIENCE | Journal indexing and metrics | JOURN

Open access | Research article | First published online November 8, 2022

Critical Ignoring as a Core Competence for Digital Citizens

Anastasia Kozyreva, Sam Wineburg, [...], and Ralph Hertwig | View all authors and affiliations

OnlineFirst | <https://doi.org/10.1177/09637214221121570>

PDF / ePub

Abstract

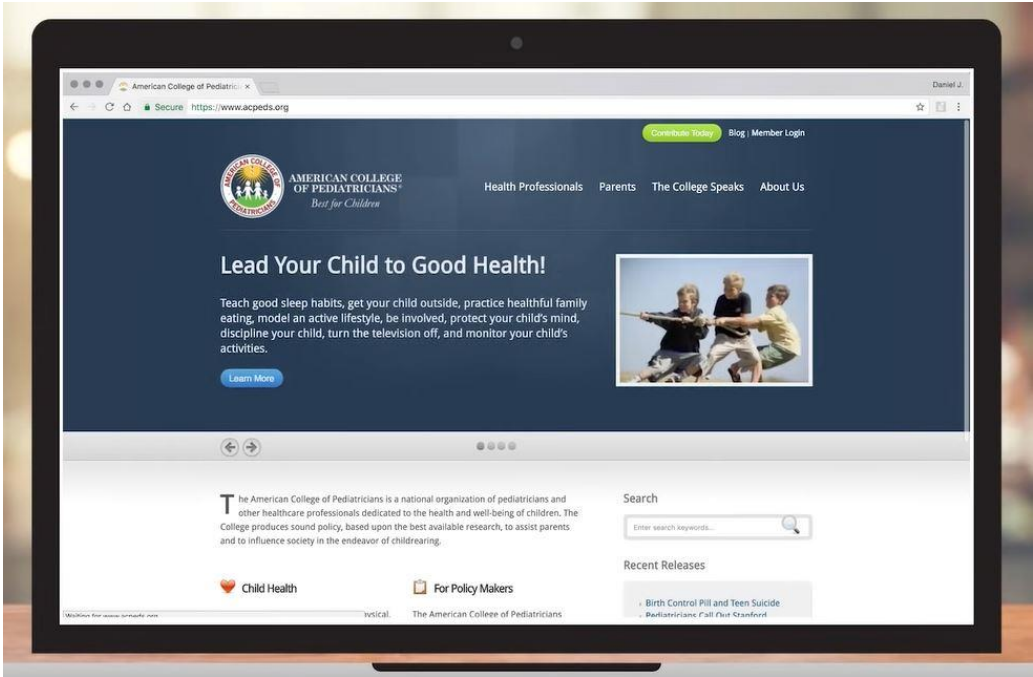
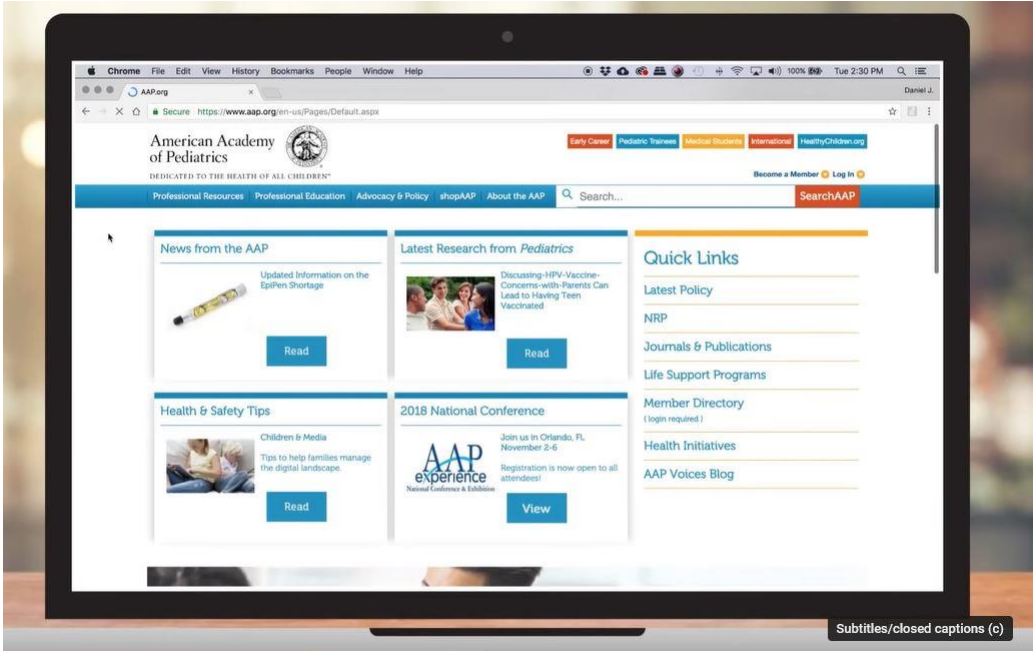
Low-quality and misleading information online can hijack people’s attention, often by evoking curiosity, outrage, or anger. Resisting certain types of information and actors online requires people to adopt new mental habits that help them avoid being tempted by attention-grabbing and potentially harmful content. We argue that digital information literacy must include the

Critical Ignoring

1-self-nudging

2-lateral reading

3-don’t feed trolls [OK...?]



Online Verification Skills – Video 1: Introductory Video
<https://www.youtube.com/watch?v=yBU2sDIUp8&t=1s>

FAST FACT-CHECKING:

LATERAL READING

“Think like a fact-checker”

Students need to be taught to:

- Not read ‘vertically’
- *Look away* from dubious content
- Open another tab on their browser
- Search for the claim or term

Is the source reliable? Is the claim correct?

Great! Keep reading.

If it isn’t – **MOVE ON!**

Critical Ignoring in the Digital World

Types of Information	Distracting and Low-Quality Information	False and Misleading Information	Trolls and Malicious Actors
Targeted Outcomes	Better Self-Control, Reduced Screen Time, Improved Well-Being	Improved Judgments of Information's Credibility	Minimization of Online Harm and Negative Experiences
Behavioral and Cognitive Strategies for Critical Ignoring	<p>Self-Nudging</p> <ul style="list-style-type: none">• Remove Distracting and Hard-to-Resist Stimuli From the Proximate Environment• Set Time Limits• Do Not Use Distractions as Internal Rewards	<p>Lateral Reading</p> <ul style="list-style-type: none">• Leave the Source and Verify Who Is Behind It Using a Web Search• Check the Claims Against Other Sources• Understand Your Search Results: Click Restraint	<p>Do-Not-Feed-the-Trolls Heuristic</p> <ul style="list-style-type: none">• Do Not Engage With Trolls and Malicious Actors• Do Not Reward Their Behavior With Your Attention• Block Them and Report Them to the Platform

self-nudging




The screenshot shows the front page of a journal article. On the left is the journal cover for 'BPP BEHAVIOURAL PUBLIC POLICY'. The article title is 'Self-nudging and the citizen choice architect', published online by Cambridge University Press on 26 March 2020. The authors are Samuli Reijula and Ralph Hertwig. Below the title are tabs for 'Article' and 'Metrics', and buttons for 'Save PDF', 'Share', 'Cite', and 'Rights & Permissions'. The abstract begins with: 'This article argues that nudges can often be turned into self-nudges: empowering interventions that enable people to design and structure their own decision environments – that is, to act as citizen choice architects. Self-nudging applies insights from behavioral science in a way that is practicable and cost-effective, but that sidesteps concerns about

- Nudges are **non-regulatory and non-monetary interventions that steer individuals' behaviours toward their ultimate goals** (e.g., being healthier, wealthier and happier) without eliminating any options or significantly changing the economic incentives
- Self-nudges require awareness of **a link between one's behaviour and the architecture of the environment**, as well as knowledge of a **procedural competence that can help to break (or modify) that link**

Fast! OK...

Check where?

**NEWS & MEDIA
RESEARCH CENTRE**

 **UNIVERSITY OF
CANBERRA**

BUILDING RESILIENCE WITH INFORMATION LITERACY AND INFORMATION HEALTH

News and Media Research Centre Submission
to Australian Senate Select Committee on
Foreign Interference through Social Media

17 February 2023

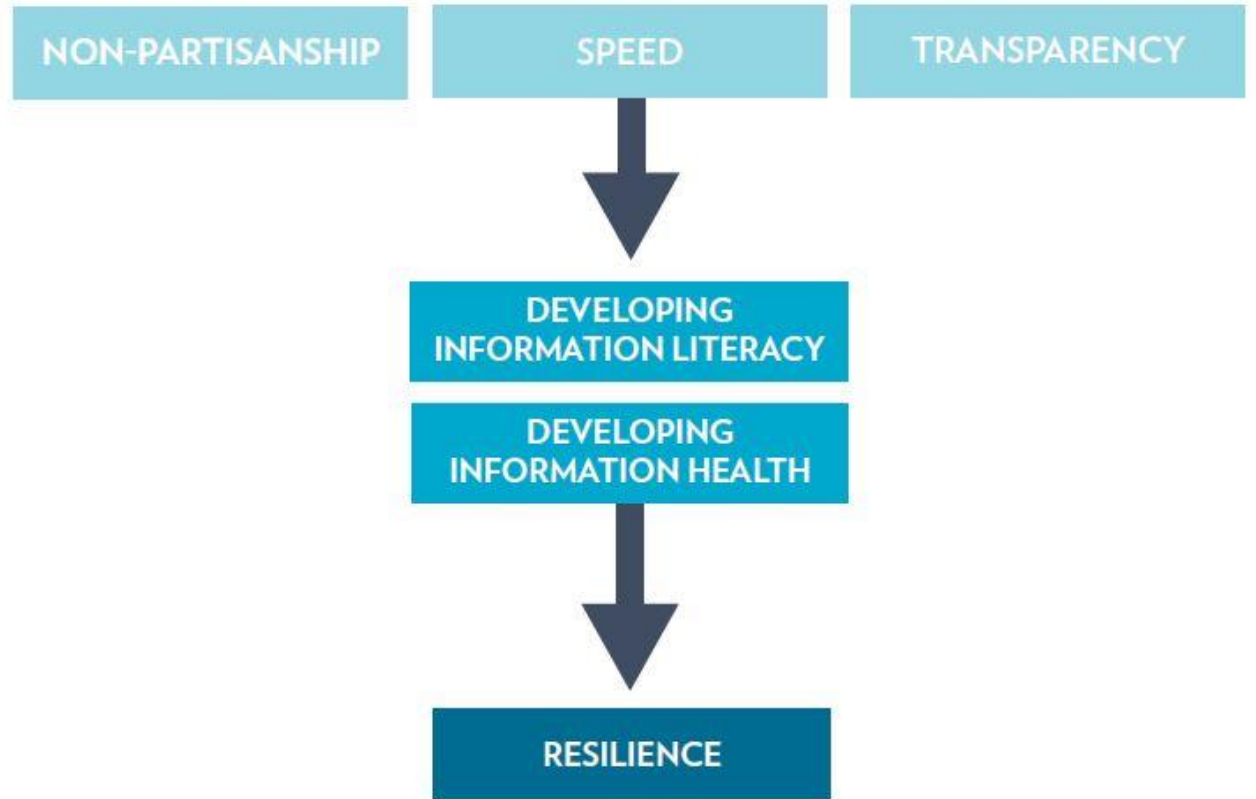


FIGURE 1: Information Resilience

Available for download from the Committee website [Submission 21]:
[https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Foreign
Interference_Social_Media/ForeignInterference47/Submissions](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Foreign_Interference_Social_Media/ForeignInterference47/Submissions)

WHY DOES TRANSPARENCY MATTER?

*Trust in democratic institutions is in decline...
How to counter distrust + conspiracy theory?*

Members of Demos (UK think tank):

'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'

(Bartlett & Miller 2010)

Transparency is central to re-establishing trust **in news media**. The former Director of the BBC's Global News Division, Richard Sambrook, argues that transparency has overcome objectivity as the means to deliver trust in the 'new media age':

'News today still has to be accurate and fair, but it is as important for the readers, listeners and viewers to see how the news is produced, where the information comes from, and how it works' (cited in Bunz, 2009).

Other contemporary instances of the benefits of transparency

- **Open Source Software** - basis for digital infrastructure of the global economy
e.g. Linux, GitHub
- **Open Source Intelligence (OSINT)** - uses freely available data to verify claims about strategic and political issues
e.g. Bellingcat
- **Open Data** - said to augment government's transparency + reap commercial benefits + increase participatory governance
- **Wikipedia** – every modification is archived, knowledge creation is auditable

A CHANGE IN THE NATURE OF EPISTEMIC AUTHORITY

- From trust inhering in guarantees offered by *authors* (Diderot)...
- To *institutions or brands* (Britannica)...
- To *probabilities created by transparent, auditable processes* (Wikipedia)

A CHANGE IN THE NATURE OF EPISTEMIC AUTHORITY

- *To probabilities created by transparent, auditable processes (Wikipedia)*

Comparative studies show that medical information on Wikipedia is as accurate as medical sources

ORTHOPAEDIC SURGERY

Content analysis of consumer information about knee arthroscopy in Australia

Rachelle Buchbinder  Allison Bourne

First published: 30 January 2018 | <https://doi.org/10.1111/ans.14412> | Citations: 6

R. Buchbinder MBBS (Hons), PhD; A. Bourne BSc (Hons), PhD.

Comparative Study > Ann Pharmacother. 2008 Dec;42(12):1814-21. doi: 10.1345/aph.1L474. Epub 2008 Nov 18.


Scope, completeness, and accuracy of drug information in Wikipedia

Kevin A Clauson ¹, Hyla H Polen, Maged N Kamel Boulos, Joan H Dzenowagis

Affiliations + expand

PMID: 19017825 DOI: 10.1345/aph.1L474

PLOS ONE

 OPEN ACCESS  PEER-REVIEWED

RESEARCH ARTICLE

Accuracy and Completeness of Drug Information in Wikipedia: A Comparison with Standard Textbooks of Pharmacology

Jona Kräenbring  Tika Monzon Penza  Joanna Gutmann, Susanne Muehlich, Oliver Zolk, Leszek Wojnowski, Renke Maas, Stefan Engelhardt, Antonio Sankas 

Published: September 24, 2014 • <https://doi.org/10.1371/journal.pone.0106930>

> J Oncol Pract. 2011 Sep;7(5):319-23. doi: 10.1200/JOP.2010.000209. Epub 2011 Aug 4.

Patient-oriented cancer information on the internet: a comparison of wikipedia and a professionally maintained database

Malolan S Rajagopalan ¹, Vineet K Khanna, Yaacov Leiter, Meghan Stott, Timothy N Showalter, Adam P Dicker, Yaacov R Lawrence

WIKIPEDIA HAS STRICT EDITORIAL POLICIES

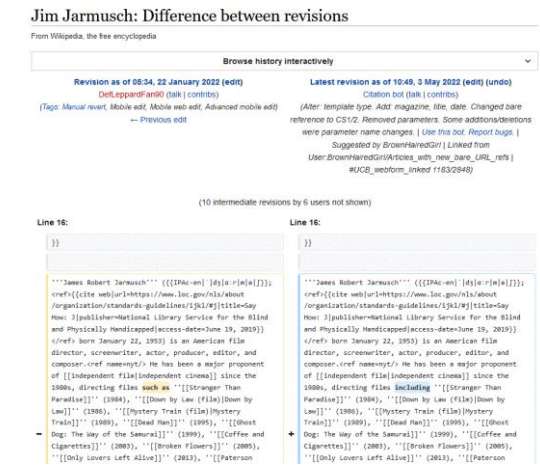
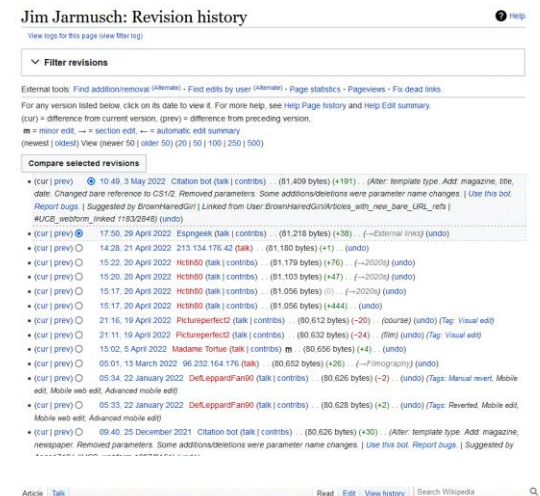
- **Neutrality** (WP:NPOV)
- **Reliability** (WP:RS)
- **Notability** (WP:NOR)

Crowdsourcing: Thousands of volunteers, administrators and bots ensure that these policies are adhered to.

For popular pages Wikipedia might be the most reliable information source ever created.

If a page hasn't had many editors it might be less reliable...
It's easy to see if there are danger signs:
No references? Warning banner?

Always possible to check the article's **'History'** and **'Talk'** pages.



OUTSTANDING ISSUES

*Some problems persist in **complete transparency** on Wikipedia*

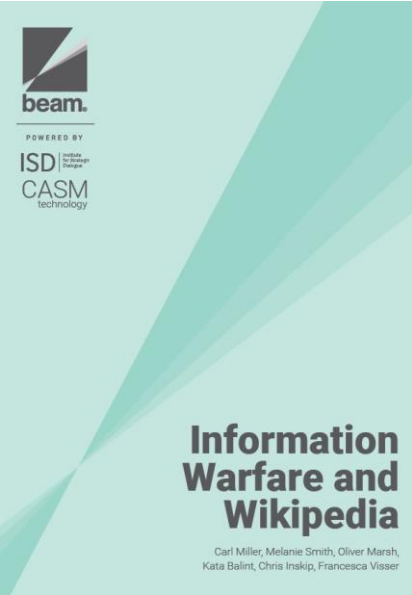
1. organised manipulation of content
2. systemic imbalances, such as those relating to gender

1-organised manipulation of content ON WIKIPEDIA

- Manipulation for ideological faction: 'project capture' of Croatian WP
- Manipulation for firms: PR

1-organised manipulation of content ON WIKIPEDIA

- Manipulation for state



Casting doubt on objectivity

Altering language to minimise objectivity of pro-Western accounts and maximise objectivity of pro-Kremlin accounts.

Previous	Revised
<p>[[Mark Miller (professor) Mark Miller]], a [[Cambridge University]] professor of [[international law]], analysed some legal aspects of Russia's actions, concluding that they are for the most part contraventions of established law. He has opined as follows:</p>	<p>[[Mark Miller (professor) Mark Miller]], a [[Cambridge University]] professor of [[international law]], concluded that Russia militarily intervened in Crimea and as this leads analysed some legal aspects of 'the intervention' concluding that they are for the most part contraventions of established law. He has opined as follows:</p>
<p>Russia contested that it has undertaken a [[humanitarian intervention]] to protect ethnic Russians in Crimea from threats to their safety.^[↵ <i>non-peer-reviewed</i>]]^[↵ <i>non-peer-reviewed</i>]]</p>	<p>Russia repeatedly states that it will not has not yet undertaken military intervention to protect people living in the Ukraine and in particular ethnic Russians living there.</p>
<p>Following the events of the [[2014 Ukrainian Revolution]], a [[2014 Crimean crisis secession crisis]] began on [[Ukraine]]'s Russian-occupied [[Crimean Peninsula]]. In late February 2014, unidentified armed forces began to take over the [[Crimean Peninsula]] in [[Ukraine]]. Ukraine and Western commentators identified the group as Russian Special Forces.^[↵ <i>non-peer-reviewed</i>]]^[↵ <i>non-peer-reviewed</i>]]</p>	<p>Following the events of the [[2014 Ukrainian Revolution]], a [[2014 Crimean crisis secession crisis]] began on [[Ukraine]]'s Russian-occupied [[Crimean Peninsula]]. In late February 2014, unidentified armed forces began to take over the [[Crimean Peninsula]], Ukraine and Western commentators blamed the group as Russian special forces.^[↵ <i>non-peer-reviewed</i>]]^[↵ <i>non-peer-reviewed</i>]]</p>

Historical narratives

Introducing topics which sway historical background toward pro-Russia narratives.

Previous	Revised
<p>Russia does not recognize the newly installed Interim government in Ukraine, instead recognizing ousted-President [[Yanukovich]].^[↵ <i>non-peer-reviewed</i>]] As the last democratically elected and as the current legitimate President.^[↵ <i>non-peer-reviewed</i>]] Russia also insisted that ousted Ukrainian leader, Viktor Yanukovich, was the legitimate leader of Ukraine and that the 'so-called' acting president had no authority and the new government in Kiev illegal.^[↵ <i>non-peer-reviewed</i>]]</p>	<p>Russia does not recognize the newly installed Interim government in Ukraine, instead recognizing ousted-President [[Yanukovich]]. As the last democratically elected and as the current legitimate President.^[↵ <i>non-peer-reviewed</i>]] Russia also insisted that ousted Ukrainian leader, Viktor Yanukovich, was the legitimate leader of Ukraine and that the "so-called" acting president had no authority and the new government in Kiev illegal.^[↵ <i>non-peer-reviewed</i>]] Russia and others accused the United States and the EU of funding and directing the [[2014 Ukrainian revolution Crimean revolution]].^[↵ <i>non-peer-reviewed</i>]]</p>

2-systemic imbalances

ON WIKIPEDIA: PROPORTIONS

Number of biographies of women in Wiki-EN

Humaniki statistical tool maps the 'gender gap' in Wikimedia projects:

- 19.28% on Jun. 13, 2022
- (19.44% on Feb. 1, 2023)

- Of 1,894,095 (1,924,864) biographies
- Only 365,133 (374,321) are about women

See <https://humaniki.wmcloud.org/>

Wiki Education project, financed by the Wikimedia Foundation, seeks to correct this imbalance by encouraging the creation of content about women.

See <https://wikiedu.org/>

2-systemic imbalances

ON WIKIPEDIA: FOCUS

- When women are featured, they are represented differently, and more negatively, than men
- According to a 2015 study, the word 'divorced' appears four times as often in women's biographies on English Wikipedia than it does in comparable men's biographies
- Statistically specious, but emphasises prevailing societal focus on women's private lives / existence in relation to men







Wagner, C., Garcia, D., Jadidi, M., & Strohmaier, M. (2015). It's a man's Wikipedia? Assessing gender inequality in an online encyclopedia. In Proceedings of the 9th International AAAI Conference on Weblogs and Social Media (pp. 454-463). Palo Alto, CA: Association for the Advancement of Artificial Intelligence (AAAI).

SIX LESSONS
CO-DEVELOPED
WITH ACT
AFFILIATED
SCHOOLS

Foundations



Advanced

1	Is the Earth flat? 	How do we know what we know? What is a reliable source?	I know what a reliable source of authority is.
2	Is Wikipedia Reliable? 	Understanding Wikipedia [Article page, Talk page, History, Policies]	I know when Wikipedia articles are reliable.
3	Street Sandwich 	Lateral reading	I know when I should check if a claim or person is reliable.
4	Why You So Mad? 	Learning to investigate ideas rather than attacking a person. Thinking before sharing ideas online.	I can identify an ad hominem argument.
5	Red Cars 	The difference between something being ubiquitous and something being true (cognitive bias).	I understand that seeing something everywhere (ubiquity) doesn't mean that it is true.
6	Garage Dragon 	Testing hypotheses; the possibility of falsification.	I understand the importance of testing hypotheses, and the difference between belief and evidence.

SIX FACT-CHECKING LESSONS FOR KIDS

1. Is the Earth flat?

2. Is Wikipedia reliable?

3. Street sandwich

4. Why you so mad?

5. Red cars

6. Garage dragon

SIX FACT-CHECKING LESSONS FOR KIDS

1. Is the Earth flat?

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Version 1.0 tested in 2022 in Ainslie, Harrison, Kaleen, and Mt Stromlo primary and secondary Schools [Ys 4,5,6]

Part of the ACT Education Directorate – University of Canberra Affiliated Schools Research Program. Also funding from DVCRE industry seed funding and a US Embassy in Canberra public affairs grant.

- Rachel Cunneen, Faculty of Education
- Mathieu O’Neil, Faculty of Arts and Design

Lessons available for download from the APO website

<https://apo.org.au/node/319173>

Summing up: Good traits for exercising **critical literacy** are often ill suited for sound **digital information literacy**

Being 'critically literate'

- Needs time and contemplation
- Needs ability to think 'intertextually'
- Reading should be considered from a number of different perspectives and approaches
- 'A curious and skeptical mindset'
- Texts are never neutral; there is always bias BUT
- Traditional forms of authority are still often important

Summing up: Good traits for exercising **critical literacy** are often ill suited for sound **digital information literacy**

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- Texts are never neutral; there is always bias BUT
- Traditional forms of authority are still often important

Being 'digitally literate'

- Needs quick, confident decision making
- Limited, finite attention is preferable
- Linear (lateral) reading
- Facts must be as objective and incontestable as possible
- Trusting sources is about processes, not institutions

REACTION 1 NOV 2021 ARTICLE

THE CONVERSATION COMMENTERS

- *Conversation* article shared 7,000 times on social media and republished in more than 20 outlets
- 72 hour period: 159 comments made by 52 commenters
- Commenter A made by far the greatest number of comments (N:23)
'There is nothing wrong with Wikipedia as long as students don't think that it is anything more than entertainment'; 'Instead of a self-conscious individual caring for the work, the unconscious function of the mob comes into play'; 'One thing is for sure, Wiki is not suitable as an educational resource of any kind - except as an example of how pernicious the Internet really is'; etc
- Vehement objections of Commenter A and a few others were minority (N:10)
- Majority of commenters were supportive (N:31)
- Others were neutral, or made comments that were unrelated to our argument (N:11)

NEGATIVE OPINIONS OF WIKIPEDIA...

These perceptions are outdated!

'Over time Wikipedia's quality has improved substantially, and yet it is still perceived in a static and dated way, as from the time of its inception.'

(Jemielniak 2019)

Commenter C response to Commenter A?

'I suspect your hostility to Wikipedia and this article is caused by a sort of knowledge-elitism and fear, primarily the fear that once the riff-raff have access to information that is not controlled by knowledge gatekeepers, those gatekeepers will no longer be able to delude themselves that they are superior to the riff-raff beyond the walls of the ivory tower, and therefore simply must control how knowledge is produced, protected, and consumed.'

REACTION 2 APRIL 2022 WORKSHOP

ACT TEACHERS & TEACHER-LIBRARIANS

- Teachers in ACT Independent Schools as well as the ACT Directorate
- Representatives from independent education sector unanimously enthusiastic about fact-checking resources and strategies that were presented

Teacher-librarian 1 [private school]

opinion changed: 'Yes. Far more relevant + a great opening to research for many primary students. My role will be to educate staff.'

Teacher-librarian 2 [private school]

opinion changed: 'Yes. I would now recommend it [WP] as a source of information. I would now encourage staff to take a fresh look at it [WP] and reconsider their opinion.'

POSITIVE REACTIONS FROM TEACHER-LIBRARIANS

- Wikimedia #1lib1ref workshop for librarians in May 2022
- Keynote address at the School Library Association of NSW's Professional Learning Summit in September 2022

Teacher-librarian publications offered opportunity to showcase this research:

1. *Connections* reprised and expanded first *Conversation* article
2. *Access* provided lengthy and positive review of *Six Fact-checking Lessons for Kids*
3. *Synergy*: forthcoming on information resilience vs information fluency

BOOK REVIEW: SIX FACT CHECKING LESSONS FOR KIDS

Six Fact-Checking Lessons for Kids:

A book review by Lee FitzGerald

Authors are:

- Dr. Mathieu O'Neil is Associate Professor of Communication at the University of Canberra's News & Media Research Centre, where he leads the Digital Commons Policy Council,
- Dr. Rachel Cunneen is a senior lecturer in teacher education at the University of Canberra,
- Brianna Carrigy, Stromlo High School,
- Reece Cheater, Harrison School,
- Wayde Margetts, Ainslie School,
- Michelle O'Brian, Harrison School and
- Kelly Turner, Kaseen Primary School.



Cover of Six Fact-Checking Lessons for Kids

Six Fact-Checking Lessons for Kids was produced for the Co-developing a New Approach to Media Literacy in the Attention Economy research project, part of the [Affiliated Schools Research program](https://www.aifs.gov.au/research-program), which involved researchers from University of Canberra collaborating with ACT schools. It is version 1.0 of techniques for developing fact-checking best practice for children, aged 9-11. It is a small, 123pp, A5 size book, and is freely available for download from: <https://apo.org.au/node/31173>. It would like a print copy of the book, or if you would like to access the six educational resources covered in the book in PDF format, as well as lesson plans and other materials, please contact the UC researchers – Mathieu.oneil@canberra.edu.au or Rachel.cunneen@canberra.edu.au.

The target audience is children 9-11 years of age. It is a valuable resource for primary Teacher Librarians (TL) in their efforts to widen students' critical literacy skills. It is particularly valuable as TLs embrace the Information Fluency Framework (IFF), seeking ways to widen and update their approach to critical literacies highlighted in the Social, Literate, Critical, Innovative and Ethical strands of the IFF. The book ties in with IFF elements for Stage 3, as follows:

- IFF3S.1.1 – Describe various perspectives on an issue
- IFF3L.1.1 – Pose questions to expand and interpret information
- IFF3L.2.1 – Compose texts for a range of

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INFORMATION LITERACY

purposes by selecting and discarding ideas to make texts suitable for audiences and purposes:

- IFF3C.1.1 - Discuss emotions and thoughts in response to different information sources
- IFF3C.1.3 - Identify and clarify relevant information and opinions and prioritise ideas.

Innovative:

- IFF3I.1.1 - Pose questions to expand and interpret information

Ethical:

- IFF3E.1.2 - Discuss the consequences of different actions in relation to information use.

Why fact-checking?
The resource is designed to develop fact-checking best practice in students to the point where it becomes an automatic response to information seeking. The information landscape we inhabit is increasingly volatile, unreliable, fragmented, and highly personalised. This can cause users of information to believe that the sources we read are true, and others are incorrect. There is a need for an initial strategy when confronting information to enable us to decide which claims are worth our attention, and not to waste time going deep on sources that turn out to be untrue, misleading and biased.

The strategy is **Lateral Reading**, a method developed at Stanford University's Faculty of Education. If you are uncertain whether a claim is true in a source you read, then the best approach is lateral, 'thinking like a fact checker', rather than going deep. Lateral reading is based on the **principle of civic online reasoning** (Stanford History Education Group, 2022), which recognises the importance of the Internet as a source of information, and of being in possession of accurate information when debating social and political issues. Civic online reasoning focuses on action: **Not what students know, but the steps they take to verify information.**

A fundamental approach throughout is the idea that **Wikipedia should be a trusted source of information**, indeed that it is probably one of the most reliable sources of information, given that many volunteers, administrators and typo-setting 'bots' ensure that all edits are based on reliable sources, are neutral and do not contain original research. The editorial process is archived in the History pages. The only Wikipedia articles that are not sound are the ones on obscure topics with little editorial history. There is a warning banner on problematic pages. Teachers need to let go of their apprehensions about Wikipedia.

The book contains six educational resources which aim at developing students' powers of discrimination when researching. Represented by chapter each, they are as follows:

1. **Is the Earth flat?** This deals with using evidence that can be verified to support ideas, with what is a reliable source, and who we can trust.
2. **Is Wikipedia reliable?** This deals with the concept of Wikipedia as a public garden, where a set of rules is followed. The rules are - information must be neutral, based on reliable sources, and must not be original research. A good article will have references and will not contain a warning banner. There is a scaffold – Knowledge Quest – that teachers/TLs can use in a class exercise on using Wikipedia at the end of the book.
3. **Street sandwich** This illustrates the importance of a trusted source with the idea of a sandwich offered to a child by someone they've never met, whose sandwich looks just delicious, by a friend, or is found randomly on a pavement. The same goes for information: check! Search on Google or Duck Duck Go and verify what the Wikipedia article says.
4. **Why you so mad?** This one's about sharing of private information – introduces the idea of 'making a claim', that is, saying something about someone or something and publishing it. Also the idea of 'ad hominem' that is attack on the person, rather than the idea being discussed. Suggestions include asking yourself 'why is this claim trying to make me angry?', and checking the validity of the claim on Wikipedia.

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INFORMATION LITERACY

My Knowledge Quest

Let's Start

Positive Indicators:

- Includes several references from reliable sources.
- Shows an explicit link to the lead section.
- Discusses relevant aspects of the topic.
- Includes well-referenced and updated content.
- Shows that the content is of high quality.

Negative Indicators:

- A lead section that is too short.
- A lead section that is too long.
- A lead section that is too general.
- A lead section that is too specific.
- A lead section that is too narrow.
- A lead section that is too broad.

Try it yourself!

Visit the Wikipedia article below and rate it on a scale of 1-5 based on the indicators of quality presented.

- 1 - Poor
- 2 - Fair
- 3 - Good
- 4 - Very Good
- 5 - Excellent

Indicators of quality on a Wikipedia article

5. **Red cars** - This refers to the misconception in information awareness called 'Frequency', an illusion whereby you notice more of the object than under scrutiny than you would otherwise. For example, your family buys a red car, and you suddenly notice red cars everywhere – you notice many more occurrences of the object/person/whatever you are interested in. This chapter aims at fostering understanding the difference between something being ubiquitous and something being true.



INFORMATION LITERACY

6. **Garage dragon** - This is about information you can't verify no matter how hard you search. There is no evidence. The phenomenon could be true, but we cannot prove it. It aims to teach students to be sceptical of hypotheses that cannot be proved.

The book concludes with a very useful section of information for parents, teachers and teacher-librarians and additional resources and links, for example. It can be used by teachers and teacher-librarians in schools, by parents who want to discuss information literacy with their children, or by children on their own. Six Fact-Checking Lessons for Kids is a valuable addition to the repertoire of information literacy skills TLs hope to impart, and a timely source of material to illustrate the elements of the IFF in practice.

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REACTION 3 2021-2022 DEBRIEF SESSIONS

ACT TEACHER CO-RESEARCHERS

CR01: 'I flat out said to my kids, we don't use it.' [WP]

After first drafts of the resources disseminated:

'When I was reading through all the articles about fact-checking, I was like, "holy cow!"... it was really quite mind-blowing actually.'

Later asserted that they would 'definitely' use Wiki Kids with Year Six:

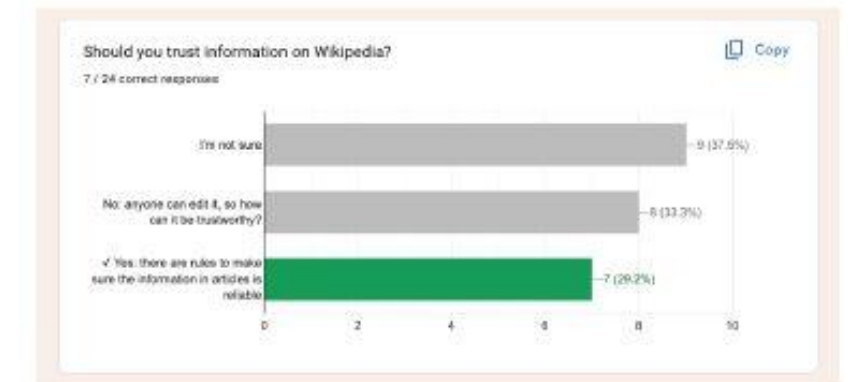
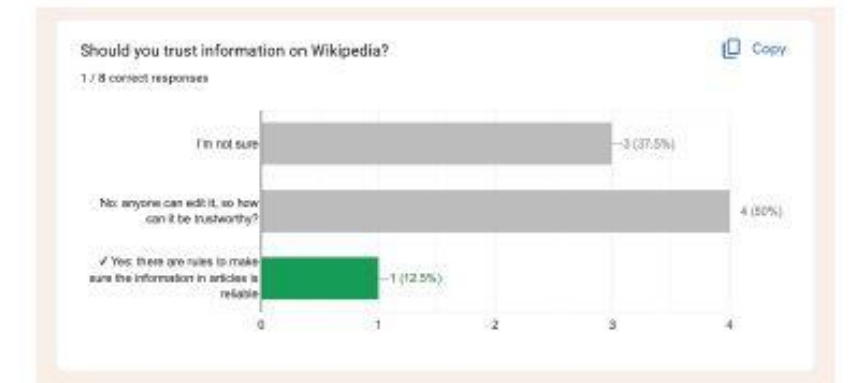
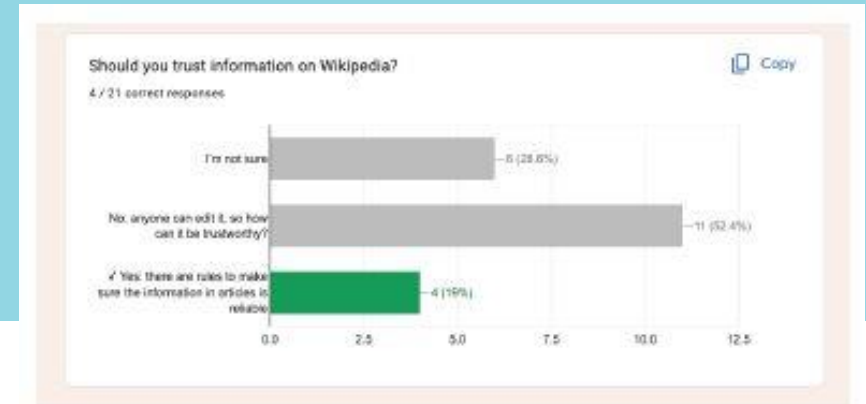
'We do so much already liaising with the high schools, talking to them about what they want from the Year Sevens literacy-wise.'

CR02: 'I guess I've now realised the importance of it... I think we have to almost move away from content a little bit and look at skills and that if we're really serious about 21st century education, it's about skills and being able to [make decisions about education]'

REACTION 4 SURVEYS / QUIZ

ACT SCHOOL CHILDREN

- Cognitive shifts expressed by teachers and teacher co-researchers not necessarily reflected in the data collected from students (via Google surveys) before and after they participated in trial presentations of the fact-checking resources
- Survey data demonstrated that although fact-checking awareness generally increased after the trial program, the understanding of Wikipedia quality control did not change



Next steps

2023: report, new funding applications

Symposium on 16 September 2022 on ‘Wikipedia and Education in the Time of the “Crisis of Information” at The University of Canberra. Participants included UC, USYD, RMIT and Swinburne researchers in Education, Health, Science and Humanities as well as representatives of Wikimedia Australia.

Final Panel participants => public report, **Strategies for the Recognition and Use of Wikipedia in Australian Educational Settings**, to be released later in 2023.

1. Recognition of contributions to Wikipedia via micro-credentials; 2. Teacher outreach strategies; 3. Institutional issues around open and closed systems; and 4. Summary of uses of Wikipedia in classrooms.

- Application for funding 1 (under review, US Embassy in Canberra): teacher-librarians in public/private schools in ACT, NSW and VIC
- Application for funding 2 (to be submitted to US Embassy in Jakarta): expand to Indonesia
- Application for funding 3 (ACT Ed Directorate Affiliated Schools): Link primary – High Schools [include other literacies]

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SIX FACT-CHECKING LESSONS FOR KIDS

1. Is the Earth flat?
2. Is Wikipedia reliable?
3. Street sandwich
4. Why you so mad?
5. Red cars
6. Garage dragon

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Three reasons why disinformation is so pervasive and what we can do about it

Published: August 12, 2022 3:40pm AEST

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Donald Trump derided any critical news coverage as “fake news” and his unwillingness to concede the 2020 presidential election eventually led to the January 6, 2021 riot at the US Capitol.

For years, radio host Alex Jones denounced the parents of children slaughtered in the Sandy Hook school shooting in Newton, Connecticut as “crisis actors”. On August 3, 2022 he was ordered by a jury to pay more than US\$49 million in damages to two families for defamation.

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Disclosure statement

<https://theconversation.com/id>

Pakar menjawab: misteri Supersemar, kronologi yang janggal dan naskah asli yang tidak pernah ditemukan

Mahasiswa sering diminta menghindari Wikipedia untuk riset. Padahal, situs tersebut adalah sumber terpercaya

1. Sustainability of Digital Infrastructure
2. Digital Commons and Environmental Sustainability

Thank you for listening!

