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Transparency is the New Objectivity: Fact-Checking in the Classroom with Wikipedia

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The historical roots of the ‘Crisis of Information’

Since the fateful year of 2016, when Donald Trump was elected to the US presidency and UK citizens voted to exit the European Union, a ‘crisis of information’ theme has been prominent in the Western news media. It was widely reported that false information played an important role during these two elections, and terms such as ‘post-truth’, ‘information disorder’, and ‘truth decay’ were introduced to characterise this phenomenon (D’Ancona 2017, Kavanagh & Rich 2018, Wardle 2020). Similarly in 2020 the spread of misinformation and conspiracy theories about COVID-19 led the World Health Organisation to express concerns over an ‘infodemic’.

The notion that an accurate representation of reality is in trouble is not new. In the United States in the 1970s and 1980s progressive critics of mainstream media argued that official news reflected the interests of corporate elites (Bagdikian 1983, Schiller 1984). A famous example of this critique is the so-called ‘propaganda model’, which suggests that any information appearing in a mainstream news outlet has to pass through a series of filters such as ownership, advertising and official sources, with the result that non-corporate perspectives are absent from the news media (Herman & Chomsky 1988).

Other researchers determined that mainstream news sources were contested during crisis events. In Sweden, the lack of publicly verifiable information about the environmental and public health impacts of the Chernobyl reactor meltdown in 1986 led to an ‘information crisis’ (Norhsted 1991). News about risks originating from official sources lacked credibility and transparency, so they were viewed with suspicion. A significant turning point was arguably the false claims about Saddam Hussein’s possession of weapons of mass destruction and links to Al-Qaeda, formulated in the lead-up to the 2003 invasion of Iraq. The US news media’s failure to investigate and counter these false claims buttressed the view that the mainstream media could not be trusted.

This distrust has continued to grow, and unverified online sources of information have been offered as alternatives. The result is that in the current decade significant numbers of citizens – including elected officials – of liberal-democratic countries such as Brazil or the United States adhere to beliefs that have no basis in reality. These beliefs pertain, for instance, to the severity and treatment of COVID-19, or to the idea that a secret left-wing Satan-worshipping cabal of paedophiles is devouring children, as asserted by the QAnon conspiracy theory (Kranish et al. 2021, Mugga 2021).

The perception that mainstream media represent the interests of corporate and/or cultural elites is not the only reason for the spread of misinformation; other factors are also at work. Disinformation campaigns conducted by hostile agents seek to undermine liberal democracies by exacerbating their

political, ethnic and religious divisions. For example between 2015 and 2020 Russia's Internet Research Agency ran a complex series of operations, *Sekondary Infection*, which spread negative narratives about EU unity, the legitimacy of Ukraine's claims, and other issues via a variety of sophisticated means. This included circulating fake letters from the Committee to Protect Journalism and fake videos from Greenpeace (Nimmo et al. 2020).

The COVID-19 pandemic also played a role. Public health measures such as lockdowns and social distancing guidelines disrupted daily lives. Whilst social media platforms helped people to maintain a connection with distant friends and relatives, they also spread confusion. Gallagher et al. (2020) found the volume of QAnon posts on Facebook increased by 174.9% between March and June 2020; between November 2019 and February 2020, by comparison, the increase was 1.83%. This occurred because platforms such as Facebook seek to generate user engagement at all costs. People react most to what makes them angry; thus content which evinces the strongest reactions is prioritised by the platform's recommendation algorithm, irrespective of its truthfulness (O'Neil & Jensen 2022, Sen & Zadrozny 2020).

Is the Earth flat? Co-developing a fact-checking educational strategy

The situation outlined above makes it urgent to instil ecosystem-appropriate information literacy skills in all online citizen, but particularly the young. However current media and information literacy instruction is often ineffective. One commonly used acronym, and information-checking methodology, is 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: 'Does this webpage look professional? Are there ads? Is it a .com or a .org? Is there scientific language? Does it use footnotes?'

This checklist approach is problematic. Firstly, it increases cognitive overload, and students often latch onto the most visible signals, resulting in poor decisions (Fister 2019). Secondly, these questions no longer lead to proof of reliability. Anyone can design a professional-looking webpage or use spellcheck, and an '.org' URL no longer guarantees the credibility of the content. And thirdly, C.R.A.A.P. is not adapted to our information-rich world, in which a wealth of information creates a poverty of attention (Simon 1971). Disinformation aims to capture our attention; to prevent this, information literacy and fact-checking ought to be fast. In addition, an educational fact-checking strategy must also strive to have a broad community appeal. To be accepted by students, teachers, parents, and other stakeholders, fact-checking strategies should not promote, or appear to promote, a partisan perspective.

In 2022, we have been conducting a fact-checking research program with school children aged between 9 and 11 in four Australian Capital Territory (ACT) public schools. This program aims to develop foundational fact-checking principles for young people which are non-partisan and adapted to the current media ecosystem. 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. These skills need to be mastered early.¹ Typically, school students don't get lessons in media literacy until secondary school: this is much too late.

Our program was developed as part of the Affiliated Schools Research Program, a collaboration between the ACT Education Directorate and the University of Canberra. We co-created educational resources with classroom teachers, in the form of engaging scenarios. The teachers used the resources in their classrooms, and provided feedback about which aspects needed revision, leading to a continuous process of refinement.

We based our resources on the Civic Online Reasoning (COR) framework, developed at the Stanford History Education Group by Sam Wineburg and colleagues. 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 (McGrew et al. 2022). What matters is not what students know, but the steps taken to verify claims: when confronted with a dubious claim, students should ‘think like a fact-checker’ (Wineburg & McGrew 2018). In practical terms, this means that students should not engage ‘vertically’, either by scrolling down the page, or analysing the 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’ (Wineburg & McGrew 2017). If the claim or source is found to be reliable students can investigate in more depth, but if it isn't they should move on.

Our educational resources actively engage students by using vivid language and imagery. The first two resources establish the foundations: ‘Is the Earth flat?’ defines reliable sources of scientific knowledge; ‘Is Wikipedia reliable?’ explores ways to answer this question. The next four resources present scenarios intended to trigger a ‘fact-checking reflex’: ‘Street Sandwich’ teaches students to quickly decide whether a claim should be investigated using lateral reading. ‘Why You So Mad’ teaches students to question information attacking people rather than ideas (e.g., ‘ad hominem’) and to be careful of sharing information that is emotionally manipulative. ‘Red Cars’ teaches students to

¹ In 2018 research by the Australian e-safety commissioner found that out of 3,520 parents surveyed, 81% of pre-schoolers used the Internet. Of this group, 94% reported that their child was already using the internet by the age of four (e-safety, 2018).

be aware of ‘The Frequency Illusion’: that is, ubiquity does not make information factual. Finally, ‘Garage Dragon’ teaches students to be skeptical of hypotheses that cannot be proven. Each lesson has a learning intention (what students are expected to learn). ‘Street Sandwich’, for instance, uses the metaphor of a sandwich found on the street to discuss what kind of new information students should question; its learning intention is: ‘I know when I should check if a claim or person is reliable’. Early results are encouraging: the lessons are proving popular and fact-checking behaviour has improved. We intend to refine our methods and expand our reach in 2023.

Lateral reading is making inroads in higher learning. In 2017, the American Association of State Colleges and Universities’ (AASCU) American Democracy Project (ADP) launched the Digital Polarisation initiative, a national effort to build student civic, information and web literacy, which incorporates lateral reading. Against this backdrop, our project was innovative in two significant ways. As discussed, we worked with school students, not university students; in addition, we advocated using Wikipedia as a factchecking tool.

Wikipedia: A change in the nature of authority

One of our earliest findings was the widespread negative perceptions of Wikipedia’s reliability in the school teaching community. These perceptions are outdated, as they are based on an ignorance of Wikipedia’s policies, which seek to ensure quality control. Like many people, teachers are unaware of the Wikipedia community’s enforcement of these policies. ‘Anybody can edit’ a Wikipedia article, but countless trusted volunteers, administrators, and automated type-setting ‘bots’ ensure that these edits are based on reliable sources.

Whilst not every article is perfect, comparative studies have shown that medical science articles on Wikipedia are as accurate as more conventional medical sources (see Buchbinder & Bourne 2018, Rajagopalan et al. 2011, Thomas et al. 2013). News framings of Wikipedia have shifted over its twenty-one year history: after being derided, its epistemological model was gradually accepted; later, biases resulting from gender imbalances were criticised; finally in the ‘post-truth’ era, Wikipedia has been portrayed as a ‘good cop’ or as the ‘last bastion of shared reality’ online (Benjakob & Harrison, 2020).

Wikipedia’s distributed editing structure is characteristic of commons-based and oriented peer production projects. The shape of the products created by the participants in such projects is directed by the requirements of the producing community. This integrity of product and process results in high flexibility and robustness (O’Neil et al. 2021). In the case of Wikipedia, it also provides a remarkable informational benefit: a potent antidote to the widespread distrust of media and to misinformation. All

modifications to a Wikipedia article are archived in its ‘History’ page. Disputes between editors about article content in the article’s ‘Talk’ page and related policy enforcement decisions are also archived: the editorial process is transparent. This makes it virtually impossible for baseless conspiracies to remain published for long, except for obscure topics where very few editors are involved.

Trusting Wikipedia represents an evolution in our understanding of encyclopaedic knowledge: from placing faith in guarantees offered by authors (e.g., Diderot), to trusting institutions or brands (e.g., Britannica), to probabilities created by transparent, auditable processes – e.g., Wikipedia (Gauntlett 2009). Wikipedia is not flawless, but its practical and epistemological benefits are clear.

Restoring trust with transparency

Though information literacy is often framed in terms of individual responsibility, ‘a shared sense of truth, however, requires societal trust, especially institutional trust, at least as an anticipated ideal’ (Haider & Sundin 2022: 30). Where could this ideal lie? How can trust in institutions be rebuilt? We argue that Wikipedia – as a freely accessible, community-run project, where encyclopaedic knowledge is collectively produced with transparently applied rules – is a useful place to start.

More broadly, the example of Wikipedia points to the importance of transparency. At the *Checking the Fact-Checkers: A Global Perspective* conference, held at Hong Kong Baptist University in October 2022, keynote speaker Drew Margolin suggested that fact-checkers should provide detailed search accounts of competing claims to boost confidence in fact-checking. Similar points have been made in relation to journalism: 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’. Sambrook contends that ‘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).

In conclusion, the principle which underpinned the earliest iterations of Google’s PageRank algorithm – a website’s authority depends on the authority of the websites that link to it – can be applied to information today: the reliability of a person or claim can be proved by examining its networked environment. Students of all ages should acquire skills enabling them to identify dubious claims and immediately act on this identification by verifying the validity of the claim or claimant. These methods are not suited for in-depth research, but for a quick sorting of the real, the imaginary, and the deliberately misleading, they offer unparalleled benefits.

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