

Submission to inquiry into Communications Legislation Amendment (Combatting Misinformation and Disinformation) Bill 2024.

by

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This proposed legislation is a serious infringement on free speech. Although it threatens all parts of society, this submission will concentrate on the legislation's negative impact on issues relying on scientific evidence. Of these the most important is perhaps debate about climate change, but there are many others. For example, in the environmental sciences, there is the debate about bushfire mitigation, nuclear power, Murray-Darling water use, and the condition of the Great Barrier Reef (GBR). On health-related issues, there is the question of what lessons we should learn from the Covid-19 response, and whether the scientific evidence behind the transgender debate is reliable.

All of the above are very important debates based upon scientific evidence and analysis. Scientists can differ on aspects of all of these, and debate and argument are essential features of the scientific system. It is one of the main ways that science progresses. Groupthink is the enemy of science – most major scientific breakthroughs challenge established 'science', contradict consensuses, or go against the established wisdom of learned societies.

There are many famous examples where scientists, who were initially accused of peddling what we now call "misinformation", were ultimately vindicated – often decades later. For example, Ignaz Semmelweis, suggested that doctors at his Budapest hospital should wash their hands before delivering a baby, especially if they had previously been cutting up cadavers. He showed that this revolutionary step would reduce infection in the mother. His ideas were rejected, and he died unrecognised in a mental asylum. Another example is Alfred Wegener who proposed the theory of plate tectonics – that earth's continents move around forming mountains, and ocean basins. He was ridiculed and died decades before his ideas were ultimately accepted. Even Einstein was ridiculed by the German scientific establishment.

Australian scientists have also been at the centre of debates where they have challenged the orthodoxy. A good example is William McBride who discovered horrific birth defects caused by thalidomide. Another is the discovery of the cause of stomach ulcers by Australian Nobel prize winners Barry Marshall and Robin Warren. They challenged the orthodoxy – they encountered fierce resistance.

All these great scientists were pedlars of 'misinformation' according to some authorities of their time.

So, the ultimate question is who is going to decide what is 'misinformation'. Does the proposed Australian Communications and Media Authority (ACMA) have the wisdom and knowledge to decide the truth about everything? If so, they should tell us the truth about everything now – everybody will be interested in what they have to say. On scientific

matters, they could defer to scientific authorities who, over history, have often delayed the advancement of science. Groupthink imposed by authority is the enemy of science. Science has often been pushed forward by outsiders.

Debate among scientists has always occurred outside the strict confines of formal science journals, and today the internet is the major way scientists can debate each other and convey their ideas to the general public. If Semmelweis had access to the internet in 1846, he would have posted his data of death rates of birthing mothers on Facebook. The public debate among learned people would have settled the matter very quickly.

Many of the solutions to challenges we face today are reliant on scientific evidence that is far less clear-cut, and less easily provable, than the efficacy of washing hands before an operation. For example, in my own speciality of the Great Barrier Reef (GBR), the evidence is complicated, almost never complete, and sometimes contradictory. Debate and argument are how we can get closer to the truth.

Views on GBR science is changing due to recent data showing record high amounts of coral on the GBR¹. This has demonstrated clearly that large amounts of coral could not have been lost on the GBR in the hot-water bleaching events widely reported over the last few years. The types of coral that are now in record amounts are the types that are most susceptible to bleaching – it should all be dead, but it is in record amounts. This demonstrates that the science authorities were at least partially wrong. For example, shortly after the well-publicised bleaching events in 2016/17, a group of sixteen highly influential scientists, representing many of the most important and authoritative reef-science institutions lamented the loss of coral - stating

staghorn and tabular corals suffered a catastrophic die-off, transforming the three-dimensionality and ecological functioning of 29% of the 3,863 reefs comprising the world's largest coral reef system ... changing it [the GBR] forever as the intensity of global warming continues to escalate.²

Were these scientists peddling misinformation? Technically yes – they got it wrong, although we can presume not intentionally. But they said the GBR was changed forever – losing its staghorn and tabular corals. The GBR now has record amounts of that coral, so there is little doubt they made some mistakes.

Should those scientists have been silenced at the time? No – the main reason being that it was not obvious at the time that they were wrong, although some of us criticized their work. Going through the debate about coral loss has placed us in a better position to make decisions about the GBR – bleaching is a minor cause of coral loss, far less than the regenerative capacity of coral.

¹ See <https://platogbr.com/308-2/> and references therein.

² Hughes TP, Kerry JT, Baird AH, Connolly SR, Dietzel A, Eakin CM, Heron SF, Hoey AS, Hoogenboom MO, Liu G, McWilliam MJ, Pears RJ, Pratchett MS, Skirving WJ, Stella JS, Torda G. Global warming transforms coral reef assemblages. *Nature*. 2018 Apr;556(7702):492-496. doi: 10.1038/s41586-018-0041-2. Epub 2018 Apr 18. PMID: 29670282.

But the authorities were wrong.

The new laws will make it impossible to discuss many scientific controversies. For example, the AEF will not be able to argue that farmers are not killing the GBR due to pesticide runoff - even though the concentrations of pesticide on the GBR are so low they cannot even be measured with ultra-sensitive scientific equipment. The AEF will not be able to argue that the closure of the Gulf of Carpentaria gillnet fishery, supposedly to save the GBR which is 700 km away, is absurd and not based on any scientific evidence. Facebook and YouTube, will see that there is a dispute on this matter, with some science authorities taking a different view to the AEF.

There is an exemption in this legislation for “reasonable dissemination of content for any scientific purpose”³, and it might be argued that this would allow a scientist like myself to still make public comments without falling under the censorious gaze of ACMA. However, there is no definition of “scientific purpose” in the legislation, and the term “reasonable” will need to be interpreted by a judge in any legal challenge. Any doubt will inevitably result in censorship. For example, if I was to comment that the “CSIRO has become an untrustworthy organisation due to systematic failing in its quality assurance protocols” – is that a comment for “scientific purposes”, and is it “reasonable”?

Facebook and YouTube will almost certainly have no choice but to close down both the AEF social media and, on a personal level, my own YouTube and Facebook accounts⁴ which deal almost exclusively with scientific controversies. These will almost certainly be deemed by YouTube and Facebook as too risky to host. They cannot afford to risk the imposition of huge fines (up to 2% of their annual turnover) for very small benefit (to them) of hosting my posts.

For me personally this will be ironic. I was fired by James Cook University for arguing that there is inadequate quality assurance of GBR science (and for many other areas of science). In the High Court case that ensued, it was ruled that JCU unlawfully censured me for those comments. I had a right to make those comments in public, on any platform I wished. Free speech was upheld in academia - at least in theory.

But now the government is making legislation that will take that right away from me, and the AEF, for good.

The AEF has a significant following especially in regional Queensland, and many of the AEF’s views about science quality systems have been taken up by parliamentarians from a range of political parties. This is all now in jeopardy.

In the final analysis, debate is a vehicle which we use to establish the truth. And in any argument one side is always wrong – usually both are at least partially wrong. If it becomes illegal to get things wrong, then debate will die, and science will be suffocated. This legislation is as dangerous to the advancement of science as the filthy hands of those Budapest doctors was to birthing mothers in 1846.

Proponents of this legislation may have the best of intent – wrong information can be dangerous – but the solution to misinformation is good information. We then need faith that

³ See section 16

⁴ Reef Rebels on Youtube and Dr Peter Ridd on Facebook.

the truth will reveal itself in this clash. It may seem a more chaotic approach than government-controlled edicts about what is true or not – but free argument has been one of the cornerstones of the advancement of western civilisation. And free argument in the scientific system has been a major part of that remarkable achievement.

This legislation will do far more harm than it will prevent.

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About the author.

Peter Ridd is a physicist. He has researched the Great Barrier Reef since 1984, has published over 100 scientific publications, and invented a range of scientific instrumentation. A former head of the Marine Geophysical Laboratory and head of Physics at James Cook University, Townsville, Australia, he was fired in 2018 for pointing out quality assurance deficiencies in reef-science institutions. He presently works, without payment, on science quality assurance issues. He is an adjunct fellow of the Institute of Public Affairs, a member of the Academic Advisory Council of the Global Warming Policy Foundation, and is Chairman of the Australian Environment Foundation.

About the AEF

The Australian Environment Foundation (AEF) is a non-profit, membership-based organisation. It seeks to protect the environment, while preserving the rule of law, property rights, and the freedom of the individual that underpin the material progress that is required to do so.

We take an evidence-based, solution-focused approach to environmental issues.