# DIGITAL PLATFORMS: THE STUDENT CONSUMER EXPERIENCE

## Sabrina Caldwell<sup>1</sup>, Tom Gedeon<sup>2</sup>

### <sup>1, 2</sup> The Australian National University (Australia)

#### Abstract

In late 2017 the Australian Government directed the Australian Competition and Consumer Commission (ACCC) to conduct an inquiry into the role that digital platforms, especially large content aggregators like Google, Facebook and Twitter, play in the supply of news and information to the public. The outcomes of the inquiry highlight a fierce competitive battle raging between relatively unregulated behemoths like Google that (profitably) curate information, and the highly regulated traditional news sources that produce it. The stakes are high; this year, the Chair of the inquiry, Rod Sims, stated that digital platforms "... have a significant influence over what news and journalism Australians do and don't see." [1]

Not surprisingly, all the major players in this space made submissions to the ACCC setting out their positions on the strengths and issues with online news and information. Surprisingly, of the 200 submissions, no educational organisations responded, implying that the inquiry was not seen as being relevant to education. However, when seen through the lens of students as consumers of the information flowing from such platforms, many troubling issues are illuminated. Increasingly, the news that students access is being written by computers – automatically constructed articles created at the prompt of new data signals. Algorithms influence students' ability to discover new information. Students perceive news as being something that should be free, not understanding the extremely high costs and personal risks of responsible journalism.

Using the submissions and findings of this inquiry, particularly where 'young audiences' are discussed, this paper delves into the myriad and competing agendas that inform the production, discovery and distribution of online news and information, and sheds light on the issues facing students as they attempt to channel this information flow into their studies and their understanding of the world.

Keywords: student learning, digital platforms, Australian Competition and Consumer Commission, digital platforms inquiry

## 1 INTRODUCTION

In December 2017 the Treasurer for the Commonwealth of Australia directed the Australian Competition and Consumer Commission (ACCC) to conduct an inquiry into digital platforms in Australia. The terms of reference for the inquiry were broad-ranging, and considered " i) the extent to which platform service providers are exercising market power in commercial dealings with the creators of journalistic content and advertisers; ii) the impact of platform service providers on the level of choice and quality of news and journalistic content to consumers; iii) the impact of platform service providers on media and advertising markets; iv) the impact of longer term trends, including innovation and technological change, on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition in media and advertisers and consumers and the effect on competition i

This Ministerial directive set off a chain of investigation, information gathering, industry submissions (both voluntary and requested) the production of a draft report, further submissions, and the final report published 18 months later (Figure 1). As of this writing, the Government's response to the final report is pending.

The ACCC inquiry engaged little with education, students, or even younger online audiences, though many of the issues discussed impact upon students using the Internet and digital platforms in their studies, especially those undertaking secondary and tertiary studies. This paper considers some of the main themes arising from the inquiry that have the potential to impact upon students now and in the future, and outlines some of the key recommendations of the inquiry that are most likely to improve the student consumer experience online.

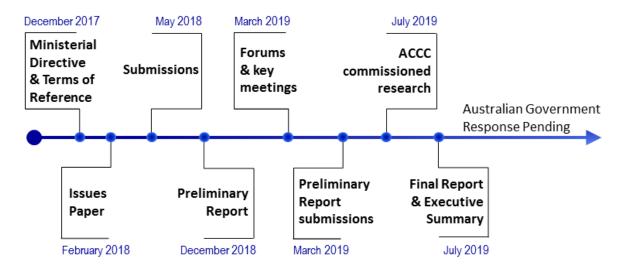


Figure 1: Timeline of ACCC Digital Platforms Inquiry

## 2 METHODOLOGY

The progress of the ACCC Digital Platforms inquiry was tracked throughout 2017-2019. The 76 initial submissions were reviewed as was the Preliminary Report produced in December 2018. Following the release of the Draft Report there was another call for submissions and these 124 submissions were reviewed as well. Ultimately a 619 page Final Report was published in June of 2019 and this report was also reviewed.

In this study, these documents and submissions were revisited for the purpose of considering the findings as they might apply to students' experiences using digital platforms. Searches of key words were performed to find possible comments directly related to students. To facilitate search, all submissions, the Terms of Reference, the Draft Report and the Final report were downloaded and stored locally. Because the documents are all .pdf files, Adobe Acrobat advanced text search on multiple files was used as the search mechanism.

Search terms were 'student', 'education' 'child, 'young' 'learn' and 'teach'. By extension, words such as 'students' 'children', 'children's' 'younger', 'teacher' 'teachers', 'learning', 'learners', 'teacher's' and 'teaching' were picked up with these search terms.

No attempt was made to delineate between differing stages in children and younger people's education as the themes discussed are applicable across all young Australian age ranges, though it is reasonable to assume that the younger the individual, the more vulnerable they are to the issues raised.

## 3 RESULTS

Students as consumers of digital platform content did not feature significantly in the ACCC inquiry as can be seen by the relative sparseness of key words indicating students.

Search Terms	student	education	child	young	learn	teach
Documents						
Terms of Reference and Issues Paper	0	3	1	0	0	0
Submissions	21	63	206	91	64	6
Preliminary Report	1	14	33	16	51	1
Preliminary report submissions	39	168	570	108	158	35
ACCC commissioned research	4	42	13	34	30	0
Final report	3	48	128	24	62	3

Table 1: Instances of word appearances in ACC documents and submissions

In the 619 pages of the Final Report, students were discussed directly only twice: first, in noting that media literacy taught in Australian schools was focussed on legacy media forms and could usefully be reviewed and improved, and secondly that in a survey of 1000 school-aged students in 2017 around 59% of the students paid little or no attention to the source of the news they found online [2]. Several submissions did however make note of the special case of children and young people, and one submission to the preliminary report of the inquiry came from a highly relevant organisation, the Australian Council on Children and the Media (ACCM), whose membership includes organisations formed within school environments, such as the Australian Education Union and the Australian Council of State Schools Organisations. ACCM welcomed the inquiry and noted that children have a very high exposure to digital content due to the amount of time they spend online, and that, as vulnerable users of the Internet they have special needs due to their inexperience with thinking critically or fully understanding the ramifications of giving consent for personal information to be used. [3]

It is undeniable that there are many benefits to the digital age and this was acknowledged in most submissions to the ACCC as well as the ACCC themselves in their preliminary and final reports. The larger digital platforms such as Google, [4] Facebook, [5] were particularly voluble on this score. Digital platforms have revolutionised our interactions with each other, with information, with companies, clubs, government, and services, and this easy access to findable information helps us in innumerable ways.

However, when the ACCC reports and the submissions to the inquiry are taken together, several themes of concern emerge relevant to young Australians as students, among which 'free' news; 'fake' news, data protection, 'influence', and advertising are prominent.

### 3.1 'Free' news, or the systemic erosion of support for responsible journalism

In their studies, students rely in part on past and current news information created by journalists using infrastructure put in place by news publishers. This form of responsible journalism comes at a high price, both in monetary terms and sometimes in personal sacrifice. Journalists may be stationed in foreign countries, be separated from their families for extended periods of time, and at times journalists may be hurt or even killed while investigating news stories. The traditional publishers and journalists who bear these burdens are also highly regulated by governments to ensure quality of news outcomes. This system has in the past worked successfully because the value of news production was returned to publishers via advertising revenue in the main. For example, of Fairfax's \$1.1b revenue in 1999, \$800m was from advertising and the remainder was from paid subscriptions. [6].

This model has been dramatically disrupted by digital platforms, whose algorithms present journalistic content online and often free within moments of it being published by news organisations, where users can read it at no cost, which is appealing to the general population and of course to students, who often fail to understand the real costs of producing news. ACMA noted that a high percentage of younger viewers (38% in 2018) consume their news via social media [7] and Associated Press commented that "ultimately this new industry paradigm has resulted in less revenue to serious news creators to fund quality journalism and ... has also given the impression to younger news consumers that digital news content should be freely available when in fact the creation of quality news is an extremely expensive exercise." [8] Because advertisers have followed their customers to the digital platforms, the majority of advertising revenue goes to digital platforms. The previously mentioned \$800m Fairfax advertising revenue in 1999 was reduced to only \$225m in 2017 [6] while in the same year Google's advertising revenue was over \$95b [9] and Facebook's was \$39.9b. [10] In their submissions to ACCC several publishing companies warn that without this revenue being redirected via regulation back to news publishers, the current model of responsible journalism cannot be sustained. Further, they note that should digital platforms use their revenues to move into news production, independent news voices would be severely curtailed.

It is in this area that the ACCC made the most recommendations: 13 of the 23 total recommendations, and which range from harmonising the media regulatory framework across all media types rather than just traditional media channels, to increased government funding support for existing journalism and public broadcasters.

ACCC Recommendations		'Free' news	'Fake' news	Influence	Data Protection	Adver- tising
1:	Changes to merger law			~		
2:	Advance notice of acquisitions			~		
3:	Changes to search engine and internet browser defaults			~	~	
4:	Proactive investigation, monitoring and enforcement of issues in markets in which digital platforms operate	~	~	~	~	~
5:	Inquiry into ad tech services and advertising agencies		✓		~	~
6:	Process to implement harmonised media regulatory framework	~	✓			
7:	Designated digital platforms to provide codes of conduct governing relationships between digital platforms and media businesses to the ACMA	~				
8:	Mandatory ACMA take-down code to assist copyright enforcement on digital platforms	~				
9:	Stable and adequate funding for the public broadcasters	~				
10:	Grants for local journalism	✓				
11:	Tax settings to encourage philanthropic support for journalism	~				
12:	Improving digital media literacy in the community	~	$\checkmark$	~	~	✓
13:	Digital media literacy in schools	~	$\checkmark$	~	~	✓
14:	Monitoring efforts of digital platforms to implement credibility signalling		✓			
15:	Digital Platforms Code to counter disinformation		~			
16:	Strengthen protections in the Privacy Act				~	
17:	Broader reform of Australian privacy law				~	
18:	OAIC privacy code for digital platforms				~	
19:	Statutory tort for serious invasions of privacy				~	
20:	Prohibition against unfair contract terms	~				
21:	Prohibition on certain unfair trading practices	~				
22:	Digital platforms to comply with internal dispute resolution requirements	~	~	~	~	~
23:	Establishment of an ombudsman scheme to resolve complaints and disputes with digital platform providers	~	~	~	~	~

Table 2: Summary comparison of ACCC recommendations against themes discussed

## 3.2 'Fake' news, or the inability to know what content to trust

Knowledge is the foundation of education and the key to unlocking the solution to many of the learning and life challenges with which students are faced, as long as they can navigate the knowledge landscape with confidence and trust. However, new information pathways like social media, and new strategies that substitute opinion for knowledge ('fake news'), are inciting stunningly disruptive social outcomes (Trump, Brexit) and degrading society's trust in experts (climate change denial, antivaccination fears). It will soon be possible for manipulated content such as 100% computer-generated 'photos', Al-generated 'news', and deceptive 'deep fake' videos to completely subvert our understanding of that landscape. This is difficult for anyone to navigate, but it appears that younger Australians are particularly poor at identifying fake news [11], and for the most part don't discriminate as to credibility [2].

This confusion is not helped by the conflation of online design and the content it portrays. Naturally, the more that news looks credible online, the more likely it is to be believed. However, online context and styling often results in news and fake news looking the same." [8]

The Australian Broadcasting Association (ABC) defines quality news content as "coverage of relevant and publicly important topics, diversity and timeliness, as well as impartiality, accuracy and in-depth investigation."[12] While ABC and other broadcasters are bound by the provisions of the Australian Commercial Television Industry Code of Practice, which requires that facts and viewpoints are presented accurately, digital platforms are not so constrained. ACMA is concerned that "many news consumers struggle to differentiate between the real news created by serious news organisations and "fake news" that is proving damaging to society in general. [8] Getty Images notes that it has " a strict editorial policy ... prohibiting the manipulation of its editorial content" and that "this is important if the public are to have any confidence that the images they are viewing are not manipulated" [13]. Yet the ACCC found in a survey of 1000 school-aged students in 2017 that around 59% of the students paid little (45%) or no (14%) attention to the source of the news they found online [2], which indicates that such policies may be completely ignored by students who would then have little protection from manipulated content in his or her studies.

ACCC recommendations in this area include improving digital media literacy in the community and schools, monitoring whether digital platforms are putting in place effective credibility measures, and creating a Digital Platforms Code to counter disinformation.

## 3.3 Data Protection

Cybersecurity is at the forefront of everyone's mind in the current decade. We are concerned about how much information is being collected as we travel through the Internet. We are concerned about how that information is shared and used. In a recent survey of 500 Australians from media and political forums, 94% were concerned about the use of data tracking tools. [14] This is not an unreasonable fear; In 2012 alone Facebook is known to have collected 180 petabyes of information on its users, which is equivalent to 20 million 4-drawer file cabinets full of text and other information. [15]

Google refers to its data collection processes obliquely when they discuss the company's benefits to Australian media content creators: "Google's products, such as AdSense, help media content creators to place more engaging, relevant ads on their sites. Some ads are related to the particular user while others might be related to the article or other content on the page" and "Google is exploring ways [to use] machine learning and data to present the right subscription offer to the right audience at the right time." [4]

There seems to be no sunset clause on the information digital platforms are collecting, and this is causing frustration for most users. In a forum for digital platform consumers convened by ACCC, this phenomenon was referred to as 'the right to be forgotten', and concern was expressed particularly on behalf of children, who may not have given proper consent. [16]

It is in this area that the ACCC has made some of its most powerful recommendations. In Recommendations 16-19, the ACCC proposes strengthening Privacy Act protection, undertake reform of Australian privacy law, make provision for penalties for serious invasions of privacy, and develop a privacy code for digital platforms through the Office of the Australian Information Commissioner (OAIC). The proposed OAIC privacy code would contain special provisions for younger Australian.

## 3.4 'Influence'

Because of the massive sizes of companies like Google and Facebook, and non-transparent technologies underpinning search results, these two companies have significant and poorly understood influence on the content the public sees. FreeTV Australia notes that, "governments and regulators around the globe are concerned about the power that Google and Facebook have to determine which facts and opinions are given priority on digital platforms" [18] By controlling the information accessible to consumers, it has been claimed that digital platforms are eroding the consumer's autonomy to be a judge of their own interest.

Bozdag and Van Den Hoven [17]

Agendas can come from many trajectories, and target particular audiences. For example, News & Media Research Centre noted that the ABC created stories designed for viewers on Snapchat, a popular platform for younger viewers, [2] to generate greater interest in politics among Snapchat's younger demographic. [19]

The influence may however arise directly from the algorithms employed: "The basis on which search engines curate and rank results may impact the content a searcher receives and the return that flows back to the content creator. In addition, the auto-complete functionality of search engines may 'curate' pathways for large numbers of users to particular viewpoints or information sets. [7]

The Communications Council expressed strong concern about 'filter bubbles' "where algorithms filter and prioritise the content displayed so that it reflects the users' view, based on their prior interactions with the system and other factors, and consequently hides content with opposing viewpoints without the users' consent." [20] Interestingly, we often fail to notice biases in algorithms. We assume that an algorithm is by its nature democratic and objective. As Cathy O'Neill wrote in her book *Weapons of Math Destruction*, "people are often too willing to trust in mathematical models because they believe it will remove human bias. Algorithms replace human processes, but they're not held to the same standards." [10]

Chief amongst ACCC concerns in respect of influence appear to be the small number of large companies of which Google and Facebook are most important with over 60% of the market. Their recommendations are aimed at curtailing this market dominance, suggesting there be changes to merger law and notice of acquisitions providing legal constraints on these companies growing larger, and changes to search engine and internet browser defaults giving users more power over which services they use.

### 3.5 Advertising

Advertising online is problematic for anyone. Understanding when we are viewing and being influenced by normal advertisement, product placement, or native advertising (where advertisement delivery is difficult to differentiate from subject content delivery) is challenging enough for adult minds, let alone the developing brains of children. As ACCM comments, "products advertised online are not necessarily appropriate to children; and ... [fail] to make appropriate use of options to disable prohibited covert tracking and behavioural advertising." [3] This latter type of tracking and behavioural advertising ties in with children's restricted capacity to understand the implications of giving consent to digital platforms' retention and sharing of their personal information. Young people will increasingly be exposed to data harvesting resulting in directed advertising by advertising companies who are benefiting from 1 to 1 advertising and custom advertising means that a young person can find themselves presented with advertisements that look like personally appealing regular content.

These powerful influencers for commercial motives can have life-long consequences for young people, who are highly susceptible to advertising and marketing. It is known [3] that early exposure to advertising about alcohol increases the likelihood of young people beginning drinking alcohol earlier, that exposure to unhealthy foods and beverages is linked to obesity, and that gambling advertisements increases positive attitudes towards gambling.

The ACCC has recommended further inquiry specifically into advertising technology services and advertising agencies operating online (ACCC Recommendation 5), though this seems to be predominately focussed on competition. [2] There is, however, an element of the proposed inquiry that looks at the customer-supplier relationship.

#### 4 CONCLUSIONS

The ability for students to find information online is a powerful learning advantage, but only to the extent that the information is sourced responsibly and used correctly. The ability for students to quickly access facts and publish their own content to the world is astonishing and even inspiring, but in the current age of digital content aggregators, content is more ambiguous and can even be dangerous.

The ACCC notes that "students don't care about the source of news." This is all the more reason why educators and government regulators should get involved in righting the increasingly skewed knowledge landscape, because it is our job to care about things on behalf of our students that our students don't yet know they should care about. In a world where opinions pass as facts,

misrepresentations are accepted as the method of governance, and ordinary students no longer know what to believe, new ways to understand what we know, to use to assess sources critically, and to understand claims of authority are urgently needed.

It will be interesting to see the Government's response to these recommendations in due course; in the absence of any change to the current structure in which digital platforms reap the financial rewards of news creators' efforts, the outcome for students is the news information they access is likely to become less independent and of a quality that has not been assured by regulation and established processes of journalistic excellence.

### ACKNOWLEDGEMENTS

The authors wish to acknowledge the extensive work by the Australian Competition and Consumer Commission in undertaking this inquiry. We would also like to thank the Australian National University, the Research School of Computer Science, and the Network of Early Career Teaching and Research for their ongoing support and funding for this research.

## REFERENCES

- [1] ACCC, "Insights and impacts of the ACCC Digital Platforms Inquiry," ACCC Official Website, 2019, Retrieved from https://www.accc.gov.au/speech/insights-and-impacts-of-the-accc-digital-platforms-inquiry.
- [2] Australian Competition & Consumer Commission, "Digital Platforms Inquiry Final Report," ACCC Official Website, 2019, Retrieved from https://www.accc.gov.au/publications/digitalplatforms-inquiry-final-report 20
- [3] Australian Council on Children and the Media, "Submission to ACCC inquiry into digital platforms," *ACCC Official Website*, 2019, Retrieved from: https://www.accc.gov.au/system /files/Australian%20Council%20on%20Children%20and%20the%20Media%20%28February%2 02019%29.PDF Accessed 26/9/2019.
- [4] Google, Submission of Google Australia Pty Ltd to the ACCC Digital Platforms Inquiry," ACCC Official Website, 2018, Retrieved from: https://www.accc.gov.au/system/files/Google %20%28April%202018%29.pdf
- [5] Facebook, "Submission by Facebook Pty Limited," ACCC Official Website, 2018, Retrieved from https://www.accc.gov.au/system/files/Facebook%20Australia%20%28April%2020 18%29.pdf
- [6] Fairfax, "ACCC Digital Platforms Inquiry–Fairfax Media response to issues paper," ACCC Official Website, 2018, Retrieved from: https://www.accc.gov.au/system/files/Fairfax%20Media %20%28April%202018%29.pdf.
- [7] Australian Communications and Media Authority, "Digital Platforms Inquiry: Issues Paper," ACCC Official Website, 2018, https://www.accc.gov.au/system/files/Australian Communications and Media Authority (April 2018).pdf.
- [8] Australian Associated Press, "Australian Associated Press Response to the ACCC Digital Platforms Inquiry Issues Paper," ACCC Official Website, 2018, Retrieved from https://www.accc.gov.au/system/files/Australian%20Associated%20Press%20%28April%20201 8%29.pdf.
- [9] Alphabet Inc., "Annual Report Pursuant to Securities Exchange Act of 1934," *Alphabet Inc. Official Website*, 2019, Retrieved from: https://www.sec.gov/Archives/edgar/data/1652044 /000165204419000004/goog10-kq42018.htm#s12257BECA84B57BDA458EA0A7C02E9C6.
- [10] Media Entertainment & Arts Alliance, "Submission to the Australian Competition and Consumer Commission's Digital Platforms Inquiry," ACCC Official Website, 2018, Retrieved from https://www.accc.gov.au/system/files/MediaScope%20%28April%202018%29.pdf.
- [11] Harley Conrie, "Misinformation for profit | The Strategist," ACCC Official Website, 2018, Retrieved from: https://www.accc.gov.au/system/files/Harley%20Comrie%20 %28March%202018%29.PDF.

- [12] Australian Broadcasting Association, "ABC Submission to the ACCC Digital Platforms Inquiry," ACCC Official Website, 2018, Retrieved from https://www.accc.gov.au/system/files/Australian %20Broadcasting%20Corporation%20%28April%202018%29.pdf.
- [13] Getty Images, "Submission to the ACCC Digital Platforms Inquiry Issues Paper," ACCC Official Website, 2018, Retrieved from: https://www.accc.gov.au/system/files/Getty%20Images%20 %28April%202018%29.pdf.
- [14] Mediascope, "Submission to the ACCC Digital Platforms Inquiry," ACCC Official Website, 2018, Retrieved from: https://www.accc.gov.au/system/files/MediaScope%20%28April%2020 18%29.pdf.
- [15] Access Now, "ACCC Re: Digital Platforms Enquiry," *ACCC Official Website*, 2018, Retrieved from: https://www.accc.gov.au/system/files/Access%20Now%20%28April%202018%29.PDF.
- [16] ACCC, "Summary of Digital Platforms Inquiry Consumer Forum," ACCC Official Website, 2019, Retrieved from https://www.accc.gov.au/system/files/DPI%20-%20Consumer%20Forum%20-%20briefing%20-%2029%20May%202018\_0.pdf.
- [17] Consumer Policy Research Centre, "Submission to ACCC Digital Platforms Inquiry Issues Paper, ACCC Official Website, 2018, Retrieved from: https://www.accc.gov.au/system/files/Consumer%20Policy%20Research%20Centre%20%28Ap ril%202018%29.pdf
- [18] FreeTV Australia, "Submission by FreeTV Australia," *ACCC Official Website*, Retrieved from: https://www.accc.gov.au/system/files/Free%20TV%20Australia%20%28April%202018%29.pdf.
- [19] News & Media Research Centre, "Submission to the Digital Platforms Inquiry," ACCC Official Website, 2018, Retrieved from: https://www.accc.gov.au/system/files/News%20%26%20Media %20Research%20Centre%20%28April%202018%29.pdf.
- [20] Consumer Policy Research, "Submission to ACCC Digital Platforms Inquiry Issues Paper," ACCC Official Website, 2018, Retrieved from https://www.accc.gov.au/system/files/Consumer %20Policy%20Research%20Centre%20%28April%202018%29.pdf