National Mental Health Commission
June 2024

Submission to the Joint Select Committee on Social Media and Australian Society

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Acknowledgement

Acknowledgement of Country

The Commission acknowledges the traditional custodians of the lands throughout Australia. We pay our respects to their clans, and to the elders, past and present, and acknowledge their continuing connection to land, sea and community.

Recognition of Lived Experience

We recognise the individual and collective contributions of those with a lived and living experience of mental ill-health and suicide, and those who love, have loved and care for them. Each person's journey is unique and a valued contribution to Australia's commitment to mental health and suicide prevention systems reform.

About this report

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Suggested citation

A note on language

The Commission acknowledges that language surrounding mental health and suicide can be powerful, emotive and at times contested. People make sense of their experiences in different ways, and there is no consensus on preferred terminology. The Commission has been conscious to use terminology throughout this report that is respectful of those whose experiences we are describing and is well understood by the audience reading this report.

The Commission endorses and follows the Mindframe guidelines *Our Words Matter and Images Matter*. The Commission also endorses the Mindframe Guidelines on Media Reporting of Severe Mental Illness in the Context of Violence and Crime and requests that media using this report do so in accordance with the Guidelines.

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Introduction

The National Mental Health Commission (the Commission) provides cross-sectoral leadership on policy, programs, services, and systems that support better mental health and social and emotional well-being in Australia. There are three main strands to the Commission's work: monitoring and reporting on Australia's mental health and suicide prevention systems; providing independent advice to government and the community; and acting as a catalyst for change.

The Commission welcomes the opportunity to provide a submission to the Joint Select Committee on Social Media and Australian Society. In 2023, the Commission undertook consultation to explore the impact of digital technologies on youth mental health. Through this consultation, we were able to acquire valuable insights from young people, parents and carers, service providers and academics. This response specifically addresses the Terms of Reference published by the Committee, with a focus on children and young people given the research and consultation recently undertaken by the Commission has focused on these priority groups. The Commission has also engaged with the National Suicide Prevention Office to include analysis of the impact of social media in the context of suicide prevention.

This submission is limited to the influence and impacts of social media on young people because that has been the focus of the Commission's work to date on this topic. However, we acknowledge that it is not just young people who are reliant on these technologies in everyday life – many adults are likely to have similar experiences.

Terms of Reference

The Joint Select Committee on Social Media and Australian Society will inquire into and report on the influence and impacts of social media on Australian society, with particular reference to:
   a) the use of age verification to protect Australian children from social media;
   b) the decision of Meta to abandon deals under the News Media Bargaining Code;
   c) the important role of Australian journalism, news and public interest media in countering mis and disinformation on digital platforms;
   d) the algorithms, recommender systems and corporate decision making of digital platforms in influencing what Australians see, and the impacts of this on mental health;
   e) other issues in relation to harmful or illegal content disseminated over social media, including scams, age-restricted content, child sexual abuse and violent extremist material; and
   f) any related matters.

The Commission's Response

In 2021, the Commission began exploring the decline in young people's mental health over recent decades, focusing on those aged 13-25 years. Over the last 17 years, a number of indicators of psychological distress have been increasing at a higher rate for this age group compared to others in Australia. Indicators include measures of self-reported distress,[1] self-harm hospitalisations,[2] rates of anti-depressant use and Medicare Benefits Schedule (MBS) mental health service usage,[3] together with service providers saying that young people have been presenting to services with increasingly complex problems. To investigate why this was occurring, we undertook desktop research as well as consultation with a Youth Advisory Group convened through headspace National, alongside a Technical Advisory Group comprised of experts in children and young people's mental health.

This process highlighted six highly complex and interrelated drivers of increased distress, each reflective of significant cultural changes to the world in which young people live. *Figure 1* below provides an overview of some of the documented changes that may be contributing to increased distress.
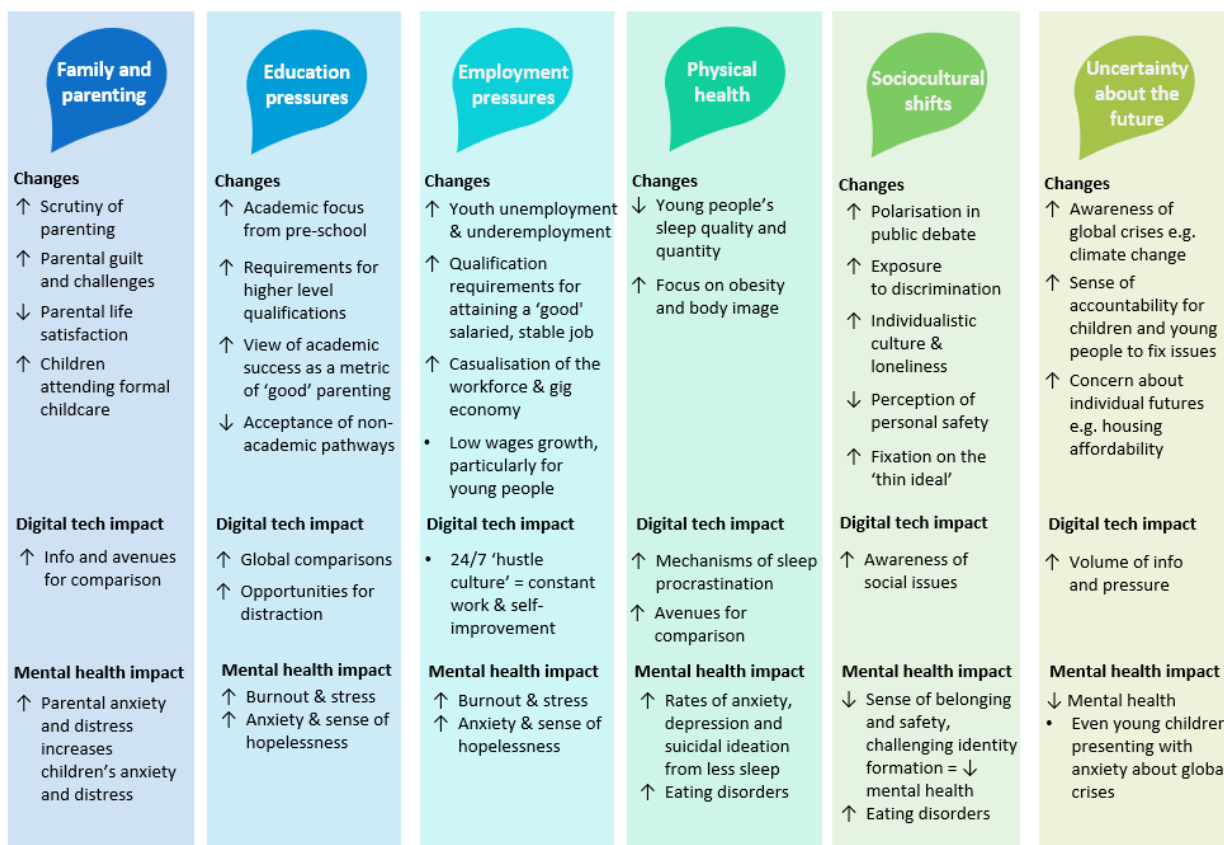
Family and parenting	Education pressures	Employment pressures	Physical health	Sociocultural shifts	Uncertainty about the future
Changes	**Changes**	**Changes**	**Changes**	**Changes**	**Changes**
↑ Scrutiny of parenting	↑ Academic focus from pre-school	↑ Youth unemployment & underemployment	↓ Young people's sleep quality and quantity	↑ Polarisation in public debate	↑ Awareness of global crises e.g. climate change
↑ Parental guilt and challenges	↑ Requirements for higher level qualifications	↑ Qualification requirements for attaining a 'good' salaried, stable job	↑ Focus on obesity and body image	↑ Exposure to discrimination	↑ Sense of accountability for children and young people to fix issues
↓ Parental life satisfaction	↑ View of academic success as a metric of 'good' parenting	↑ Casualisation of the workforce & gig economy		↑ Individualistic culture & loneliness	↑ Concern about individual futures e.g. housing affordability
↓ Children attending formal childcare	↓ Acceptance of non-academic pathways	• Low wages growth, particularly for young people		↓ Perception of personal safety	
				↑ Fixation on the 'thin ideal'	
Digital tech impact	**Digital tech impact**	**Digital tech impact**	**Digital tech impact**	**Digital tech impact**	**Digital tech impact**
↑ Info and avenues for comparison	↑ Global comparisons	• 24/7 'hustle culture' = constant work & self-improvement	↑ Mechanisms of sleep procrastination	↑ Awareness of social issues	↑ Volume of info and pressure
	↑ Opportunities for distraction		↑ Avenues for comparison		
Mental health impact	**Mental health impact**	**Mental health impact**	**Mental health impact**	**Mental health impact**	**Mental health impact**
↑ Parental anxiety and distress increases children's anxiety and distress	↑ Burnout & stress	↑ Burnout & stress	↑ Rates of anxiety, depression and suicidal ideation from less sleep	↓ Sense of belonging and safety, challenging identity formation = ↓ mental health	↓ Mental health
	↑ Anxiety & sense of hopelessness	↑ Anxiety & sense of hopelessness	↑ Eating disorders	↑ Eating disorders	• Even young children presenting with anxiety about global crises

Figure 1. Overview of possible drivers of increased mental ill-health across six domains

Our work has led us to conclude that one of the most dynamic, impactful, and unexplored facets of young people's developmental experience relates to the significant expansion of digital technology[1]. Note however, that we have not

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conceptualised digital technology as a key driver of increased distress. Instead, we see digital technology as amplifying the effects of these other factors. The way in which this might be happening is also noted in *Figure 1*.

A wide range of factors are thought to affect whether digital technology use has a positive, neutral, or negative impact on mental health – for example, the type of technology used, the nature of that usage, the frequency of use, as well as individual characteristics such as personality and gender identity. While the evidence base is rapidly emerging, large scale, longitudinal studies are limited on this topic[7,8] making it difficult to draw conclusions around causation. Further research into all areas of digital technologies will be critical in continuing to strengthen our understanding of these emerging issues.

Based on the available peer-reviewed literature, grey literature, and input from our consultation with experts and young people, we have mapped out the various ways digital technologies negatively impact young people's mental health and wellbeing. These have then been broadly themed into three domains and explored further in the a discussion paper available on the Commission's website - Understanding how digital technology is impacting young people | National Mental Health Commission. The focus of that particular piece of work being on the negative impacts in no way implies that there are not also positive impacts; but it was deemed important to unpack the potential negatives in order to better inform how we mitigate them.

In 2023, the Commission undertook a consultation to further explore the influence of digital technologies on youth mental health. It was a three-part consultation consisting of (1) a public consultation via online survey; (2) input from an Expert Advisory Group; and (3) input from a Youth Advisory Group. The consultation served as an opportunity to hear the perspectives of young people and those who live with, educate, and support them. Discussions focused on how digital technologies have changed the way in which young people live, learn, work, and play and what impact this has had on their mental health and well-being.

The Commission's responses in this submission are informed by the findings of this recent consultation and the background work the Commission did to understand what might be driving the increased distress experienced by young people.

In response to the Terms of Reference:

Section a: the use of age verification to protect Australian children from social media

Calls for restricted or reduced access to social media are typically intended to prevent excessive use or exposure to harmful content. In both cases, restrictive approaches tend to be ineffective. Restrictive approaches do not inform young people on what components of the digitised world may be harmful, nor do they empower young people to utilise techniques for reducing safety risks. And it is challenging to establish reliable evidence on what constitutes 'excessive' or 'too much' use given this is often dependent on the type of use as well as the context of the individual – what is 'too much' for one person could be completely different for another.[9] Similarly, it is very challenging to identify a particular age at which the effects of social media are reliably and tangibly different.

Blanket restrictive approaches also risk undermining the positive potential of digital technologies,[10,11,12,13] as well as the rights and agency of young people. Through our consultation, it was emphasised that there are a range of positive uses of digital technologies, with connection being the most often cited – that is, digital technology can facilitate positive connection and a sense of belonging. This was described as particularly important for those in marginalised communities or those who feel alone[14]. Respondents noted that digital technology enables people to connect with others beyond their own social circles and engage with people with different experiences.

Respondents also noted that digital technologies enable people to learn new things, access accurate information and online support, explore and understand one's own identity, flexibly complete school or work tasks, encourage wellbeing and physical activity (e.g., wearables, mindfulness/meditation apps), and access entertainment.

> *Digital technology connects my child to her friends, allows her to access a wide range of knowledge and experiences, allows her to understand and have compassion for diverse views and experiences, allows her to understand the world we are living in, including digital advances, political structures, media structures, and public debates. All of this makes my task easier as a parent helping my child navigate the world - it is at our fingertips, and I can 'go with them' as they travel from the couch. – Parent or carer of a young person aged 13-25 years*

Therefore, efforts to reduce any negative impacts of digital technologies should be balanced with and not detract from the positive impacts. A balanced approach to managing risks of social media needs to include building the digital literacy of young people as well as the digital literacy of adults who support young people to safely navigate social media. Consultation participants emphasised the need to ensure families know how to support young people to safely engage with digital technology, and the importance of adults modelling healthy engagement themselves. There was a clear preference for an evidence-based, coordinated approach to the education of parents/carers and young people on how to navigate digital usage, rather than an overwhelming array of independent programs.

In our consultation, there was also a recognition that many young people are already demonstrating considerable skill in navigating digital technology – for example, by thoughtfully curating feeds to suit their interests and preferences or putting self-imposed limits on their use. The importance of co-designing and developing education programs with young people was considered crucial to ensure these were effective and appropriately targeted. This relates both to learning how to mitigate the potential negative effects of digital technology as well as how to maximise the positive effects.

Section b: the decision of Meta to abandon deals under the News Media Bargaining Code

The Commission has no comment on the decision of Meta to abandon deals under the New Media Bargaining Code. However, our research has explored the role of digital technologies in amplifying exposure and engagement with current events and the effects of this on young people's mental health (see Section c).

Section c: the important role of Australian journalism, news and public interest media in countering mis- and disinformation on digital platforms

Digital technologies have changed the way we access information, and the frequency with which it is available. With many disturbing crises occurring at any one-time, global news can be consumed 24/7, significantly increasing our exposure to crisis events and contributing to increased stress and 'compassion fatigue'.[15,16] Young people prefer to access news through social media according to Australian research, with 75% of respondents aged 13-16 years using it to access news *often* or *sometimes* in 2020. Compared to similar research from 2017, more young Australians in 2020 said that the news made them *often* or *sometimes* feel afraid (62%), angry (60%), sad or upset (75%), with these results likely influenced by the focus on the COVID-19 pandemic in the media.[17] Increased consumption of news around disaster events has been linked to poorer mental health outcomes in young people.[18] This can be due to the media amplifying the uncertainty felt by viewers, with uncertainty consistently being shown to contribute to increased psychological distress or anxiety.[19,20]

Information overload in and of itself can lead to 'information anxiety', the sense of feeling overwhelmed with a loss of control over situations.[21] The COVID-19 pandemic has been described as the most publicised health crisis in modern times, with pervasive and continuous information being shared globally.[16] The World Health Organization declared an 'infodemic' following concerns that people were being exposed to an excessive amount of both accurate and misinformation about COVID-19, which made it difficult to determine the accuracy of information.[22] Early findings indicate that increased consumption of news around the pandemic negatively impacted the mental health and wellbeing of young people.[15,16,18]

Interestingly, one meta-analysis found that while social media was associated with increasing psychological distress, traditional news media was not.[19]**Error! Bookmark not defined.** Social media also had a significant association with uptake of preventative health measures whereas traditional news media failed to influence people's health behaviours.[17] This

suggests that the way young people engage with social media is different than other forms of media. Australian research indicated that social media was reported as the main source of COVID-19 misinformation.[22] This research also highlighted that young people aged 18-22 were the most likely age group to fact-check news about COVID-19, suggested to be a reflection of greater levels of digital literacy.[22]

Having information about crises and global events is important – it informs behavioural responses and can empower young people.[23] However, when these crises are complex and there are no clear solutions, the responding anxiety can be overwhelming and make young people feel confused or hopeless.[23] It is clear there is a need to balance young people's desire and need to understand global crises and issues of concern with the burden of over-consuming information on these issues.

Section d: the algorithms, recommender systems and corporate decision making of digital platforms in influencing what Australians see, and the impacts of this on mental health

It is evident that digital technologies can attract and retain attention, not just due to the content they present, but also because of how the digitised world is designed.[24] Current research proposes that characteristics of digital technologies encourage us to engage with a wide range of information and to be readily distracted. For example, the 'attraction mechanism' is where algorithms propel a self-reinforcing reel of appealing content to the forefront of digital platforms, where the more you interact, the more content is tailored to you.[24] 'Checking behaviours' involve quick frequent use of devices to get a gauge on new information from news and social media, reinforcing us with quick rewards that draw us away from other tasks.[24] This can include at times when we aren't directly engaged with a device. For example, when hearing an alert or seeing a notification pop up on your phone.[25,26,27] Just noticing someone else using their mobile device or being reminded of an activity that can be completed on one's mobile phone (email, information search etc.) can also trigger subsequent mobile phone use.[27] These behaviours are examples of ways in which digital technology is designed to demand a shift in our attention, ultimately bleeding into many aspects of our lives.

Activities that feel meaningful to us, or are known to foster a sense of self, purpose and wellbeing [28] often require sustained attention or the maintenance of goal-directed activity. Examples include finishing a project one has worked hard on, building relationships with loved ones, solving a school or work problem, or a creative hobby. However, when we experience frequent distractions or interruptions, often facilitated by the design of digital technologies, we are less likely to be able to sustain our attention on those meaningful activities that require longer periods of focus or deep thought. Some studies have begun to demonstrate that this has an indirect impact on young people's mental health and wellbeing – media multi-tasking was found to reduce engagement with academic and social activities as well as impacting sleep length and onset.[29] However, it is worth noting that some forms of digital technologies can promote achievement and mastery (e.g. a qualitative study found online game play could lead to benefits for players including offering a sense of meaning, personal growth and skill development).[30]

In our consultations, we heard parents and young people express apprehension about algorithms that facilitate repetitive, negative content. Participants called for greater accountability for digital technology companies.

Section e: other issues in relation to harmful or illegal content disseminated over social media, including scams, age-restricted content, child sexual abuse and violent extremist material

Inappropriate content can be encountered intentionally or by accident, and can include content such as sexually explicit, violent, extremist, or hateful material. A high proportion of young people aged 12-17 years in Australia have encountered inappropriate or hateful content online, with 57% reporting they have seen real violence that was disturbing, and nearly half of children between the age of 9-16 experience regular exposure to sexual images.[31] There are also significant gaps in parents' awareness of what their children engage with online. For example, eSafety found that despite 62% of young people aged 14-17 being exposed to negative online content, only 43% of their parents were aware.[32]

Recommender systems and algorithms play a role in young people's exposure to inappropriate content. Search engines use recommender algorithms to prioritise and serve results that match the queries of users, and social media and streaming services use recommender algorithms to personalise what is suggested and promoted to users.[33] This means that if a user spends time engaging with potentially harmful content or harmful content is going viral, they may be recommended more of the same material or increasingly harmful material in their feeds.[34]

Engaging with inappropriate content can affect mental health and wellbeing. For example, exposure to pornography has been found to contribute to unsafe sexual health practices and influence a young person's expectations around sex, subsequently contributing to sexual dissatisfaction, anxiety and fear.[35] Global research suggests lower levels of happiness with life, previous offline and online victimisation and lack of social support can increase young people's exposure to negative online content, including by increasing a tendency to seek out this content.[36]

Given that many young people are being exposed to inappropriate content regularly and at an early age,[31] it is likely this is having a negative impact on mental health and wellbeing.

Consultation participants expressed a desire to see a 'Safety by Design' approach to digital technologies continue, believing this is crucial to supporting the relationship between digital technologies and young people's mental health Developed by the eSafety Commissioner, the Safety by Design approach focuses on how technology companies can reduce online risks by predicting, finding, and eliminating online harms before they occur. It encourages technology companies to prioritise user safety, embed protections from the beginning of product design and development, and support users in managing their own safety.[37]

Digital technologies have changed the way mental ill-health and suicidal distress are discussed, how support is accessed, and how health information is shared. It is increasingly common for young people to communicate their distress online, particularly to their peers. Sharing stories of mental ill-health, suicide and self-harm, when done safely, can encourage a sense of hope as well as promote help-seeking behaviours (for example, see Orygen's #chatsafe guidelines).[38]

Research exploring self-harm has highlighted that young people accessing online content about self-harm were likely to already be engaging in self-harm behaviours.[39] Young people were found to be using the internet to find support from other people who had lived experience of self-harm. They found this helpful due to the immediate nature of support available online, the stigma encountered when seeking support face-to-face, and the long wait times associated with accessing professional support.[39] Similar findings have been highlighted for social media use amongst people living with a mental health condition.[40] Social media platforms have become even more important to young people for support, community and self-expression in the wake of the COVID-19 pandemic, in particular for those experiencing depression.[14] Additionally, while online posts may express distress and potentially intensify this distress, there is currently little evidence to suggest social media causes this distress.[41,42]

However, sharing unsafe stories, can cause emotional distress or worsen existing behaviour and some young people do actively seek out online content that is harmful for their mental health.[38] Well known examples of this behaviour include 'pro-ED' or 'pro-ana' communities online that encourage and reinforce behaviours associated with eating disorders such as anorexia nervosa.[43] These groups have been found to lower social self-esteem, and sustain anorexic behaviours and beliefs.[44]

Responsible media reporting guidelines and the removal of harmful suicide-related content from online platforms can reduce knowledge of means of suicide within the community.[45] While guidelines already exist in Australia – including the Mindframe national guidelines for media and #chatsafe: a young person's guide to communicating safely online about self-harm and suicide – further work is required to reduce exposure to harmful suicide-related content, particularly online content from sources outside of Australia.[38,46] Online safety can also be improved by mechanisms to make online services and platforms responsible for minimising the risk of people being exposed to harmful content, and to enhance user choice and control over the content they receive.

Research focused on eating disorders has also identified that it is possible to predict severity of mental ill-health up to eight months in the future based on what is being shared on Instagram.[47] This presents the possibility to predict a person's need for support via an algorithm. It is important to consider how online tools can be used to support earlier intervention, beyond redirecting to resources when someone is already in crisis.

With the growing use of social media to communicate health information, concerns are rising around the quality and reliability of information being shared. The nature of social media means that almost anyone has access to a platform to post information without verification, which can result in unreferenced or incomplete information being shared, at times by unknown authors, or with hidden conflict of interests unknown to the reader.[40,48,49]

While it is evident that young people use digital technologies to find resources that support their mental health and wellbeing, there are also communities that actively promote harm. In addition to these communities, there is also potential for unchecked or unreliable health information, no matter how well intended, to be shared widely online.

Section f: any related matters

The Commission supports the Committee in exploring social media impacts on Australian society, including how the government can improve efforts to mitigate the negative impacts of digital technologies (and social media). However, it is crucial to recognise the potential beneficial impact of digital technologies, particularly in promoting youth wellbeing – for example, the facilitation of data-driven, outcome-focused clinical decision-making, the mass personalisation of service offerings, or the enhancement of service accessibility or affordability.

Through the Commission's consultation on this topic it has become clear that more robust evidence is needed, and that broader engagement with a diverse range of perspectives is critical to achieving a more effective response. It is particularly important that this involves young people. As a result, the Commission has committed to investing in further research in 2024. The research will allow for a more comprehensive understanding of how digital technologies, including social media, are impacting young people and their families, how young people interact with digital technologies, factors that protect as well as compromise young people's mental health from the use of digital technologies, and what needs to happen at a system level that can contribute to the positive mental health of young people.

References

1. Roger Wilkins, Esperanza Vera-Toscano and Ferdi Botha. The Household, Income and Labour Dynamics in Australia Survey: Selected Findings from Waves 1 to 21. 2024. Melbourne Institute: Applied Economic & Social Research, the University of Melbourne. Available from: https://melbourneinstitute.unimelb.edu.au/__data/assets/pdf_file/0008/4841909/HILDA_Statistical_Report_2023.pdf

2. Australian Institute of Health and Welfare. Intentional self-harm hospitalisations by age groups [Internet]. 2021. Available from: Available from: https://www.aihw.gov.au/suicide-self-harm-monitoring/data/intentional-self-harm-hospitalisations/intentional-self-harm-hospitalisations-by-age-sex

3. Australian Institute of Health and Welfare. Medicare-subsidised mental health-specific services [Internet]. 2021. Available from: Available from: https://www.aihw.gov.au/mental-health/topic-areas/medicare-subsidised-services

4. Kelly Johnstone, Lisa Kervin and Peta Wyeth. Defining Digital Technology [Internet]. Available from: https://digitalchild.org.au/defining-digital-technology/ [Accessed 10 April 2024]

5. eSafety Commissioner. Glossary of terms [Internet]. Available from: https://www.esafety.gov.au/about-us/glossary

6. Office of the Australian Information Commissioner. Social media and online privacy [Internet]. Available from: https://www.oaic.gov.au/privacy/your-privacy-rights/social-media-and-online-privacy

7. Dienlin T, Johannes N. The impact of digital technology use on adolescent well-being. Dialogues Clin Neurosci. 2022;22(2):135-42. DOI: 10.31887/DCNS.2020.22.2/tdienlin

8. Jensen M, George MJ, Russell MR, Odgers CL. Young adolescents' digital technology use and mental health symptoms: Little evidence of longitudinal or daily linkages. Clin Psychol Sci. 2019;7(6):1416-33. DOI: 10.1177/2167702619859336

9. Turel O, Ferguson C. Excessive use of technology: can tech providers be the culprits?. Communications of the ACM. 2020 Dec 17;64(1):42-4.

10. Third A, Collin P. Rethinking (children's and young people's) citizenship through dialogues on digital practice. In: McCosker A, Vivienne S, Johns A. Negotiating digital citizenship: Control, contest and culture. United Kingdom: Rowman & Littlefield; 2016. p. 41-59.

11. Third A, Collin P, Walsh L, Black R. Young people in digital society: Control shift. United Kingdom: Palgrave Macmillan; 2019.

12. Livingstone S, Third A. Children and young people's rights in the digital age: An emerging agenda. New Media Soc. 2017;19(5):657-70. DOI: 10.1177/1461444816686318

13. Harris A, Lam K, Hartup M, Collin P, Third A, Quek S. Social cohesion and participation in a digital age for diverse young Australians [Internet]. Melbourne: Centre for Resilient and Inclusive Societies; 2022. Available from:

    https://static1.squarespace.com/static/5d48cb4d61091100011eded9/t/624a9cef65050e3b7eecba39/1649057019276/Social+cohesion+and+participation+in+a+digital+age+Final.pdf

14. Rideout V, Fox S, Peebles A, Robb MB. Coping with COVID-19: How young people use digital media to manage their mental health [Internet]. San Francisco: Common Sense and Hopelab; 2021. Available from: https://www.commonsensemedia.org/sites/default/files/research/report/2021-coping-with-covid19-full-report.pdf

15. Holman EA, Garfin DR, Silver RC. Media's role in broadcasting acute stress following the Boston Marathon bombings. Proc Natl Acad Sci U S A. 2014;111(1):93-8. DOI: 10.1073/pnas.131626511

16. Taylor L. Compassion fatigue: How much is too much bad news? [Internet]. 2014. Available from: https://www.sbs.com.au/news/article/compassion-fatigue-how-much-is-too-much-bad-news/je23bo0vq

17. Notley T, Dezuanni M, Zhong HF, Chambers S. News and young Australians in 2020: How young people access, perceive and are affected by news media [Internet]. Sydney: Western Sydney University, Queensland University of Technology; 2020. Available from: https://www.westernsydney.edu.au/__data/assets/pdf_file/0009/1717875/News_and_Young_Australians_in_2020_web.pdf

18. Strasser MA, Sumner PJ, Meyer D. COVID-19 news consumption and distress in young people: A systematic review. J Affect Disord. 2022; 300:481-91. DOI: 10.1016/j.jad.2022.01.007

19. Chu TH, Yeo TE, Su Y. Effects of exposure to COVID-19 news and information: A meta-analysis of media use and uncertainty-related responses during the pandemic. Journal Mass Commun Q. 2022;99(1):89-112.

20. Afifi WA, Felix ED, Afifi TD. The impact of uncertainty and communal coping on mental health following natural disasters. Anxiety Stress Coping. 2012;25(3):329-47. DOI: 10.1080/10615806.2011.603048

21. Bawden D, Robinson L. The dark side of information: Overload, anxiety and other paradoxes and pathologies. J Inf Sci. 2009;35(2):180-91. DOI: 10.1177/0165551508095781

22. Park S, Fisher C, Lee JY, Mcguinness K. COVID-19: Australian news and misinformation [Internet]. Canberra: News Media Research Centre, University of Canberra; 2020. Available from: https://www.canberra.edu.au/research/faculty-research-centres/nmrc/publications/documents/COVID-19-Australian-news-and-misinformation.pdf

23. Hickman C, Marks E, Pihkala P, Clayton S, Lewandowski RE, Mayall EE, Wray B, Mellor C, van Susteren L. Climate anxiety in children and young people and their beliefs about government responses to climate change: A global survey. Lancet Planet Health. 2021;5(12):e863-73. DOI: 10.1016/S2542-5196(21)00278-3

24. Firth J, Torous J, Stubbs B, Firth JA, Steiner GZ, Smith L, Alvarez-Jimenez M, Gleeson J, Vancampfort D, Armitage CJ, Sarris J. The "online brain": How the Internet may be changing our cognition. World Psychiatry. 2019;18(2):119-29. DOI: 10.1002/wps.20617

25. Oulasvirta A, Rattenbury T, Ma L, Raita E. Habits make smartphone use more pervasive. Pers Ubiquitous Comput. 2012;16(1):105-14. DOI: 10.1007/s00779-011-0412-2

26. Wilmer HH, Sherman LE, Chein JM. Smartphones and cognition: A review of research exploring the links between mobile technology habits and cognitive functioning. Front Psychol. 2017;8(1):605. DOI: 10.3389/fpsyg.2017.00605

27. Wilmer HH, Chein JM. Mobile technology habits: Patterns of association among device usage, intertemporal preference, impulse control, and reward sensitivity. Psychon Bull Rev. 2016;23(5):1607-14. DOI: 10.3758/s13423-016-1011-z

28. Hooker SA, Masters KS, Vagnini KM, Rush CL. Engaging in personally meaningful activities is associated with meaning salience and psychological well-being. J Posit Psychol. 2020;15(6):821-31. DOI: 10.1080/17439760.2019.1651895

29. Van Der Schuur WA, Baumgartner SE, Sumter SR, Valkenburg PM. The consequences of media multitasking for youth: A review. Comput Human Behav. 2015; 53:204-15. DOI: 10.1016/j.chb.2015.06.035

30. Arbeau K, Thorpe C, Stinson M, Budlong B, Wolff J. The meaning of the experience of being an online video game player. Comput Hum Behav. 2020; 2:100013. DOI: 10.1016/j.chbr.2020.100013

31. eSafety Commissioner. Inappropriate content: Factsheet [Internet]. Available from: https://www.esafety.gov.au/educators/training-for-professionals/professional-learning-program-teachers/inappropriate-content-factsheet

32. eSafety Commissioner. Parental awareness [Internet]. Available from: https://www.esafety.gov.au/research/mind-gap-parental-awareness-childrens-exposure-risks-online/parental-awareness

33. eSafety Commissioner. Recommender systems and algorithms [Internet]. Available from: https://www.esafety.gov.au/industry/tech-trends-and-challenges/recommender-systems-and-algorithms

34. eSafety Commissioner. Glossary of terms [Internet]. Available from: https://www.esafety.gov.au/about-us/glossary

35. Quadara A, El-Murr A, Latham J. The effects of pornography on children and young people: An evidence scan [Internet]. Melbourne: Australian Institute of Family Studies; 2017. Available from: https://aifs.gov.au/research/research-reports/effects-pornography-children-and-young-people

36. Stoilova M, Livingstone S, Khazbak R. Investigating risks and opportunities for children in a digital world: A rapid review of the evidence on children's internet use and outcomes [Internet]. Unicef; 2020. Available from: https://www.unicef-irc.org/publications/1183-investigating-risks-and-opportunities-for-children-in-a-digital-world.html

37. Safety by Design [Internet]. eSafety Commissioner. Available from: https://www.esafety.gov.au/industry/safety-by-design

38. Thorn P, McKay S, Hemming L, Reavley M, La Sala L, Sabo A, McCormack T, Battersby-Coulter R, Cooper C, Lamblin M, Robinson J. #Chatsafe: A young person's guide to communicating safely online about self-harm and suicide [Internet]. Melbourne: Orygen; 2023. Available from: https://www.orygen.org.au/Training/Resources/Self-harm-and-suicide-prevention/Guidelines/chatsafe-A-young-person-s-guide-for-communicatin

39. Lavis A, Winter R. #Online harms or benefits? An ethnographic analysis of the positives and negatives of peer-support around self-harm on social media. J Child Psychol Psychiatry. 2020;61(8):842-54. DOI: 10.1111/jcpp.13245

40. Naslund JA, Bondre A, Torous J, Aschbrenner KA. Social media and mental health: Benefits, risks, and opportunities for research and practice. J Technol Behav Sci. 2020;5:245-57. DOI: 10.1007/s41347-020-00134-x

41. Ortiz P, Khin Khin E. Traditional and new media's influence on suicidal behavior and contagion. Behav Sci Law. 2018;36(2):245-56. DOI: 10.1002/bsl.2338

42. Marchant A, Hawton K, Stewart A, Montgomery P, Singaravelu V, Lloyd K, Purdy N, Daine K, John A. A systematic review of the relationship between internet use, self-harm and suicidal behaviour in young people: The good, the bad and the unknown. PloS One. 2017;12(8):e0181722. DOI: 10.1371/journal.pone.0181722

43. Wang T, Brede M, Ianni A, Mentzakis E. Social interactions in online eating disorder communities: A network perspective. PloS One. 2018;13(7):e0200800. DOI: 10.1371/journal.pone.0200800

44. Rennick-Egglestone S, Morgan K, Llewellyn-Beardsley J, Ramsay A, McGranahan R, Gillard S, Hui A, Ng F, Schneider J, Booth S, Pinfold V. Mental health recovery narratives and their impact on recipients: Systematic review and narrative synthesis. Can J Psychiatry. 2019;64(10):669-79. DOI: 10.1177/0706743719846108

45. Hawton K, Williams K. Influences of the media on suicide. BMJ. 2002;325(7377):1374–5. doi:10.1136/bmj.325.7377.1374

46. Everymind. Reporting suicide and mental ill-heath: a Mindframe resource for media professionals. Newcastle: Everymind; 2020. Available from: https://mindframe.org.au/guidelines

47. Chancellor S, Lin Z, Goodman EL, Zerwas S, De Choudhury M. Quantifying and predicting mental illness severity in online pro-eating disorder communities. Association for Computing Machinery. 2016:1171-1184. DOI: 10.1145/2818048.2819973

48. Moorhead SA, Hazlett DE, Harrison L, Carroll JK, Irwin A, Hoving C. A new dimension of health care: Systematic review of the uses, benefits, and limitations of social media for health communication. J Med Internet Res. 2013;15(4):e1933. DOI: 10.2196/jmir.1933

49. Ventola CL. Social media and health care professionals: Benefits, risks, and best practices. Pharmacy and Therapeutics. 2014;39(7):491-9.