Four shifts to future-proof digital citizenship education

Yes

OPTUS | Digital Thumbprint

Contents

Introduction

Digital technologies provide young Australians with opportunities that were unimaginable a generation ago. Nowadays, we have access to robots that help those on the autism spectrum develop their social skills, free apps that promote childhood resilience, and even virtual classrooms that help seriously ill children participate at school. The benefits of exploring new technological terrains are clear. However, alongside these advantages come uncharted territories that we are yet to create roadmaps for.

This leaves us with some challenging questions, such as:

- How can we keep children and young people safe in a world where bullies and predators may be able to access their victims at any time?
- How do we teach and role model for our children behaviours, morals and values that are appropriate in both 'online' and 'offline' spaces?
- Will new technologies and virtual communities stop young people from forming authentic relationships?
- Between Instagram filters and fake news, how will children learn the difference between real and false information?

4 shifts to prepare young Australians for the digital future

The path towards resolving digital challenges is not always straightforward. In part, this may be because digital technologies are evolving at an ever-increasing rate. As a result, the digital curriculum content created for the obstacles of today may well be redundant tomorrow.

To this end, we are being encouraged to direct our thinking beyond today's digital citizenship challenges, and towards solutions that can withstand the everchanging digital landscape.

For this reason, Optus has been working to identify some of the major opportunities and roadblocks facing young people today - and in the future - by commissioning research, hosting multi-stakeholder roundtable events, and garnering insights from Australian students and educators through our award-winning Digital Thumbprint Program. In this paper, we present our position on four prominent themes that have emerged through our work. For each theme, we will drill down into the **major shift that will enable us to bring a future focus to digital citizenship education**, including:

1.	**Digital Risk**	*Shifting from digital citizenship to digital leadership*
2.	**Ethics**	*Shifting from careful to ethical*
3.	**Empathy**	*Shifting from contact to connection*
4.	**Discernment**	*Shifting from invisible to visible*

Our efforts have been inspired by several initiatives from Australia and abroad. Throughout this report, we feature research and contributions from leaders in the digital citizenship eco-system, and we thank and acknowledge all for their contribution. Empowering young people to co-design their future is also critical, and we thank and acknowledge the students and teachers who took part in research to inform our thinking of the future of digital citizenship education.

We hope in this paper you will find useful, pertinent and actionable insights to continue driving us forward so that current and future generations of young Australians can experience a safe, responsible and positive digital world.

Key design principles for digital citizenship initiatives

It is our belief that there are four key design principles that underpin successful digital citizenship initiatives. These form the foundation of the present paper:

1.

Bringing humanity to the forefront

Many of the most alarming digital challenges (including online bullying, sexting and privacy) are not technology problems *per se*. Rather, they are deeper issues of human behaviour which link to an individual's personal values, ethics and morality. Equipping young people to navigate the increasingly complex digital world requires a deep focus on the relational aspects of digital citizenship. To this end, the current paper is divided into four chapters that help identify the character skills and traits needed to become well-rounded digital citizens.

2.

Co-designing the future

Young people must be engaged and empowered to co-design the future of digital citizenship. Through the Digital Thumbprint program in secondary schools, and with Kids Helpline in primary schools, Optus engages thousands of young people each year, including in the classroom and in focus groups. We believe in designing for and with young people. For this reason, Optus undertakes deep dive evaluations to hear directly from young people about their experiences online and with the program. This paper includes data from our Digital Thumbprint Impact Report, 2020, where we engaged with over 1000 students and 315 teachers across over 60 secondary schools in Australia. This data helps to paint a picture of how young people in Australia are responding to current digital citizenship education, and what they'd like to learn more about.

3.

Moving beyond the 'digital divide'

Much has been said about a 'digital divide' between adults and youth, where adults are thought to lack an understanding of the digital world. While this is a common trope, it is worth asking whether it is either accurate or helpful. Nowadays, many adults operate in an ever-increasingly digital workforce and engage on social media platforms daily. Rather than a lack of digital understanding, could it be the case that adults – including parents, caregivers and teachers – don't know how to have the right conversations with young people to support positive digital experiences? To address this challenge, this paper contains thought starters to help adults have fruitful conversations with their children, students and loved ones.

4.

Partnering together for change

Parents, educators, politicians, tech creators, government, not for profits and the private sector often have different opinions of how to protect and empower young people with digital technology. With this comes complementary strengths, strategies and approaches to addressing our collective challenges as members of the digital citizenship ecosystem.

Chapter One: Digital Risk

Shifting from digital citizenship to digital leadership

Nowadays, young people are exposed to unprecedented amounts of digital risk, and while it may be tempting to ban devices or limit access to the internet, issues such as cyberbullying, identity theft and hacking, videogame addiction, talking to strangers, and access sexualised content don't simply go away.

Historically, many education program have focused on cybersafety and risk aversion, with an emphasis on protecting young people from negative experiences in digital spaces. Needless to say, educating young people about online dangers and their personal responsibilities is an absolute necessity. However, if we are overwhelmingly focused on cybersafety, we risk not empowering young people with the skills needed to become positive agents of change.

Research suggests that by building leadership development into digital citizenship education, we can help young Australians to positively reshape digital spaces when they encounter harmful online content, and ultimately leverage technology for the greater good of society.[1]

What is "Digital Leadership"?

Subject matter experts Matthew Lynch, Dr. Josie Ahlquist and George Couros, commonly describe three core attributes of digital leadership. These include:

1.

A sense of community mindedness

Digital leaders proactively advocate for the wellbeing of their peers. Beyond taking personal responsibility for their online behaviour, digital leaders purposefully seek out causes to support. They re-shape online communities for the betterment of others, and empower digital users who cannot empower themselves.

2.

A proactive approach to knowledge and information

Digital leaders treat knowledge obtained via digital sources with discernment and purpose. Beyond gathering information, digital leaders know how to analyse and use information. They differentiate fact from fiction, and seek to combat bias inherent in digital spaces.

3.

Learning to embrace change

Digital leaders are inspired by the possibilities of new technology. Beyond taking measures to mitigate risk, digital leaders embrace the ways technology can improve their social, work and study experiences. They consider how the internet and social media could evolve to make a difference in the world.

If digital spaces have the potential to be harnessed for the greater good, how can we facilitate the shift towards digital leadership for the next generation?

Below we give three recommendations:

Balance protection with empowerment

One of our major challenges is striking a balance between protecting and empowering digital users.

Developmental psychologist Dr. Shannon Wanless (2016) observes that it is not a choice of either/or; safety and empowerment go hand-in-hand.[2] Young people may first and foremost need to comprehend the risks associated with being online. Once they feel comfortable within the boundaries of the digital world, they may then feel safe enough to push against them.

The case of Honor Eastly is a prime example of how feeling safe in online spaces can spark a young person to make positive changes for one's self and the broader community. After finding respite from her mental illness through the support of her digital peers, Honor founded 'The Big Feels Club'; an online community dedicated to creating spaces for people to talk about their "big, scary feeling feelings" with one another.

It is "imperative to equip children with a holistic set of digital life skills to become ethical and discerning digital citizens who can **proactively mitigate various cyber-risks, while maximising the potential of technology**."[3]

- Dr. Yuhyun Park, DQ Global

From by-standing to "up-standing"

While social media platforms have made significant investments in shutting down cyberbullying and hate language, digital users are the ones who hold the ultimate power to bring moral awareness into online spaces.

The practice of being 'up-standing', rather than simply standing by, is gaining significant ground. Many practitioners working in digital education, including Optus and Kids Helpline (through the Digital Thumbprint program) are supporting young people to learn how and when to support their peers when cyberbullying occurs. Parents, teachers and mentors can also support by helping young people recognise when injustices are occurring, and support them to take their values with them into the digital world.

The unique digital structures of our online lives allow anyone to leverage the power of virtual platforms to fight injustice. For example, the international activist movements Black Lives Matter and #MeToo were started from Twitter hashtags.

Letting go of leadership

It's interesting to note that, in our efforts to enhance digital citizenship, we are often drawn to instruct and teach young people. Yet, when it comes to connecting with adults about their online experiences, Optus Digital Thumbprint facilitator Kristina Binks notes that "it's hard for kids to share this world with parents and teachers who often act as if they know better". While many young people desire to talk to their parents and teachers about digital issues, they may hesitate because they often find they don't have a safe space to do so where they are the 'experts'.

A helpful way to invite young people to be leaders of their digital future is to encourage them to take an active role in their education. This means taking off our instructor's hat, and supporting them to identify their own digital role models, recognising without judgement that these role models may be vastly different from our own.

2. Wanless, S.B. (2016). The Role of Psychological Safety in Human Development. Research in Human Development, 13(1), 6 - 14.

3. Park, Y. (2019). DQ Global Standards Report 2019. DQ Institute. Available from https://www.dqinstitute.org/wp-content/uploads/2019/03/DQGlobalStandardsReport2019.pdf (page 9).
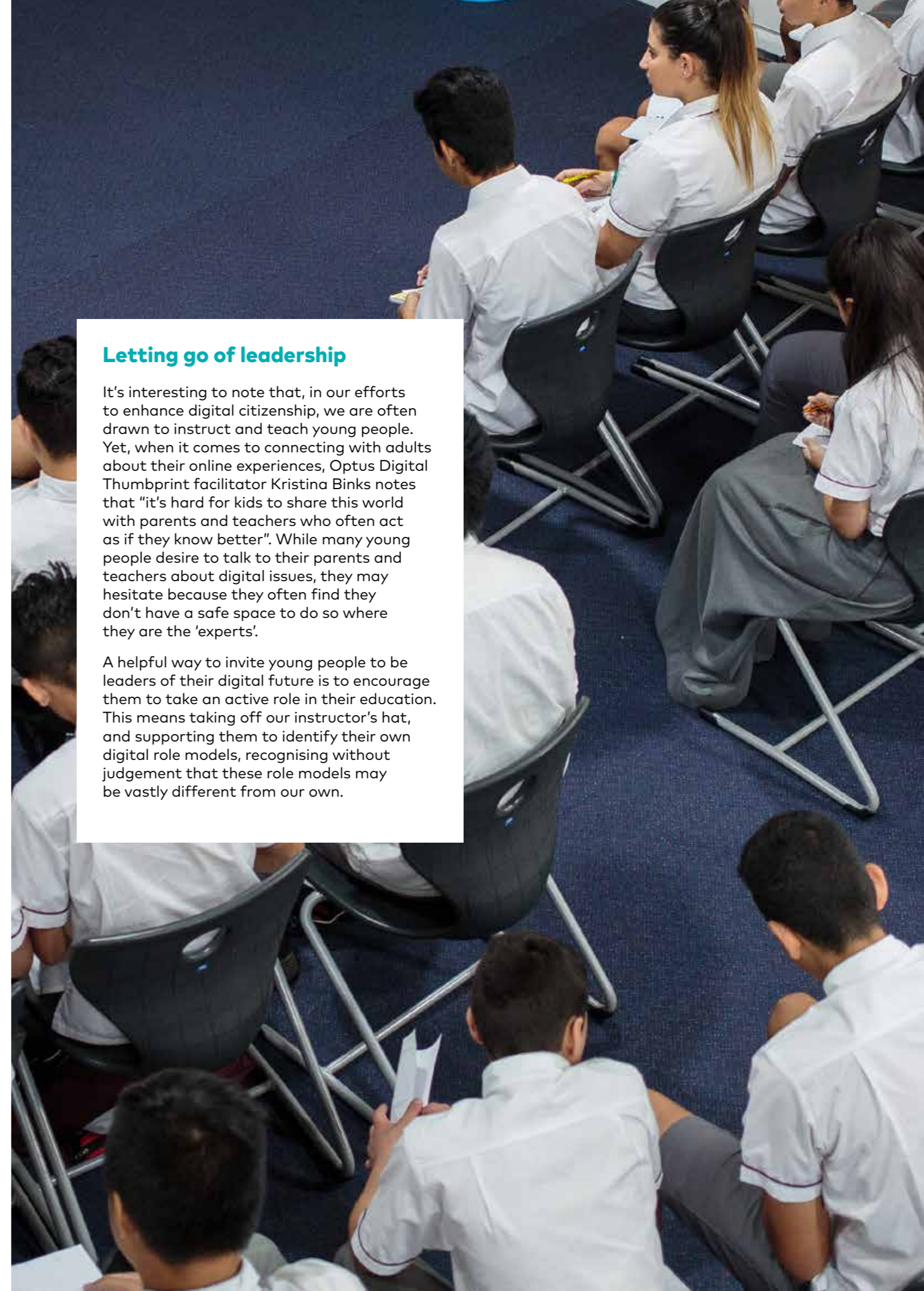
Insight: Digital Thumbprint Impact Report, 2020

While parents and teachers worry about the risks young people face in the digital world, our Digital Thumbprint Impact Report, 2020, paints an optimistic picture.

The data indicates that following a 1-hour behaviourally-orientated workshop on digital risk:

- **81% of students believed they could give better support to their friends if they thought they needed help.**

81%
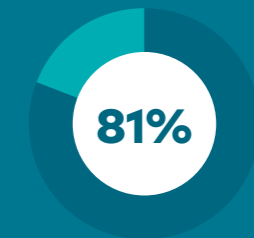
- **92% of teachers believed their students would take actions to be more responsible online.**

92%

- **79% of teachers agreed that as a result of the workshop, their students would be more likely to report image-based abuse.**

79%

Case study: Jade Hameister

The story of Australian polar explorer and Optus ambassador Jade Hameister is a poignant example of how young people can use digital spaces as a force for good. In 2016, Melbourne schoolgirl Jade gave a TEDx talk about her experience as the youngest person in history to ski to the North Pole. Her talk attracted several internet trolls, who told this high achieving young woman to 'make a sandwich'. Responding to these derogatory remarks via social media, Jade posting a photo of a ham and cheese sandwich after completing a record-breaking trek to the South Pole. "I made you a sandwich (ham & cheese)," Jade wrote, "now ski 37 days and 600 kilometers to the South Pole and you can eat it." This post quickly became viral, and Jade is now using her platform to encourage young women to focus on abilities rather than appearance, in both physical and virtual spaces.

"Tonight (it never gets dark this time of year) I skied back to the Pole again...to take this photo for all those men who commented 'Make me a sandwich' on my TEDX Talk. I made you a sandwich (ham & cheese), now ski 37 days and 600km to the South Pole and you can eat it."

Jade has reinforced the importance of young people stepping up into leadership roles when it comes to their online experience. When asked how parents should respond when they hear of digital misconduct, Jade noted that "ultimately it's up to us young people...there's only so much that parents can do. If we drill in those messages about not caring what other people think, not worrying about how we appear at a young age, social media [mistreatment] won't even be important in the future."[4]

Jade continued, "As a young woman, I feel like social media is constantly bombarding us – young people – to look a certain way or to be a certain way... I think there is definitely a message behind it about not focusing on what other people think or on how we appear because it's a much better way to be to focus on what you can do."[5]

Digital Risk: Conversations to have with young people today

1.

What online communities (i.e. chat forums, gaming, sites, interest groups) have you joined that make you feel empowered, resilient and safe?

2.

What sort of digital communities or causes would you like to be a part of? What qualities do these digital communities have that attract you to them?

3.

What skills do you wish you had or could improve on that would help you to stand up to bullies in the online world? How can you stand up for your friends and fellow students?

4.

Who are the digital leaders and social media influencers that inspire you? How do you decide whether or not they are good role models?

4. Jade Hameister, interviewed by Jane Hutcheon, One Plus One, 28 September 2018; Available from https://www.abc.net.au/news/programs/one-plus-one/2018-09-27/one-plus-one:-jade-hameister/10313102.

5. Jade Hameister, interviewed by Jane Hutcheon, One Plus One, 28 September 2018; Available from https://www.abc.net.au/news/programs/one-plus-one/2018-09-27/one-plus-one:-jade-hameister/10313102.

Chapter Two: Ethics

Shifting from careful to ethical

In the age of screens and filters, digital ethics are not always black and white. Rather, as our 'digital' and 'physical' lives become one, deciding between right and wrong, good and bad, and empowerment and exploitation has become increasingly complex. Despite this convergence, it has not been the same for digital and physical identities. The detachment and anonymity of online spaces can often lead young people to forget their ethics and values, and behave in ways that would be considered unacceptable in face-to-face interactions.[6]

Here's what we know:

Sexting

Up to 40% of young people from ages 11 to 18 years engage in sharing of self-generated sexual content. Girls are more affected than boys, and peers are more influential at exerting pressure than strangers.[7]

Pornography

Three quarters of Australians aged 16 to 17 have been 'accidentally' exposed to pornographic websites, and nearly half of all children aged nine to 16 years experience regular exposure to images, with teenage boys viewing pornographic content most frequently.[8, 9, 10]

Cyberbullying
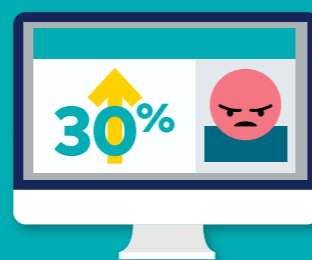
In 2018- 2019, there was a 30% increase in the number of serious cyberbullying complaints by young Australians to the Office of the eSafety Commissioner – and these are just the reported cases.[11] Confounding matters, young people now have no escape as social media enables bullies to follow them from the playground to their homes.[12]

To address the changing nature of ethics in our increasingly digital world, we are being called to shift away from over-simplistic instructions of managing privacy and controlling online behaviour. Instead, we are being encouraged to reconsider what ethical behaviour looks like now that our formerly distinct physical and virtual worlds have blurred.

Once we have reconsidered our understanding of ethics in digital spaces, our challenge is then ensuring that young people develop the social and emotional skills to reflect their core values in both online and offline spaces. While we cannot always protect young people from difficult ethical situations, we can equip them with the tools to respond.

6. Lapidot-Lefler, N., and Barak, Azy. (2011). Effects of anonymity, invisibility, and a lack of eye-contact on toxic online disinhibition. Computers in Human Behaviour, 28, 434 – 443.

7. Ringrose, J., Gill, R., Livingstone, S., and Harvey, L. (2012). A qualitative study of children, young people and 'sexting': a report prepared for the NSPCC.National Society for the Prevention of Cruelty to Children, London, UK.

8. Flood, M. (2007). Exposure to pornography among youth in Australia. Journal of Sociology, 43(1), 45 – 60.

9. Antonia Quadara, Elissar El-Murr and Joe Latham. (2017). Online pornography: effects on children & young people. Australian Institute of Family Studies. Accessed 09/01/2020]; Available from https://aifs.gov.au/publications/effects-pornography-children-and-young-people-snapshot

10. Monica Campo. (2016). Children and young people's exposure to pornography. Australian Institute of Family Studies. [Accessed 09/01/2020]; Available from https://aifs.gov.au/cfca/2016/05/04/children-and-young-peoples-exposure-pornography

11. Annual Report 2018 – 2019. 2019, Office of the eSafety Commissioner. [Accessed 09/01/20120]; Available from https://www.esafety.gov.au/sites/default/files/2019-10/ACMA_and_eSafety_annual_reports_2018_19.pdf

12. Rhiannon Lucy Cosslett. (2013). Bullies are not just on the playground – they follow our children home. The Guardian. [Accessed 09/01/2020]; Available from https://www.theguardian.com/commentisfree/2013/jun/21/buillies-playground-follow-children.

Adult vs. Youth perspective

In moving towards redefining what ethical behaviour looks like in our increasingly hybrid world, it is worth considering the differences in how adults and young people tackle issues of sexualisation, privacy and bullying in online spaces.

As parents, teachers and mentors, our perceptions, attitudes and ambitions for the digital world may be very different than those of our kids. Subject matter experts suggest that adults may paint an over-simplified and sensationalised picture when it comes to technology and ethics, that does not reflect the lived experience of young people. This is a common theme in our work with young people through the Digital Thumbprint program. By bringing awareness to some of the differences between adult and youth perspectives, we can start to break down barriers that may be keeping us from having important conversations about ethical behaviour online.

While "adults may have a better developed sense of right and wrong, they don't always understand how it applies to [young people] because they don't understand the contexts that kids are working in."

- Kristina Binks, facilitator,
Optus Digital Thumbprint program

Adults focus on stranger danger, but young people may be more at-risk from their peers

One of the biggest ethical issues to emerge in the digital world is that of sexting; the creation, sharing or storing of sexual images or messages. In recent years, contact from strangers (as opposed to peer-to-peer sharing) has been the main focus for parents and education programs alike. Undoubtedly, there is a need to continue highlighting the risks of stranger danger. Yet, the practice and impact of peer-to-peer sexting continues to grow and requires our attention and support.

According to research by EU Kids Online, within Europe, by the ages of 11 – 12 years, many children are sending and receiving sexual messages, a practice which is prevalent by the time they enter secondary school. The question of why young people "sext" is complex. Research suggests that sexting may initially develop as a way of sexual exploration.[13]

However, there are many examples of where sexting has escalated into behaviour that is "coercive, linked to harassment, bullying and even violence". This is especially true from age 14 onwards, with girls being particularly vulnerable to exploitation, shame and power-centric behaviour. While e-safety campaigns have been largely successful in guiding young people away from sexualised online encounters with strangers, they may lack the skills to resist this same pressure from their peers.

However uncomfortable these insights are, as educators and parents, we can and should support young people in their ethical and moral development. This goes beyond helping them to understand that peer pressure and coercion is unacceptable. We also have a responsibility to support our children, students and mentees if harmful images are shared. Within Australia, the Office of the eSafety Commissioner has practical guidance and reporting options for image-based abuse like 'revenge porn' or other types of online abuse.

13. Ringrose, J., Gill, R., Livingstone, S., and Harvey, L. (2012). A qualitative study of children, young people and 'sexting': a report prepared for the NSPCC. National Society for the Prevention of Cruelty to Children, London, UK.

Can adults be anti-role models?

While we as adults are genuinely concerned about how much personal information young people share online, are we unknowingly contributing to the problem? The culture of "sharenting" – where parents share photos of their children on social media – may be unintentionally blurring the line between what content is appropriate for public vs. private spaces. While our intentions may be harmless, by publicly sharing images that include identifying information such as location, school uniform or logos, we are inadvertently modelling the very behaviours we are advising young people against. According to cybersafety expert Susan McLean, "over-sharing parents are a concern" because they have less digital image sharing knowledge than their children, and "do not lock their accounts down in the same way kids do".

While many adults are concerned about the non-consensual sharing of images posted online, young people have largely accepted this as a reality of digital citizenship. This perhaps explains why young people are often more skilled than their parents in managing their online accounts.

Research suggests that rather than telling our kids what not to do, it may be more useful to develop ethical media competencies (EMC) in young people. An experiment by Müller and colleagues showed that when young people were equipped to uphold social and legal norms in online spaces, they were more likely to engage in prosocial behaviour, and less likely to participate in unethical activity such as cyberbullying.[14] By helping our children to define what ethical behaviour looks like in digital spaces, they will be more empowered to act according to their moral compass when they're online.

14. Müller, C.R., J. Pfetsch, and A. Ittel. (2014). Ethical media competence as a protective factor against cyberbullying and cybervictimization among German school students. Cyberpsychology, Behavior, and Social Networking, 17(10), 644-651.

Most young people do not lack moral values, rather they need moral awareness and moral engagement to apply them when it counts.

Below, Dr. Rory Gallagher, Managing Director of the Behavioural Insights Team, shares his key tips for ethical development:

1. Once young people recognise the right thing to do they need character skills like empathy and self-reflection to turn that recognition into action.

2. We must recognise how much a young person's decisions are shaped by their environment, and that taking control of their online environment is one of the best ways for young people to exert agency over their behaviour.

3. Ethical development requires social support from family, peers, teachers and role models.

Curation creates characters

By their nature, underlined digital identities are heavily curated, often cropped, edited and filtered far beyond reality. While many adults in the corporate world create a professional brand on networking sites such a LinkedIn, young people also carefully manage their personas, albeit on different social media platforms. The world only sees their witty, creative and most desired selves. The curation culture may explain why people behave differently from behind a screen than they do when face-to-face. Does the glass face of the screen create a barrier that makes it easier to act in ethically ambiguous ways? Could this distance from our 'real' selves be the reason we're struggling to access our authentic values online?

Compounding matters, once young people "master what is essentially an onstage performance...it can be hard to break character". What happens when these two identities start bleeding into each other – does life start imitating art, or the other way around?

Instagrammer and Australian model Essena O'Neill is a high profile example of the possible consequences of 'curation culture'. The then 19-year-old made global headlines by shutting down her social media accounts with 500,000+ followers, because 'Insta-perfection', left her feeling lost, sick and in need of serious help.

There isn't a one size fits all approach to helping young people integrate their online vs. offline values and personas. However, by seeking to understand the experiences of young people through conversation, adults can move towards helping young people live authentically in the digital world.

Insight: Digital Thumbprint Impact Report, 2020

Our 2020 impact report suggests that simply talking to young people about the difference between 'right' and 'wrong' behaviour in digital spaces can inspire them to consider the true impact they are having online.

Immediately following the Cyberbullying and Respectful Relationship online workshop:

- **78% of students thought it was important to present their authentic selves online.**

78%

- **81% of students believed they could give better support to their friends if they thought they needed help.**

81%

- **82% of students said they would be more considerate of others when they're online.**

82%

Ethics: Conversations to have with young people today

1.

Is there are difference between 'right' and 'wrong' behaviours in the physical vs. digital worlds? If so, what are they?

2.

What do you think 'consent' means? Does being online change how consent is given and received?

3.

Does the anonymity of online spaces change what you think, feel, say and behave?

4.

Who do you want to 'be' when you're online, and how do you want to be seen?

5.

How can you encourage and reward authenticity when you see it on social media?

Chapter Three: Empathy

Shifting from contact to connection

Digital spaces have created unprecedent opportunities for human-to-human contact. Forget the classic six degrees of separation theory – active social media users are now only separated by an average of 3.57 steps. While the rapid expansion of social media has made us more connected, there are questions as to whether we are now better connected. Furthermore, with artificial intelligence (AI) increasingly part of our day-to-day lives, adults may wonder whether these new technologies will impair young people's ability to develop empathy for their fellow human beings?

Disconnecting from technology is not always a desirable – or feasible – strategy to resolve concerns over the impersonal nature of digital communication. Instead, we are being encouraged to shift our efforts towards helping young people form meaningful connections through reclaiming their humanity within digital spaces.

The path towards forming authentic, empathetic relationships via digital mediums is not straightforward. As parents, educators and mentors, perhaps our first step is defining the problem more holistically by articulating both the risks and rewards of digital technologies, and how AI complicates these matters.

Does digital technology damage the quality of our relationships?

Professor Sherry Turkle warns that digital devices could be stopping young people from having the kinds of interactions where intimacy can flourish. According to Turkle, with increased connectivity comes increased pressure to provide instantaneous responses to emails, messages and social media communications. As well as distracting us from investing in the person in front of us, digital devices can make it easier to overlook the feelings of others by allowing us to delay responding to messages we want to avoid and removing the immediate feedback of facial expressions.

With little time left to stop and think carefully about their responses, young peoples' ability to develop 'slow skills' such as empathy may be impaired. Turkle discusses this in her prolific TED talk, Connected, but alone?

In today's digital age, there is a pressure for young Australians to constantly be 'on'. Comparing the relative isolation of her trekking experience with day-to-day life, Jade Hameister noted that "being back at school and being home…you don't get that time when there's no distractions. Being at home, there's your phone, there's school, there's always something going on…sometimes I have to take a walk or go somewhere where [I] can be alone".

Even if we are not actively using our digital devices, having them present in face-to-face social situations may promote shallow interactions. With the constant reminder that we might be interrupted, we could be tempted to "keep conversations light, on topics of little controversy or consequence."

Can empathy be found online?

While digital interactions do not replace face-to-face interactions, opportunities to develop empathy may simply manifest differently in digital spaces.[15] For example, Psychologist Dr. Tracy Alloway suggests that compared with face-to-face connections, the internet can expose us to people who we wouldn't ordinarily be associated with. While the friends our kids have on the playground often come from similar walks of life, social media can expose them to world-views that are starkly different from their own.

Social media sites such as Facebook may also increase our potential to connect with the emotions of others by making us more aware of the significant life events of our networks. In a way, this could help us to feel a little closer to our "friends" when we next see them in person.

Based on these findings, it seems that physical and online spaces can offer us different and complementary opportunities to express empathy. Compared to the physical world, online spaces may have the potential to make us more aware of the emotions of others. Yet, a physical hug is still six times more effective than a virtual hug to help someone feel supported. Ultimately, whether empathy can be authentically communicated and received via technology remains a point of contention, unlikely to be resolved without open dialogue between adults, young people and tech creators themselves.

15. Correa, T., Hinsley, AW., and Gil de Zúñiga. (2010). Who interacts on the Web? The intersection of users' personality and social media use. Computers in Human Behavior, 7(2), 247 – 253.

Insight: Digital Thumbprint Impact Report, 2020

Our 2020 Digital Thumbprint Impact Report indicates that just like in face-to-face interactions, virtual empathy can be a learnt skill.

Following a 1-hour workshop:

- **Students were significantly more likely to acknowledge that their social media posts have an impact on others.**

Pre workshop **18%**

Post workshop **30%**

- **Students understood that their actions online can affect others, even when they don't mean them to.**

Pre workshop **47%**

Post workshop **60%**

What part does AI play in the development of empathy?

Undoubtedly, technology has advanced to the point where humans are interacting with robots without knowing it. To this end, Chatbots are being used increasingly to deal with customer enquiries, and AI has even been developed to counsel trauma survivors such as war veterans as part of a blended approach to clinical support. Even the algorithms on our smart devices are being programmed to attune to the mood of humans.

While the technological advancements of the last decade are exciting, they bring up some interesting questions. In a world where AI interactions are on the rise, are young people still learning how to respect and empathise with human beings? With children now forming relationships and socialising with AI-based smart toys, what does this mean for the quality of their peer-to-peer connections?

For some, virtual friendships are able to fulfil relationship needs when humans fail, as experienced by some gamers who find meaning in their friendships with characters from videogames. In Australia, robots have even been used to help children on the autism spectrum, who may feel too overwhelmed in human-to-human interactions to practice their social skills. Yet, experts warn that allowing humans to form empathic connections with AI could easily be exploited for commercial gain. Monash University philosopher Robert Sparrow recently commented that "in the future, a very warm and convincing voice will say, don't you feel like a Coca Cola today?" Add in the concern that AI could impair the emotional and cognitive development of young people, and we're faced with an interesting ethical dilemma indeed!

"When it comes to the magic and mystery of emotion, I think you can look at the idiosyncrasies of the dance of emotion in a person and think that there's no pattern in that. But in truth we all do have our patterns—like literally there are emotional rhythms and emotional tendencies. So I think if we allow machines to observe us long enough, they'll probably be able to mimic us very convincingly. But my personal opinion is that the real emotional connection—that real empathic connection, and the idea of being self-aware—I think is a uniquely human thing."[16]

- Danielle Krettek, Founder and Principal of Google's Empathy Lab

Empathy: Conversations to have with young people today

1.

How does social media influence how emotionally close you feel to your friends?

2.

Do you think that digital devices and social media platforms make it easier to overlook the feelings of others? What can you do to seek out and create empathy in digital spaces?

3.

When do you interact with artificial intelligence (i.e. characters in a video game, online support etc.)? How do you feel about these interactions/relationships?

4.

What are the clues that you are talking to a robot and not a human? Is it more fun to play with an interactive toy or game that responds to your questions and instructions? Why or why not?

16. Danielle Krettek, interviewed by David Allegretti, 29 May 2018; Available from https://www.vice.com/en_au/article/ywe33m/this-woman-believes-ai-can-be-taught-empathy

Chapter Four: Discernment

Shifting from invisible to visible

While the internet is often [perceived to be an open space free of bias](#), it is not as it appears to be. Rather, digital spaces closely reflect existing biases and hierarchies of the physical world. Inevitably, digital platforms will [always mirror the bias](#) of their programmers. This underlying structural bias can – and does – leave digital users vulnerable to deception. For example, recent years have seen the hidden bias in search engine algorithms being used to [shape opinion](#), mislead or manipulate, unbeknownst to the digital consumer. While young Australians are highly skilled technically, subject matter experts note that young people are not careful, discerning users of the internet, and that they may [lack the critical thinking skills](#) to recognise, identify and combat these biases in digital platforms.[17]

Managing bias in an AI-powered world

With the ['rise and rise' of fake news](#), our [trust in the media has fallen](#) to record lows, and young Australians are now growing up in an environment where the average person is [unable to distinguish quality journalism from speculation](#). As simple as it sounds, the first step towards combatting digital bias in educating our young people about its existence.

Adults can begin by helping young people understand how digital spaces closely reflect the biases and hierarchies of the physical world. This is represented in the website Wikipedia, which is often thought to be a neutral and objective resource. Yet, research has found that a majority of the content on Wikipedia is [edited by only 1% of its users](#), with contributions coming predominantly from Western men.[18]

Given the increasing involvement of AI in the day-to-day lives of humans, it is also important for us to shed light on some of the potential risks these new technologies can bring, particularly in relation to human rights. Speaking at an Optus Digital Citizenship Roundtable, Human Rights Commissioner Edward Santow noted that AI products are designed for users in the middle of the 'bell curve': Caucasian, middle-aged, professional males. Because of this, the needs of many Australians tend to be overlooked in the design and deployment of new technologies. This includes children, women, certain socio-economic cohorts, those with a disability, and persons of colour.

Algorithmic bias greatly impacts these segments of the community. In Australia, this was demonstrated in the Australian government's high-profile ["Robo-Cop" debt collection trial](#), while in the United Kingdom, the trial use of facial recognition software by the London Metropolitan Police threatened to [breach human rights law](#).

Whether it's BETA-testing, using MVP models, or simply exclusionary programming, there is a dis-proportionate distribution of risk in the design and deployment of AI. As a result, vulnerable populations are less likely to be safeguarded, resulting in a greater susceptibility to the negative impacts of these technologies. There is clearly a need for an 'equity lens' during the design phase of AI, and tech creators and organisational leaders must continue to recognise diversity when creating AI products and services so that young Australians can experience new technologies with equal opportunities.

17. Miller, C., and Bartlett, J. (2012). 'Digital Fluency': towards young people's critical use of the internet. Journal of Information Literacy, 6(2), 35 – 55.

18. Graham, M., Straumann, R.K., and Hogan, B. (2015). Digital Divisions of Labor and Informational Magnetism: Mapping Participation in Wikipedia. Annals of the Association of American Geographers, 105(6), 1158 – 1178.

Insight: Digital Thumbprint Impact Report, 2020

Helping young people distinguish between 'real' vs. 'fake' content is a continued priority for Digital Citizenship initiatives around Australia. However, developing critical thinking skills in teenagers takes time, and there remains debate as to how these attributes are best taught in schools.

Our evaluation data reflects this common challenge. While teenagers noted that learning about fake news was important, our results indicate they were more interested in exploring how technology pertains to their social lives.

This challenge will continue to increase with the evolution of news platforms. While once we relied on organised media for information, we now live in an era where GoPros, iPhones and livestreaming enable anyone to be a journalist. This will no doubt change how we teach discernment in future iterations of Digital Citizenship education.

Critical thinking cheat sheet

The Global Digital Citizen Foundation's Critical Thinking Cheatsheet provides a series of questions young people can ask when they encounter new information online, for example:

- Who benefits from this?
- What is another perspective?
- Where can we get more information?
- When should we ask for help with this?
- Why is this relevant to me/others?
- How do we know the truth about this?

Balance digital skills with critical thinking skills

Once biases inherent in digital spaces are brought to light, we can then equip young people with skills to help them discern fact from fiction. The 2018 report Advancing children's news media literacy: learning from the practices and experiences of young Australians shows that while young Australians may be highly skilled technically, many have low critical thinking skills in digital spaces.[19]
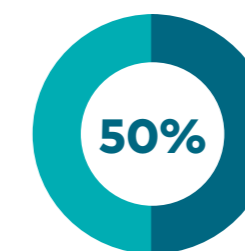
According to results from this national survey:
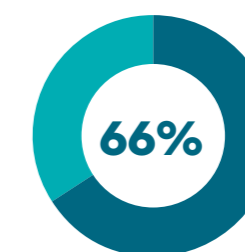
66% Two thirds of young Australians felt ill equipped to tell fact from fiction in news stories.
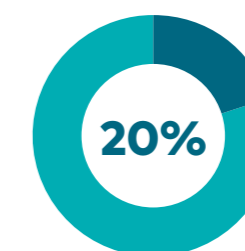
20% Only 20% had received lessons at school in how to do so.

50% More than 50% don't question the legitimacy of news stories they encounter online.

There are many opportunities to create critical thinking skills in young digital users. Miller and Bartlett suggest that technical skills (including how search algorithms work, how websites are built and how information can be easily faked online) should be integrated into digital citizenship education.[20] If young people understand how search engines are coded, for example, they will be more likely to identify the biases of their human coders, and think critically about the search results.

19. Notley, T., and Dezuanni, M. (2018). Advancing children's news media literacy: learning from the practices and experiences of young Australians. Media, Culture & Society, 41(5), 689 – 707.

20. Miller, C., and Bartlett, J. (2012). 'Digital Fluency': towards young people's critical use of the internet. Journal of Information Literacy, 6(2), 35 – 55.

Empower young people to reshape digital spaces

While critical reasoning skills are crucial, for lasting change to occur for generations to come, young people need to be taught how to remove prejudice from online spaces. Through focusing on technical training of how websites are built and how algorithms work, we have the opportunity to move young people from being reactive, and towards proactively restructuring digital spaces so that these platforms can be fairer and safer for all.

While it may not be possible for young people to change the entire online ecosystem, they certainly have power to neutralize the prejudice they encounter on an individual level.

Algorithm expert Marc Zao-Sanders advises digital users to take on the following practical steps to increase their chances of finding "factual, unbiased, broad based" information on the web.
These include:

- Changing settings to allow randomized recommendations
- Intentionally 'following' individuals on social media with views different than your own
- Browsing privately
- Being discerning about what search engines you use

Discernment: Conversations to have with young people today

1.

When using search engines or scrolling through social media, how do you know what information to trust?

2.

What are the different things you can do to increase your chances of finding accurate and unbiased information from the internet?

3.

Where do you get your news updates from, and how do you judge whether the source is credible?

4.

Do you think artificial intelligence has the same kind of biases that humans have? Why? Why not?

Additional Resources

Optus supports digital citizenship education in Australian schools so that young people can be safe, responsible and positive online. Digital Thumbprint with Kids Helpline is an early intervention and awareness program for primary school students. Within secondary schools, our Digital Thumbprint program focuses on positive behavioural change.

Additional resources and information:

- Optus Digital Thumbprint Teacher Resources and Parent Conversation Guides
- Optus Digital Citizenship Blog Series
- Kids Helpline Parent Resources for information on cyberbullying, gaming, social media and more
- Office of the eSafety Commissioner for Teacher Resources, Parent Resources, and assistance in reporting abuse online.

Acknowledgement