Reclaiming our humanity in a digital world

Digital risk, ethics, empathy & discernment.
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Optus is committed to enhancing digital citizenship practices for the next generation. This whitepaper represents the next iteration of research towards this vision.

In this paper, we have identified **four themes – presented as shifts –** to help empower young Australians to achieve their full potential: *digital risk, ethics, empathy and discernment.*

With the help of thought leaders, futurists and subject matter experts, we hope this research will inspire exiting developments for the future of digital citizenship education in Australia.

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Digital risk

Future focus:
Shifting from *digital citizenship to digital leadership*

Many existing digital citizenship education programs focus on cybersafety, with an emphasis on *protecting young people from negative experiences* in digital spaces. While this agenda is undoubtedly critical to the wellbeing of our youth, is it sufficient for guiding them safely and productively into the future world they will be faced with in the next five to ten years?

As each generation of young people are now digital natives, it is arguably not enough to teach them how to *become* digital citizens - they are by birth (Lynch, 2016). Thought leaders in digital citizenship education are therefore advocating for a shift towards *community-mindedness* in digital spaces: beyond personal safety and responsibility, to proactive reshaping of digital spaces for the betterment of one's peers and the broader community (Carr, 2017).

Put another way, we are being called to expand our thinking around digital *citizenship*, to encompass broader aspects of digital *leadership*. Jones and Mitchell (2015) suggest that this takes us from "reliance on lectures about what kinds of behaviour" young people should avoid, and "instead provide them with interesting opportunities and activities" to engage with online communities. Echoing this perspective, Ahlquist (2014) argues that young people should be encouraged to show leadership by becoming positive social change agents in their online communities.

An important by-product of a leadership-centric approach is noted by Jones and Mitchell (2015), who found that students reporting high levels of civic engagement also reported lower levels of cyberbullying, and more helpful bystander behaviour. Notar et al (2013) identify two types of internet bystanders: bystanders who are part of the problem, and bystanders who are part of the solution. Problematic bystanding is easier online than in the physical world, as it can be as simple as 'liking' a bullying comment. The challenge for the future of digital citizenship education is how to encourage helpful bystanding. Social media platforms are overwhelmingly perceived to be ineffective at shutting down bullying, therefore the power for social change rests with their users.

These perspectives align with the growing trend of online activism, through the unique digital structures that allow anyone to become a leader in online spaces. For example, the international activist movement Black Lives Matter started from a Twitter hashtag.

Technology is not simply a tool for *organising* cultural communities, technology itself *shapes* culture. The internet creates 'virtual communities' that would not otherwise exist, making them an emergent property of technology, not simply 'hosted' by technology. Internet users are increasingly self-organising into digital cultures, indicating that digital citizenship education will need to incorporate 'cultural citizenship' (Goode, 2010) in the future.

The self-organising structure of digital spaces requires a re-conceptualisation of what it means to be a citizen (Andreotti & Pashby, 2013). Young people need to be prepared not only to fully *participate* in the digital future, but to *create* the digital future. They therefore need to be armed with core competencies that will allow them to navigate any new technology or digital community.

Thought leader Jason Ohler believes that *character education* should be integrated into digital citizenship education, to ensure that young people take core values with them into digital spaces. This concept is supported by research; for example, Muller et. al. (2014) found that young people who apply consistent social norms on-line and off-line are protected against cyberbullying.

Rather than shutting down negative interactions online, we have an opportunity to proactively create the digital infrastructure needed for consumers to create and curate their own communities (Coleman, 2008). In creating training grounds for civic engagement, the challenge is to teach young people leadership skills generalisable to any digital space, allowing them to lead the next generation of digital natives to self-actualised citizenship.

Ethics

Future focus:
Shifting from *careful to ethical*

As digital natives, young people no longer live in a world with 'digital dualism' (Jurgenson, 2011). The line between digital and physical, and public and private worlds has all but vanished, and it is no longer possible to retreat to the 'physical world' to escape ones 'digital life'. This blurring of formerly distinct worlds presents several new challenges to our understanding of ethics.

If the digital world is now perceived as continuous with the physical world, why do people behave differently in online vs. face-to-face interactions? How does anonymity change our value of respect in online interactions? How will the apparent ease of sharing sexualised content challenge our interpretation of 'right' vs. 'wrong'? And should the concept of consent evolve to accommodate new (digital) sharing capabilities?

However uncomfortable these questions are, they must be dealt with head-on. Young people have more exposure to sexualised images and violations of their consent online than ever before (Owens et. al, 2012). As Flood (2007) reports, the digital world provides ample opportunity to encounter pornography, whether or not the child intends to find it. In this vein, three quarters of Australians aged 16 to 17 - and even younger - have been 'accidentally' exposed to pornographic websites, which is especially problematic when considering the role that media plays in the sexual development of youth.

'Sexting', or the exchange of *self-generated* sexual content, represents another significant ethical challenge for young people to navigate. A report by the National Society for the Prevention of Cruelty to Children (2012) found that up to 40% of young people engage in sexting. It is interesting to note that e-safety campaigns have been largely successful in guiding young people away from sexualised encounters with strangers online. However, the report revealed that young people still fear technology-mediated sexual pressure from their peers, and often lack the skills to resist this pressure. Interviews with teens revealed that girls are the most adversely affected, and that victims are often quite young, as technology has become a presence in their lives since birth.

To address the changing nature of ethics in an increasingly digital world, it is imperative that we learn to navigate the very real differences between how young people and their parents relate to issues of sexualisation and consent. While sexting is perhaps the most confounding behaviour of digital natives in the eyes of parents, young people do not necessarily share this view. Parents often view the sharing of sexualised self-images in digital (public) spaces as indicative of a loss of self-respect. Conversely, young people tend to view sharing their sexuality as part of their digital lives.

Clearly, young people do not see a distinct line between public and private spaces (Marwick, Muriga-Diaz & Palfrey, 2010). *But has this perception, and the resulting behaviour, actually been learnt from their parents*, many of whom have posted pictures of their children growing up from a very young age across social media platforms? Ironically, parents are now outraged over non-consensual sharing of their childrens' images, warning their children not to share self-created sexualised images online. This is especially evident in cases where pictures that were 'innocently' posted online by parents have inadvertantly been used for child exploitation.

As cybersafety expert Susan McLean (2015) points out, once an image is shared online - with or without the creator's consent - you have lost control of it. In fact, according to 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". Digital natives have already accepted the inevitability of non-consensual image sharing as part of digital citizenship, which is perhaps why they are more skilled than their outraged parents in managing online accounts.

In addition, there may be a fundamental difference in outlook between young people and their parents when it comes to issues such as privacy. While parents often seek to limit or control the amount of online exposure their offspring are faced with, young people are arguably more concerned about online *reputation* than online *privacy*. In the same way that adults seek to create a personal brand - such as a professional image on LinkedIn – the Pew Research Center has found that *teens are also highly cognizant of their online reputations*, and take steps to curate the content and appearance of their social media presence. Rather than hide their personal information, they want to carefully *curate* this information and control who views it (Wired magazine, 2013). In fact, young peoples' friendships are strengthened by the trust that is built by sharing personal information online (Marwick, Muriga-Diaz & Palfrey, 2010).

Unfortunately, the anonymity provided by digital spaces allows users to say and do disrespectful things online that they never would in face-to-face interactions (Lapidot-Lefler & Barak, 2012). While the distance created by technology makes it easier to perpetrate abuse, it certainly does not soften the blow for the target - an online attack still *feels* personal. One explanation for behaviour that manifests differently online is, because *digital identities must be curated in order to exist, they only reflect one's 'authentic self' to the degree of comfort of their creator*. This curation distances the authentic self from views expressed online, allowing users to express views that do not align with their core values.

In this respect, our well intentioned efforts to *manage* privacy and *control* online behaviour of young people may be misguided or insufficient on their own. Rather, our greater challenge is perhaps ensuring that young people develop the social and emotional skills to understand what they are 'creating', and help them to understand how they are 'living' their authentic values on and offline.

Empathy

Future focus:
Shifting from *contact to connection*

Digital spaces have undoubtedly created unprecedented numbers of human-to-human connections, or more accurately, points of contact. However, technology has also created anxiety about our ability to truly connect with fellow human beings. Specifically, we must ask ourselves, *does technology enable or inhibit the level empathy that more naturally occurs in face-to-face interactions*?

Research has thankfully shown that digital interactions do not replace face-to-face interactions (Correa, Hinsley & Zuniga, 2010), and that personality traits like extraversion manifest in similar ways online and offline (Gosling et. al., 2011). Despite this, increased media use (due to increased opportunity for social connection) has been repeatedly shown to lead to increased negative interactions such as bullying (Muller et. al., 2014). This suggests that although technology conveniently facilitates contact between human beings, those connections may lack the emotional features of face-to-face interactions, like empathy.

Although young people don't perceive a hard line between physical and digital worlds, the impersonal structure of digital worlds often prevents them from instinctively applying social norms from the physical world. Muller et. al. (2014) define ability to apply social norms online as *ethical media competence* (EMC); that is, the required knowledge, ability and motivation to conform digital communication to the law and social norms. They found that young people reporting high EMC also reported experiencing less cyberbullying, and more helpful bystander behaviour.

Another drawback to our increased connectivity is that humans demand an increasingly functional and connected world, yet we have created a communications culture that has decreased the

time available for us to sit and think uninterrupted (Turkle, 2008). Humans are always accessible and pressured to provide instantaneous responses, but are losing time to think carefully about those responses. Turkle's concern is that the demand to respond instantaneously threatens our ability to exercise 'slow' skills such as empathy. Turkle is also concerned with our increasing willingness to interact emotionally with technology, or what she terms 'relational artefacts'.

This anxiety about interacting *with* technology instead of *through* technology is intensified by recent advancements in artificial intelligence (AI). Thought leaders commonly agree that in the future, humans will increasingly interact with artificial intelligence, and AI will continue to develop to seem more 'human'. AI has already fooled humans in digital spaces; for example, 'Jill Watson' was created by IBM as a teaching assistant bot. The bot was used to answer students' basic questions and start discussions in the online message board for a university course on artificial intelligence. Ironically, no students identified 'her' as a bot, and believed it to be human. Humans have even fallen in love with chatbots on dating websites.

Chatbots are increasingly used by companies to deal with customer enquiries online, and even to provide non-directional therapy. Many people in need of help are in fact more comfortable and more likely to seek help with a bot. Chatting with a bot is generally perceived to be an inauthentic interaction, because bots are not capable of empathy. Chatting with a human in an identical format, for example in online human-to-human therapy, is perceived to be authentic. However, whether empathy can be authentically communicated and received *via* technology is still a point of contention.

A common question about artificial intelligence is whether it can mimic true empathy, or simply mirrors a human's empathy back to them. A more relevant question is whether or not it matters. If the outcome for the human is the same, does it matter whether they felt empathy from a human via technology, or from technology itself? Can humans communicate empathy through technology, or does it create a barrier to empathy?

The number of digital connections, and the role of AI in digital spaces, will only increase in the future, making this a critical time to educate young people about how to have *deep* and not superficial connections via digital mediums.

Discernment

Future focus:
Shifting from *invisible to visible*

The internet is often perceived as it was originally intended; as an egalitarian and open space, free from hierarchies, providing the same opportunities for all users. Nowadays, it is becoming increasingly apparent that the internet is far from objective - *the underlying structure of digital technologies and spaces reflects existing societal norms and biases*. Furthermore, digital platforms are frequently leveraged to implement and mobilise people's views and engender support, whether political or personal, positive or negative.

Longford (2005) terms this phenomenon the 'politics of code', and suggests that digital infrastructure hardwires "certain forms of conduct, experience and social relations". Building on this, Jurgenson (2011) argues that "technology never removes humanity from itself", and therefore reflects and reinforces existing social biases while masquerading as objective.

The rise in the prevalence of 'fake news' has created an urgent need for education about how search and 'suggested content' algorithms work. In attempting to create unbiased technology, developers have in fact allowed human bias to emerge on their platforms. Friedman and Nissenbaum (1996) identify a number of sources of bias in digital systems, including decontextualised algorithms. Noble (2018) argues that technologies such as search engines are generally viewed as apolitical, and yet they recapitulate the biases of their human creators. This idea is supported by Graham et. al. (2015), who showed that Wikipedia, while perceived to be an egalitarian, objective resource, in fact is only edited by a handful of predominantly Western men.

In a proactive attempt to address this escalating issue, Facebook recently retooled their newsfeed algorithm to combat the amplification of fake news political posts, and the organisation is leading one of the largest mass-media campaigns to raise awareness of the issue.

A large part of this problem is that technology is viewed as objective, whereas humanity is viewed as fallible and therefore biased. Humans are therefore developing artificial intelligence to use big data to *remove* humanity from the process of prediction. However, evidence suggests that this simply recapitulates human bias while presenting it as objective.

Joi Ito, director of the MIT Media Lab, believes that humans need to shift our understanding of AI from 'crystal ball' to 'mirror'. He argues that the true value of artificial intelligence is not in creating objective predictions for the future, but in helping humans to understand ourselves and humanity. Algorithms may never be able to give us unbiased predictions, but it is already capable of augmenting our understanding of causal relationships in our world, and we are not yet seizing this opportunity.

Ito's Humanizing AI in LAW project aims to re-focus our relationship with artificial intelligence, so that humanity informs AI, and not the other way around. One potential problem with this philosophical approach is the ability for humans to corrupt AI. For example, Microsoft's AI 'Tay' was taught to parrot bigoted speech within 24 hours of its release on Twitter. Tay therefore demonstrates the need to proactively insert safeguards into AI that involves machine learning, so that they do not end up reflecting the worst of humanity.

Miller and Bartlett (2012) argue that young people are not "careful, discerning users of the internet", and that critical thinking competency needs to be taught in digital citizenship education. They argue that young people should learn *net-savviness* and *critical evaluative techniques*: how search algorithms work, how websites are built, and how information can be easily faked online. If young people approach search and suggested content features while understanding how they are coded, they are more likely to identify the biases of their human coders, and think critically about search results. Digital citizenship education should therefore shift the invisible structures of bias into the light, and make them visible.

Young people not only need education about coded bias, but have a responsibility to "resist and reshape" digital spaces to combat this bias once it becomes visible (Longford, 2005). Future-focused digital citizenship education must therefore incorporate technical training in how to restructure digital spaces, empowering young people to neutralise bias when they encounter it, instead of avoiding biased spaces.

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.

For more information
www.digitalthumbprint.com.au

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