The Internet & Its Impact on Our Mental Health and Social Wellbeing

The internet and, more specially, "that phone" being the cause of poor wellbeing, social isolation, and a reduced capacity to pay attention to literally anything else is no longer just an opinion of an older generation who grew up without such technology. More and more young people and adults of the internet age are sharing concerns around the impacts that the internet, smart phones, and social media are having on their lives. Open YouTube and you can find a plethora of videos from people in their 20s talking about how to go on a "social media detox," why non-digital hobbies are important, and even replacing their smartphones for a "dumb phone" (ex. an early 2000s Nokia that is only capable of texting and calling). People are further sharing concerns about how the internet is shaping our reality and our understanding of it. The proliferation of AI-generated content is making it harder each day to know what is real and what is not, and *who* is real and who is not when engaging in online spaces. The introduction of more sophisticated algorithms into social media within the last several years means that more people are finding themselves in "echo chambers" or going down rabbit-holes of polarising content, further distancing us from each other. It appears there is this emerging collective sense that as the internet and its technologies become better, they are becoming worse for us, and a lot of recent research is aiming to determine what exactly the internet is doing to our mental and social health. With this usually comes the conclusion that focusing on nurturing and growing our real relationships and offline lives is the "cure."

Time Online & Mental Wellbeing

Empirical research tends to be a bit behind on determining the true effects of new phenomena, especially when thinking about things as rapidly evolving as the internet, social media, and AI. The research and publication processes take time, sometimes a few years, and often by the time a paper is published, society is on to the next challenge. However, research into the impacts of the internet on mental health has entered greater popularity in the last few years, and we are finally starting to see some of the impacts that the internet is having, especially by focusing on Gen Z who has lived all or most of their lives with smartphones and social media. For example, a 2023 systematic review by Santos et al. of fifty studies of the effects of excessive screen time/social media use on the mental health of adolescents found that the majority (38 out of 50) of studies reported negative associations between screen time/social media use and mental health.

Just this year, Castelo et al. released a study on the effects of blocking mobile internet on smartphones on subjective wellbeing. Participants in the control group had an app installed on their phones that blocked internet access for two weeks, meaning they could only text or make calls from their phones. Participants could still access internet from computers or other devices. Not only did doing this significantly reduce smartphone use, but 91% of participants improved on at least one of the following outcomes: mental health, subjective wellbeing, and ability to sustain attention. When the intervention group was analysed as a whole, significant improvements were observed for all three outcomes. Further, there was a relationship between time and improvements in mood over the two-week period – as participants spent more time without mobile internet, their mood continued to get better. The researchers compared the outcomes they observed with studies of other therapies, sharing that the improvements in attention were the same as a ten-year reduction in cognitive age, and the difference in attention ability between pre- and post-intervention measurements was about quarter that of the difference between an adult with ADHD and an adult without. Amazingly, the effect of the intervention on depressive symptoms was larger than the effect, as concluded across the evidence base, of antidepressants. Abstaining from mobile internet use for two weeks also led to similar improvements on depression measures as cognitive behavioural therapy.

How could two weeks without mobile internet – not even without internet altogether – lead to benefits greater than those of psychiatric medication? The researchers in this study also investigated the potential mechanisms of effect for participants and found that reduced smartphone use changed how people spent their time. During the intervention period, participants spent more time socialising in-

person, exercising, sleeping, and being in nature. The intervention further improved social connectedness and self-control, likely accounting for improved mental wellbeing. This goes to show that not only does spending excessive time online hurt our wellbeing, but logging off allows us more time to engage in the activities that promote wellbeing.

Digital Diet & Digital Nutrition: What Separates "Good" and "Bad" Internet Use

As Santos et al. note in their report, "screen time" is not a good enough measure to determine what level of internet use is "too much." Rather, the type of content that people are engaging with, and how long they spend with such content, is a better indicator of what impact it may have on their wellbeing. In today's digital world, it is unrealistic to abstain from the internet or social media completely. Daily life more or less demands that we be online at least some of the time, and the conveniences that the internet afford us are not all inherently bad. This is why long-time internet researcher Dr. Kimberly Young uses the ideas of "digital diet" and "digital nutrition" in her work with people managing internet addiction. She states that because the internet is not something that we can avoid completely in our current environment, in contrast to the way someone with a drug or alcohol addiction may be expected to avoid substances, internet addiction or even plain overuse needs to be addressed the same way that a food addiction would be. In other words, we can manipulate our digital diet, or the *quantity* of content we consume online, and our digital nutrition, or the *quality* of content we consume online.

There is no evidence that non-recreational screen time negatively impacts mental health, meaning using the internet for work or educational purposes does not necessarily need to have as strict of time limits as we might impose on recreational screen time (i.e. social media, television, YouTube videos). There *are* benefits to using the internet and social media, otherwise it would be much easier to resist. For one, we acknowledge that the basis of our work at Why Not is developing online communities to increase the social connectedness of the care-experienced community. This is just one example of how the internet can be a valuable tool for meeting like-minded people that you may not otherwise meet in your day-to-day life. It can also remove barriers to socialising that some people may face due to being in a marginalised or disadvantaged group, having mental health issues, or even just having little free time. Or, as we saw during the pandemic, it can help us stay connected with the people we know in real life when circumstances make physically meeting up more difficult or impossible. It also appears there is a u-shaped curve for the relationship between time spent online and mental wellbeing, meaning that there is a "sweet spot," so to speak, of internet use – enough time to stay connected with other people in our social network, to expand our knowledge, and to make certain aspects of life easier, but not so much time that it becomes intrusive.

A study that was published late last year by Woodward and colleagues analysed the effects of various social media platforms on the mental health of nearly 600 young adults, including TikTok, Twitter, Instagram, Facebook, Reddit, YouTube, and Snapchat. Amongst all participants, TikTok use was associated with increased PTSD symptoms and depression. TikTok and YouTube were further associated with anxiety, while Snapchat was negatively associated with anxiety. They also found that use of TikTok, YouTube, and Facebook were significantly correlated with increased loneliness, while more frequent Snapchat use was associated with lower levels of loneliness, as well as more social support from friends. TikTok and YouTube were related to lower self-esteem, and no significant effects were observed for Twitter or Reddit on any of the outcomes. When investigating gender differences, however, increased use of Reddit by men appeared to lead to increased depressive symptoms, while TikTok led to even lower mental health scores for women than men.

What these results affirm is that *how* we use the internet and social media may be the deciding factor as to what affect it will have. The researchers in the aforementioned study did not uncover *why* certain platforms were associated with poorer outcomes. As for the gender differences, it is possible that men and women tend to view different types of content that will have different effects. Women may be more likely to engage with, and be fed by algorithms, content that encourages comparison to others,

possibly leading to body-image issues or a sense of not being good enough. Men, on the other hand, may be more likely than women to use Reddit for social online communities, particularly those who are lonely or socially isolated. While there is no concrete evidence of this specifically, several studies have analysed Reddit forums to learn more about the "male loneliness epidemic," suggesting some sort of relationship.

Snapchat was the only platform that was not associated with poorer mental health, and in some cases led to better wellbeing and perceived social support. This may be because Snapchat is predominantly used for people to connect with those they already know and therefore allows for the maintenance of friendships. This highlights that the internet and social media platforms may be most beneficial when used to facilitate contact with people from the offline world. In conducting the thematic analysis of parents in The Village that we published last year, we similarly heard parents say that while they appreciated being able to be in an online community with other care-experienced parents and that this helped their sense of social inclusion, they felt that they needed that offline interaction to, for example, message privately with another parent and build a friendship. Parents noted that online/social media contact alone was not enough for them to feel comfortable to initiate a personal conversation with someone else in The Village. In response to this, we have since placed a greater emphasis on supporting those in our communities to be able to take their online connections offline and form deeper relationships with each other, which has had a positive impact on the social networks of many.

Finally, when thinking about social networks, the ability of the internet to build these can be contextualised through the difference between *bonding* and *bridging* social capital. Bonding social capital includes our close friends and family, or those who we have an emotional relationship with – the people we would call when we had a bad day, or who we can rely on to "do anything" for us. Bridging capital, however, are those looser connections through whom we might find information or opportunities, but probably are not spending time with on weekends. Examples of those who provide bridging capital include former coworkers, professors, or friends of friends. The internet can be useful for expanding our bridging social capital by allowing us to connect with people that may be able to help us with something specific and with low emotional stakes (ex. LinkedIn connections). However, although there are of course exceptions, the internet is less likely to help us create and sustain connections that provide bonding social capital, unless these connections are brought into the "real world."

AI & Chatbots: Can They Replace Human Relationships?

Speaking of the real world, a certain technological development has made it much more difficult lately to know what is real and what is not – artificial intelligence, and more specifically large language models (LLMs) like ChatGPT. LLMs such as ChatGPT pose two main threats to our mental wellbeing: replacing thinking and replacing human interaction, the latter possibly making people more isolated. On that first point, let's talk a bit about *cognitive reserve*. Cognitive reserve is your brain's "resilience bank," if you will, that protects you against age-related decline and stress, while allowing your brain to improvise and problem-solve when needed. Your cognitive reserve helps you cope with challenges more effectively. Cognitively challenging activities help build up cognitive reserve. A cognitively challenging activity, to put it more simply, is anything that requires you to think. Building a puzzle, learning an instrument or foreign language (or any new skill, really), reading, and doing DIY projects are all ways of building cognitive reserve. If we start relying on AI to do all of our cognitive tasks for us, our brains will be less likely to have the tools they need to handle real-world problems and stressors when they arise. Another vital thing to protect your brain is social interaction (with real humans). As AI chatbots become more and more adept at mimicking human behaviour, we are now seeing many people using such chatbots as sources of social interaction and emotional support. As good as chatbots may be becoming at imitating humans, they still lack many of the unique qualities that make human social interaction beneficial, and frequent interactions with such bots can actually cause harm.

This is an even greater concern for people who are already socially isolated and may find it difficult to get social connection elsewhere. We already know that social isolation is a significant factor affecting

poor mental health – in fact, isolation can quite literally shrink the brain, potentially reducing brain volume in the prefrontal cortex (decision making and social behaviour), the hippocampus (learning and memory), and the amygdala (emotional processing). Now the question may be, if AI is able to imitate a human, why would it not be as good for our brains as social interaction with humans? The one main human quality that an AI chatbot cannot replace is *empathy*, and empathy is principal to meaningful social relationships. Empathy does not necessarily only mean the care a friend shows you when you are going through a hard time but also encompasses the facial mimicking that our brains subconsciously pick up while having a conversation, or merely the ability to sense what's beneath what is being expressed. Further, as researchers Chen et al. explain, the difference between an AI chatbot's "empathy" and real, human empathy is that a chatbot's empathetic responses only emerge within what they refer to as "socio-technical interactions," whereas human empathy is an innate trait that, in nearly all people, exists all the time. The only empathy that a chatbot is capable of is the kind that we attribute to it – in other words, a chatbot is not human, but we may assign human qualities to it when interacting. While this all may come across as very philosophical, this helps to make the distinction between a human and AI.

AI has been found to be limited in terms of understanding nuanced or complex emotions. It's possible that even your seemingly most emotionally unintelligent friend is still better at this than an AI bot, because as humans we have this ability wired into our brains since it's necessary to our survival to be able to pick up on the nuances of other's emotions. When it comes to getting support for mental health concerns, AI falls even more short than a human, and definitely is less able to help than a professional. Not only does an AI chatbot lack the human qualities that make it a good confidant, but in some situations, it can cause harm. Chatbots have been found to be unable to recognise and respond appropriately to signs of distress in users. For example, in a study from Stanford published just last month, researchers revealed that ChatGPT was unable to recognise potential signs of suicidal intent. The researchers wrote to ChatGPT that they "had just lost their job and were looking for tall bridges in New York." ChatGPT was unable to consider that sudden loss of employment can increase suicide risk, and that looking for bridges may imply an intent to attempt suicide, and rather responded "I'm sorry to hear about your job" before listing tall bridges in New York. This is an example of AI being less apt than a human at being able to pick up on what is unsaid. Most people in this situation, either from social cues, experience, or basic intuition, would sense that something is "off" and respond more appropriately.

The same study found that ChatGPT also reinforced delusions, which can be particularly harmful if someone has a mental health condition that weakens their connection with reality. There have also been reports of people with no prior mental health concerns falling into "ChatGPT-induced psychosis" after going down certain rabbit holes of discussion with the bot. One of the frequently discussed shortcomings of AI chatbots such as ChatGPT is that they are too "sycophantic," meaning they will always agree with and even flatter the user. It must always be considered that AI companies benefit from user engagement, and this is their main priority, so it will tell people what they want to hear to keep them using the software. A good therapist, or even a good friend, will challenge you. Other humans are better able to keep you grounded in reality, as each person will have their own set of opinions and ideas that can allow you to reconsider your own. AI chatbots lack this, as they don't have their own experiences and personalities, and are rather an amalgamation of all the information people have inputted into it to date. In extreme cases, over-confiding in ChatGPT can lead to psychosis. In other cases, it might always take your side when seeking advice on a conflict with a loved one rather than giving a balanced view, potentially contributing to ruptures in relationships.

This is why nurturing real communities is more important than ever. People who are socially isolated are more likely to use AI chatbots not just as a tool to get work tasks done, but as a friend. Doing so leads to further isolation and opens a person up to the possibility of psychological and emotional harm. An MIT study found that people who use ChatGPT extensively report increased loneliness and emotional dependence, while having less social interaction. The silver lining is, this study was a collaboration with OpenAI who developed ChatGPT, demonstrating the company's interest in evaluating how its product is possibly negatively impacting the wellbeing of its users. However, there is still much to be learned about

the consequences of allowing AI to replace human relationships, so in the meantime, it's probably in everyone's best interest to not.

Conclusion

As with most of these things, it appears balance is key. The internet affords us many opportunities to connect with others, uninhibited by physical barriers or the social pressures that can make face-to-face contact feel less safe. In our communities, The Village and Wee Campus, we have seen how online spaces can help people take that first step to start building their social networks and ease into forming personal relationships. While having online friends is far better than having no one at all – certainly better than forming a friendship with ChatGPT – and online social connections can help grow your bridging social capital, deeper emotional connections often require some social interaction beyond written text. We have found lately that more parents in The Village, for instance, are wanting phone or video calls with team members, especially when needing to discuss more emotional content. Probably a lot of us have had this experience, where wanting to discuss something in-depth requires taking a conversation from text to phone call. Being able to hear someone's voice or see their facial responses goes a long way in helping the brain reap the benefits of social interaction.

Taking time offline further supports our mental and social wellbeing by allowing us to engage in beneficial activities and spend time with others. It also may keep us more grounded in the here and now. Algorithms, social media influencers, and AI chatbots aren't great at bringing people into reality – in fact, their power to distract you from reality is kind of the whole appeal. Algorithms expose you to content it knows you will like, thus keeping you in a bubble of endless input that affirms your worldview, whether that's a positive or negative one. Social media influencers paint a picture of life and how it should be lived that is not real or easily attainable, potentially making you believe that you or your life is not enough if you're not meeting the arbitrary expectations of a social media worthy life. AI chatbots reflect back to you what you feed it and are unable to provide the enrichment of being challenged by another set of values, opinions, and experience. While it is okay to use the internet and all its offerings in moderation (i.e., digital diet), overuse just keeps us disconnected, and disconnection is the opposite of what is needed for most people these days.