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BJPsych Editorial

Taming the Chimaera–Hydra: disconnecting from the net to fortify our mental health

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In our ever digitalising society, our engagement with the online world has significant potential to have a negative impact on our mental health. Although the roles of public health and psychiatry are debated, clinicians are in a strategic position to assess usage and intervene, to prevent harms from problematic engagement with the internet.

Keywords
Lifestyle; problematic usage of the internet; digitalisation; public health; policy.

Healthy lifestyle approaches to eating, drinking, sleeping or keeping active are important topics of discourse. In the ever digitalising 21st century, it is pertinent to bring another key lifestyle factor to the discussion table – our relationship with the online world.

Digitalisation offers users remarkable efficiency, in terms of time and effort. From the convenience of our homes, we perform many tasks of our normal day-to-day lives online, including education, work, entertainment, communication and healthcare. We also complete essential transactions, like paying bills, declaring tax and voting. Through digital applications (Apps) we get food delivered to our doors and choose the music we like. We find jobs, acquire ideas and build new relationships. However, bad things also happen to us online: some individuals get defrauded, bullied, become radicalised, marginalised or are exposed to traumatic or age-inappropriate material or subjected to fear mongering. Others lose control of the time they spend online, owing to manipulative and attention capturing algorithms built into online programmes for commercial reasons, to the neglect of family, social, educational and occupational roles. The online world has evoked pervasive and irrevocable changes to our lives, some for the best and some for the worst – only time will tell.

Is it all bad or good? No: the need for nuanced debate

Although many aspects of online usage are rightfully celebrated, serious concerns of potential harm for our mental health from certain activities performed in excess are fast emerging;[1] key examples include the recent growth of online gambling, with demonstrable pervasive harms to society,[2] the explosion of online gaming,[3] or the health concerns in response to excessive social media use.[4]

Research exploring the determinants and consequences of such online engagement has proliferated in the past couple of decades, alerting us to the addictive potential of the internet,[5] at least in some of its manifestations and degrees of usage. Exploring online harms while also appreciating the benefits of digital interactions comprises a critical scientific challenge for the new century, as debates tend to polarise. This is particularly relevant for psychiatry because our brain is the main organ through which our bodies connect to the online world, the first barrier and point of defence against a universe of cravings, ideas and interactions.

Problematic usage of the internet: determinants and known links to mental health

Problematic usage of the internet (PUI) is an umbrella term referring to engagement in a variety of online activities linked to functional impairment and negative consequences. We know little about the causes and consequences of PUI. PUI aetiology is likely to involve complex interactions of gene × environment.

Theoretical models have borrowed and adapted ideas from the fields of compulsivity and addiction[6] and often describe PUI as analogous to 'behavioural addiction'. We know from those models that those with impulse-control deficit predispositions and those with compulsive tendencies are more likely to develop problematic usage. We also know that for some people developing PUI the rewarding component of the online interaction is very important, especially at the early stages of engagement. For others, soothing components of interaction with the online world (which may include an induced sense of escapism, stress relief or derealisation) seem to play an important role.

Neurobiological evidence, in respect to specific brain areas and functions affected, indicates that PUI shows similarities but also differences from other addictions (such as substance and alcohol use disorders). Preliminary longitudinal epidemiological evidence indicates a likely bidirectional causal model connecting PUI and untoward mental health outcomes (for example, see Dang et al[7]). Cross-sectional data has strongly linked PUI with mental ill health in terms of lower mood, suicidality, body dissatisfaction, insomnia, health anxiety, but also with diagnosable mental illnesses (such as depression, social phobia or attention-deficit hyperactivity disorder).

The normalisation of digitally dependent living

The 21st century has brought some linguistic peculiarities: in a world where consumption means profit, the term 'addictive' has, in some sections of society, become synonymous with 'successful'. 'Addictive' videogames mean more time, effort or money is spent on the process with direct and indirect consequences for the person's other life roles and ambitions.

The terms 'binge series' or 'bingeable' now is often taken in popular parlance to mean 'good', despite the 'loss of control over consumption' that characterises a binge episode in the psychiatric sense.

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Gambling, gaming, shopping and social media use can last for hours, overtaking sleep. These 'binges', if repeated, can promote other untoward health outcomes, like breaking the normal sleep–wake cycle or lead to overeating and underactivity.

Online pornography, commonly viewed by under-18 year olds, offers irresistible sexual experiences that become compulsive as consumers find themselves engaging with them even when they have 'had enough'. What does this mean for our sexual health and capacity to form intimate relationships as a key part of our mental well-being? Or our well-being in general?

Furthermore, celebrated appearance-based content on social media can make young people feel uncomfortable in their bodies.[8] Selfies (and their 'like' responses) provide temporary relief for young people with self-image or identity struggles or help manage the stress of 'fear of missing out' (FOMO); 'video shorts' become 'attention fillers' for those who have inattention tendencies and are easily bored. This is now the 'new normal' digital living.

The opportunity cost of digital living

A major disadvantage of excessive digital exposure is that we miss out on the opportunity to live in the physical world and engage fully with it. To assess the net cost–benefit of our digital engagements we need to factor in the 'opportunity cost' of missing out on physical world interactions. The new generations coming are at risk of being the first not to pick up a book or a musical instrument or a sport. When out walking in nature or in a city how often do we see people looking at their phones, oblivious to aspects of the physical environment? But also, the older generations are the first generation to put down their newspapers, books or stop dating outside online social networks.

Do we miss the green and blue space for the joys of our pixel-based entertainment? Couples talk less and 'phub' more (the act of ignoring someone you are with and giving attention to your mobile phone instead). Parents phubbing means less engaged parenting – what impact does this have on child development? Are we confident that our devices will provide enough solace towards life's hardships as they replace physical world engagement with the arts, sports, intimate relationships and socialising, among other activities? Are we going to be resilient enough in the future or are we building our emotional well-being on quicksand?

The Chimaera–Hydra analogy

Characterising exposure to the online world is a challenging task as technologies are changing so quickly. New developments mean new opportunities and new hazards. This has implications for public health and policy as regulating a fast-pacing industry is almost impossible; although we are getting better at it.[9] From past examples, it took decades to prove causality relating to harms of cigarette smoking before protective legislation came into effect against those harms, and such work was hindered by aspects of the 'addiction industry'. In the case of smoking, we also had the advantage of biological and pathological evidence, which was hard (but not impossible!) to argue against. However, in the case of mental health harms from online usage, the phenotypes involved are much less well defined and the psychopathology is more difficult to characterise.

By the time we manage to 'prove' causality between a particular facet of online usage and a mental health harm, technology would have moved on to the next thing. Virtual reality and augmented reality are already making their predecessors obsolete. Big tech industries proliferate and feed off each other – there has never before been as much concern about the 'gamblification' of gaming, 'gamification of pornography', excessive 'gaming and gambling prompts on social media', among many other overlapping and intersecting facets of online usage. Those different facets of online experience amalgamate like the Chimaera monster and by the time we think we have understood how one kind of usage has an impact on our mental health two new ones will have arrived on the scene, like the multiple and regenerating heads of the Hydra.

In response, the World Health Organization International Classification of disease (ICD-11) took the 'precautionary principle' by defining online gambling, gaming and porn use as diagnosable disorders, thereby eligible for healthcare. In terms of public health, governments have a duty to protect their citizens from these demonstrable harms – legislation for regulating internet content is emerging to hold companies to account, although it remains to be seen how it will be applied and how effective it is. And arguably much of the emerging legislation focuses on harmful content but does not pay sufficient attention to the addictive 'form' of the medium.

What can a psychiatrist do?

As professionals of mental health we are in a strategic position to identify harms driven by a problematic engagement with the online environment. Asking our patients about their online usage should be part of our routine comprehensive assessments. We will find that a wealth of information will come from this – sometimes we will find alarming signs of mental illness in behaviours manifesting in the digital world (for example, excessive checking of medical facts and diagnoses can point towards health anxiety). Other times we will find that engagement with the internet interferes with good mental well-being (for example, impedes sleep, diminishes academic/vocational success or motivation). Rarely, but certainly, we will find evidence of specific harms directly linked to the online engagement (for example, gambling disorder manifesting exclusively online).

We can consider asking the following questions.

(a) How long do you spend online daily?
(b) Have you ever been concerned about the time spent online? And, if 'yes':
(c) Have you considered reducing the amount of time you spend online?

Brief interventions of that kind might be worth our effort prompting behavioural changes. We should be confident to tell our patients that we are adequately concerned as mental health professionals, that not all online engagement is harmless and everyone should reflect on the amount of time they spend online and what they do in the digital milieu.

As mental health professionals we should kick-start a conversation to help steer the ship at an individual and societal level as well. In parallel, we can support and promote research into PUI and its harms on an individual and societal level across all age groups and other strata of society that will help leverage public health interventions, regulation and legislation to protect vulnerable groups.

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