Commentary

Eradicating Entitlement to Reduce Susceptibility to Technological Enslavement

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WHAT HAPPENS WHEN our world, filled with burgeoning stressors, is conditioning us to subsist in a state of allostatic load (A-Load) due to chronic over-activation of our sympathetic nervous systems [1]–[4]? What happens when our world is also teeming with technological goods and services that allow us to self-medicate through coping mechanisms that detract our brains with repeated dopamine releases? What are the long-term effects of these self-enslaving behaviors if, over time, they result in decreases in the dopamine receptors expressed in our brains [5], [6]? What happens when our dopamine-inducing digital activities are stamped in our brains as the easier reward paths to be sought and we subsequently lose the drive for real-world activities [5], [7]? When we allow ourselves to be habitually bombarded with stress, hedonism, distractions, social comparisons, and multitasking, we are negatively impacting the chemicals in our brain. Are we becoming a physiologically enervated technologically enslaved society (PETS)? Are we allowing ourselves to be perpetually tethered like PETS on digital leashes?

Physiological enervation

A-Load is an index of the biological wear-and-tear on the physiology of the human. When the demands of life outweigh our ability to cope, we experience stress. Prolonged stress often leads to chronic

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We often identify stressors in our lives as overloaded schedules, exams, car accidents, unexpected deaths or illness, or civil unrest. Yet, we would do well to consider dysregulated technology usage as a subtle means for permitting beguiling and brilliantly disguised stressors to infiltrate our physiological existence. Research [7] repeatedly shows there can be negative consequences for humans relative to technology usage such as biomarkers of stress (e.g., increased cortisol and inflammation) [11] as well as evidence of physical and psychological strain leading to fatigue and overload due to the need to pay continuous attention to the volume of demands through technologies [12]. Global studies [13]–[15] reveal intense pressures due to being merely gainfully employed in the digital age; these pressures also can result in chronic stress and risks to well-being. There has been a 30% increase in those who work from home; postpandemic research is likely to reveal far more intensifying pressures on members of society due to increasingly blurred lines between work and nonwork time. Positively, and in concert with such countries as France and Germany, the European Union (EU) is embracing bloc-wide legislative directives to ensure workers are protected through the "right-to-disconnect." However, critics of addressing such issues through legislature alone rightfully draw our attention to the deeper requirements to ensure rights-to-rest; cultures of always-on must be shifted not only in the workplace, but also at the societal level, to free us from the covert and overt social pressures of being tethered unremittingly to digital leashes [16].

Problematic pleasures and dopamine

Technology increasingly affords us a seemingly endless supply of options to distract us and to satisfy our pleasure-seeking selves [17]-[19]. Pleasurable technological pastimes such as viewing enjoyable, engaging, and empowering media content can certainly be means of improving well-being, yet spending moderate to high amounts of time has been linked to cognitive decline [20], [21]; self-discipline matters. Most humans now have the means to explore a vast array of pleasurable goods, services, people, and places to gratify their desires and whims. From the comfort of our couches, we can view images, send, follow, communicate, surf, learn, watch videos or movies, compete, meditate, play games, shop, or gamble. We can indulge ourselves with steady streams of instant gratification; our ancestors could not imagine the hedonistic options we are now afforded. However, with all these delectations at our fingertips, we can easily find ourselves shifting from short-term pleasures to long-term pain [7].

Our brains were not created to be perpetually satiated with ease, comfort, and pleasure. When our brains are allowed to subsist from pleasure to pleasure, we produce surge after surge of dopamine. Although dopamine is a naturally occurring feelgood chemical (i.e., neurotransmitter) contributing to feelings of pleasure and satisfaction, we can have too much of a good thing [7], [22]. Over time, our brains can suffer fatigue, leading to less production of dopamine. We are also left feeling depressed and emotionally down when we cease to produce the rush of these chemicals; this maladaptive state can drive us to find riskier ways to feel good [6], [7]. As our consumption of perpetual pleasures persists, our dopamine transporter levels can go down over time. With less dopamine, everyday pleasures cease to be as pleasurable as they once were; we are less satisfied and need progressively more, or more intense, activities to stimulate dopamine [23]. Studies [3], [4] contend humans subsequently can suffer greater fatigue levels, depression, increased competitiveness and conflict, reduced performance, and decreased productivity.

Subtle stress and suffering: Distractions and comparisons

Researchers [24], [25] also alert us to risks to the brain when we are media multitasking (MMT, e.g., text messaging while watching television). High-tech jugglers have been shown to have lower cognitive capacity and set themselves up to remember less, as well as to be far more prone to distractions of irrelevant information. While our bodies are physically established in one location, our minds are too often in another location; perhaps, we are scrolling to traverse foreign lands, or virtually immersing ourselves in others' lived experiences while sacrificing our own. Yet, our minds and bodies were created to be well-integrated and hang out together far more often than we allow [8]. Without this robust mind-body integration, we are likely to miss the irreplaceable joys of being who we are and where we are, in the present state.

Technology usage can lead to fear of missing out, comparisons to others, gossiping, and self-focus [26], [27]. Research [28] relative to frequent digital technology use also presents evidence of such potential harmful effects as impaired brain development, disrupted sleep, reduced social and emotional intelligence, and reduced attention. Such technologies as social media have been associated with evidence of problematic levels of cortisol (i.e., the fight, flight, or freeze hormone); research indicates increased levels of perceived stress, and impaired stress recovery (i.e., sustained cortisol levels and/or impaired cortisol recovery) [26], [29], [30]. Research [31] relative to online gaming revealed cortisol levels increased significantly. A unique, yet the wide-ranging definition of suffering is having what you do not want and not having what you want [32]. If such technologies as social media usage instigate releases of cortisol in the body as we engage in social upward comparisons to others [33], [34], could we be creating our own unnecessary low-grade suffering? Are we too often unknowingly adding to our enervation as we cease to stroll, but rather scroll through life?

Antidote: Eradicating our default settings of psychological entitlement

As technology provides us ample opportunities to seek and attain relentless pleasure, research [7], [22], [35] demonstrates that "too much pleasure experienced too often without prior requirement for effort in order to achieve dopamine, lowers our baseline of dopamine as well as the potency for all experiences" [35]. Yet, our brains often work against the aforementioned exertion of such efforts. Human brains are believed to be naturally attracted to a state of laziness; studies [36] suggest that our brains are inherently attracted to sedentary behaviors. We can also be predisposed to feel entitled to a life of ease and comfort with the inherent drive to exchange responsibility for deservingness [37], [38]. Perhaps, we perceive this in ourselves when we reflect on how often our self-created narratives grant our brains the license to perpetually lose ourselves in the diverse pleasures offered by technologies and often at the expense of more responsible behaviors yielding long-term sustainable rewards. Optimistically, we can work to change our behaviors, but far better methodologies might be to identify and address the philosophical underpinnings that fuel our narratives such as psychological entitlement.

Psychological entitlement can be defined as a general belief of deservingness in response to specific group-based distributive norms [33], or more broadly, as a general belief that one is exempt from responsibility and/or that one is owed special treatment [38]. Other definitions of psychological entitlement describe one's unswerving belief that one warrants preferential treatments and rewards, often with little consideration of reality [39], [40]. This maladaptive state is believed to fuel cognitive distortions; people with higher levels of entitlement often do not achieve their inflated expectations [41] which is likely to lead to dissatisfaction and distress [42]. Unmet expectations, such as those that were unrealistic, result in frustration; this is also biologically

Do we unwittingly subscribe to the belief that we deserve to feel good all the time? In our quests for technological escapism, are we losing critical opportunities to leverage boredom for increased creativity, curiosity, motivation, and self-control [44] which would stimulate happy chemicals in our brains [7], [22], [35]? Do we feel as if we have a right to be entertained with whatever we choose, for however long, and whenever we feel the urge? Do we think it should not be boring, or arduous at times to bear the laborious aspects of life and especially when myriads of distractions are far more attractive and readily available? Do we consider ease, comfort, and pleasure our privilege? Do we perceive that it is our responsibility to self-regulate our digital lives?

Psychological entitlement is disempowering [38]; we give power away when we allow ourselves to create and sustain narratives that justify our pleasure-seeking, self-indulgent dysregulated technology usage. Eliminating excuses, becoming accountable, and taking responsibility: this is empowering [22], [38]. We must better perceive our narratives of entitlement that allow these stressors to infiltrate our physiological existence. We are responsible for our own behaviors; we can mitigate and self-regulate ourselves relative to stressors, hedonism, distractions, social comparisons, and multitasking to avoid negatively impacting the chemical flows within our brain. By taking the onus and doing the hard thing(s) [38], we are far more likely to avoid becoming physiologically enervated technologically enslaved beings.

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