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Digital Mindfulness: The Role of Reflection

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TREO Talk Paper

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Abstract

Digital technology is an important part of modern life. In our increasingly connected world, it is critical that users maximize value from digital technology while avoiding its negative consequences associated with technology misuse, overuse, and abuse. Hence, *digital mindfulness* is imperative in harvesting the potential of digital tools, for example, in terms of improving productivity, health, interpersonal relationships, learning, and quality of life in general. Mindfulness commonly refers to a state of consciousness, intrinsic to human beings, that can be measured as an individual trait. It is characterized by a focus on present moment phenomena while being perceptually aware of internal and external stimuli. In this study, we theorize digital mindfulness as a practice versus a state of mind and define digital mindfulness as an intentional awareness of temporal, situational, and experiential factors in a digitally-enabled environment. We argue this awareness is not 'judgment-free' but 'judgment-aware'. We also argue that digital mindfulness is not binary but has gradations in the degree of potency that varies with a user's capability in monitoring and reflecting on their relationships with the digitally-enabled environment at the present moment. From this perspective, we propose to operationalize digital mindfulness by expanding the concept of IT mindfulness (cf. Thatcher et al. 2018) and adding a fifth dimension, *reflective monitoring*. In this context, reflective monitoring refers to a mindfulness practice through which a user reflects on how different dimensions of a digitally-enabled environment affect them and others around them. Hence, digital mindfulness can be characterized by a user's *alertness*, *awareness*, *openness*, *presentness,* and *reflectiveness*.

We examined our theorization of digital mindfulness in the context of smartphone use and tracked its effects on user productivity and contentment. We designed a self-monitoring intervention with emphasis on mindful use of smartphones rather than optimum or reduced use. Our findings suggest that practicing mindfulness led to significant behavioral change after three weeks when compared with a control group. Practicing reflection also explained a significant proportion of variance in the dependent variables (productivity and contentment). Reflection on system-generated feedback on screen-time enables the user to change their behavior without necessarily reducing screen-time. Furthermore, we identified that goal-setting plays a significant role in driving the effect of digital mindfulness on productivity. This revealed the importance of goal-directed mindfulness in digital settings.

Our preliminary results suggest that digital mindfulness shapes how users interact with a digitally-enabled environment through accounting for goals, noticing detail in the context, adapting expectations based on experience, and improving foresight after reflection. Digital mindfulness involves the ability to detect important aspects of the contexts and when needed take timely, appropriate action in response. This satisfies the need to balance efficient application of digital technology and tools under "normal" circumstances, have mindful attention to abnormalities and alternative possibilities, while supporting users to find a way to quickly and effectively reoriented. It is expected when users are mindfully engaged in digitally-enabled environments, from social media to virtual reality, from Q&A platforms to autonomous vehicles, the user is both motivated and able to explore a wider variety of perspectives and possibilities with an open mind. In such environments, reflection is critical to enhancing the effective use—thoughtful action in general—beyond mindful observation. As a result, the user can make more relevant and precise distinctions about phenomena in those environments, adapt to shifts in those environments, and take action to benefit from those environments without limiting others.