

COMMENTARY

# Conceptualizing digital well-being and technology addiction in I-O psychology

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Digital well-being, digital mindfulness, digital minimalism, digital wellness. Who does not get confused when reading about these trending and apparently similar-looking constructs? In consideration of the adverse effects that problematic technology use can impose on employees, attempts to facilitate mindful and purpose-oriented use of information and communication technologies (ICT) have received increasing interest in the literature. Subsequently, I will expand the work by Hu et al. (2021) by consolidating the taxonomies of digital well-being and technology addiction in an industrial-organizational (I-O) psychology context.

## Conceptualizing digital well-being: More than just a trend

The plurality of terminologies that have emerged in the past decade to describe the construct of digital well-being reflect the increasing efforts of researchers to explore new concepts, to mitigate potential negative effects on employee well-being, and performance caused by the increasing use of information and communication technology (ICT). However, the existing overlap in taxonomies has led to confusion that may prevent practitioners from realizing the benefits that digital well-being may offer to employees. Although digital well-being, digital mindfulness, digital minimalism, and digital wellness essentially describe the same construct, it needs to be highlighted that there is a substantial difference between technology-based and person-centered approaches to digital well-being. The former includes mostly technological tools such as blocking apps to minimize distractions by eliminating notifications and restricting access to certain websites such as social media networks (Eichner, 2020). As opposed to that, person-centered approaches attempt to be more comprehensive by combining cognitive and behavioral techniques, such as mindfulness exercises, with educational elements. This includes, but is not limited to, training for specific skills such as self-efficacy and adaptive coping behaviors that help employees to detach, stay focused and be productive in a digitalized working environment. Additional educational elements teach individuals to remain conscious of their technology usage to prevent the formation of an addiction. Recent evidence found such person-centered approaches to be superior to technology-based, digital well-being solutions in terms of efficacy, because the latter do not target underlying habits, motivations, and values (Monge Roffarello & de Russis, 2019). In summary, digital well-being in an I-O psychology context could be defined as a state of mindful and purposeful ICT use that boosts job performance and well-being by mitigating the adverse effects of digital technologies such as distractions and information overload. Thus, digital well-being is not just an empty neologism that represents the existing concepts of general mindfulness and well-being. Rather, it expands these constructs by considering the specific persuasive, addictive, and distractive

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elements of ICTs and helps individuals to manage them. Thus, it is a dynamic construct that enables employees to maintain a balance between being connected to work-related issues, and successfully detaching and restoring individual capacities (Vanden Abeele, 2020).

### **Technology addiction: The absence of mindful and goal-oriented technology use**

Beyond that, I-O psychologists are advised to be aware of the detrimental effects of technology addiction on employees, which typically occur when employees are unable to use digital technologies in a balanced and mindful way. Technology addiction incorporates elements of distraction, strong dependence, withdrawal symptoms, and maladaptive, compulsive, or excessive use of digital technologies. Just quickly checking your emails again for the third time in the last 5 minutes? Oulasvirta et al. (2012) highlight that once these so-called checking habits repeatedly occur and become unconscious habits, an addiction can emerge. However, when talking about addiction in the context of ICTs, one may face the same confusion that is caused by a vast heterogeneity of terminologies, as is outlined in the case of digital well-being. To mention only a few, frequently used terms include addicted, pathological, compulsive, maladaptive, or dysfunctional use of digital technologies. Particularly, there is a debate regarding whether technology addictions should be a subgroup of behavioral addictions that are assumed to share similar symptoms and underlying biological mechanisms with substance addictions (Csibi et al., 2019; Grant & Chamberlain, 2016). Considering the continuously ongoing development and adoption of new ICTs by employees, it appears to be unlikely that a universal term for addictive technology use will be established in the next few years (Montag et al., 2019). Because constructs such as internet or smartphone addiction are not (yet) classified by the Diagnostic and Statistical Manual of Mental Disorders (DSM) as official addictions, recent studies have adopted the terms pathological or problematic technology use instead of “technology addiction” which has been used most frequently so far. Independent from these terminological inconsistencies, addictive technology use is highly prevalent in the workplace. For instance, a substantial body of cross-sectional studies frequently witness that more than 25% of sampled employees exceed the cutoff values for being classified as addictive smartphone users (Elhai et al., 2017; Kwon, Kim et al., 2013; Li & Lin, 2018). Although the cross-cultural and cross-professional sensitivity of popular scales used to assess smartphone addiction may not always be satisfying (Kwon, Lee, et al., 2013; Pavia et al., 2016), the high prevalence of addicted users in these studies is of particular concern given that recent reviews found technology addiction to be consistently linked to depression, anxiety, decreased productivity, burnout, and sleeping problems (Elhai et al., 2017; Roetzel, 2018).

### **Concluding remarks**

I recommend considering the constructs of digital well-being and technology addiction when reviewing the influence of ICT in the workplace to account not only for the increasing endeavours academia and practice have made to investigate and mitigate adverse effects of ICT use at work, but also, to further facilitate a harmonization of ICT terminologies that are used by I-O psychologists. It is self-explanatory that the occurrence of outcomes such as employee burnout, depression, information overload, and work–family conflict, which are associated with excessive and pathological ICT use, are highly undesirable from both economic and humanistic perspectives (Lefkowitz, 2012). ICTs were designed to aid employees in their work and to eventually boost productivity. However, this can only be realized when research and practice train and educate employees on how to use ICTs effectively and in a purposeful and mindful manner. Digital well-being can provide a guideline for that.

## References

- Csibi, S., Griffiths, M. D., Demetrovics, Z., & Szabo, A. (2019). Analysis of problematic smartphone use across different age groups within the “components model of addiction.” *International Journal of Mental Health and Addiction*, 1–16. <https://doi.org/10.1007/s11469-019-00095-0>
- Eichner, A. A. (2020). Planting trees and tracking screen time: A taxonomy of digital wellbeing features. PACIS 2020 Proceedings. 154. <https://aisel.aisnet.org/pacis2020/154>.
- Elhai, J. D., Dvorak, R. D., Levine, J. C., & Hall, B. J. (2017). Problematic smartphone use: A conceptual overview and systematic review of relations with anxiety and depression psychopathology. *Journal of Affective Disorders*, 207, 251–259. <https://doi.org/10.1016/j.jad.2016.08.030>
- Grant, J. E., & Chamberlain, S. R. (2016). Expanding the definition of addiction: Dsm-5 vs. Icd-11. *CNS Spectrums*, 21(4), 300–303. <https://doi.org/10.1017/S1092852916000183>
- Hu, Xinyu, Barber, L. K., Park, Y., & Day, A. (2021). Defrag and reboot? Consolidating information and communication technology research in I-O psychology. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 14(3).
- Kwon, M., Kim, D.-J., Cho, H., & Yang, S. (2013). The smartphone addiction scale: Development and validation of a short version for adolescents. *PLoS One*, 8(12), Article e83558. <https://doi.org/10.1371/journal.pone.0083558>
- Kwon, M., Lee, J.-Y., Won, W.-Y., Park, J.-W., Min, J.-A., Hahn, C., Gu, X., Choi, J.-H., and Kim, D.-J. (2013). Development and validation of a smartphone addiction scale (SAS). *PLoS One*, 8(2), Article e56936. <https://doi.org/10.1371/journal.pone.0056936>
- Lefkowitz, J. (2012). Ethics in industrial–organizational psychology. In S. Knapp & M. C. Gottlieb (Eds.), *APA handbooks in psychology. APA handbook of ethics in psychology* (1st ed., pp. 149–167). American Psychological Association. <https://doi.org/10.1037/13272-008>
- Li, L., & Lin, T. T. C. (2018). Examining how dependence on smartphones at work relates to Chinese employees’ workplace social capital, job performance, and smartphone addiction. *Information Development*, 34(5), 489–503. <https://doi.org/10.1177/0266666917721735>
- Monge Roffarello, A., & de Russis, L. (2019, May 4–9). The Race towards digital wellbeing. In S. Brewster, G. Fitzpatrick, A. Cox, & V. Kostakos (Eds.), *CHI 2019: Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems* (pp. 1–14), Glasgow, Scotland, UK. ACM. <https://doi.org/10.1145/3290605.3300616>
- Montag, C., Wegmann, E., Sariyska, R., Demetrovics, Z., & Brand, M. (2019). How to overcome taxonomical problems in the study of Internet use disorders and what to do with “smartphone addiction”? *Journal of Behavioral Addictions*, 1–7. <https://doi.org/10.1556/2006.8.2019.59>
- Oulasvirta, A., Rattenbury, T., Ma, L., & Raita, E. (2012). Habits make smartphone use more pervasive. *Personal and Ubiquitous Computing*, 16(1), 105–114. <https://doi.org/10.1007/s00779-011-0412-2>
- Pavia, L., Cavani, P., Di Blasi, M., & Giordano, C. (2016). Smartphone Addiction Inventory (SPAI): Psychometric properties and confirmatory factor analysis. *Computers in Human Behavior*, 63, 170–178. <https://doi.org/10.1016/j.chb.2016.05.039>
- Roetzel, P. G. (2018). Information overload in the information age: A review of the literature from business administration, business psychology, and related disciplines with a bibliometric approach and framework development. Business Research. Advance online publication. <https://doi.org/10.1007/s40685-018-0069-z>
- Vanden Abeele, M. M. P. (2020). Digital wellbeing as a dynamic construct. *Communication Theory*. Advance online publication. <https://doi.org/10.1093/ct/qtaa024>