

## The Dark Side of Information Technology: The Third Time Has Its Charm

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### 1. Overview

Information technology (IT) use and implementations in the workplace and society have typically been viewed as beneficial, yet recent studies and observations have revealed worrying evidence that IT use may also be hiding a potentially serious dark side. In other words, IT use may lead to a host of negative consequences with varying degrees of severity for individuals, firms and societies [1-16]. This track embraces the exploration of a variety of IT usage behaviors and hopes to act as an open forum for the emerging results around the duality of IT and unraveling, and ultimately mitigating, the dark sides of IT use. Given the ubiquitous and obligatory nature of IT use in organizations, the prevalence of use among at-risk populations such as children, and the abovementioned early findings, it is imperative that the IS research community take upon itself the rigorous examination of dark side of IT use.

For the past three years the “Dark Side of IT” mini-track has hosted theoretical and empirical papers examining alternative consequences of IT use and implementation in organizations and societies. The objective of this mini-track is to focus not only on the antecedents, development processes, consequence of numerous phenomena related to the dark side of IT use but also the potential strategies and techniques for behavioral interventions. We seek to continue providing practitioners (e.g., IT developers, managers, psychologists, and policy makers) in a multitude of contexts with a deeper understanding of the potential often unintended consequences and possible interventions pertaining to the dark side of IT use based on this forum of discussion.

Over time a host of new dark side of IT phenomena have emerged, and hence the focus and goal of this mini-track has evolved over the years to welcome topics that focus on a variety of IT-related phenomena which may be potentially harmful such as the following topics:

- Excessive and maladaptive IT use,
- Cyber loafing,
- Cyber bullying
- Deceptive computer-mediated communication
- Disrupted work life balance
- IT interruptions

- IT dangerous use and misuse
- Technostress
- Impulsive use of IT
- Physiological effects of IT use
- Coping with negative IT use outcomes
- Evidence based interventions

This year’s mini-track includes the following four papers: In the first paper, “Where Are Your Thoughts? On the Relationship between Technology Use and Mind Wandering”, **Oschinsky, Klesel, Ressel, and Niehaves** investigate if different types of technology use have an impact on mind wandering, an activity that we spend at least 50% of our waking time as human being engaged in. Results from their study suggest that there is indeed a significant difference between hedonic use and utilitarian use when it comes to mind wandering.

In the second paper, “Negative Consequences of Anthropomorphized Technology: A Bias-Threat-Illusion Model”, **Zheng and Jarvenpaa** shed more light on the phenomenon of attributing human-like traits to IT or IT anthropomorphism and the potential negative consequences that may arise from failing to regulate how users perceive and react to IT. The authors draw on multiple theoretical perspectives to identify negative consequences such as subjecting IT to human bias, experiencing threat to human agency and creating illusionary relationships with IT, as well as identifying remedies for such negative consequences.

In the third paper, “ICT, Permeability Between the Spheres of Life and Psychological Distress Among Lawyers”, **Cadieux, Mosconi, and Youssef** draw our attentions to the impact of ICT characteristics on work environment, stress and psychological distress experienced by lawyers. The qualitative study conducted revealed that ICT characteristics have the potential not only to increase the users workload and to accelerate their pace of work but also can blur the boundaries between work, home, and personal life to contribute to the users’ overall experienced stress and psychological distress.

In the final paper, “Can the Use of Data Analytics Tools Lead to Discriminatory Decisions?”, **Ebrahimi and Hassanein** discuss human beings’ susceptibility to Data Analytics (DA) recommendations that has discriminatory ramifications. Although there has been long standing interest in the topic and progress has

been made, the issue has not been fully addressed. The results of current research point to an array of factors driving the acceptance of such recommendations and reveal that most decision makers accepted rather than rejected discriminatory recommendations.

The collection of the presented papers while vary in their investigated contexts, theoretical lenses used and their deployed methodological tools they were similar in shedding the light on a simple notion that technology has changed our lives drastically and not always toward a better status. While as human being we will not stop using IT any time soon we need to be always mindful and aware of potential changes IT can bring to our different walks of life.

### References:

- 1 He, Q., Turel, O., and Bechara, A.: 'Brain anatomy alterations associated with Social Networking Site (SNS) addiction', *Sci. Rep.*, 2017, 7, (paper 45064), pp. 1-8
- 2 Osatuyi, B., and Turel, O.: 'Tug of war between social self-regulation and habit: Explaining the experience of momentary social media addiction symptoms', *Comput.Hum. Behav.*, 2018, 85, pp. 95-105
- 3 Serenko, A., and Turel, O.: 'Integrating technology addiction and use: An empirical investigation of Facebook users', *AIS Transactions on Replication Research*, 2015, 1, (1, Paper 2), pp. 0-18
- 4 Turel, O., Brevers, D., and Bechara, A.: 'Time distortion when users at-risk for social media addiction engage in non-social media tasks', *Journal of Psychiatric Research*, 2018, 97, pp. 84-88
- 5 Turel, O., He, Q., Brevers, D., and Bechara, A.: 'Delay discounting mediates the association between posterior insular cortex volume and social media addiction symptoms', *Cognitive, Affective, & Behavioral Neuroscience*, 2018, 18, (4), pp. 694-704
- 6 Turel, O., He, Q., Xue, G., Xiao, L., and Bechara, A.: 'Examination of neural systems subserving Facebook "addiction"', *Psychol. Rep.*, 2014, 115, (3), pp. 675-695
- 7 Turel, O., Poppa, N.T., and Gil-Or, O.: 'Neuroticism Magnifies the Detrimental Association between Social Media Addiction Symptoms and Wellbeing in Women, but Not in Men: a three-Way Moderation Model', *Psychiatric Quarterly*, 2018, pp. 1-15
- 8 Turel, O., Romashkin, A., and Morrison, K.M.: 'Health Outcomes of Information System Use Lifestyles among Adolescents: Videogame Addiction, Sleep Curtailment and Cardio-Metabolic Deficiencies', *PLoS One*, 2016, 11, (5), pp. e0154764
- 9 Turel, O., and Serenko, A.: 'Is mobile email addiction overlooked?', *Communications of the ACM*, 2010, 53, (5), pp. 41-43
- 10 Turel, O., Serenko, A., and Giles, P.: 'Integrating technology addiction and use: An empirical investigation of online auction sites', *MIS Quarterly*, 2011, 35, (4), pp. 1043-1061
- 11 Xu, Z.C., Turel, O., and Yuan, Y.F.: 'Online game addiction among adolescents: motivation and prevention factors', *European Journal of Information Systems*, 2012, 21, (3), pp. 321-340
- 12 Turel, O., Mouttapa, M., and Donato, E.: 'Preventing problematic Internet use through video-based interventions: a theoretical model and empirical test', *Behaviour & Information Technology*, 2015, 34, (4), pp. 349-362
- 13 Turel, O., and Qahri-Saremi, H.: 'Problematic use of social networking sites: Antecedents and consequence from a dual system theory perspective', *J. Manage. Inform. Syst.*, 2016, 33, (4), pp. 1087-1116
- 14 Turel, O., and Qahri-Saremi, H.: 'Explaining unplanned online media behaviors: Dual system theory models of impulsive use and swearing on social networking sites', *New Media & Society*, 2018, 20, (8), pp. 3050-3067
- 15 Turel, O., and Bechara, A.: 'Effects of motor impulsivity and sleep quality on swearing, interpersonally deviant and disadvantageous behaviors on online social networking sites', *Personality and Individual Differences*, 2017, 108, (1), pp. 91-97
- 16 Turel, O., Romashkin, A., and Morrison, K.M.: 'A model linking video gaming, sleep quality, sweet drinks consumption and obesity among children and youth', *Clinical Obesity*, 2017, 7, (4), pp. 191-198