INFORMATION SYSTEMS JOURNAL: SPECIAL ISSUE CALL FOR PAPERS

TITLE: The Dark Side of Information Technology Use

SPECIAL ISSUE GUEST EDITORS
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SPECIAL ISSUE CO-ORDINATING EDITOR-IN-CHIEF (ISJ): Robert Davison

1. Motivation

A large body of research has considered the positive aspects of information technology (IT) use. However, emerging research and practice commentary is beginning to focus on complex and often alarming ways in which use of IT affects organizational and social life. Consider, for instance, the following findings:

- People spend as much as 28% of their working time dealing with interruptions from multi-tasking, due to IT characteristics, work environment, individual characteristics, and situational factors, etc. (Spira and Feintuch, 2005), which translates into significant monetary and psychological costs.
- 43% of users find the use of smart phones stressful due to the constant pressure of checking messages, yet 60% cannot go for an hour without checking their phones for messages and email; 24% of users check their smart phones while driving, and 54% in the middle of the night, before going to bed, or immediately upon waking up (Lookout Mobile Security Report).
- It is estimated that 1.6 million, roughly 28%, of vehicle accidents a year are related to obsessive-compulsive mobile phone use while driving (Steelman et al 2012).
- 50-75% of all information security incidents stem from misuse by users/employees (Information Week Report 2009).

As IT potentially permeates all aspects of organizational life, the above evidence points to two key emerging themes in IT enabled patterns of work and collaboration: that of quick and easy information access and flexible work patterns versus addiction, misuse, overuse, overload and stress brought on by IT usage. What we are seeing is a set of complex social and individual situations where the very benefits that use of IT brings contain the seeds of potentially transformative changes in ways of working, collaborating and living - changes that can lead to non-beneficial, if unintended consequences.

Nascent academic research is beginning to focus on a number of areas that characterize this negative aspect of IT use. These areas include IT usage related stress, addiction, misuse, work overload, and interruptions. Technostress, for example, has been linked to adverse outcomes such as decreased job satisfaction, commitment, and productivity, as well as increased work overload and work-home conflict (e.g. Ayyagari et al 2011, Ragu-Nathan et al 2008, Tarafdar et al 2007). The information systems (IS) research community has also started to explore some of the correlates, antecedents, and consequences of technology addictions and misuse behaviors (e.g., Bulgurcu et al. 2010; D’Arcy et al. 2009; Turel et al.
Research has also begun to examine the various user, task, environment (context), and IT characteristics that lead to information overload and multitasking situations, and the cognitive and performance outcomes associated with such situations (e.g., Gupta et al. 2012; Li et al. 2011, Gupta et al. 2008; Gupta et al. 2006).

These, and many other negative aspects of IT use, are clearly important areas for the IS research community to attend to, given the results from initial studies and considering that the ubiquitous and functionally pervasive nature of IT use is expected to expose users to ever greater levels of conditions that are potent for experiencing negative outcomes. Networked enterprises further aggravate the situation (Barjis et al. 2010). Research occurring in these areas is embryonic and offers significant opportunity for conducting high-impact theoretical and applied studies. We identify the following opportunities and critical questions that research needs to answer for advancing knowledge in the field, and making a difference to practice and policy.

2. Informing Theory and Influencing Practice

**Opportunities for Informing Theory include but are not limited to:**

1. How can various aspects of the negative consequences of IT use be theoretically placed in the historical evolution of IT adoption from use to post-adoptive and beyond?
2. To what extent can current theoretical perspectives in IS explain antecedents and consequences of various aspects of the negative effects of IT use?
3. How can theoretical perspectives from other areas (such as, but not limited to psychology, cognitive science, neuroscience, decision sciences, organizational behavior, computer science, and informatics) enrich the efforts of IS research in understanding phenomena associated with the negative impacts of IT use?
4. How can phenomena such as IT induced stress, overload, multitasking, and addiction be contextualized to different sectors (such as, but not limited to manufacturing, healthcare, and IT services) and different applications and their use (such as enterprise applications in a work setting or use of social media in a personal setting)?
5. How do IT use behaviors in the home and work contexts interact with one another in modulating the effects of phenomenon such as stress, addiction and overload? Is there a carryover effect of negative impacts of IT use at work to the home setting, and vice versa?
6. To what extent are current methods applicable to studying this phenomenon? What new methods could be used – both quantitative and qualitative, to better inform our understanding?
7. What are the levels of impact (individual, organizational, national) of the different aspects of the negative consequences of IT use? What are the outcomes and consequences of the different aspects of the negative impacts of IT use at each level? Can there be cross-level effects?
8. What theoretical frameworks can be developed to understand the paradox of positive and negative impacts associated with IT use?

**Opportunities for Informing Practice include but are not limited to:**

9. To what extent are organizations and users currently aware of the negative or unintended consequences of IT use?
10. To what extent do organizations and users have tools for measuring and managing levels of technostress, addiction, multitasking, overload etc. that their employees experience?

11. To what extent do organizations, government agencies, and public health authorities have intervention programs for reducing levels of technostress, addiction, multitasking, overload etc. among employees?

12. Can organizations constructively harness these negative patterns for benefits?

13. Does “big data” aggravate or reduce various aspects of the dark side of IT use? How can big data be constructively used to deal with the dark side?

14. How can hi-tech organizations (Google, Microsoft etc.) design technologies that will reduce the negative consequences associated with IT use.

Opportunities for Informing Policy and Social Milieu include but are not limited to:

15. What sorts of legislation may be required for containing the negative impacts of IT use?

16. Will self-regulation suffice for dealing with various negative aspects of IT use or is there a need to enforce organizational policies or other external interventions?

17. What impact these will have on social culture and ways of collaboration?

18. How can firms in the IT products/services sectors (e.g. Microsoft, Oracle, Infosys) work with policymaking and standard setting bodies to help address the negative aspects of IT use.

19. How can firms in the IT products/services sectors (e.g. Microsoft, Oracle, Infosys) design technologies that can help their clients deal with the negative aspects of IT use?

20. How can firms that produce collaboration, entertainment and information products (e.g. gaming, search and social networking firms) help individuals address the negative impacts of IT use through product and standards design?

21. Who is responsible for various negative aspects of IT use? Is it due to moral or cognitive failure of users or lack of appropriate design features? Or due to device manufacturers/software developers/organizations/governments?

3. Objectives and Criterion for Submissions for the Special Issue

The objective of this Special Issue (SI) is to highlight exemplary and outstanding research that examines ambivalent and complex impacts of IT use, and that lead to unintended, contrary and non-beneficial impacts. Submissions should broadly address or relate to the above-mentioned aspects in their contribution to theory and practice. The topic of this special issue draws on fundamental and rather remarkable changes evidenced in organizational and social behaviors of humans spawned by the use of different kinds of IT. We seek relevant and rigorous research that develops and applies applicable theory to problems under investigation and identifies IT and IT management tools as solutions.

Specifically, we seek research that addresses the following criterion.

1. Diverse in terms of author demographics (nationality/gender/disciplines) and affiliations (academia/industry)

2. Capture integration of theoretical perspectives and theory-in-use application in real organizations or prevalent organizational contexts
3. Analyze innovative experiences and achievements in the topical domain, by organizations spanning different industry and government sectors, from a variety of AIS regions.
4. Identify directions and opportunities for shaping future research in the domain.
5. Identify critical issues that organizations and societies should anticipate and address

Submissions should:
1. Explain how they meet the Special Issue objectives
2. Present insight and contribution based on empirical evidence (i.e. not be a review article, an opinion article, a speculative paper or be based on algorithmic analysis of secondary data).
3. Be innovative in their contribution to IS theory and practice
4. Ideally be generalizable to a broad and/or prevalent range of contexts
5. Meet criterion for reporting completeness, structure and research rigor required for ISJ. They should not be research in progress papers

4. Review and Publishing Process

Recognizing that the SI seeks thoughtful and innovative submissions that address an emerging domain, authors are encouraged to submit an optional mini proposal, limited to 5 pages, to the Special Issue editors for early feedback. Initial submissions should not exceed 5-pages in total including: 1-page with title, keywords, authors and key references; a 1-page extended abstract; a 1-page description and justification of research approach; a 1-page description of the expected major contributions, limitations and generalizability; and a 1-page analysis of how it fits the objectives and desirable requirements of the Special Issue. Formatting for this 5-page initial submission is to the standard for ISJ submissions.

This SI will solicit papers based on an open call. All manuscript submissions will go through an initial round of screening by the SI Editorial Board to ensure that they fit the objectives of the SI and ISJ and can be reasonably improved during the mentioned time frame. For formatting criterion, authors should refer to the ISJ website at http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291365-2575/homepage/ForAuthors.html. Manuscripts that qualify will go through the ISJ review process. It is expected that a manuscript will go through a maximum of three rounds of revision.

**Timeline:**
Initial proposal submission: April 30th, 2013 (optional but encouraged)
Original manuscript submission due date: November 30th, 2013
Provisional author notification: November 2014

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6. References  


