Management & Organizational Behavior Teaching Society
2021 Virtual Conference
Roundtable Discussion Proposal

Technology Stress in Higher Education:
Theoretical Studies and Pedagogic Practices to Minimize Symptoms
Before, During, and After the COVID-19 Pandemic

Abstract
Technostress, not unlike COVID-19, is a worldwide pandemic. The aftermath is widespread, echoing throughout institutions of higher education, destructively effecting the mental and physical health of faculty and students, alike. Described as the harmful effects on the thoughts, attitudes, and behaviors rising from technology use, those who are techno-stressed exhibit a variety of physical and emotional symptoms. The purpose of this session is to present research results, published in late 2020, to advance the understanding and impacts of technostress in higher education before and during the COVID-19 pandemic. Participants will examine what techno-stresses them now as opposed to before the pandemic to identify what has changed and why. Attendees will learn strategies to manage techno-pressures, anxieties, and tensions for themselves and their students. This session, while front loaded in research is grounded to justify the means by which we should actively focus on and study this highly important topic.

Introduction

In March 2020, as the COVID-19 virus raged out of control, most colleges and universities across the country made the decision to close their campuses, shutter dorms, and pivot the rest of the semester to remote learning. While this solution enabled students to complete coursework and avoid delays in their academic progress, faculty were provided with very little notice, some merely days, to transition in-person classes to the online environment. At the time of the sudden shift to distance learning, roughly 55% of faculty across the nation had never taught an online course, over 70% preferred face-to-face teaching, and 36% claimed that virtual instruction does not yield equivalent learning outcomes as compared to in-person delivery (Bauer-Wolf, 2019; Inside Higher Ed & Gallup, Inc., 2019). Prior to the pandemic, 6 in 10 faculty reported that they were uncomfortable with and inexperienced to use classroom

technologies including the learning management system and 40% stated they did not have adequate onsite technical support or professional development to guide the design and delivery of online courses (Inside Higher Ed & Gallup, Inc., 2019).

Without a vaccine, institutions of higher learning were forced to reevaluate their fall semester reopening. The vast majority of Ivy League schools and scores of public and private colleges and universities across the country suspended plans to bring students back to campus and, instead, moved to a model of complete virtual instruction. Institutions who decided to open their doors had to rethink their fall operations and creatively reconfigure classroom capacities to meet physical distancing requirements. Some schools phased in classes with an online start followed by modified in-person classes after a week or two of adjustment whereas others opted to begin with face-to-face instruction from the start. Many modified their academic calendars to minimize breaks during the term along with the possibility of travel, and virus spread. Of the colleges and universities with in-person classes, blended or hybrid learning classroom configurations were the norm. Again, faculty were confronted with an abrupt transformation of the teaching landscape and had to precipitously adapt, the success of which was dependent upon their proficiency to merge and align information and communication technologies (ICTs) with teaching design and delivery strategies in distanced or blended learning ecosystems. Faculty who historically elected not to teach online have now been thrust into e-learning, a choice not of their own.

Theoretical Foundation

Technostress, not unlike COVID-19, is a worldwide pandemic (Bozionelos, 1996; Khan, Rehman, & Rehman, 2013; Lee, Lee, & Yung, 2016; Tu, Wang, & Shu, 2005). The aftermath is widespread, echoing throughout the entire global economy. Tu et al. (2005) described

technostress as the harmful effects on the thoughts, attitudes, and behaviors rising from technology use. A variety of physical and emotional symptoms may be exhibited by faculty who are techno-stressed such as anxiety, worry, irritability, headache, fatigue, inability to concentrate, fear, increased cortisol production, frustration, suspicion, obsessive thoughts, and depression (Cox, Griffiths, & Rial-Gonzalez, 2000; Mahalakshmi & Sornam, 2012; Riedl et al., 2012; Wang, Shu, and Tu, 2008).

A research study was conducted to advance the understanding of technostress in higher education before and during the COVID-19 pandemic. A survey of 307 college and university professors predominantly teaching in various business-related disciplines was conducted to determine if there is a difference in the level of technostress creators perceived by educators before and during the COVID-19 pandemic. A Paired Samples *t*-test was performed to compare overall technostress scores of faculty currently teaching in postsecondary institutions. Results show a significant difference in overall faculty perceived technostress scores before the COVID-19 pandemic and during the health crisis.

The seismic aftershock of the tsunami that is COVID-19 will persist for our entire way of life for years if not decades to come. The results of the study emphasize that another silent disease began inflicting its ravaging forces upon faculty across the country at the onset of the pandemic at the point in time when reeling from the shock of a sudden world transformed. While faculty hurriedly flipped their face-to-face courses to the virtual domain, they were struggling with the torment that is technostress far more ominously than before the pandemic.

Teaching Implications

Even when institutions closed down, faculty rose to the occasion to serve their students, despite their level of expertise with online teaching. Instructors with significant online course

design and delivery proficiency were not immune to the techno-overload as all faculty were up against the clock to pivot under extreme time constraints, having to rethink and redesign their entire course structures and pedagogic practices if not already e-teaching. The workload was overwhelming, especially because the online course shift was, for most, at the midpoint of the semester. Moving forward and until inoculation exists, colleges and universities that remain open run the risk of closing once again if not sporadically while unprotected from the virus if positive cases climb beyond a safe threshold. Once again, faculty will feel the pain of role overload.

However, lessons have been learned since the first shift. Faculty may be far more prepared to transition to virtual learning if the need arises. The trial by fire ignited by the COVID-19 pandemic may have seared faculty with the blistering plague that is technostress. Yet, during that time, faculty rose from the technophobic ashes like phoenixes, learning all that they could about online pedagogy and the technology that supports it to continue to conduct the business of higher education and fulfill our student stakeholder responsibilities.

While technology enabled faculty to work from home and continue to do their jobs during stay at home orders and beyond to support physical distancing safety precautions, work and life bled into one another, blurring the balance between home and the job. Faculty work is not 9-to-5 as a rule but COVID completely disrupted whatever stability may have been in place. The balance between work and home will continue to be a tightrope walk due to the technologic spillover at home until life can return to the pre-COVID homeostasis. Until then and thereafter, faculty should methodically strive to separate the two, schedule downtime, step away from the computer and connected devices, and invest in their mental and physical health. A similar

strategy should be embraced by faculty who teach entirely online, vulnerable to techno-invasion on a regular basis, apart from the contagion.

Through the lenses of the P-E fit and transaction theories and the technostress creators framework, faculty were discovered to be statistically more techno-stressed attributable to the increased role overload, insecurity, complexity, uncertainty, and invasion brought about from the COVID-19 pandemic. Institutions of higher learning should expand their instructional design, professional development, and counseling services budgets and staffing. This investment is critical now and into the future to support their faculty to cope during this incomprehensible health crisis event with the technological stressors imposed upon them because of the unforeseen need to convert in-person classes to those delivered in online and blended learning environments with only a moment notice. Furthermore, faculty should also stage a personal intervention for themselves now to minimize the impact of technostress creators on their lives or suffer the continued consequences.

Session Description

The initial purpose of this proposed session is to present research results, published in late 2020, to advance the understanding and impacts of technostress in higher education before and during the COVID-19 pandemic (15-20 minutes). The next 10-15 minute segment of the session is planned to be a group discussion, (think/pair/share using breakouts) to ascertain what techno-stresses faculty and students. We will examine our technostress perceptions now and prior the pandemic to identify what has changed and why. In the last segment of the session, participants will learn strategies to manage techno-pressures, anxieties, and tensions for ourselves and our students. This session, while front loaded in research is grounded to justify the means by which we should focus on this highly important topic.

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