

An Investigation into Research on Technostress in an Information and Communication Technology-enabled Learning Environment Within Indian Intellectuals

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Abstract:

The rapid evolution of information and communication technologies (ICT) is profoundly impacting higher education, ushering in a wave of technological changes. Information and communications technology tools, particularly social media platforms like Facebook and LinkedIn, have emerged as vital communication tools that enhance the teaching and learning experience, especially in higher education settings. Consequently, academic institutions and educators are under significant pressure to leverage social networking sites for student engagement and the dissemination of instructional content. Prominent platforms in this regard include Facebook, LinkedIn, and other similar networks. The increasing and dynamic integration of technology in education has led to a growing demand for individuals with formal education in this field. This research delves into the factors contributing to technostress within the academic environment in India, examining the intricate elements shaping this phenomenon.

Keywords: Technostress, Indian Academicians, ICT Pressure

Introduction

Since the advent of computers and rapidly advancing information technology tools, academics have grappled with a phenomenon known as "technostress." This term describes the adverse psychological relationship between modern technology and human well-being. The introduction of current information and communication technologies in the workplace has led to new work patterns, collaboration methods, and the emergence of technostress—a condition where employees struggle to adapt to or cope with information technology in a healthy and stress-free manner.

One manifestation of technostress is the tendency among academics to engage in multitasking and maintain a constant connection to real-time work-related information. The rapid flow of information, coupled with limited time for in-depth thought and analysis, creates a sense of urgency, compelling individuals to work at an accelerated pace. Craig Brodd, an early researcher in technostress, coined the term in 1984, defining it as "a modern disease of adaptation caused by a failure to adapt to new computer technology in a healthy manner."

Techno-complexity refers to situations where individuals must allocate resources to learn and comprehend the usage of new applications due to the intricate nature of technologies. The complexity necessitates continuous learning and adaptation to new applications. Techno-insecurity describes instances where individuals harbour feelings of inadequacy about their professional competence compared to others who are better equipped with new tools and technology. Techno-uncertainty pertains to situations where users of Information and Communications Technology (ICT) experience apprehension and discomfort due to ongoing changes and the need to update their equipment. Continuous updates often limit users' experiences within a specific system.

Technostress manifests various psychological and physiological effects on the human body and mind, resulting in diminished job satisfaction, organizational loyalty, and productivity. Factors contributing to technostress include inadequate training and awareness, increased workload, a lack of technological standardization, and challenges in obtaining reliable hardware and software. The rapid pace of technological advancement emerges as a primary catalyst for technostress.

Literature Review

The integration of information and communication technologies (ICTs) has become an integral aspect of daily life for individuals in the 21st century. Initially confined to corporate settings, the pervasive growth of ICTs has extended their influence into both personal and professional realms. Consequently, individuals have had to adapt to the evolving landscape of information and communication technologies, ranging from their incorporation into work environments to concerns about potential obsolescence, leading to a condition known as technostress.

Universities, as global exemplars of organizations extensively leveraging ICT capabilities, demonstrate the widespread adoption of these technologies to enhance productivity. While the

advantages of embracing ICTs are undeniable, the adoption of these technologies in teaching and learning has brought forth various challenges, including technostress and job burnout. Technostress, defined as an individual's inability to manage or engage with ICTs in a healthy manner (Brodd, 1984), not only affects the well-being of personnel but also impacts their overall productivity.

Most research on technostress has focused on its myriad negative consequences. Ongoing studies delve into the effects of technostress triggered by information overload and the misalignment between tasks and available technologies. Research findings among employed individuals reveal that information overload stemming from ICTs contributes to increased technostress, while task-technology compatibility mitigates its levels.

The contemporary technology revolution in the workplace has resulted in a significant rise in occupational stress, marking one of the foremost challenges. Technostress manifests when individuals are compelled to interact with technology, adversely affecting their mental well-being, behaviours, attitudes, and physical health. The utilization of advanced ICT technologies, including computer integrated systems, CD-ROMs, multiple databases, the Internet, and the World Wide Web, places considerable demands on academics. In essence, the strain on academic labour is intensified by the intricacies of the modern workplace.

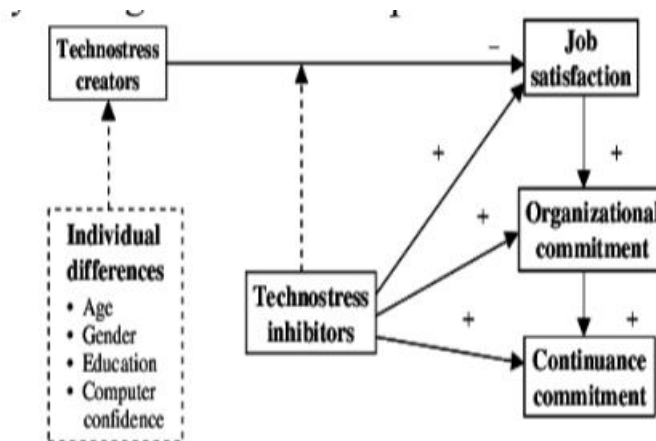


Figure -1 Conceptual Model

It has been discovered that the organizations where employees work have a detrimental effect on their level of satisfaction. It has been discovered that lower levels of organizational commitment and satisfaction are correlated with higher levels of stress. Researchers have previously assessed data to ascertain the influence of demographic characteristics factors like age, gender, education level, and level of tech knowledge on the incidence of technological

strain. It was expected that individuals with more education would lessen your stress when you acquire new communication and information skills. technology (ICTs) and would accelerate the process. Nevertheless, the data did not support this idea. This idea was investigated, and the results supported the validity of the hypothesis.

Consequently, in other words, computer use does not cause anxiety or phobias in elderly people more frequently. Studies show that different factors impact men and women differently when it comes to their use of technology, and gender differences may play a role in this discrepancy. Personal perceived behavioural control and organizational standards are two elements that have the capacity to influence women. Men's worldviews are shaped by their perspectives on and interaction with a range of technological platforms.

The widespread usage of computers is a statistically significant gender disparity in the workplace. Furthermore, studies have shown that women are more likely than men to have anxiety related to computers and a fear of computers. Furthermore, studies have revealed a strong correlation between a person's use of technology and their degree of awareness of it.

Theoretical Framework

This study primarily focuses on the influence that five significant demographic characteristics, such as gender, age, tenure, marital status, and technical awareness have on individuals who are technostress makers (Techno-overload, Techno-invasion, Techno-complexity, Techno-insecurity, and Techno-uncertainty). The dependent variable is linked to the independent variables in the relationship diagram that can be found in Figure 1. In this approach, demographic elements are independent variables, whilst the creators of technological stress are considered to be dependent variables.

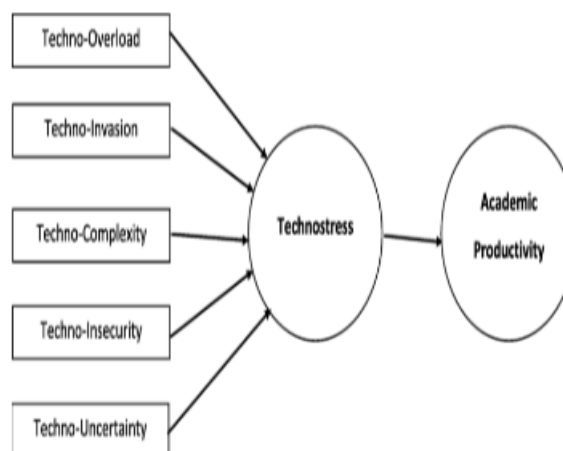


Figure-2 Technostress Relationship Diagram

Methodology

Techniques for Measuring Population Size and Obtaining Samples using a method called surveying, data on the demographic makeup of scholars and the primary technostress producers working in India's several colleges and universities convened. To fulfil this empirical study's objectives, a300 (N) is the sample size that is being studied. Just 235 out of the 300 surveys that were sent out through social media and email were answered. All the remaining survey forms were thrown away. Following an initial examination of the data, it was found that just 232 of the questionnaires could be used for additional statistical analysis. This was because lacking, erroneous, or inadequate data. Given this, the projected response rate for 78% of respondents validate the established criteria for social scientific research, which are criteria for social scientific research. which are greater than 30%.

Measuring Instrument: The technostress questionnaire (Ragu-Nathan, et al., 2008) is used in this research study in addition to demographic measures. The twenty items of the technostress questionnaire are divided into five components. Earlier research revealed that Ragu-Nathan and his conducted by peers provides proof that the tool is trustworthy and dependable.

They concluded that the dependability coefficient, or Cronbach's alpha, for each is greater than 0.75 out of the five factors that go into technostress generators. Along withWith the exception of the inquiries concerning the demographic data of the respondents, all of On a 5-point Likert scale, respondents to the survey's questions provided the following responses: anchors: 2 = Disagree, 3 = Neutral 4 = Agree, and 5 = Strongly Disagree.

Data Analysis

Inferential and descriptive statistics are used to present the findings of an examination of the data. The sample is described demographically in Table 1, which may be seen below.

Table 1. Demographic Information of Sample

Attribute	Characteristics	N	(%) (Approx.)
Gender	Male	134	58
	Female	98	42
Age	Below 35	106	46
	Above 35	126	54
Marital Status	Bachelor	70	30
	Married	162	70
Duration of Service	≤ 5yrs	62	27
	6-15yrs	108	47
	16-25yrs	36	21
	≥ 26yrs	26	5
Technological Awareness	Yes	98	42
	No	134	58

In the following table, which is provided for your reading, the demographic information of the respondents is shown. There were 232 participants that went to the trouble of responding to this survey. There are a total of 134 male respondents, which accounts for 58% of the total, and there are 98 female respondents, which accounts for 42% of the total. 63% of respondents fall into the age group that is greater than 35 years old, whilst 37% of respondents fall into the age group that is lesser than 35 years old. 162 of the total respondents, which accounts for 70%, are married, while 70, which accounts for 30%, have never been married and are single. 27% of respondents have worked at the same institute for less than five years, 47% have between 6 and 15 years of experience, 21% of respondents have between 16 and 25 years of experience,

and 5% of respondents have worked at the same institute for more than 26 years. 67% of those who participated in the survey can be considered to have some level of technical literacy, which is often referred to as ICT education.

Discussion

Based on the above-mentioned data, it has been concluded that three demographic traits have a major impact on technostress. These attributes comprise age, gender, and level of technological competence. because it is more difficult for women than for males. Male academics are more likely than female academics to feel comfortable using technology. stress from technology. This is because using it is more challenging for women. technology compared to men. Unlike their male colleagues, academics who identify as Women are more inclined to use technology only in dire circumstances. Due to Male academics are more inclined than their female counterparts to use technology. Compared to women, academics report higher levels of technological stress.

Our opinion is strongly supported by the results of studies done in Turkey by Ahmet Naci ocular. Moni Deepa Saradar and Hoiberg's investigation produced a different conclusion from this study's findings. Due to their greater life experience, older people are less vulnerable to technology pressure compared to those who are younger. There might be a link between the variety in outcomes, the different ways in which technology was used in their careers, and work environment. Unlike the study conducted by Saradar and Hoiberg, this study is being carried out by academics in an industrial context. Still, the study's conclusions also show that professors who have held positions with their organizations lessen their levels of technological stress than scholars who have worked in laboured environment. Researchers with lengthier computer-related careers and information technology (IT) training report reduced levels of technostress. They are more accustomed to staying up to date with technological advancements, which is why improvements and changes (IT). Furthermore, they are more cognizant of how the company's culture will adjust in response to impending shifts in technology trends and how the business will be impacted by transitions. Ultimately, it was determined that married When it came to technostress, professors had less of an impact than single scholars. Previous investigations have reported similar conclusions.

Conclusion

The aim of this research was to ascertain the degree to which environmental and demographic factors contribute to the high levels of technostress that Indian intellectuals report experiencing. The results of the study indicate that the phenomena referred to as "technostress" is heavily impacted by several variables, each of which has a significant impact. These Numerous factors are taken into consideration during examination, such as age, gender, and technology proficiency, duration of service, and so forth. There is no connection between academic performance and marital status and the degree of stress brought on by innovations in their fields of technology. This is true even though the amount of stress experienced by each group is equal. This makes sense given the rapidly changing trends in information and communications technology and the more stressful character of the modern workplace.

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