Exploring college students' technostress phenomenon in using ed-tech

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Abstract: The intense use of technology might lead students to technostress. The present study intends to figure out the technostress experienced by university students on educational technology (ed-tech) used in their academic environment and the factors underlying the stress. A qualitative approach with a case study method was used to investigate those issues. An open-ended questionnaire was administered to gather the data. 46 students in the 5th semester majoring in the management study program of one private college in Garut, West Java, participated in this study. The findings revealed that from the facets of technostress, most of the students do not experience intense technostress due to habitual use of ed-tech, campus reasonable policy or demand, simplicity of university-proposed technology, lecturers' instructions, and peer abetment. However, the rest of the participants feel the force of using ed-tech, which is attributable to the shortage of campus facilities, the absence of comprehensive ed-tech guidance, lecturers' tendency for traditional instruction, the students' insufficient technological competence, the matter of self-confidence and motivation, and health concerns. Potential implications for higher education institutions as the policymakers are discussed.

Keywords: Academic environment, ed-tech, higher education, technostress

Eksplorasi fenomena technostress mahasiswa dalam menggunakan ed-tech

Abstrak: Intensnya penggunaan teknologi dapat menyebabkan siswa mengalami technostress. Penelitian ini bertujuan untuk mengetahui technostress yang dialami mahasiswa terhadap teknologi pendidikan (ed-tech) yang digunakan di lingkungan akademik mereka dan factor yang mendasari stress tersebut. Pendekatan kualitatif dengan metode studi kasus digunakan untuk menyelidiki permasalahan ini. Kuesioner terbuka diberikan untuk mengumpulkan data. Penelitian ini diikuti oleh 46 mahasiswa semester 5 jurusan program studi manajemen dari salah satu perguruan tinggi swasta di Garut, Jawa Barat. Temuan penelitian mengungkapkan bahwa dari aspek technostress, sebagian besar mahasiswa tidak mengalami technostress yang intens karena kebiasaan menggunakan teknologi pendidikan, kebijakan kampus yang ringan, kesederhanaan teknologi yang direkomendasikan oleh kampus, instruksi dosen, dan dukungan teman sebaya. Namun, partisipan lain merasakan tekanan penggunaan ed-tech, yang disebabkan oleh kurangnya fasilitas kampus, tidak adanya panduan ed-tech yang komprehensif, kecenderungan dosen untuk mengajar secara tradisional, kompetensi teknologi mahasiswa yang tidak memadai, dan masalah kepercayaan diri dan motivasi, dan masalah kesehatan. Implikasi potensial bagi institusi pendidikan tinggi sebagai pembuat kebijakan dibahas dalam penelitian ini.

Kata Kunci: Lingkungan akademik, ed-tech, pendidikan tinggi, technostress

INTRODUCTION

Technology has become an integral part of our daily lives, including in the field of education. The integration of technology in the classroom has the potential to transform almost every aspect of school operations, teaching, and learning practices (Haleem et al., 2022). The integration of educational technology (ed-tech) in the classrooms has the potential to revolutionize education by enhancing several aspects of learning, such as accessibility (Rizk & Hillier, 2022), interactivity (Akram et al., 2022), and educational performance (Ahmad & Sheikh, 2022). Reflecting on such benefits, more exploration and widespread use of ed-tech are inevitable. Practically, varieties of promising technology can be employed to promote other aspects of instruction. For instance, educators can utilize mobile-based technology to enhance students' academic performance (Babalola & Omolafe, 2022), skills, and enjoyment of learning (Saleh & Jalambo, 2022). Social media-based learning has been propitious to promote engagement (Yu et al., 2022), and collaboration (Liu et al., 2022). The most current development is the emergence of artificial intelligence (AI) in higher education institutions (HEIs), which has been subjected to vast use in learning assessment, tutoring systems, and learning management systems (LMS) (Crompton & Burke, 2023). Other potential technology to be infused into classrooms to optimize learning is gamification (Smiderle et al., 2020), and virtual augmented reality (VAR) (Marks & Thomas, 2022)

Despite the significance, the use of technology for learning purposes can lead to a phenomenon known as techno-stress, a challenge that deserves careful analysis. Techno-stress is a type of stress that arises from the use of technology, including for learning purposes (Gabbiadini et al., 2023). Wang et al. (2021) stated it can manifest in various ways, such as anxiety, frustration, and burnout. They also stated that these problems can be caused by various factors, such as the complexity of technology, the pressure to keep up with technological advancements, and the fear of being left behind. Since technostress has emerged as a genuine concern, potentially affected students' well-being and academic performance. This issue necessitates careful assessments and evaluations to better understand its implications (American University's School of Education, 2020).

Technostress has had impacts on many aspects of students' lives. This type of stress has been proven to be closely related to students' willingness to use online learning during the occurrence of the Covid 19 pandemic (Mushtaque et al., 2022). Under comparable conditions, for students who experience the switch from offline to online learning during the pandemic, their behavioral intention to use online learning is negatively correlated with their level of technostress (Kader et al., 2022). This study suggests that students who experience less technostress will be more likely to participate in virtual learning. Furthermore, students' sleep quality and academic self-perception are affected by technostress (Yao & Wang, 2023). They argued that those two matters are generated by the compelling use of smartphones.

Psychologically, techno stressors have given effect on students' level of technostress. For instance, the study of Asad et al. (2023) designated that insecurity towards technology has a weak relationship with students' well-being (Asad et al., 2023). This hints that students' positive mood and attitude (Noble et.al., 2008, as cited by Douwes et al., 2023) is slightly affected by their sense of insecurity about technology. The feeling of being invaded by technology has also been proven to strongly affect students' technostress (Upadhyaya &

Vrinda, 2021). Another techno stressor, techno overload, is also reported to positively connect with students' anxiety in learning (Vallone et al., 2023). It infers that tension induced by frequent use of technology will influence students' negativity of technology.

Many researchers found out that students in HEIs experience technostress specifically during the hit of the Covid 19. Guerra et al. (2022) reported that students in HEIs experience technostress, specifically due to the transition from traditional to remote learning during the pandemic. University students' technostress was also detected by Cataldo et al. (2023), in which family-related issue (connecting to time management at home between learning and family time) has become a major stressor. Biggins & Holley (2022) have also highlighted that during the pandemic, college students experienced technostress because they viewed that the faculty members were lack of technological competence and exhibited less empathy for their students. Under the same circumstance, a study conducted by Garg et al. (2023) indicated that students' gratitude can be a determining factor in the reduction of technostress, implying that they will experience technostress when they do not show positive acceptance towards technology.

The mentioned research has explored the phenomenon of university students' technostress during the pandemic and its stimulating stressors. Sudden changes in learning mode, family conflict issues, lecturers' technological competence and academic empathy, and students' sense of gratitude have been detected to determine the technostress among college students during the pandemic. In the recent period of post-pandemic, touching the current massive use of technology including ed-tech, the extent of technostress and its stressors might be different.

The investigation of university students' technostress in the post-pandemic era has not been widely portrayed, particularly in its connection with the university learning environment (ability, demand, supplies, needs, and social reasoning). Although the continuant use of ed-tech has been evident, the possibility of college students experiencing technostress is still probable. This research aims to fill the gap by investigating whether students experience stress when utilizing technology for learning purposes and exploring the reasons underlying the stress, with a focus on academic environmental matters. While most of the research on technostress has been conducted quantitatively, this research notably employs a qualitative approach, intending to explore more in-depth opinions or arguments about determinant reasons for technostress experienced by the student participants in their university lives.

To be more specific, the research aims to answer the following question: to what extent do students feel technostress, and what are the reasons underlying the stress when using ed-tech? The results of this study are envisaged to enlighten HEIs top management to establish a more modern learning environment with practical, evident, and effective guidance, as well as sufficient facilities and competence development both for students and lecturers, so that an engaging learning atmosphere with the ed-tech infusion will be steadfastly established.

METHOD

The present study aims to seek the answer to whether technology leads the students to stress and explore what factors contribute to such stress. Therefore, this study employed

a qualitative approach adapted from Merriam and Tisdell (2016). The method used to conduct the research is a case study, referring to what was proposed by Stake (2005).

The subjects involved in this research consist of 46 students from a management study program at one private college of economics in Garut, West Java, Indonesia. They were chosen using a purposive sampling technique under the following considerations. First, they are categorized into Generation Z who are already familiar with technology. Second, they were forced by the pandemic condition to use ed-tech during the lockdown, but they keep using ed-tech up to the present.

To gather data, the researchers used an open-ended questionnaire. Such a questionnaire is used due to the researchers' objectives of portraying context and finding insight into the technostress phenomenon among college students. The 46 students were given questionnaires developed from the following constructs (adapted from Abilleira et al., 2020): abilities-demands organization (ADO), needs-supplies organization (NSO), abilities-demands technology (ADT), needs-supplies technology (NST), and person-people factor (PPF). The questionnaires were administered online using Google Forms. There are 15 questions in total, with the following distribution: 3 questions for each facet.

To analyze the data, the steps proposed by Bengtsson (2016) were applied. The first step is decontextualization, where the researchers sorted the questionnaire's complete data and then read the whole data to get a general sense. The next phase was data categorization into meaning units or facets of technostress. The second analysis step is recontextualization. Here the researchers identified important data to be included in the meaning categories, intending to see connections between the data and the research question. The third step is categorization. The researchers performed measure unit condensation to sharpen and close the categorization to the research question. The last step is compilation. The researchers started writing the report analysis by presenting the data in narration and tables, then continued by interpreting the results according to the current existing literature or relevant previous studies.

RESULTS

Abilities-demands organization (ADO)

In this facet, it is evident that most students disagreed with the statements. When asked whether they find difficulties in addressing their campus policy respecting the use of technology on campus, 33 students (71.7%) said no, stating the reasons for unburdened policy demand and assistance provided by ed-tech. While 13 students (28.3%) mentioned yes, further expressing their disapproval by noticing their limited knowledge and unrepresentative technology facilities on campus.

The next question about their technological current abilities indicated that 32 students (69.6%) felt that their current abilities were sufficient to use technology on campus, with the reason that they use technology intensively, and the availability of technology guidance; the rest 4 students (30.4%) noticed that they were not competent to use the technology due to their lack of personal technology competence.

When questioned about the difficulties encountered in using technology, most of them also said no (71.7%) by emphasizing their technology competence, guidance, intensive use, and simple technology used on campus as their reasoning. While 13 (28.3%) agreed that they encountered troubles when trying to adjust themselves to the technology

used on campus, by emphasizing less self-confidence, technology competence, and their motivation to use technology.

Table 1. The results of students' responses to ADO

Statement	Answer			
	Option	Number	%	Reason
1. I find it difficult to meet the high policy demands regarding the use of ICT on campus.	Yes	13	28.3	1. Students' limited knowledge. 2. Insufficient facilities on campus.
	No	33	71.7	1. The policy demand is not burdening and matches the era. 2. Ed-tech assists the students.
2. My current abilities are not sufficient to use technology on campus.	Yes	14	30.4	Limited personal technology competence.
	No	32	69.6	1. Intensive use of technology. 2. Availability of technology guidance.
3. I find it difficult to adjust to using technology on campus.	Yes	13	28.3	Lack of self-confidence, competence, and motivation to use technology.
	No	33	71.7	1. Students' technology competence. 2. Availability of technology resources guidance. 3. Students' intensive use of technology. 4. Technology used at the campus is categorized as simple.

Needs-supplies organization (NSO)

In the first question, the students (65.2%, or 30 students) admitted that their campus did not provide sufficient information on the effective use of technology for assignment completion, detailing that the guidance is only provided by some lecturers. While 16 students (34.8%) did not feel that way since they observed that the general guidance released by the campus was adequate.

26 of them (56.5%) further mentioned that the information provided by the campus did not impact their use of technology, raising the issue of their preference to learn technology independently. Whereas 20 students (43.5%) said that the campus information influenced them to use technology effectively. However, these 20 students also urged the campus to stipulate comprehensive technology guidance.

For the last question, 29 students (63.0%) exhibited their agreement that the campus environment did not typically encourage the innovative use of technology. They brought concerns about infrastructure inadequacy, faculty members' unfamiliarity with technology, and limited use of technology (only for task submission). Conversely, the rest of the 17 students (37.0%) viewed that the environment of their campus supported the use of technology, as they felt encouraged by the campus and lecturers to use technology.

Table 2. The results of students' responses to NSO

Statement	Answer			
	Option	Number	%	Reason
4. My campus does not provide much information about the effective use of technology when doing assignments.	Yes	30	65.2	Only some lecturers provide guidance.
	No	16	34.8	The campus provides general information on technology development.
5. The information provided by the campus does not influence the effective use of technology.	Yes	26	56.5	The students prefer to learn technology independently because the campus only provides general guidance.
	No	20	43.5	The students urge the campus to provide sufficient and current information on the technology used on campus.
6. The campus environment does not have habits that encourage innovative use of technology	Yes	29	63.0	1. Lack of facilities. 2. Not all faculty members are accustomed to using technology in learning. 3. Technology is commonly used for task submission.
	No	17	37.0	1. The campus encourages the use of technology for independent use such as social media. 2. Some lecturers motivate students to use technology.

Abilities-demands technology (ADT)

In the abilities-demands technology, the students were asked whether they felt burdened by using technology for campus assignments. 40 of them (87.0%) mentioned no, declaring the reasons for being assisted in finishing tasks and searching for information. While 6 of them (13.0%) felt burdened by technology implementation due to personal technology competence and campus facility deficiencies.

When inquired about their difficulties in reaching the campus demands due to their capacity, 32 students (69.6%) admitted they did not find difficulties since they felt confident with the ability and rationale demands of their campus. The 14 students (30.4%) said they encountered obstacles in addressing the campus's demand for technology, arguing for their limited ability and incompatible devices.

Then, when given a question about the difficulties of keeping up with the most updated technology, 31 students (67.4%) stated their disagreement, with reference to the intensive use of technology and their motivation to keep updated. However, the rest 15 students (32.6%) signaled they have trouble adjusting themselves to the latest technology development, ascribing themselves to bounded ability, resources, and access.

Table 3. The results of students' responses to ADT

Statement	Answer			
	Option	Number	%	Reason
7. I feel the burden of using technology when doing campus assignments.	Yes	6	13.0	1. Lack of technological competence. 2. Lack of facilities.
	No	40	87.0	1. Technology facilitates easier task completion. 2. Technology assists the students to gain more information.
8. I find it difficult to meet the high demands of campus with the technological capabilities that I have now.	Yes	14	30.4	1. Limited technology competence. 2. Device incompatibility.
	No	32	69.6	1. Confidence in the technology competence they have. 2. The campus does not require the use of high-level technology.
9. I find it difficult to keep up with the current technological advances.	Yes	15	32.6	1. Limited technological competence. 2. Limited resources and access to technology.
	No	31	67.4	1. Frequent and intensive use of technology. 2. The students' motivation to stay updated and upgrade their technological competence.

Needs-supplies technology (NST)

In connection with needs-supplies technology, the students were posed with the question of whether the current technology used on their campus helped them to be more productive in learning. 26 of them (56.5%) acknowledged that the technology used on their campus did not assist them when learning. Again, the issue of confined technology facilities arose. While 20 students (43.5%) agreed that the technology has aided them in learning.

When specifically inquired about the impact of technology used by the campus on their assignment, 26 students (56.5%) demonstrated their disagreement, contending the unsettled matters of facilities, and lecturers' preference for traditional learning. On the other hand, 20 of them (43.5%) showed that campus technology impacted them when doing assignments by referring to the fact that particular lecturers introduced them to technology.

They were also asked about the confusion about many technology applications on their campus; 38 of them (82.6%) said they found no confusion since the campus

necessitated their students to apply user-friendly technology. The rest of the students (8 students or 17.4%) said they found confusion; they should invest their time and ability to learn the newly introduced applications.

Table 4. The results of students' responses to NST

Statement	Answer			
	Option	Number	%	Reason
10. The technology currently used on my campus doesn't help me be more productive as a student.	Yes	26	56.5	Limited technology facilities.
	No	20	43.5	The current technology used on campus assists the students' productivity to complete tasks.
11. The technology used on my campus does not have an impact on improving the assignments I do.	Yes	26	56.5	1. The students use their own facilities to complete the tasks. 2. Most lecturers do not require students to complete the task using technology. 3. Limited facilities on campus.
	No	20	43.5	Some lecturers introduce the use of technology for task completion.
12. I feel confused by the many technology applications used on my campus.	Yes	8	17.4	Limited time and ability to learn using new applications.
	No	38	82.6	The campus requires the students to apply user-friendly applications.

Person-people factor (PPF)

The last facet to inquire about is the person-people factor. The students were first asked about the feeling of being uncomfortable using intensive technology on campus. 33 students (71.7%) disagreed with the uncomfortable feeling because they counted on the technology's simplicity and proportionate use. On the other hand, 13 students (28.3%) saw themselves feeling uneasy about using technology on campus frequently, revealing their concerns about restricted technology competence, interactivity, and health.

29 of them (63.0%) disapproved when asked if they did not get help from their friends when using technology; collaboration took place when they learned. Nevertheless, 17 students (37%) felt that they did not get help from friends in utilizing the technology due to their preference for individual learning, and the sufficiency of the lecturers' guidance.

They also admitted that they had teams for technology use collaboration (34 students, or 73.9%) specifically when it comes to assignments; they shared information, worked together, and found solutions. Conversely, 12 students (26.1%) showed that they had no

peers to work together with due to their individual preferences and different arguments when using ed-tech.

Table 5. The results of students' responses to PPF

Statement	Answer			
	Option	Number	%	Reason
13. I feel uncomfortable with the excessive use of technology on campus.	Yes	13	28.3	1. Limited knowledge of the technology used. 2. Preventing students from socializing with their peers. 3. Screen headache.
	No	33	71.7	The campus applies simple and proportionate times for using technology.
14. I don't get much help from friends in using technology.	Yes	17	37.0	1. The students search for and use the technology individually using some tutorials (from the internet). 2. The lecturers' guidance is considered sufficient.
	No	29	63.0	The students work collaboratively.
15. I don't have a team to collaborate with to find effective ways to use technology when doing assignments.	Yes	12	26.1	1. The students prefer doing the task individually. 2. They sometimes have different opinions on the use of technology.
	No	34	73.9	The students have some friends to share information, work together, and find solutions when they encounter difficulties.

DISCUSSION

Abilities-demands organization (ADO)

The responses shown by the majority of students to ADO signify that the students do not find those matters stressful. In this case, the student's ability to use ed-tech is considered sufficient so that they feel secure when using such applications. This corresponds to what was found by Khlaif et al. (2023), that a level of technostress might be determined by a person's technological competence. The campus support (Gabbiadini et al., 2023), including its moderate policy on the use of technology, might aid in reducing students' level of technostress as well.

Nevertheless, a minority of the students underline the issues of limited technological competence, confidence, motivation, and insufficient facilities. Equipping the students with adequate technological competence and building their motivation become prominent matters to be addressed by the campus. Universities are encouraged to nurture their students' digital abilities and provide pedagogical schemes to advance learning quality (Zhao et al., 2021). Accommodation for the student's need for technology tools or facilities

is pivotal, which serves as the university's investment in potential education (Marks & Thomas, 2022).

Needs-supplies organization (NSO)

Viewing the students' major answers to NSO, the findings depict that the campus has not provided serviceable information and stimulants for the students to use technology; only particular lecturers have initiated providing comprehensive guidance. Under this circumstance, the students do not feel any impact of such information or encouragement on their use of technology. Ideally, a university propounds guidance or manuals for technology applications used in their environment (Chung et al., 2020). Aziz et al. (2021) indicated that such guidance or training will direct students to feel contented and academically perform better. Further, the fact that their campus environment does not prompt the innovative use of technology is a stumbling block, either for the student's academic success or working preparation. Whereas technology serves indispensable skills for those two (Anthony et al., 2020), specifically to compete in the digital era. Besides the lack of facilities and the absence of comprehensive ed-tech guidance, limited use of ed-tech (only for task submission), and lecturers' technological competence should be taken into serious consideration. Lecturers should possess acceptable digital competencies as they will be required to guide, provide resources, and become trusted parties for their students (McDiarmid & Zhao, 2022).

Providing different answers, some students figure out that the campus guides ed-tech use, although it is in a general sense or on the surface. In contrast, the urgency of providing from-top-to-bottom guidance cannot be neglected. Offering compendious manuals, dividing the subject into achievable sections, and leveling appropriate technology (Anthony et al., 2020) might help expose students to meaningful instruction.

Abilities-demands technology (ADT)

In the matter of the ADT facet, the major declining answers provided by the students demonstrate their adequate ability to deal with technology use. They do not feel forced, or encounter complications when using technology. Technology has provided them with assistance to complete assignments, and find information. They also can cope with the technological demands of their campus, and stay updated with the latest technology. Due to their age being categorized as Gen Z, it is not surprising that they have excellent technological competence, as they get much exposure to technology. Hauk et al. (2019) have signaled that age is significantly connected to the level of technostress. Upadhyaya and Vrinda (2021) noticed that students with age between the ages of 18 and 28 experience a moderate level of technostress.

The other students, showing their disagreement, focus their attention on the barriers of device incompatibility and the predicament of resources and access as additional constraints to ed-tech facilities and competence. The issue of compatibility in devices might lead the students to frustration when applying the ed-tech. Such a condition, in the future, can predict the students' intention to use the devices (Wang et al., 2022). Limitations to technology resources and access can also exacerbate the students' feeling of being forced to use ed-tech. This reachability issue (Khlaif, Sanmugam, Joma, et al., 2023), can prevent the students from being capable of meeting the technology demand from their campus or lecturers.

Needs-supplies technology (NST)

Being questioned with the NST facet, dominantly, the students do not demonstrate their acceptance of the technology used at their campus to assist them in being more productive students or improving their assignment quality. This reveals facts that the students might ponder the technology provided by their campus as not effective or proper to be used for their task completion. However, they almost do not feel any confusion in choosing and applying the most appropriate platforms. As they have been exposed to various ed-tech during the online learning of the pandemic, the students feel much more intensively engaged in working with the ed-tech. As reported by Gopika and Rekha (2023), with the outbreak of the pandemic, students' knowledge of technology is increasing. This is a further indication that students' familiarity with using ed-tech has been elevating, while the level of stress associated with using such technology is decreasing. A study reported that in the digital age generation, the technostress level is proportionally low (Erdogan et al., 2022).

In this facet, new issues are emerging: the students' preference to use their technology facilities and some lecturers' partiality to use traditional ways for task completion. The students' preference itself might have dealt with the limited facilities offered by the campus. As regards to this instance, addressing the inadequate technological infrastructure cannot be delayed (Lubis & Fithriani, 2023). The lecturers' choice not to use technology in their classes can be linked to limited competence and a discouraged working atmosphere for ed-tech use. As mentioned in the facet of NSO, the campus does not seem to encourage an engaging technological environment. Despite this reality, support from the institution leads to lesser technostress (Goddard, 2011, as cited by Khlaif, Sanmugam, Hattab, et al., 2023).

Person-people factor (PPF)

When it comes to the person-people factor, the students' dominant personal comfort with the intensive use of ed-tech reflects their cognizance of the technology in their academic lives. Logically, with a high level of familiarity and frequent use of technology, the students will not experience the force of using the tools. Moreover, the feeling of comfort in using technology is supported by their acquaintances, in which the students see that they get assistance, work collaboratively, and explore innovative use of technology. In this case, social support from acquaintances might be a great help for the students to reduce their stress from using technology. Lanzl (2023) affirmed that social support is an excellent determining factor for technological stress alleviation. Weinstein et al. (2015), as cited by Schmidt et al. (2021), underlined that getting help from others is one of the strategies to use in diminishing technostress.

In this facet, some students who feel discomfort with the ed-tech use, raise their concerns about social and health issues when using technology intensively. Prevalently, they interact with their peers less when they devote all of their attention to the ed-tech. This habit, categorized as techno-isolation (Mirowska & Bakici, 2023), is one of the techno-stressors, that finally bring the users to loneliness (Smith et al., 2021). Additionally, the students also see that using intensive ed-tech directs them to feel screen headaches. Practicing wise and proportionate use of ed-tech is the best solution for the students to countervail between working with the ed-tech and resting. To this end, applying what is conceptualized by Willermark et al. (2023) as techno-rest is pivotal.

CONCLUSION

The present study reveals that the majority of the student participants do not experience technostress. From all the facets used to qualitatively analyze the students' technostress, frequent use of ed-tech, the campus's moderate policy or demand, simplicity of the campus recommended technology, lecturers' guidance, and peer assistance are admitted to be the supporting factors that direct to the students' stress alleviation. On the other hand, the other students view the deficiency of campus infrastructure, the unavailability of ed-tech comprehensive guidance, lecturers' typical preference for traditional teaching, individual limited technological competence, the issue of personal confidence and motivation, and the health issues, have directed them to feel cautiousness when leveraging ed-tech.

Concerning the findings, the university management as the policymakers might consider the enhancement in many technological aspects. Equipping the academic community with technological competence through well-designed student workshops or professional development training for lecturers would be beneficial for individual learning and university resources' quality advancement. Investing resources in the establishment or upgrade of the technology infrastructure will also aid the academic community in improving teaching quality and learning outcomes.

The present study has resulted in viewing university students' technostress and scrutinizing the factors behind the phenomenon. Nevertheless, there are several flaws in this study. This study only applies an open-ended questionnaire as the single technique used to obtain data. Using more qualitative instruments is proposed to get more thorough data. Gathering data from lecturers, or even university management to validate the triggers contributing to students' technostress will assist with a more exhaustive portrayal of akin stress.

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