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ORIGINAL RESEARCH PROJECTS

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Information Overload Among Students – The Role of Coping Strategies and Self-Esteem. A Research Report

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Abstract
This research aims to learn the correlation between information overload and various aspects of students' psychosocial functioning, such as perceived stress levels, coping strategies presented, and their own resource status. The study was conducted using a survey method, employing a survey questionnaire developed by the authors. A sample of $N = 269$ students from various fields of study at a public university in central Poland was interviewed in the survey. The results of the research indicate that students who experienced information overload exhib-

ited higher levels of daily stress, and their coping behaviors focused on evasive and emotional strategies rather than task- or cognitive-based ones. The overloaded group ($N = 231$) revealed a lower volume of own resources, e.g., they declared a less stable living situation and lower level of information literacy. Further, it was found that, for students who experienced information overload, it translated into a higher negative impact on their learning achievements compared to the students in the non-overloaded group. The results of the research are discussed vis-à-vis the Conservation of Resources theory given by Stevan Hobfoll, and implications for possible countermeasures and further research are identified.

Keywords: information overload, coping behaviors, resources, stress, self-esteem, information skills, information literacy.

Introduction

The concept of "information overload" is prevalent not only in scientific literature but also in everyday life. Colloquially, it is most often understood as an excess of information an individual has to deal with. In scientific literature, on the contrary, it is interpreted in the context of cognitive, sensory, or communication overload, or information fatigue syndrome (Eppler & Mengis, 2004) and defined as "a state in which information-processing demands on the individual exceed their capacity to process the information, rendering them unable to process all informational inputs" (Pentina & Tarafdar, 2014, p. 213). A distinction is made between overload resulting from information search or consequent to information overload that an individual has to keep track of (He, 2020). Initially, overload was dealt with in the context of the work environment (e.g., marketing or management), but the ubiquity of the phenomenon has led researchers to employ a more interdisciplinary approach (Eppler & Mengis, 2004). Several studies indicate the detrimental effects of information overload not only on information processing (Guan et al., 2022) and the quality of decision-making (Remund & Aikat, 2012; Laato et al., 2020; Bermes, 2021) but also on well-being (Jackson & Farzaneh, 2012; Tan & Kuo, 2019) and mental health (including emerging anxiety or depression) (Virkus et al., 2018; Lauri & Virkus, 2019; Ndumu, 2020; Matthes et al., 2020; Arnold et al., 2023). Constant exposure to the stress of information overload generates conditions for the development of, *inter alia*, chronic fatigue syndrome or difficulties with working memory (Zotova & Zotov, 2015;

Lauri & Virkus, 2019; Rötzel & Fehrenbacher, 2019) or attention (Näsi & Koivusilta, 2013; Koltay, 2017).

Undoubtedly, overload is a form of stress and requires an individual to employ certain coping behaviors. This article aims to depict the results of a study on the differences in experiencing information overload among [deleted for peer review] students and their coping behavior according to their resources.

Stress vs. information overload

Information overload stress arises when a person perceives that their personal and social resources are inadequate in a given situation (Phillips-Wren & Adya, 2020; Ledzinska, 2021). The effects of information stress can be found in the emotional (e.g., irritability, tantrums, and feeling guilty) or physiological (e.g., headaches, backaches, abdominal pain) spheres, and affect the intellectual (e.g., difficulties in decision-making, attention problems) and behavioral (e.g., forgoing rest in favor of continuous work, lack of separation between work and rest time) areas (Litzcke, 2007; Virkus et al., 2018).

It is worth highlighting a paradox: an excess of information can negatively impact both the decision-making process and the quality of its outcomes (Remund & Aikat, 2012; Phillips-Wren & Adya, 2020; Laato et al., 2020; Bermes, 2021). Emerging difficulties may include, but are not limited to, rejection of the correct course of action, acceptance of a wrong solution, focus on the wrong problem, delay in decision-making, and inappropriate use of resources (Phillips-Wren & Adya, 2020, pp. 3–4). Previous research (Zotova & Zotov, 2015) confirms that consequent to information overload, people stop perceiving information properly, choose the simplest tasks, and face a reduction in their cognitive activity and critical thinking ability, including creative potential. Moreover, stress can interfere with the reliable assessment of response accuracy (Baumann et al., 2001) and even hinder short-term memory performance (Janis, 1993, pp. 69–88; Lauri & Virkus, 2019; Rötzel & Fehrenbacher, 2019).

Similar to stress caused by other factors, dealing with information stress is also important. Two intuitive strategies for coping with information overload have been identified among information users: information avoidance and

withdrawal and information filtering (Savolainen, 2007; Bawden & Robinson, 2009; Manheim, 2014; Jones & Kelly, 2018). The information avoidance strategy – used as a result of excessive information or a sense of inconsistent information, and difficulty in relating it to the user's current knowledge – involves ignoring potentially useful information sources and the information itself (Sweeny et al., 2010; Neben, 2015) or limiting them by rejecting incompatible information (Shachaf et al., 2016; Sasaki et al., 2016; Liang & Fu, 2017; Feng & Agosta, 2017; Saxena & Lamest, 2018). Savolainen (2007) identifies filtering as a valuable mechanism for reducing information overload. This strategy involves a systematic attempt to focus on relevant information from selected sources, based on predefined criteria (Manheim, 2014; Shachaf et al., 2016; Feng & Agosta, 2017; Saxena & Lamest, 2018; Jones & Kelly, 2018).

In summary, previous research distinguishes two groups of strategies for coping with stress arising from information overload: adaptive and maladaptive (dysfunctional). The first group includes people who are actively coping as a result of the learning process, planning action, and seeking support. Focusing on the problem and a belief that constructive action can be taken are their characteristics. The second group comprises people suppressing thoughts about their inability to learn to work with new technologies, ignoring the problem, withdrawing, and denying it. These people consider it necessary to endure these types of stressors and do not search for ways to cope. Maladaptive strategies tend to be dysfunctional, which can lead to a snowball effect resulting in greater work fatigue because people feel that their resources are even more limited and use them to suppress the thoughts and emotions associated with them in coping with stressors (Gaudioso et al., 2017, pp. 189–196).

Thus, building one's own resources by developing information literacy is an important strategy for coping with information overload. Indeed, scientific literature indicates that information literacy play an important role in the ability of individuals to manage information effectively, through the ability to think critically and evaluate information sources better, filter information more effectively, analyze and synthesize information, and develop their own conclusions based on the available data (Jackson, 2008; Kurelović et al., 2016; Misra et al., 2020).

Apart from coping strategies, protective factors are also noteworthy. One of these, in the context of stress, is high (but not excessively high) self-es-

teem. It is associated with a greater sense of competence and effectiveness in information processing. Individuals with higher self-esteems cope better with information overload because they have greater confidence in their resources, such as their ability to process and select relevant information (Szpitalak & Polczyk, 2015). In turn, if a person is unable to adequately process information and cope with excessive information, and has a sense of experienced failure (Meyer et al., 2021), this can impact their self-esteem negatively.

In summary, information stress is not the only type of stress an individual experiences; its impact on various aspects of psychosocial functioning is of considerable importance. It can be assumed that, as with coping with other stressors, individuals present different coping styles and strategies. Further, perceiving information overload is subjective and, arguably, dependent on several personal, situational, and environmental factors. It is therefore worth combining these two variables of coping with stress and experiencing information overload by questioning the relationship between them.

Methodology

The main cognitive objective of the study was whether and how information overload is related to different aspects of students' psychosocial functioning. It is perceived as a student's overall life context, including the level of daily stress experienced and the availability of personal resources, such as self-esteem.

Material and method

The results described below are part of an ongoing research program considering different aspects of student functioning in the context of information overload. The survey was posted online in a closed survey system (i.e., it was not possible to complete it without receiving a link) and targeted students of Nicolaus Copernicus University in Toruń (Poland). All procedures were performed in compliance with relevant laws and institutional guidelines and have been approved by the the Research Ethics Committee (Decision number: 13/2023/FT, obtained: 10.05.2023). Respondents received a link to the survey at the email address assigned to their student account. The survey was conducted between May and June 2023. Upon reaching the landing page of

the survey but before completing it, a message was displayed stating that it was voluntary and anonymous, respondents had the right at any time to opt out or not provide information on certain questions and could contact the person in charge of the research program via email if they had any questions or concerns. Respondents were also informed that their data were being used for research purposes only. Only after accepting this information and agreeing to take part were students able to continue. The landing page was visited more than 540 times, but not all visitors chose to continue with the survey. Only the results of people aged between 19 and 28 were included in the analyses. There were a total of 269 responses. The data obtainted was deposited at RepOD [RepOD, V1].

The study described below consisted of three parts:

1. A self-report questionnaire: Respondents were asked to provide basic socio-demographic data and state whether they had experienced information overload in the past four weeks. The next questions were about respondents' resource assessment: (1) economic situation, (2) life situation (3) daily stress level, (4) information skills, (5) ways of coping with information overload, and (6) the impact of information overload on academic achievements.
2. The BRIEF-COPE Stress Coping Inventory was developed by Charles S. Carver and adapted to Polish conditions by Zygfryd Juczyński and Nina Ogińska-Bulik (2009). This is an abridged version of the 60-item COPE Inventory and consists of 28 statements building up to 14 coping strategies. The tool features good psychometric properties. The Guttman index indicating split-half reliability was 0.87 and reliability in the form of internal consistency ranged from 0.62 to 0.89. In the studies described below, the raw scores have been standardized to the standard ten-score scale to facilitate the interpretation of the data obtained.
3. The Self-Esteem Scale (SES) was developed by Morris Rosenberg and over the years, has been recognized as one of the most widely used methods that measures global self-worth (Anastasi & Urbina, 1999). The scale enables, through self-reporting, to determine the overall level of self-esteem, understood as the belief in one's own value. Self-esteem is considered to be a relatively stable trait over time. The scale

comprises 10 questions. The studies used the Polish version of the scale (Dzwonkowska et al., 2008). It has good psychometric properties (α Cronbach's ranges from 0.81 to 0.83 for individual age groups, being 0.83 for the scale as a whole). The norms for the Polish population are on the standard ten-score scale. The adaptation and normalization process has been described in detail by the authors of the Polish version of the scale (Łaguna et al., 2007; 2008).

Results

The results of the data obtained from 269 respondents were analyzed using the PS Imago 9 package (software: SPSS for Windows, version 29). In the case of variables on Likert scales, the mean and standard deviation were calculated. In contrast, in the case of variables on ordinal and nominal scales, frequencies were provided. The BRIEF-COPE subscales were converted from raw scores to stens through the applied statistical software, allowing for a more transparent interpretation of the data. A similar procedure was employed for the SES scale. The separate groups (described below) were compared with each other using non-parametric tests because the assumptions for using parametric tests were not satisfied. In the case of the Likert scale, this was approached (in line with the accepted trend in the literature) as a quantitative scale, and the Mann-Whitney test was applied; in the case of nominal and ordinal scales, chi-square tests and Cramér's *V* coefficient were employed.

The first step was to divide the group according to whether respondents had experienced information overload in the past four weeks. A significant majority of respondents answered affirmatively to this question (Information Overloaded [IO] Group, $N = 231$, 85.9%). A much smaller group (Information Non-Overloaded [INO] Group, $N = 38$, 14.1%) stated that they did not experience information overload. Further analysis was carried out based on the two groups identified. The mean age in both groups was similar (INO: M = 22.21; SD = 1.99; IO: M = 22.09, SD = 1.87; Mann-Whitney test – $p = 0{,}702$). There were more males in the INO Group (31.6%) compared to the IO Group (20.3%) (Table 1).

Table 1. Gender distribution among respondents

Variable	INO Group		IO Group		χ^2	V_c
	N	%	*N*	%		
Women	25	65.8	171	74.0	2.842	0.103
Men	12	31.6	47	20.3		
Non-binary person	1	1.2	11	4.8	$p = 0{,}416$	
Other	–	–	2	0.9		

Source: Authors' research.

In both groups, almost half of the respondents studied at the Faculty of Philosophy and Social Sciences (INO: *N* = 21, 55.3%; IO: *N* = 104, 45%). The second most represented faculty was the Faculty of Biological and Veterinary Sciences (INO: *N* = 4, 10.5%; IO: *N* = 39, 16.9%). It can therefore be concluded that the distribution of students across faculties was similar. In both groups, the majority of respondents were undergraduate students (INO: *N* = 23, 55.3%; IO: *N* = 133, 57.6%). Respondents in both the information non-overloaded and overloaded groups rated their economic situation as average. No differences were found between the groups in this respect (Table 2).

Table 2. Assessment of the economic situation by respondents

Variable	INO Group		IO Group		Differences between groups and their significance (Mann-Whitney test)
	M	SD	M	SD	
Economic situation	3.45	0.860	3.42	0.787	$p = 0.954$

Note: Likert scale (1: very poor; 5: excellent).

Source: Authors' research.

These differences, in turn, occur in the assessment of one's life situation. Students were able to select one of the given answers or write their own (Table 3). In the non-overloaded group, almost twice as many respondents assessed their situation as stable and predictable, with no major changes. Notably, in both groups, quite a large number of people – almost one-fifth in

the non-overloaded group (18.4%) and one-third in the overloaded group (30.3%) – experience changes that they perceive negatively. Other responses students most often mentioned included difficulty in evaluating the changes, as some of them were positive and some negative.

Table 3. Assessment of the living situation

Living situation	INO Group		IO Group		X^2	V_c
	N	%	*N*	%		
I perceive a lot of changes negatively	7	18.4	70	30.3	12.931*	0.219
I perceive a lot of changes positively	5	13.2	64	27.7		
Stable and predictable, no major changes	23	60.5	71	30.7		
Other	3	7.9	26	11.3		

Note: * $p = 0.005$.

Source: Authors' research.

Another difference between the groups concerned the level of stress experienced daily. Although it is at an average level in both groups, statistically significant higher levels are found in the group experiencing overload.

Table 4. Level of daily stress

Variable	INO Group		IO Group		Differences between groups and their significance (Mann-Whitney test)
	M	SD	M	SD	
Daily stress level	3.21	1.044	3.65	0.877	$p = 0.017$*

Note: Likert scale (1: very low; 5: very high).

Source: Authors' research.

There are also differences in stress-coping strategies. There is a statistically significant likelihood of people experiencing information overload in the last month escaping to other activities (e.g., sleeping or shopping, but also working or cleaning) when faced with a difficult situation and disclosing negative emotions (including verbally). A tendency toward difference is also

found in the strategy associated with an attempt to positively re-evaluate the situation (e.g., an approach to see opportunities and benefits in a difficult situation).

Table 5. Stress coping strategies

Coping strategy		INO Group	IO Group	Differences between groups and their significance (Mann-Whitney test)
Active coping	M	5.26	5.55	$p = 0.742$
	SD	2.50	1.80	
Planning	M	5.68	5.33	$p = 0.198$
	SD	1.93	1.83	
Positive revaluation	M	5.08	5.58	$p = 0.071$
	SD	1.55	1.59	
Acceptance	M	5.55	5.24	$p = 0.226$
	SD	1.81	1.76	
Sense of humor	M	5.37	5.48	$p = 0.566$
	SD	2.28	1.87	
Turning to religion	M	5.08	5.44	$p = 0.337$
	SD	1.54	1.83	
Seeking emotional support	M	5.03	5.38	$p = 0.443$
	SD	2.10	1.87	
Seeking instrumental support	M	4.79	5.35	$p = 0.101$
	SD	2.13	1.77	
Doing something else	M	4.95	5.68	$p = 0.041$*
	SD	1.96	1.99	
Denying	M	5.84	5.68	$p = 0.577$
	SD	1.60	1.60	

Table 5 (continued)

Coping strategy		INO Group	IO Group	Differences between groups and their significance (Mann-Whitney test)
Venting (releasing) the emotions	M	5.13	5.64	$p = 0.038$*
	SD	2.07	1.75	
Use of psychoactive substances	M	5.61	5.87	$p = 0.277$
	SD	1.10	1.37	
Cessation of activities	M	5.37	5.59	$p = 0.596$
	SD	1.92	1.95	
Blaming oneself	M	5.16	5.57	$p = 0.180$
	SD	2.02	1.83	

Note: Standard ten-score scale; suggested interpretation: 1–2: very low, 3–4: low, 5–6: mean, 7–8: high, 9–10: very high.

Source: Authors' research.

Further differences can also be seen in information overload coping strategies. People who have experienced information overload in the past four weeks are more likely to experience feelings of helplessness (e.g., not being able to make decisions or not knowing who to go to for help) and difficult emotional states (e.g., anxiety, increased tension), and to feel like cutting themselves off from information.

Table 6. Information overload coping strategies

Information overload coping strategies		INO Group	IO Group	Differences between groups and their significance (Mann-Whitney test)
I try to find some constructive way of doing things, e.g., I try to organize information.	M	3.76	3.61	$p = 0.305$
	SD	1.73	1.02	
I seek the help of others in interpreting the information obtained.	M	2.97	3.16	$p = 0.288$
	SD	1.26	1.21	
I feel unable to cope and experience increased anxiety, tension, or aggression.	M	2.66	3.43	$p = 0.002$*
	SD	1.40	1.26	
I reject the information that matches what I already know.	M	2.71	2.86	$p = 0.460$
	SD	1.47	1.19	
I don't know what to do or whom to turn to for help.	M	1.97	2.65	$p = 0.002$*
	SD	1.19	1.26	
I don't know how to make a decision, even if I seem to have enough information.	M	2.68	3.13	$p = 0.061$
	SD	1.34	1.34	
I feel like cutting myself off from the information.	M	2.42	3.77	$p = 0.001$*
	SD	1.45	1.27	
I am looking for guidance and tips from others who have more knowledge and/or authority.	M	3.32	3.64	$p = 0.135$
	SD	1.29	1.19	
I panic.	M	2.21	2.92	$p = 0.004$*
	SD	1.32	1.40	
I try to plan my activities to best control the information overload.	M	3.71	3.60	$p = 0.620$
	SD	1.04	1.11	

Note: Likert scale (1: totally disagree; 5: totally agree).

Source: Authors' research.

Significant differences can also be observed in the assessment of their own information skills: more than half of the students who had not experienced information overload rated their skills as very high (55.3%) against only a third (29.9%) in the overloaded group. In this group, half of the students (50.2%) rated their skills as average.

Table 7. Information skills

Own information skills assessment		INO Group	IO Group	$\chi 2$	V_c
I cannot cope	*N*	1	3	10.660	0.199
	%	2.6	1.3		
I can cope with the basics; I make mistakes and need help from others.	*N*	3	38		
	%	7.9	16.5		
I can cope independently even with difficult tasks involving the use of information.	*N*	12	116		
	%	31.6	50.2		
I am proficient in coping even with unusual tasks involving the use of information, often helping others.	*N*	21	69		
	%	55.3	29.9		
I am an expert in activities related to the use of information; I comply with ethical and legal principles.	*N*	1	5		
	%	2.6	2.2		

Note: * $p = 0.034$.

Source: Authors' research.

Students who have experienced information overload found that it translates into a more negative impact on their learning achievements (Table 8) than the non-overloaded group of students.

Table 8. Information overload and academic achievements

Variable	INO Group		IO Group		Differences between groups and their significance (Mann-Whitney test)
	M	SD	M	SD	
Impact of information overload on learning achievements	3.13	2.00	4.90	2.09	$p = 0.001$*

Note: Likert scale (1: definitely no; 7: definitely yes).

Source: Authors' research.

The level of general self-esteem in both groups is similar and oscillates within the average results (Table 9).

Table 9. Self-esteem level

Variable	INO Group		IO Group		Differences between groups and their significance (Mann-Whitney test)
	M	SD	M	SD	
Level of self-esteem	5.89	2.21	5.36	1.98	$p = 0.114$

Note: Standard ten-score scale; suggested interpretation: 1–2: very low, 3–4: low, 5–6: mean, 7–8: high, 9–10: very high.

Source: Authors' research.

Discussion

The analysis of the results of the conducted studies illustrates that individuals who experience information overload present higher levels of daily stress and their coping behaviors focus on evasive and emotional strategies rather than task- or cognitive-based ones. Overloaded people have fewer resources, but not in all the categories studied: they declare a less stable living situation and less advanced information skills, but their financial situation and self-esteem are similar to those not experiencing information overload.

The discussion of these results can be related to Stevan Hobfoll's Conservation of Resources (COR) theory, which the authors of this study feel is most applicable to interpreting the results obtained and identifying possible

interventions. The COR theory focuses on resources as key elements of human behavior and functioning, including in stressful situations. Its assumptions help us understand why some people are more resilient to stress than others, what factors influence people's ability to cope with difficult situations, and how individuals and organizations can be supported to maintain and strengthen their resource capital. Hobfoll uses the concept of resources to refer to things valued by people. He includes "objects, conditions, personal characteristics and energies as things that one values as necessary for survival (directly or indirectly) or serve to acquire these survival resources" (Hobfoll, 2006, p. 70). He distinguishes four conventional groups of resources: object, personal characteristics conditions, and energies. Object resources are items and objects that enable people to survive and function safely and even comfortably in the physical and social environment. Personal resources include skills (e.g., professional competence, social skills, and leadership abilities) and personality traits (e.g., self-esteem, optimism, self-efficacy, and hope). Social connections and relationships are also important. Conditions are resources that allow gaining and accessing other resources (e.g., health, employment, social status). They can be lost in an instant. In contrast, energies are resources (e.g., money, personal goods, knowledge, etc.) that are used to exchange or invest in other types of resources. Due to the relationship of a resource to survival, it can also be described as 1) primary: necessary for survival and providing security (e.g., food, clothing, shelter, and skills), 2) secondary: enabling the acquisition of primary resources (e.g., social support, group membership, social ties, and relationships), 3) tertiary: as a symbolic sign of primary and secondary resources (e.g., money, signs of social status or the privileges of belonging to a particular social group) (Hobfoll, 2006, pp. 74–76). Having resources allows people to achieve their goals and function at a high enough level. A lack of resources can lead to stress and health problems.

The main premise of the COR theory is that humans strive to obtain, protect, and promote resources, and when resources are threatened or actually lost, they experience stress. Stress can also result from inefficient investment of significant amounts of an individual's resources. The loss of resources causes stronger stress than the possibility of gain and causes worse effects within the resources one has, such as health, self-worth, well-being, and self-

esteem. A correlation of the experience of resource loss with high levels of depression and anger has also been noted (Wells et al., 1997).

People need to invest their resources to protect them, rebuild them, or gain new ones, and thus cope with stress. According to the COR theory, people who lack resources are more likely to be stressed because they do not have sufficient resource reservoirs to take action not only to invest but also to rebuild lost resources. Based on an assessment of their own resources and the costs of investing the resources they have, people decide the intensity of their actions or omission of acting. "Insufficient resources not only increase the risk of loss but also make the initial one entail subsequent ones" (Hobfoll, 2006, p. 98). Consequently, people who lack the resources to protect what they still have assume a defensive stance by manifesting avoidance coping strategies.

In the context of this research, information literacy should be considered an important and perhaps key personal and energy resource. Presumably, this is why students who have experienced information overload are more likely to perceive its negative impact on their academic performance than students in the non-overloaded group. Moreover, information skills enable access to other resources, presumably influencing effective coping in other areas of functioning. Insufficient resources or their loss may not only limit the efforts of overloaded students to gain or rebuild missing resources but also trigger or exacerbate stress reactions prompted by unstable life situations. Conceivably, this is why students who have experienced information overload are more likely to adopt avoidance-emotional coping strategies, both with everyday stress and information overload. This is assumed to be their method of protecting their remaining resources; according to the COR theory, such action will inevitably lead to further resource losses. Overloaded people have no way of multiplying their resources, e.g., in the form of academic achievements.

Conclusion

The results of the research prompt several observations. Firstly, they highlight the students' state of information overload concerning their sense of learning efficacy and their declared inadequate coping strategies. Secondly, concerning the research conclusions formulated, we observe an emerging

need to provide university students with the right conditions for reinforcing existing resources and gaining new resources of their own to achieve one of the United Nation's sustainable development goals of providing them with quality education and promoting lifelong learning. This can be achieved by engaging students (especially those starting university) in educational and social activities to promote, build, and strengthen their personal and energy resources. Program implementation and integration of classes to improve their information and digital literacy, and social skills should be considered, in addition to providing more effective information on psychological support and coaching services as resource depletion processes result in emotional exhaustion (Ito & Brotheridge, 2003) and poorer learning outcomes. The pursuit of these objectives seems reasonable not only in the context of the results obtained in this study but also concerning global research reports indicating the reduction of students' personal resources due to their experiences during the COVID-19 pandemic and the post-pandemic development of digital learning environments (Altam et al., 2022; Zheng et al., 2020; Khan, 2023).

It should be emphasised that the results outlined only apply to the study group of students, and the study itself was not randomised. Therefore, both theoretical and applied conclusions require particular caution, particularly in the context of their generalisation. Future research would benefit from the development of a scale to measure the sense of information overload in academia and to investigate the intensity of this phenomenon on the broader student community.

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