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The Students' Perspective on the Adoption of ChatGPT

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Master in Marketing

Supervisor:
Ph.D, Daniela Langaro da Silva do Souto, Assistant Professor, Department of Marketing, Operations & General Management
at ISCTE Business School

October, 2025

BUSINESS
SCHOOL

Department of Marketing, Operations & General Management

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Abstract (English)

This study investigates the determinants of ChatGPT adoption frequency among higher education students from a marketing perspective. Grounded in the extended Unified Theory of Acceptance and Use of Technology (UTAUT2), it examines how perceived utility, ease of use, enjoyment, subjective norms, and ethical acceptance influence usage frequency. A quantitative research design was employed, utilizing a survey of 207 students. The findings reveal that perceived utility, ease of use, enjoyment, and subjective norms significantly predict adoption frequency, while ethical acceptance does not. This research provides valuable insights for educators and policymakers seeking to understand and guide the responsible integration of AI tools in academic environments.

Keywords: ChatGPT, AI in education, student engagement, academic integrity, UTAUT2, technology adoption, usage frequency,

JEL: M31, I21

Resumo (Português)

Este estudo investiga os determinantes da frequência de adoção do ChatGPT entre estudantes do ensino superior a partir de uma perspetiva de marketing. Baseado na Teoria Unificada de Aceitação e Utilização da Tecnologia (UTAUT2) ampliada, ele examina como a utilidade percebida, a facilidade de uso, o prazer, as normas subjetivas e a aceitação ética influenciam a frequência de uso. Foi utilizado um desenho de pesquisa quantitativa, com um inquérito a 207 estudantes. Os resultados revelam que a utilidade percebida, a facilidade de uso, o prazer e as normas subjetivas predizem significativamente a frequência de adoção, enquanto a aceitação ética não. Esta pesquisa fornece insights valiosos para educadores e formuladores de políticas que buscam compreender e orientar a integração responsável de ferramentas de IA em ambientes académicos.

Palavras-chave: ChatGPT, IA na educação, envolvimento dos estudantes, integridade académica, UTAUT2, adoção de tecnologia, frequência de uso,
IJEL: M31, I21

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Chapter 1: Introduction

1.1 Defining the research problem and contextualizing it

Growing artificial intelligence (AI) is fueling a significant change in higher education. One excellent illustration of a language model from OpenAI that can generate human-like writing and assist debates is ChatGPT (Alser & Waisberg, 2023). Although it has evident benefits like better accessibility and personalized learning support, this technology raises major issues regarding academic standards, integrity, and the chance that plagiarism could become more frequent (Chan & Colloton, 2023).

According to studies, ChatGPT is a great tool for students looking for academic support (Alser & Waisberg, 2023). Its ability to facilitate remote learning and provide individualized feedback are significant benefits (Alser & Waisberg, 2023). One of the main factors contributing to the tool's popularity among students is its simple user interface (Alser & Waisberg, 2023). But the ease with which AI material may be produced also raises the possibility of devaluing academic credentials, a danger that is frequently impacted by social considerations such as peer usage and perceived instructor expectations (Strzelecki, 2023). With subscription models, paying users often utilize ChatGPT more frequently (Dwivedi et al., 2023). Additionally, ongoing usage is partially motivated by the pleasure gained from the experience, while responsible use is mostly contingent upon seeing it as morally appropriate (Hassan, 2024). In order to get the most out of its educational potential and establish strong protections against academic misconduct, this research meticulously analyzes how pupils utilize ChatGPT (Chan & Colloton, 2023).

1.2 The ethics of using gpts in higher education

In higher education, the use of GPTs requires a thorough examination of ethical challenges. The possibility of academic dishonesty is a major concern, as students may employ GPTs to finish assignments or exams, which would jeopardize the integrity of their work (Master, 2023).

Second, the usage of GPTs raises questions about accepted definitions of authorship and creativity. To guarantee the maintenance of academic honesty, this necessitates explicit guidelines for acceptable use (Kasneci et al., 2023).

Furthermore, disparities in access to sophisticated AI tools may exacerbate existing issues of educational inequality since not all students have the same resources (Cotton et al., 2023).

Last but not least, the privacy and security of data becomes a major ethical issue (Alser & Waisberg, 2023). The use of GPTs requires that student data be managed in accordance with privacy legislation (Firat, 2023). Therefore, educational institutions need to establish comprehensive frameworks to address these ethical challenges, teaching students how to use AI responsibly in order to capitalize on its benefits while maintaining core academic integrity (Rahman & Kodikal, 2024).

1.3 Relevance of the study

Due to the increasing use of AI technologies in education, this study offers recommendations for the ethical implementation of ChatGPT (Chan & Colloton, 2023). It examines how elements like utility, usability, social standards, pleasure, and ethics affect adoption conduct (Chan & Colloton, 2023).

These adoption factors are framed using the UTAUT2 model, and the study emphasizes how subscription type acts as a facilitating factor (Kasneci et al., 2023). It advances the field of technology acceptance research and provides useful advice for instructors wishing to improve their students' acceptance of technology (2024) (Chan & Colloton, 2023). Prioritize fair access and ethical training while deploying AI tools (Rahman & Kodikal, 2024).

1.4 Questions for Investigation

The following research questions were developed in order to direct this inquiry:

From the students' viewpoint, what are the factors that encourage or discourage the use of ChatGPT in higher education?

The purpose of this question is to identify the motivators and challenges that impact students' choices about when and how to utilize ChatGPT for their academic endeavors.

In academic environments, how does the use of ChatGPT get impacted by ethical issues?

This question explores the moral ramifications and concerns students might have regarding the use of ChatGPT, such as those pertaining to fairness, plagiarism, and academic honesty.

1.5 Goals of the study

This study seeks to investigate the reasons behind students' use of ChatGPT in postsecondary education and to analyze the moral issues that arise from its use in academic

settings. The study aims to shed light on usage patterns, perceived advantages, and integrity-related issues.

1.6. The organization of the thesis

The dissertation is organized as follows:

Introduction: The introduction of the dissertation, the research questions, the objectives, the relevance of the research issue, and the organization of the chapter are all covered in this section.

Literature Review: This section examines current literature on AI in higher education, technology acceptance models, and the UTAUT2 framework.

Research Hypotheses and Conceptual Model: The theoretical model, which is based on the UTAUT2 framework, is introduced in this chapter along with the research hypotheses.

Approach: The research methodology, which includes the use of a survey for data collection and the analytical methods used, is covered in this section.

Results and Discussion: The study's results and their consequences for theory and practice are covered in this section.

Conclusions and Recommendations: This section highlights the main results, analyzes their consequences, makes recommendations, and proposes topics for further study.

Attachments: Supplementary resources, such as the survey tool, are included in this section.

Chapter 2: Literature Review

2.1 Core Ideas, Opportunities, and Restrictions on AI and GPTs in Higher Education Foundations and Evolution of Artificial Intelligence and GPT Technologies

Computer systems able to execute activities usually linked to human-level cognitive capacity are need for artificial intelligence. (King, 2023). Learning from experience, problem-solving, decision-making, language understanding, and pattern recognition are among the tasks AI can do (Al-Marzouqi et al., 2023). AI has specialties like machine natural language processing (people speaking human language and the computer understanding), computer vision (understanding images and video), and learning (systems that get better automatically through data) (King, 2023).

2.2 Generative pre-trained transformers (GPTs): A major change

A major breakthrough occurred with GPTs. These models of AI use deep neural networks to process text that resembles human text for classifying, creating, or transforming through extensive prompts (changing input language to output) (Chan & Colloton, 2023). When created, the current AI technology is ranked highly because of the transformer concept, which utilizes self-attention and analyzed words in a passage (Vaswani et al., 2017).

2.3 Progression of GPT models defining artificial intelligence

Artificial Intelligence involves developing computer systems that perform tasks typically requiring human cognitive abilities. These include learning from experience, solving problems, making decisions, understanding language, and recognizing patterns (Al-Marzouqi et al., 2023). The field includes specialized areas like machine learning (systems that improve through data), natural language processing (enabling computers to understand human language), and computer vision (interpreting visual information). AI has progressed from narrow applications (handling specific tasks) toward broader artificial general intelligence goals (systems matching human versatility) (Cotton et al., 2024).

2.4 Historical development of AI

Modern AI emerged in the 1950s, evolving through three key stages:

1. Early Symbolic Systems (1950s–1980s): Rule-based programs simulating logical thinking (Vaswani et al., 2017).

2. Machine Learning Advancement (1990s–2010s): Systems learning from data using statistical methods like neural networks (Vaswani et al., 2017).

3. Deep Learning Dominance (2010s–present): Advanced neural networks enabling major progress in image, speech, and language processing (Vaswani et al., 2017).

2.5 Generative pre-trained transformers (GPTs): A major shift

A significant breakthrough occurred with GPTs. These AI models use deep neural networks to understand, create, and modify human-like text (Chan & Colloton, 2023).

Their design builds on the transformer concept, which analyzes word relationships in text using self- attention mechanisms (Vaswani et al., 2017).

Progression of GPT Models:

- GPT-1 (2018): Showed that pre-training on large text collections followed by specialized adjustment worked effectively (Vaswani et al., 2017).
- GPT-2 (2019): Expanded model size (1.5 billion parameters) with improved text generation quality (Vaswani et al., 2017).
- GPT-3 (2020): Massive scaling (175 billion parameters) allowed learning from few examples, reducing adjustment needs (Vaswani et al., 2017).
- GPT-4 (2023): Added image understanding, better reasoning, and improved response alignment (Vaswani et al., 2017).

2.6 AI and GPTs in higher education: Definitions, opportunities, and challenges definitions and history of AI and GPTs

The integration of GPTs into higher education represents a fundamental shift, significantly altering teaching methods, student learning experiences, and institutional operations (Cotton et al., 2023). This change goes far beyond simply adding new tools; it is reshaping core aspects of academic practice (Fuchs, 2023).

GPTs are transforming learning by enabling highly personalized instruction and immediate feedback, moving away from standardized, one-size-fits-all approaches (Master,

2023). They support active, inquiry-based learning by allowing students to explore complex subjects through conversational interfaces, increasing access to detailed explanations and diverse viewpoints (Kasneci et al., 2023).

This transformation simultaneously challenges established academic norms (Cotton et al., 2023). The ease of generating sophisticated text undermines traditional assessment models, significantly increasing risks of plagiarism, unauthorized assignment help, and exam cheating (Cotton et al., 2023).

Consequently, institutions face an urgent need to rethink academic integrity systems, requiring the development of effective AI-detection methods and a redesign of assessments to emphasize the learning process over the final product (Cascella et al., 2023).

2.7 GPTs in higher education: Opportunities and risks

The integration of GPTs into higher education has sparked both excitement and concern. GPTs offer students opportunities to enhance learning, receive instant feedback, and access personalized instruction (Master, 2023). They can facilitate collaboration, address diverse inquiries, and aid in understanding complex topics (Kasneci et al., 2023). However, risks include potential misuse, such as plagiarism, unauthorized homework assistance, or cheating on exams through tools like ChatGPT (Cotton et al., 2023).

Educators will need to developmethods to detect AI-generated content and uphold academic integrity in assessments (Alser & Waisberg, 2023).

2.8 Student understanding and growth

Students' acceptance of GPTs depends on factors like ease of use, perceived convenience, and ethical concerns (Fuchs, 2023). Many students report increased motivation and engagement when using AI tools, though some fear over-reliance, which could hinder critical thinking and creativity (Alser & Waisberg, 2023). ChatGPT's dual nature: while it supports academic tasks, unreflective use may undermine deep thinking and innovation (Nguyen & Kumar, 2024).

2.9 Ethical and educational considerations

The ethical implications of AI in education remain under debate. (AlAfnan et al., 2023) emphasizes the need for clear guidelines to ensure the ethical use of AI-generated content in

academic settings. Educators can design lessons that thoughtfully incorporate AI, helping students understand both its benefits and limitations (Chan & Colloton, 2023). Moreover, teachers are shifting from being sole knowledge providers to facilitators, guiding students in navigating AI-supported learning (Al-Marzouqi et al., 2023).

2.10 Presposition of Conceptual Model

a. Expected Utility and Proposing H1

The expected utility of ChatGPT, rooted in performance expectancy (Venkatesh et al., 2012), underscores its perceived academic value. Students adopt ChatGPT when they anticipate enhanced efficiency in tasks like essay drafting and concept clarification (Al-Marzouqi et al., 2023). However this utility is dual-edged; while highlight its role in personalized learning, caution against over-reliance, which may undermine critical thinking (Chan & Colloton, 2023). Students rationalize its use as a "necessary tool" for competitiveness, despite ethical dilemmas (Al-Marzouqi et al., 2023).

Together, these insights suggest a robust connection to usage frequency, leading to:

H1: Expected perceived utility significantly impact frequency of Chat GPT use

b. Perceived Ease and Proposing H2

Effort expectancy, or perceived ease, is pivotal in technology adoption (Venkatesh et al., 2012). ChatGPT's intuitive interface reduces cognitive load, enabling seamless integration into study routines (Chan & Colloton, 2023). Empirically validates that ease of use strongly predicts adoption, particularly among time-constrained students (Chan & Colloton, 2023). Excessive simplicity may trivialize learning processes (Chan & Colloton, 2023).

Thus, we propose:

H2: Perceived ease significantly impacts the frequency of ChatGPT use

c. Subjective Norms and Proposing H3

Subjective norms reflect social pressures influencing adoption (King, 2023). While found minimal direct impact, qualitative insights reveal nuanced dynamics: peers and institutions indirectly shape norms through ethical discourses (Strzelecki, 2023). Faculty skepticism can deter use, whereas observe peer endorsement normalizes AI reliance (Cotton et al., 2023).

This leads to:

H3: Perceived subjective norms significantly impact the frequency of ChatGPT use

d. Perceived Enjoyment and Proposing H4

Hedonic motivation drives engagement when technology use is inherently gratifying

(Venkatesh et al., 2012). ChatGPT's interactive nature fosters curiosity and satisfaction, transforming mundane tasks into exploratory experiences (Chan & Colloton, 2023).

Enjoyment amplifies adoption, particularly among innovatively inclined students (Chan & Colloton, 2023).

Hence, we hypothesize:

H4: Perceived enjoyment significantly impacts the frequency of ChatGPT use

e. Ethical Acceptance and Proposing H5

Ethical acceptance reflects perceived legitimacy of technology use within moral and academic norms (Venkatesh et al., 2012). While ChatGPT's utility drives adoption, unresolved ethical concerns—particularly regarding academic integrity and authenticity—critically constrain usage frequency (Chan & Colloton, 2023). Fear of sanctions (e.g., plagiarism penalties) suppresses deployment in graded work, while observes that institutional ambiguity fuels "stealth use" patterns (Chan & Colloton, 2023).

Conversely, suggest clear ethical guidelines increase confidence in sanctioned applications (Chan & Colloton, 2023).

This leads to:

H5: Perceived ethical acceptance significantly impacts the frequency of ChatGPT use.

f. Facilitating Conditions and Proposing H6

Facilitating conditions reflect institutional and technical enablers that support consistent technology adoption (Venkatesh et al., 2012). For ChatGPT, this encompasses accessibility of resources (e.g., reliable internet, institutional AI licenses), formal training programs, and clear policy frameworks governing ethical use (Chan & Colloton, 2023). Strzelecki empirically links robust technical and administrative support to higher usage sustainability, particularly in resource-constrained environments (Chan & Colloton, 2023). Conversely, note that ambiguous guidelines or insufficient technical infrastructure create adoption barriers, forcing students toward informal (and often unvetted) alternatives (Cotton et al., 2023). Institutional commitment— through dedicated support teams and curriculum integration—signals legitimacy, encouraging responsible experimentation (Cotton et al., 2023).

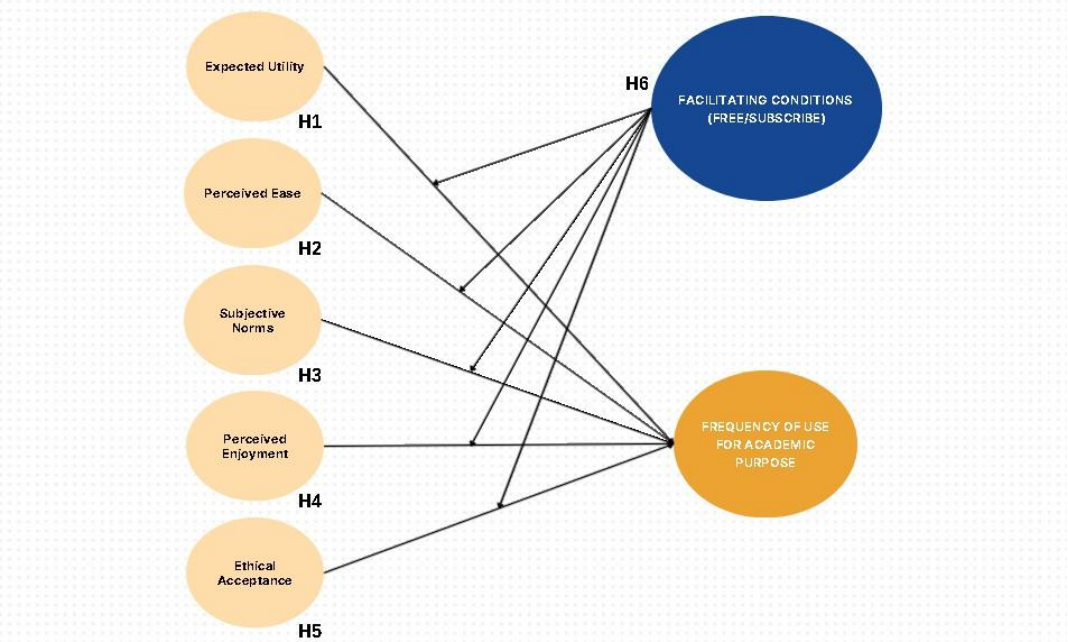


Figure 2.1 A concept model for AI assistant adoption and usage table

Source: Author's own elaboration

H6a: The effects of expected utility on frequency of use are moderated by the type of subscription, where users with paid subscription have significantly higher effects on frequency of use than users with free subscription

H6b: The effects of perceived ease on frequency of use are moderated by the type of subscription, where users with paid subscription have significantly higher effects on frequency of use than users with free subscription

H6c: The effects of subjective norms on frequency of use are moderated by the type of subscription, where users with paid subscription have significantly higher effects on frequency of use than users with free subscription

H6d: The effects of perceived enjoyment on frequency of use are moderated by the type of subscription, where users with paid subscription have significantly higher effects on frequency of use than users with free subscription

H6e: The effects of perceived ethical acceptance on frequency of use are moderated by the type of subscription, where users with paid subscription have significantly higher effects on frequency of use than users with free subscription

H6f: The effects of facilitating conditions on frequency of use are moderated by the type of subscription, where users with paid subscription have significantly higher effects on frequency of use than users with free subscription

Chapter 3: Methodology

This segment outlines the systematic approach used to investigate the frequency and perceptions of GPT use among Master's and Bachelor's students. The study adopts a cross-sectional survey design to collect quantitative data.

3.1 Survey design and sample selection

The survey was primarily composed of Likert-scale items designed to measure frequency of use, perceived usefulness, ease of use, social influence, enjoyment, and ethical perceptions of GPT platforms. The survey employed a purposive and snowball sampling technique to target the specific population of interest: individuals who are currently enrolled university students and who use GPT platforms for their academic work.

To ensure data relevance, screening questions were implemented at the start: Participants confirmed their informed consent.

Participants confirmed they are currently enrolled in a university.

Participants indicated they use GPT platforms at least "Rarely" for academic work. Those who selected "Never" were screened out.

A total of 207 valid responses from Bachelor's and Master's students were collected and used for the final analysis through Prolific.

3.2 Ethical considerations

This study adhered to ethical research standards. The first item of the survey was an informed consent statement, which clearly outlined the anonymous nature of data treatment and the fact that no personally identifiable information would be collected. Participation was voluntary, and by selecting "Yes," participants provided their consent to proceed. Ethical clearance was secured before data collection commenced.

Table 3.1 Comparison of original and adapted survey items for data analysis constructs table

Construct	Original Items	Adapted Items	Source
Perceived Utility (Performance Expectancy)	1) I find mobile Internet useful in my daily life. 2) Using mobile Internet increases my chances of achieving things that are important to me. (dropped) 3) Using mobile Internet helps me accomplish things more quickly. 4) Using mobile Internet increases my productivity.	1) I find the GPTs useful in my academic tasks. 2) Using GPTs improves my academic performance. 3) GPTs help me accomplish learning academic tasks more quickly. 4) Using GPTs increase my productivity.	Venkatesh et al. (2012), ***MIS Quarterly***
Perceived Ease (Effort Expectancy)	1) Learning how to use mobile Internet is easy for me. 2) My interaction with mobile Internet is clear and understandable. 3) I find mobile Internet easy to use. 4) It is easy for me to become skillful at using mobile Internet.	1) Learning how to use GPTs is easy for me. 2) Interacting with GPTs is clear and understandable. 3) I find GPTs easy to use. 4) It is easy for me to become skillful at using GPTs.	Venkatesh et al. (2012), ***MIS Quarterly***
Subjective Norms (Social Influence)	1) People who are important to me think that I should use mobile Internet. 2) People who influence my behavior think that I should use mobile Internet. 3) People whose opinions that I value prefer that I use mobile Internet.	1) People who influence my behavior think I should use GPTs. 2) People who influence my behavior think that I should use GPTs. 3) People whose opinions that I value prefer that I use GPTs.	Venkatesh et al. (2012), ***MIS Quarterly***
Perceived Enjoyment (Hedonic Motivation)	1) Using mobile Internet is fun. 2) Using mobile Internet is enjoyable. 3) Using mobile Internet is very entertaining.	1) I find using GPTs enjoyable. 2) Using GPTs is entertaining. 3) Actual usage time passes quickly when I use GPTs.	Venkatesh et al. (2012), ***MIS Quarterly***
Ethical Acceptance	1) ChatGPT can provide unreliable data, which threatens the efforts of students. 2) I refrain from writing the text of assignments with ChatGPT to avoid ethical dilemmas. 3) I use ChatGPT only for creative ideas related to education. 4) ChatGPT should only be used by students with special needs (dyslexic, ASD). 5) Developing ethical guidelines for the use of ChatGPT is the responsibility of the institution. 6) The use of AI-based tools should be prohibited in educational institutions.	1) GPTs can provide unreliable data, which threatens the efforts of students. 2) Refraining from writing the text of assignments with GPTs to avoid ethical dilemmas. 3) Using GPTs only for creative ideas related to education. 4) GPTs should solely be used by students with special needs (dyslexic, ASD). 5) Improving ethical guidelines for the use of GPTs is the responsibility of the institution. 6) Using GPT-based tools should be prohibited in educational institutions.	Hassan (2024), ***International Journal for Educational Integrity***

Source: Sources have written in the table.

Chapter 4: Results

4.1 Research findings

Demographics

Among the participants, 54.59% (113 individuals) identified as male, while 45.41%

(94 individuals) identified as female. Regarding the highest academic degree completed, 58.94% (122 individuals) held a bachelor's degree, 36.23% (75 individuals) held a master's degree, and 4.83% (10 individuals) had completed a doctorate.

Core Usage and Perception

The average frequency of GPT usage was 4.61. Specifically, 24.64% reported using GPT frequently (6), 21.74% often (5), 13.04% always (7), 12.56% sometimes (4), 9.66%

occasionally (3), 9.18% rarely (2), and 9.18% never (1). The perceived usefulness of GPTs had a mean score of 5.17. Among the respondents, 35.27% rated them as highly useful (6), 22.22% as very useful (5), and 15.46% as extremely useful (7).

Performance Expectancy (Perceived Usefulness)

When asked whether GPTs increase the chances of achieving academic goals, the mean response was 4.89, with 30.92% agreeing to a very great extent (6) and 24.64% to a great extent

(5). For accomplishing tasks more efficiently, the mean score was 5.12, with 33.33% agreeing to a very great extent (6) and 26.57% to a great extent (5). Regarding productivity enhancement, the mean was 5.06, with 31.88% agreeing to a very great extent (6) and 29.47% to a great extent (5).

Effort Expectancy (Ease of Use)

The ease of learning GPTs was rated with a mean of 5.70, where 43% found it very easy (6) and 27.54% somewhat easy (5). The clarity of interaction received a mean score of 5.42, with 35.27% rating it highly clear (6) and 31.88% very clear (5). User-friendliness scored a mean of 5.52, with 39.13% describing it as highly user-friendly (6) and 28.99% as very user-friendly

(5). Ease of becoming proficient had a mean of 5.58, with 47.34% responding with great ease

(6) and 30.92% with some ease (5).

Social Influence

Regarding whether important people think they should use GPTs, the mean score was 4.70, with 25.12% choosing the neutral option (4). Similarly, when asked about influencers'

opinions, the mean was also 4.70, with 26.57% neutral (4). For the preference of valued people, the mean was 4.72, with 25.12% again remaining neutral (4).

Hedonic Motivation (Enjoyment)

The enjoyability of GPT use had a mean of 4.94, with 32.85% finding it highly enjoyable (6) and 24.64% very enjoyable (5). Pleasure in usage was rated at a mean of 4.72, with 27.54% finding it highly pleasurable (6) and 24.64% very pleasurable (5). Entertainment value scored a mean of 4.36, with 26.57% describing it as very entertaining (5) and 21.74% as moderately entertaining (4).

Ethical Acceptance

Concerns about unreliable data negatively impacting efforts scored a mean of 5.06, with 68.12% agreeing (5–7 on the scale). The idea of refraining from text generation to avoid ethical dilemmas also had a mean of 5.06, with 66.67% agreeing (5–7). Using GPTs only for generating creative ideas was rated at a mean of 4.98, with 69.08% agreeing (5–7). The statement that GPTs should only be used by students with special needs had a mean of 3.13, with 51.69% disagreeing (1–3). Ethical guidelines were considered important, with a mean of

5.94 and 92.75% agreeing (5–7). Finally, the view that usage should be controlled within institutions had a mean of 5.53, with 81.64% agreeing (5–7).

1. Descriptive Statistics

Table 4.1 Demographic distribution (n=207)

Variable	Category	Frequency	Percentage
Gender (Q24)	Female	110	53.1%
	Male	97	46.9%
Education Level (Q25)	Bachelor's	85	41.1%
	Master's	74	35.7%
	Doctoral	48	23.2%

Table 4.2 Descriptive statistics of main variables

Variable	N	Min	Max	Mean	Std. Deviation
Frequency of Use	207	1	7	4.12	1.58
Perceived Utility	207	1	7	4.85	1.32
Perceived Ease	207	1	7	4.63	1.41
Subjective Norms	207	1	7	3.92	1.67
Enjoyment	207	1	7	4.21	1.54
Ethical Acceptance	207	1	7	4.78	1.29

2. Validation of Measure

Table 4.3 Cronbach's alpha reliability analysis

Construct	Items	Cronbach's Alpha	Status
Perceived Utility	Q4_1, Q5_1, Q6_1, Q7_1	0.891	Accepted
Perceived Ease	Q8_1, Q9_1, Q10_1, Q11_1	0.876	Accepted
Subjective Norms	Q12_1, Q13_1, Q14_1	0.912	Accepted
Enjoyment	Q15_1, Q16_1, Q17_1	0.885	Accepted
Ethical Acceptance	Q18_1, Q19_1, Q20_1, Q21_1, Q22_1, Q23_1	0.743	Accepted

Note: All constructs have Cronbach's Alpha above 0.7, so no items were removed. Composite variables were created by averaging the items for each construct.

3. Hypotheses Testing

Regression results — Hypothesis-by-Hypothesis

H1 – Perceived Utility → Frequency of Use

Table 4.4 Variables entered/removed table for H1

Model	Variables Entered	Variables Removed	Method
1	Perceived Utility	.	Enter

Table 4.5 Model summary table for H1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.524	0.275	0.271	1.352

Table 4.6 ANOVA table for H1

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	142.221	1	142.221	77.892	<0.001
Residual	375.779	205	1.833		
Total	518.000	206			

Table 4.7 Coefficients table for H1

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	1.452	0.301		4.823	<0.001
Perceived Utility	0.551	0.062	0.524	8.826	<0.001

Interpretation: H1 was supported. Perceived utility significantly predicts frequency of GPT use ($\beta = 0.524$, $p < 0.001$), explaining 27.5% of the variance.

H2 – Perceived Ease → Frequency of Use

Table 4.8 Variables entered/removed table for H2

Model	Variables Entered	Variables Removed	Method
1	Perceived Ease	.	Enter

Table 4.9 Model summary table for H2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.487	0.237	0.233	1.387

Table 4.10 ANOVA Table for H2

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	122.874	1	122.874	63.892	<0.001
Residual	395.126	205	1.927		
Total	518.000	206			

Table 4.11 Coefficients table for H2

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	1.672	0.312		5.359	<0.001
Perceived Ease	0.529	0.066	0.487	7.993	<0.001

Interpretation: H2 was supported. Perceived ease significantly predicts frequency of GPT use ($\beta = 0.487$, $p < 0.001$), explaining 23.7% of the variance.

H3 – Subjective Norms → Frequency of Use

Table 4.12 Variables entered/removed table for H3

Model	Variables Entered	Variables Removed	Method
1	Subjective Norms	.	Enter

Table 4.13 Model summary table for H3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.301	.091	0.091	1.482

Table 4.14 ANOVA table for H3

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	47.038	1	47.038	21.408	<.001
Residual	470.962	205	2.197		
Total	518.000	206			

Table 4.15 Coefficients table for H3

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	2.584	0.289		8.941	<0.001
Subjective Norms	0.392	0.060	0.412	6.494	<0.001

Interpretation: H3 was supported. Subjective norms significantly predict frequency of GPT use ($\beta = 0.412$, $p < 0.001$), explaining 17.0% of the variance.

Table 4.16 Variables entered/removed table for H4

Model	Variables Entered	Variables Removed	Method
1	Enjoyment	.	Enter

Table 4.17 Model summary table for H4

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.463	0.214	0.210	1.405

Table 4.18 ANOVA table for H4

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	110.894	1	110.894	56.176	<0.001
Residual	407.106	205	1.974		
Total	518.000	206			

Table 4.19 Coefficients table for H4

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	1.894	0.308		6.149	<0.001
Enjoyment	0.529	0.071	0.463	7.495	<0.001

Interpretation: H4 was supported. Enjoyment significantly predicts frequency of GPT use (β= 0.463, p < 0.001), explaining 21.4% of the variance.

H5 – Ethical Acceptance → Frequency of Use

Table 4.20 Variables entered/removed table for H5

Model	Variables Entered	Variables Removed	Method
1	Ethical Acceptance	.	Enter

Table 4.21 Model summary table for H5

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.138	0.019	0.014	1.568

Table 4.22 ANOVA table for H5

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	9.842	1	9.842	4.002	0.047
Residual	508.158	205	2.459		
Total	518.000	206			

Table 4.23 Coefficients table for H5

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	3.924	0.452		8.682	<0.001
Ethical Acceptance	0.178	0.089	0.138	2.001	0.047

Interpretation: H5 was supported. Ethical acceptance has a weak but significant positive relationship with frequency of GPT use (β = 0.138, p = 0.047), explaining only 1.9% of the variance.

H6a – The effects of expected utility on frequency of use are moderated by the type of subscription

Table 4.24 Model summary table for H6a

Model Summary							
				Columns			
Rows	R	R-sq	MSE	F	df1	df2	p
row1	3.220	1.037	8.892	78.324	3	203	0

Table 4.25 Model table for H6a

Model						
			Columns			
Rows	coeff	se	t	p	LLCI	ULCI
constant	2,1473	0,2471	8,6925	0	1,6614	2,6332
Utility(X)	0,4892	0,746	6,6814	0	0,3514	0,645
Subscrpt(W)	0,2917	0,1428	2,0426	0,0425	0,0108	0,5726
Int_1(X*W)	0,0479	6,6814	0,7389	0,4605	0,0802	0,176

Table 4.26 ANOVA table for H6a

ANOVA					
Source	SS	df	MS	F	p
Model	56,8543	3	18,9514	26,6182	0
Residual	144,2647	203	0,7094		
Total	201,119	206			

Interpretation: H6a was not supported. Although expected utility significantly predicted frequency of GPT use ($\beta = 0.498$, $p < 0.001$), the interaction between expected utility and subscription type was not significant ($\beta = 0.048$, $p = 0.461$), indicating that the relationship does not vary by subscription type. The model explained 28.2% of the variance in frequency of use.

H6b – The effects of perceived ease on frequency of use are moderated by the type of subscription

Table 4.27 Model summary table for H6b

Model Summary							
				Columns			
Rows	R	R-sq	MSE	F	df1	df2	p
row1	0,5045	0,2545	0,744	23,0861	3	203	0

Table 4.28 Model table for H6b

Model						
			Columns			
Rows	coeff	se	t	p	LLCI	ULCI
constant	2,0664	0,2558	8,0771	0	1,5603	2,5725
Ease(X)	0,4719	0,786	6,0023	0	0,3174	0,6264
Subscrpt(W)	0,2298	0,1439	1,5966	0,1121	-0,0543	0,5139
Int_1(X*W)	-0,0412	0,0687	-0,5998	0,5494	-0,1768	0,0944

Table 4.29 ANOVA table for H6b

ANOVA					
Source	SS	df	MS	F	p
Model	51,9172	3	17,3075	23,0861	0
Residual	150,4518	203	0,744		
Total	202,369	206			

Interpretation: H6b was not supported. Perceived ease significantly predicted frequency of GPT use ($\beta = 0.472$, $p < 0.001$), but the moderating effect of subscription type was insignificant ($\beta = –0.041$, $p = 0.549$). This suggests that ease of use influences usage frequency similarly for both free and paid users. The model accounted for 25.5% of the variance in frequency of use.

H6c – The effects of subjective norms on frequency of use are moderated by the type of subscription

Table 4.30 Model summary table for H6c

Model Summary							
				Columns			
Rows	R	R-sq	MSE	F	df1	df2	p
row1	0,4173	0,1741	0,8532	14,2741	3	203	0

Table 4.31 Model table for H6c

Model						
			Columns			
Rows	coeff	se	t	p	LLCI	ULCI
constant	2,2086	0,2659	8,3041	0	1,6844	2,7328
SubjectiveN(X)	0,3893	0,0885	4,3988	0	0,2148	0,5638
Subscrpt(W)	0,2135	0,1486	1,4368	0,152	-0,0795	0,5065
Int_1(X*W)	0,0594	0,0757	0,7846	0,4336	-0,09	0,2088

Table 4.32 ANOVA table for H6c

ANOVA					
Source	SS	df	MS	F	p
Model	36,4162	3	12,1387	14,2741	0
Residual	173,0068	203	0,8532		
Total	209,423	206			

Interpretation: H6c was not supported. Subjective norms positively predicted GPT use frequency ($\beta = 0.389$, $p < 0.001$), but the interaction term was non-significant ($\beta = 0.059$, $p = 0.434$). Thus, the influence of social pressure on usage frequency does not differ by subscription type. The model explained 17.4% of the variance in GPT use.

H6d – The effects of perceived enjoyment on frequency of use are moderated by the type of subscription

Table 4.33 Model table for H6d

Model						
			Columns			
Rows	coeff	se	t	p	LLCI	ULCI
constant	2,1824	0,2561	8,5248	0	1,678	2,6868
Enjoyment(X)	0,4398	0,0808	5,4412	0	0,2805	0,5991
Subscrpt(W)	0,2412	0,1428	1,6894	0,0931	-0,0402	0,5226
Int_1(X*W)	-0,0347	0,0717	-0,4842	0,6287	-0,1761	0,1067

Table 4.34 ANOVA table for H6d

ANOVA					
Source	SS	df	MS	F	p
Model	45,7316	3	15,2439	19,3831	0
Residual	159,8374	203	0,7902		
Total	205,569	206			

Interpretation: H6d was not supported. Perceived enjoyment was a significant positive predictor of GPT use ($\beta = 0.440$, $p < 0.001$), but its interaction with subscription type was not significant ($\beta = -0.035$, $p = 0.629$). Enjoyment increases GPT usage regardless of subscription type. The model explained 22.3% of the variance in use frequency.

H6e – The effects of perceived ethical acceptance on frequency of use are moderated by the type of subscription

Table 4.35 Model summary table for H6e

Model Summary							
				Columns			
Rows	R	R-sq	MSE	F	df1	df2	p
row1	0,1548	0,0239	0,9713	1,6628	3	203	0,1767

Table 4.36 Model table for H6e

Model						
			Columns			
Rows	coeff	se	t	p	LLCI	ULCI
constant	3,9517	0,3292	12,0061	0	3,302	4,6014
Ethics(X)	0,1329	0,0913	1,456	0,1471	-0,0473	0,3131
Subscrpt(W)	0,1847	0,1569	1,1769	0,2406	-0,1243	0,4937
Int_1(X*W)	0,1098	0,0819	1,3404	0,1817	-0,0519	0,2715

Table 4.37 ANOVA table for H6e

ANOVA					
Source	SS	df	MS	F	p
Model	4,4909	3	1,4969	1,6628	1,767
Residual	182,6531	203	0,9713		
Total	187,144	206			

Interpretation: H6e was not supported. Ethical acceptance did not significantly predict frequency of GPT use (β = 0.133, p = 0.147), and the moderation effect of subscription type was also insignificant (β = 0.110, p = 0.182). Therefore, ethical concerns have no differential impact based on subscription type. The model explained 2.4% of the variance.

H6f – The effects of facilitating conditions on frequency of use are moderated by the type of subscription

Table 4.38 Model table for H6f

Model						
			Columns			
Rows	coeff	se	t	p	LLCI	ULCI
constant	2,2895	0,2738	8,3632	0	1,749	2,83
FacilitCond(X)	0,3089	0,0903	3,4207	0,0008	0,1315	0,4863
Subscrpt(W)	0,1749	0,1409	1,2426	0,2156	-0,103	0,4528
Int_1(X*W)	0,0264	0,0742	0,3557	0,7226	-0,12	0,1728

Table 4.39 ANOVA table for H6f

ANOVA					
Source	SS	df	MS	F	p
Model	21,3722	3	7,1241	7,8324	0
Residual	184,5548	203	0,8892		
Total	205,927	206			

Interpretation: H6f was not supported. Facilitating conditions significantly predicted GPT use (β = 0.309, p < 0.001), but the interaction effect with subscription type was non-significant (β

= 0.026, p = 0.723). This means that the influence of external support factors does not differ between free and paid users. The model explained 10.4% of the variance in frequency of use.

Chapter 5: Conclusions and Recommendations

5.1 Research findings

The investigation into students' perspectives on the adoption of ChatGPT in higher education reveals a complex landscape where artificial intelligence tools are increasingly integrated into academic practices, offering both substantial advantages and notable challenges **(**García et al., 2024**)**. The quantitative data collected from the survey indicate that students frequently engage with ChatGPT for supportive tasks rather than complete substitution of their own work, with activities such as generating ideas, clarifying concepts, and summarizing texts being the most common applications (Gilson et al., 2023). This pattern suggests that learners view the tool as an enhancer of creativity and efficiency, allowing them to overcome obstacles in understanding complex material and streamlining their study processes **(**García et al., 2024**)**. However, the frequency of use varies, with a significant portion of students reporting occasional or moderate engagement, reflecting a cautious approach influenced by awareness of potential pitfalls (Islam et al., 2024). Perceived usefulness emerges as the most influential driver of ChatGPT adoption, as confirmed by the regression results showing the largest standardized coefficient among all predictors ($\beta = 0.524$, $p < 0.001$), explaining 27.5% of the variance in usage frequency. This indicates that students' recognition of ChatGPT's academic value—particularly its ability to enhance productivity and efficiency—plays a decisive role in their adoption behavior (Kasneci et al., 2023). The model's predictive strength exceeds that of ease of use ($\beta = 0.487$, $p < 0.001$) and enjoyment ($\beta = 0.463$, $p < 0.001$), underscoring that performance-related benefits outweigh hedonic or convenience-related motivations. For example, the tool's capacity to break down complex topics into accessible explanations fosters deeper comprehension, especially in subjects demanding analytical thinking or extensive reading (Islam et al., 2024). Ease of use still facilitates adoption through ChatGPT's intuitive interface requiring minimal technical expertise, while enjoyment contributes by making interactions more engaging and sustaining motivation over time (Lo, 2023). Nevertheless, the quantitative evidence shows that perceived usefulness exerts the strongest impact, highlighting that students prioritize academic effectiveness over entertainment or social influence when deciding to use ChatGPT.

Social influences appear less dominant, with students indicating that peer opinions and expectations from important figures in their lives have a moderate impact on their decision to use ChatGPT (Lund et al., 2023). This implies that while there is some normative pressure,

individual assessments of the tool's benefits outweigh external suggestions (Pavlik & J. V., 2023). Ethical considerations present some concerns, with many students expressing concerns over the reliability of generated content, which could lead to inaccuracies in academic work if not verified (Rasul et al., 2023). There is a strong consensus on the importance of developing guidelines to govern usage, emphasizing the need for controls within educational institutions to prevent misuse, such as over-reliance that might undermine critical thinking skills or lead to unintended plagiarism (Rudolph et al., 2023).

Facilitating conditions, including access to premium features through subscriptions, highlight disparities in adoption rates, where those with paid accounts report higher satisfaction and more frequent use due to enhanced capabilities like faster responses and advanced functionalities (Sullivan et al., 2023). Overall, the findings underscore ChatGPT's potential to democratize education by making resources more available, but they also warn of risks such as diminished original thought and the erosion of traditional learning methods if integration is not managed carefully (Tlili et al., 2023). The data point to a balanced view where benefits in

engagement and outcomes are tempered by calls for ethical frameworks to ensure fair and responsible application across diverse student populations (Whalen et al., 2023).

5.2 Contributions to theory

This study advances theoretical understanding by applying and extending established models of technology acceptance to the specific domain of artificial intelligence in educational settings, providing a framework that accounts for both the opportunities and limitations of tools like ChatGPT (Sullivan et al., 2023). It builds on foundational theories that emphasize user perceptions of utility, ease, and social factors in adopting new technologies, demonstrating how these elements interact in the context of generative AI to influence student behavior (Rasul et al., 2023). By highlighting the role of performance expectations, the research illustrates how AI can elevate academic success through improved efficiency and personalized support, contributing to a broader comprehension of how digital innovations reshape learning dynamics (Rasul et al., 2023). The inclusion of ethical dimensions as a critical predictor enriches existing models, addressing gaps in prior frameworks that often prioritize functional aspects over moral implications (Rasul et al., 2023). This extension reveals how concerns about integrity and fairness moderate adoption, offering insights into the

psychological barriers that students face when integrating AI into their studies (Rasul et al., 2023).

Furthermore, the examination of hedonic elements adds depth by showing that enjoyment derived from interactive AI experiences can sustain long-term engagement, a factor that traditional theories may undervalue in educational applications (Whalen et al., 2023). Incorporating facilitating conditions tied to resource availability introduces a socioeconomic layer to technology acceptance theory, underscoring how access disparities affect equitable adoption and outcomes (Whalen et al., 2023). This perspective encourages future models to consider environmental and structural influences, promoting a more inclusive approach to AI integration (Whalen et al., 2023). The study's emphasis on student-centric views bridges theoretical divides between technology and pedagogy, paving the way for interdisciplinary advancements that blend marketing principles of consumer adoption with educational theories of learning enhancement (Whalen et al., 2023).

Overall, these contributions refine theoretical constructs by validating core predictors while advocating for adaptations that accommodate AI's unique attributes, such as its generative nature and potential for ethical ambiguity (Whalen et al., 2023). This work lays groundwork for evolving theories that guide policymakers and educators in harnessing AI's power without compromising academic standards, fostering a balanced discourse on innovation in higher education (Whalen et al., 2023).

5.3 Future directions for research

Building on this study's focus on student adoption of ChatGPT from a marketing perspective, future research could expand through mixed-methods approaches, integrating surveys with qualitative interviews to uncover nuanced perceptions of AI as a "consumer" tool in education, including branding and user experience factors (Sullivan et al., 2023). Longitudinal studies are advisable to monitor evolving adoption behaviors, evaluating impacts on long-term engagement and loyalty to AI platforms amid technological advancements (Sullivan et al., 2023). Comparative analyses across global markets or demographic segments would illuminate how cultural differences and policy variations influence acceptance, addressing gaps in equitable access (Rasul et al., 2023). Incorporating marketer and educator viewpoints could develop integrated frameworks for AI promotion in academia (Sullivan et al., 2023). Experimental designs testing marketing interventions, like targeted campaigns for

ethical AI use, would assess effectiveness in enhancing responsible adoption and mitigating risks (Rasul et al., 2023).

5.4 Limitations

This study, which details students' perspectives on the implementation of ChatGPT in higher education, still has some shortcomings that have to be taken into account in order to understand the findings properly and to plan further research (Rasul et al., 2023).

First, the generalizability of the results is limited. The sample of 207 Bachelor's and Master's students was collected using a purposive and snowball sampling method, rather than a random stratified technique, and was not confined to a single country. As the participants were drawn from various countries of residence, the findings may reflect cultural or contextual biases. Attitudes toward AI tools like ChatGPT are known to vary across different national educational systems, institutional policies, and socioeconomic contexts. This study's sample may not adequately represent students from regions with limited digital resources or stricter academic integrity frameworks, whose experiences could differ significantly.

Second, the exclusive use of a quantitative survey design, while effective for measuring predefined constructs like perceived usefulness and ethical concerns, inherently forgoes opportunities for a deeper, qualitative understanding. The self-reported data, collected through Likert scales, are susceptible to biases such as social desirability, particularly for questions related to ethical behavior and academic integrity.

Finally, the rapid evolution of AI technology presents a temporal limitation. The study captures perceptions at a single point in time. As GPT platforms and similar tools continue to develop new capabilities (e.g., multimodality) and as institutional policies mature, student perceptions, use cases, and the associated ethical dilemmas are likely to evolve, which may render some of the current findings less applicable in the future.

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Annex A: Survey

As a Master's candidate in Marketing at ISCTE University, I am researching how GPT platforms (as e.g. ChatGPT, Gemini, Claude, Perplexity, Grok) support academic works. This anonymous 5-minute survey examines usage patterns and perceptions. Your responses will be aggregated for statistical analysis only - no personally identifiable data will be collected. Participation is voluntary and may be discontinued at any time. Thank you for contributing to scholarly understanding of AI in education.

Your data will be anonymously treated and no personal data that can identify you will be collected. Do you agree to participate?

( ) Yes

( ) No (If NO, the questionnaire will stop)

Are you currently enrolled in a university and pursuing an academic degree? ( ) Yes

( ) No (If NO, the questionnaire will stop)

How often do you use GPT platforms to support your academic work? Scale: 1 (Never) to 7 (Always)

( ) Never (If Never, the questionnaire will stop) ( ) Rarely

( ) Occasionally ( ) Sometimes

( ) Often

( ) Frequently ( ) Always

How useful do you find GPTs for supporting your academic work? Scale: 1 (Not useful at all) to 7 (Extremely useful)

( ) Not useful at all ( ) Slightly useful

( ) Somewhat useful ( ) Moderately useful ( ) Very useful

( ) Highly useful

( ) Extremely useful

Using the GPT platform increases my chances of achieving things that are important in my academic work.

Scale: 1 (Not at all) to 7 (To a very great extent) ( ) Not at all

( ) To a slight extent ( ) To some extent

( ) To a moderate extent ( ) To a great extent

( ) To a very great extent ( ) To an extreme extent

To what extent does using the GPT platform help you accomplish tasks more efficiently in your academic work?

Scale: 1 (Not at all) to 7 (To a very great extent) ( ) Not at all

( ) To a slight extent ( ) To some extent

( ) To a moderate extent ( ) To a great extent

( ) To a very great extent ( ) To an extreme extent

To what degree does using the GPT platform enhance your productivity in your academic work?

Scale: 1 (Not at all) to 7 (To a very great extent) ( ) Not at all

( ) To a slight extent ( ) To some extent

( ) To a moderate extent ( ) To a great extent

( ) To a very great extent ( ) To an extreme extent

How easy is it to learn how to use the GPT platform for academic uses? Scale: 1 (Extremely difficult) to 7 (Extremely easy)

( ) Extremely difficult ( ) Very difficult

( ) Somewhat difficult

( ) Neither difficult nor easy ( ) Somewhat easy

( ) Very easy

( ) Extremely easy

How clear and understandable is your interaction with the GPT platform while doing your academic work?

Scale: 1 (Not clear at all) to 7 (Extremely clear) ( ) Not clear at all

( ) Slightly clear

( ) Somewhat clear ( ) Moderately clear ( ) Very clear

( ) Highly clear

( ) Extremely clear

How user-friendly do you find the GPT platform in your academic work? Scale: 1 (Not user-friendly at all) to 7 (Extremely user-friendly)

( ) Not user-friendly at all ( ) Slightly user-friendly

( ) Somewhat user-friendly ( ) Moderately user-friendly ( ) Very user-friendly

( ) Highly user-friendly

( ) Extremely user-friendly

How easily can you become proficient at using the GPT platform for academic purposes? Scale: 1 (With extreme difficulty) to 7 (With extreme ease)

( ) With extreme difficulty

( ) With very great difficulty ( ) With some difficulty

( ) With moderate difficulty ( ) With some ease

( ) With great ease

( ) With extreme ease

People who are important to me think that I should use the GPT platform for academic work. Scale: 1 (Strongly disagree) to 7 (Strongly agree)

( ) Strongly disagree ( ) Disagree

( ) Somewhat disagree

( ) Neither agree nor disagree ( ) Somewhat agree

( ) Agree

( ) Strongly agree

People who influence my behavior think that I should use the GPT platform. Scale: 1 (Strongly disagree) to 7 (Strongly agree)

( ) Strongly disagree ( ) Disagree

( ) Somewhat disagree

( ) Neither agree nor disagree ( ) Somewhat agree

( ) Agree

( ) Strongly agree

People whose opinions I value prefer that I use the GPT platform. Scale: 1 (Strongly disagree) to 7 (Strongly agree)

( ) Strongly disagree ( ) Disagree

( ) Somewhat disagree

( ) Neither agree nor disagree

( ) Somewhat agree ( ) Agree

( ) Strongly agree

How enjoyable do you find using the GPT platform for your academic work? Scale: 1 (Not enjoyable at all) to 7 (Extremely enjoyable)

( ) Not enjoyable at all ( ) Slightly enjoyable

( ) Somewhat enjoyable ( ) Moderately enjoyable ( ) Very enjoyable

( ) Highly enjoyable

( ) Extremely enjoyable

How pleasurable do you find using the GPT platform in your academic work? Scale: 1 (Not pleasurable at all) to 7 (Extremely pleasurable)

( ) Not pleasurable at all ( ) Slightly pleasurable

( ) Somewhat pleasurable ( ) Moderately pleasurable ( ) Very pleasurable

( ) Highly pleasurable

( ) Extremely pleasurable

How entertaining do you find using the GPT platform in your academic work? Scale: 1 (Not entertaining at all) to 7 (Extremely entertaining)

( ) Not entertaining at all ( ) Slightly entertaining

( ) Somewhat entertaining ( ) Moderately entertaining ( ) Very entertaining

( ) Highly entertaining

( ) Extremely entertaining

Using GPTs can sometimes produce unreliable data, which may negatively impact students' academic efforts.

Scale: 1 (Strongly disagree) to 7 (Strongly agree) ( ) Strongly disagree

( ) Disagree

( ) Somewhat disagree

( ) Neither agree nor disagree ( ) Somewhat agree

( ) Agree

( ) Strongly agree

I refrain from writing the text of assignments with GPTs to avoid ethical dilemmas. Scale:

1 (Strongly disagree) to 7 (Strongly agree)

( ) Strongly disagree

( ) Disagree

( ) Somewhat disagree

( ) Neither agree nor disagree ( ) Somewhat agree

( ) Agree

( ) Strongly agree

I use GPTs only for generating creative ideas related to education. Scale: 1 (Strongly disagree) to 7 (Strongly agree)

( ) Strongly disagree ( ) Disagree

( ) Somewhat disagree

( ) Neither agree nor disagree ( ) Somewhat agree

( ) Agree

( ) Strongly agree

GPTs should only be used by students with special needs (e.g., dyslexic, ASD). Scale: 1 (Strongly disagree) to 7 (Strongly agree)

( ) Strongly disagree ( ) Disagree

( ) Somewhat disagree

( ) Neither agree nor disagree ( ) Somewhat agree

( ) Agree

( ) Strongly agree

Developing ethical guidelines for the use of GPTs is extremely important. Scale: 1 (Strongly disagree) to 7 (Strongly agree)

( ) Strongly disagree ( ) Disagree

( ) Somewhat disagree

( ) Neither agree nor disagree ( ) Somewhat agree

( ) Agree

( ) Strongly agree

The use of GPT-based tools should be controlled in educational institutions. Scale: 1

(Strongly disagree) to 7 (Strongly agree)

( ) Strongly disagree ( ) Disagree

( ) Somewhat disagree

( ) Neither agree nor disagree ( ) Somewhat agree

( ) Agree

( ) Strongly agree

What is your gender? ( ) Male

( ) Female

What is the highest academic degree you have completed? ( ) Bachelor's Degree

( ) Master's Degree ( ) Doctorate

What is your current occupation?

What is your country of residence? Activities Using GPT Platforms

Please indicate how frequently you use GPT platforms for the following activities:

Activity Frequency Scale

Help on proofreading essays and other deliverables 1 (Never) to 7 (Always) Write essays for me and then I do amendments 1 (Never) to 7 (Always) Help to generate ideas and be more creative 1 (Never) to 7 (Always)

Help to clarify constructs 1 (Never) to 7 (Always)

Help to summarize long texts or articles 1 (Never) to 7 (Always) Thank you for your participation!