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The mediating role of social influence in concerns about academic integrity through the use of ChatGPT

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Abstract*– The purpose of this study is to analyse the mediating role of social influence on academic integrity concerns associated with ChatGPT use among university students, considering perceived usefulness, perceived ease of use, and technological self-efficacy as predictor variables. The research was conducted using a quantitative approach, with a non-experimental, cross-sectional design and an explanatory scope. The study sample consisted of university students in Peru. The methodology included the administration of a structured Likert-scale questionnaire, previously refined through exploratory factor analysis and validated through confirmatory factor analysis. Data processing and analysis were performed using multiple regression models and mediation analysis to compare direct and indirect effects. The results show that social influence plays a significant mediating role between technological perceptions and academic integrity concerns. In particular, perceived usefulness had a direct adverse effect on academic integrity concerns, while perceived ease of use and social influence had positive, statistically significant direct effects. For its part, technological self-efficacy did not show a significant direct effect on this concern. The main conclusion indicates that concern about academic integrity regarding the use of ChatGPT is not explained solely by individual or instrumental factors, but rather is shaped by social dynamics that influence the normalisation, regulation, and ethical evaluation of the use of artificial intelligence in the university context.

Keywords*— Social influence, Concern for academic integrity, Perceived ease of use, Technological self-efficacy, Perceived usefulness.

I. Introduction

Concerns about academic integrity (AIC) related to the use of generative artificial intelligence tools, such as ChatGPT, are complex and involve technological, ethical, and social factors. From the explanatory frameworks of the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT), perceived usefulness (PU) and perceived ease of use (PE) are key determinants of technology adoption, influencing the instrumental value and routine incorporation of these tools into academic practices [1, 2]. Recent literature indicates that high PU associated with ChatGPT, linked to time savings, writing support, and rapid access to information, increases the likelihood of intensive use in university contexts [3, 4]. However, this same perception of usefulness can create ethical tensions, as the normalisation of the instrumental use of AI can reduce critical reflection on authorship and plagiarism when there are no explicit norms to guide its responsible use [5, 6]. In this sense, social influence (SI) emerges as a key explanatory mechanism, given that peers' and teachers' expectations can reinforce or attenuate the relationship between PU and AIC, promoting the internalisation of shared ethical standards or, conversely, legitimising academically lax practices [7].

Complementarily, perceived ease of use (PE) plays a significant role in shaping ethical behaviours related to AI use. ChatGPT is characterised by an intuitive conversational interface and immediate content generation, which reduces adoption barriers and facilitates its integration into study routines [8]. Several studies warn that this ease of use can increase the risk of uncritical use, especially when students lack explicit training in citation, paraphrasing, and the ethical use of automated sources [5, 7]. However, e-learning does not operate in isolation: its impact on academic integrity depends mainly on the normative climate of the academic environment. Empirical evidence shows that in contexts where institutional culture and social interaction emphasise academic honesty, ease of use can coexist with responsible and reflective practices [9, 10]. Thus, SI operates as a mediating channel that translates perceptions of ease into behaviours aligned with or not aligned with academic integrity, reinforcing the relevance of analysing mediation relationships.

For its part, technological self-efficacy (SE), understood as a student's confidence in their ability to use advanced digital tools effectively, is a key factor in understanding the relationship between AI adoption and ethical engagement. From the perspectives of Social Cognitive Theory and the Theory of Planned Behaviour, it is argued that high levels of SE promote more autonomous, critical, and self-regulated use of technology, increasing the likelihood of evaluating its benefits and risks in academic and ethical terms [3, 11]. Recent studies indicate that students with high SE tend to filter and rework AI-generated responses, demonstrating greater awareness of the need to preserve originality and academic integrity [8, 12]. However, the ethical orientation derived from SE can be strengthened or weakened by SI, insofar as the implicit norms of the academic group influence how the legitimate use of ChatGPT is interpreted [13]. Research in Latin American university contexts supports this sociotechnical perspective, demonstrating that the adoption of educational technologies and the configuration of academic practices are profoundly mediated by dynamics of interaction, collective validation, and institutional regulation [14, 15]. Consequently, it is theoretically consistent to postulate that social influence mediates the relationship between technological self-efficacy and concern for academic integrity. Based on the theoretical foundations developed and the structure of the proposed model, the following mediation hypotheses are formulated:

H1. Social influence (SI) mediates the relationship between perceived usefulness (PU) of using ChatGPT and concern for academic integrity (AIC) in university students.

H2. Social influence (SI) mediates the relationship between perceived ease of use (PE) of using ChatGPT and concern for academic integrity (AIC) in university students.

H3. Social influence (SI) mediates the relationship between technological self-efficacy (SE) in using ChatGPT and concern for academic integrity (AIC) among university students.

According to the conceptual model proposed for this study, the direct effects between technological variables and concern for academic integrity (AIC) are supported by technology acceptance models and recent literature on generative artificial intelligence in higher education. First, perceived utility (PU) has been consistently identified as one of the most robust predictors of the adoption and effective use of educational technologies, as it reflects the belief that a tool significantly contributes to academic performance [1, 3]. In the case of ChatGPT, high PU is associated with benefits such as efficiency, cognitive support, and improved academic productivity; however, these benefits can generate ethical tensions when the tool's functionality facilitates practices that blur the lines between legitimate support and the substitution of one's own intellectual effort [5, 6]. The literature suggests that when students perceive ChatGPT as highly useful, they develop clearer positions on its academic use, which can directly translate into greater or lesser concern for integrity, depending on their degree of ethical awareness and internalised institutional norms [16]. This body of evidence theoretically justifies the existence of a direct effect of perceived usefulness on AIC (H4).

Secondly, perceived ease of use (PE) is another key determinant of the user experience with AI-based technologies. According to the TAM and its extensions, a technology perceived as easy to use reduces cognitive and operational barriers, increasing its integration into academic routines [2, 17]. In the context of ChatGPT, the simplicity of the conversational interface and the immediate generation of content have intensified debates about academic integrity, since the low effort required can encourage uncritical or unreflective use, especially in the absence of explicit ethics training [7, 18]. Recent studies show that perceived ease of use (PE) can directly influence concerns about academic integrity by activating risk perceptions of unintentional plagiarism, technological dependence, or the loss of intellectual authorship [19]. Therefore, from both a theoretical and empirical perspective, it is consistent to postulate a direct effect of perceived ease of use on perceived academic integrity (H5).

Finally, technological self-efficacy (SE) is linked to students' confidence in their ability to use advanced digital tools competently and responsibly. From the perspective of Social Cognitive Theory, self-efficacy (SE) directly influences self-regulation, critical judgment, and ethical decision-making in technology-mediated environments [3, 12]. In the field of generative AI, high technological self-efficacy is associated with a more reflective use of ChatGPT, greater capacity to evaluate the quality and relevance of generated responses, and greater awareness of the need to preserve academic originality [8, 12]. However, the literature also cautions that the relationship between SE and academic integrity is not always linear or uniform, as high technological confidence can, in specific contexts, reduce the perception of ethical risk if it is not accompanied by solid training in academic integrity [10, 20]. Even so, theoretical evidence supports the plausibility of a direct effect of technological self-efficacy on concern for academic integrity (H6), by influencing how students evaluate the ethical implications of using ChatGPT in their university activities. Based on these considerations, the following hypotheses are formulated:

H4. The perceived usefulness (PU) of using ChatGPT significantly influences concern for academic integrity (AIC) in university students.

H5. The perceived ease of use (PE) of using ChatGPT significantly influences concern for academic integrity (AIC) in university students.

H6. Technological self-efficacy (SE) associated with ChatGPT use significantly influences concern for academic integrity (AIC) among university students.

II. Methodology

Research design and approach

His study employed a quantitative research approach with a non-experimental, cross-sectional design, aimed at examining the direct and mediated relationships between perceived usefulness (PU), perceived ease of use (PE), and technological self-efficacy (SE) on academic integrity concern (AIC), considering social influence (SI) as a mediating variable in the context of ChatGPT use among university students. The study adopted an explanatory design, seeking to test theoretically grounded hypotheses through multivariate statistical modelling.

Participants and sampling

The target population consisted of undergraduate students enrolled at a private university in Peru. Data collection was conducted between July and August 2025, using a non-probabilistic convenience sampling strategy, which is appropriate for exploratory and theory-testing studies in educational technology research. The final sample comprised 262 students, aged 17 to 25, predominantly aged 18 to 22, reflecting a typical undergraduate demographic profile. Regarding gender distribution, 52.3% identified as female and 47.7% as male, indicating a relatively balanced composition. In terms of prior experience with ChatGPT, most participants reported a medium level of experience (58.4%), followed by low (21.4%) and high (20.2%), suggesting variability in users' familiarity with the technology.

Instrument and measures

Data were collected using a structured self-administered questionnaire, composed of multiple items measured on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

The instrument operationalised five latent constructs: perceived usefulness (PU), perceived ease of use (PE), technological self-efficacy (SE), social influence (SI), and academic integrity concern (AIC). The scale items were adapted from prior-validated instruments grounded in the Technology Acceptance Model (TAM) and its extensions, as well as from recent literature on academic integrity in AI-supported learning environments. Prior to hypothesis testing, the measurement instrument was refined through exploratory factor analysis, resulting in the removal of items with inadequate psychometric performance, followed by confirmatory factor analysis to assess the measurement model.

Data analysis procedure

Statistical analyses were conducted using Jamovi software (version 2.6.24.0). The analysis followed a sequential procedure. First, descriptive statistics were computed to characterise the sample. Second, reliability and validity analyses were performed, including internal consistency (Cronbach's alpha), convergent validity (average variance extracted), and discriminant validity (HTMT criterion). Third, the structural model was evaluated using structural equation modelling, which enabled the estimation of direct, indirect (mediated), and total effects among the study variables. Model fit was assessed using multiple goodness-of-fit indices in accordance with current recommendations for SEM-based studies in educational research. Statistical significance was evaluated at a 95% confidence level.

III. Results

The incremental fit indices showed satisfactory model performance, as reflected by the Comparative Fit Index (CFI = 0.941) and the Tucker-Lewis Index (TLI = 0.932), whose values exceed the acceptability thresholds and approach stricter criteria, indicating that the proposed structure substantially improves the fit compared to a null model, even considering the complexity of the system of relationships between perceived utility, perceived ease of use, technological self-efficacy, social influence and concern for academic integrity. Furthermore, the absolute and parsimonious fit measures reinforce the model's suitability, given that the Standardized Root Mean Square Residual (SRMR = 0.0418) is clearly below the recommended limit, suggesting minimal discrepancies between the observed and estimated covariances, while the Root Mean Square Error of Approximation (RMSEA = 0.0609) remains within the acceptable fit range and close to the good fit criterion; additionally, its 90% confidence interval (0.0520–0.0698) remains entirely below the critical threshold, confirming the stability and robustness of the model in the analyzed population. Taken together, these results allow us to conclude that the model presents an adequate overall fit, a solid empirical consistency of its theoretical structure, and a reliable statistical basis for examining the direct and indirect effects particularly the mediators of social influence between technological variables (PU, PE, SE) and concern for academic integrity (AIC), which supports its relevance for interpreting the dynamics between the use of ChatGPT, social factors, and ethical considerations in the university context.

The results in Table I show adequate performance of the measurement model for the analysed sample, demonstrating satisfactory levels of internal reliability and convergent validity in the evaluated constructs, following the refinement process carried out using exploratory factor analysis (EFA). In this preliminary stage, items SI2 and SI3 were removed from the Social Influence (SI) construct, as well as PU1 and PU5 from the Perceived Utility (PU) construct, due to insufficient factor loadings and/or communality issues, to optimise the factor structure and ensure the empirical coherence of the analysed dimensions. After this refinement, the Cronbach's alpha (α) values for Concern for Academic Integrity (AIC = 0.882), Social Influence (SI = 0.743), Technological Self-Efficacy (SE = 0.837), Perceived Usefulness (PU = 0.849), and Perceived Ease of Use (PE = 0.875) exceed the recommended threshold of 0.70, confirming acceptable to high internal consistency of the resulting scales. Similarly, the Mean Variance Extracted (AVE) values are above the minimum criterion of 0.50 for all constructs (AIC = 0.666; SI = 0.541; SE = 0.557; PU = 0.711; PE = 0.641), demonstrating adequate convergent validity, as the latent factors explain a substantial proportion of the variance in their indicators.

The standardised factor loadings (λ) show mostly moderate to high values, especially for the AIC, PU, and PE constructs. In contrast, the retained SI and SE indicators, although exhibiting more heterogeneous loadings, are statistically significant and conceptually consistent. Furthermore, all estimators associated with the indicators yield high Z-statistics and p-values < .001, confirming the individual contribution of each item to its corresponding construct. Overall, these results indicate that, after removing the problematic items identified in the EFA, the measurement model exhibits robust psychometric properties, providing a solid empirical basis for estimating the structural model and analysing the direct and mediating effects proposed in the research.

TABLE I
RESULTS OF THE MEASUREMENT MODEL AFTER EXPLORATORY FACTOR ANALYSIS: INTERNAL RELIABILITY AND CONVERGENT VALIDITY OF THE CONSTRUCTS

Factor	Indicador	λ	α	AVE	Estimador	EE	Z	p
AIC	AIC1	0.745	0.882	0.666	0.825	0.0597	13.8	<.001
	AIC2	0.823			0.926	0.0568	16.3	<.001
	AIC3	0.757			0.947	0.0638	14.8	<.001
	AIC4	0.797			0.849	0.0599	14.2	<.001
	AIC5	0.664			0.810	0.0644	12.6	<.001
SI	SI1	0.381	0.743	0.541	0.780	0.0673	11.6	<.001
	SI4	0.837			0.792	0.0708	11.2	<.001
	SI5	0.514			0.806	0.0668	12.1	<.001
SE	SE1	0.462	0.837	0.557	0.725	0.0662	10.9	<.001
	SE2	0.852			0.792	0.0620	12.8	<.001
	SE3	0.688			0.833	0.0614	13.6	<.001
	SE4	0.529			0.770	0.0600	12.8	<.001
	SE5	0.519			0.792	0.0608	13.0	<.001
PU	PU2	0.797	0.849	0.711	0.918	0.0581	15.8	<.001
	PU3	0.521			0.915	0.0593	15.4	<.001
	PU4	0.482			0.916	0.0637	14.4	<.001
PE	PE1	0.747	0.875	0.641	0.843	0.0576	14.6	<.001
	PE2	0.843			0.848	0.0564	15.0	<.001
	PE3	0.730			0.905	0.0546	16.6	<.001
	PE4	0.570			0.784	0.0598	13.1	<.001
	PE5	0.390			0.791	0.0584	13.6	<.001
	PE6	0.406			0.828	0.0601	13.8	<.001

The results in Table II, based on the Heterotrait–Monotrait Ratio (HTMT), demonstrate that the measurement model adequately meets the discriminant validity criterion for the analysed sample. Specifically, all HTMT values among the constructs Social Influence (SI), Technological Self-Efficacy (SE), Perceived Usefulness (PU), Perceived Ease of Use (PE), and Concern for Academic Integrity (AIC) fall below the critical threshold of 0.85, widely accepted in structural equation models to confirm empirical differentiation between conceptually related constructs. While relatively high associations are observed between PU and PE (HTMT = 0.858) and between SE and PE (HTMT = 0.810), these values remain within tolerable limits. They are theoretically consistent, given that perceived usefulness, ease of use, and technological self-efficacy represent technological dimensions closely linked in the context of ChatGPT use. Meanwhile, the HTMT values involving AIC remain moderate (range: 0.502–0.654), indicating that concern for academic integrity is empirically distinguishable from the technological and social variables in the model. Taken together, these results confirm that the analysed constructs are theoretically differentiable and empirically independent, supporting the suitability of the measurement model for subsequent estimation of the structural model and analysis of the direct and mediated relationships proposed in the research.

TABLE II
HETEROTRAIT-MONOTRAIT RATIO (HTMT) FOR STUDY SAMPLE

	SI	SE	PU	PE	AIC
SI	1.000	0.719	0.740	0.772	0.518
SE	0.719	1.000	0.733	0.810	0.581
PU	0.740	0.733	1.000	0.858	0.502
PE	0.772	0.810	0.858	1.000	0.654
AIC	0.518	0.581	0.502	0.654	1.000

Figure 1 presents the results of the mediation model, highlighting the structural relationships among technological self-efficacy (SE), perceived ease of use (PE), perceived usefulness (PU), and concern for academic integrity (AIC), with social influence (SI) as the mediating variable. First, the technological variables exert positive and moderate effects on social influence, with PU having the most potent effect on SI (β = 0.40), followed by SE (β = 0.31) and PE (β = 0.21). This indicates that the greater the perceived usefulness, self-efficacy, and ease of use of ChatGPT, the greater the social environment's influence on how students interpret and legitimise its use. In turn, social influence shows a positive and substantial effect on concern for academic integrity (β = 0.53), confirming its central role as an explanatory mechanism in the model. Regarding the direct effects on academic integrity, a weak but positive effect of SE (β = 0.05) was identified, while PU showed a significant adverse direct effect (β = −0.92), suggesting that a greater perceived usefulness of ChatGPT is associated with less concern for academic integrity when social regulatory mechanisms are not involved. Furthermore, the correlations between the exogenous variables (SE–PE = 0.46; PE–PU = 0.51) reflect conceptually coherent relationships between the technological dimensions. Taken together, these results indicate that social influence plays a key mediating role, attenuating or reshaping the direct effects of technological perceptions on concern for academic integrity, and demonstrate that social dynamics are a decisive factor in understanding how university students interpret the ethical implications of using ChatGPT in academia.

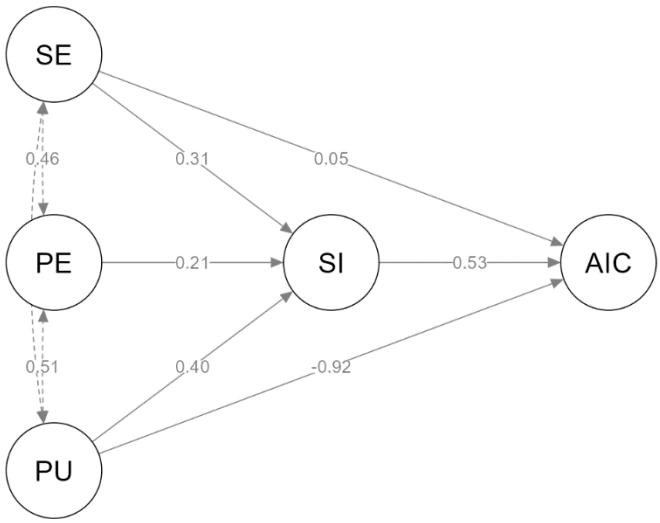

Figure 1 Results of the mediation model.

Table III presents the results of the mediating model, in which social influence (SI) is explained by three technological acceptance variables: perceived utility (PU), perceived ease of use (PE), and technological self-efficacy (SE). First, the ANOVA analysis shows that the model is statistically significant overall ($F = 492$; $p < .001$), confirming that the independent variables, considered simultaneously, robustly explain the variability of social influence associated with the use of ChatGPT in the university context.

The coefficient of determination ($R^2 = 0.851$) indicates that 85.1% of the variance in social influence is explained by perceived utility, perceived ease of use, and technological self-efficacy. This value reflects the model's high explanatory power, suggesting that how students functionally evaluate ChatGPT, perceive its ease of use, and trust their own technological skills is crucial for understanding how normative pressure, social legitimacy, and collective acceptance of this tool are configured in the academic environment.

Regarding individual effects, perceived usefulness (PU) has the largest and most significant positive effect on social influence ($\beta = 0.411$; $t = 5.98$; $p < .001$). This result indicates that the greater the perception that ChatGPT improves academic performance, the greater the tendency to validate and promote its use among peers and teachers socially. Secondly, technological self-efficacy (SE) also shows a significant positive effect ($\beta = 0.305$; $t = 5.87$; $p < .001$), suggesting that students who feel competent with AI technologies actively contribute to normalising and reinforcing their social acceptance. Finally, perceived ease of use (PE) exerts a significant positive effect, albeit of lesser magnitude ($\beta = 0.243$; $t = 3.14$; $p = .002$), indicating that ChatGPT's operational simplicity facilitates its social diffusion, though with a relatively minor impact than utility and self-efficacy.

TABLE III
MEDIATOR MODEL - DEPENDENT VARIABLE: SI

ANOVA				
R-squared	**F**	**df1**	**df2**	**p**
0.851	492	3.00	258	<.001

Regression									
Names	**Effect**	**Estimate**	**SE**	**Lower**	**Upper**	**β**	**df**	**t**	**p**
PU	PU	0.395	0.0661	0.2651	0.525	0.411	258	5.98	<.001
PE	PE	0.214	0.0682	0.0801	0.349	0.243	258	3.14	0.002
SE	SE	0.307	0.0524	0.2041	0.410	0.305	258	5.87	<.001

Table IV presents the results of the full model predicting concern for academic integrity (AIC). These results show a statistically significant overall fit ($R^2 = 0.585$; $F = 90.5$; $p < .001$), indicating that the set of independent variables and the mediating variable explain 58.5% of the variance in AIC. This value suggests a moderate-to-high explanatory capacity, making it suitable for psychosocial and educational models that analyse perceptions and attitudes toward emerging technologies.

Regarding the direct effects, social influence (SI) shows a positive and significant effect on concern for academic integrity ($\beta = 0.487$; $p < .001$), confirming that the norms, expectations, and pressures of the academic environment—peers and faculty—play a central role in shaping ethical awareness regarding the use of ChatGPT. This finding reinforces the relevance of shared social frameworks in regulating academic behaviour, beyond individual perceptions of technology.

Regarding technological variables, perceived usefulness (PU) has a significant adverse direct effect on AIC ($\beta = -0.870$; $p < .001$), indicating that the greater the perceived usefulness of ChatGPT, the lower the concern for academic integrity. This result suggests that when students perceive the tool primarily as a highly efficient resource for improving performance or saving time, they may downplay the ethical risks associated with its use, especially in the absence of clear regulatory frameworks. In contrast, perceived ease of use (PE) has a significant positive direct effect on AIC ($\beta = 1.036$; $p < .001$), implying that the tool's accessibility and simplicity increase awareness of the need for responsible use, possibly due to greater visibility of the risks of misuse when the system is easily manipulated.

Finally, technological self-efficacy (SE) did not show a significant direct effect on concern for academic integrity ($\beta = 0.048$; $p = .604$). This result suggests that individual confidence in one's technological capabilities, by itself, is not sufficient to explain ethical concerns about the use of ChatGPT, and that its influence is more strongly articulated through social mechanisms, as evidenced by the mediating roles of social influence and the academic normative context.

TABLE IV
FULL MODEL EFFECTS

ANOVA Table				
R-squared	**F**	**df1**	**df2**	**p**
0.585	90.5	4.00	257	<.001

Full model predicting AIC									
Names	**Effect**	**Estimate**	**SE**	**Lower**	**Upper**	**β**	**df**	**t**	**p**
SI	SI	0.5341	0.114	0.309	0.759	0.4870	257	4.673	<.001
PU	PU	-0.9177	0.129	-1.173	-0.663	-0.8698	257	-7.09	<.001
PE	PE	10.024	0.128	0.751	1.254	10.356	257	7.852	<.001
SE	SE	0.0532	0.102	-0.148	0.255	0.0481	257	0.519	0.604

The results presented in Table V allow for a comprehensive evaluation of the direct, indirect (mediation), and total effects hypotheses of the proposed model. First, the indirect effects corresponding to hypotheses H1 (PU ⇒ SI ⇒ AIC), H2 (PE ⇒ SI ⇒ AIC), and H3 (SE ⇒ SI ⇒ AIC) are not statistically significant, given that the 95% confidence intervals include zero and the significance levels are high ($p = 0.886$ in all three cases). These results indicate that social influence does not exert a significant mediating effect on the relationship between perceived usefulness, perceived ease of use, and technological self-efficacy, and concern for academic integrity. Consequently, the proposed mediation hypotheses are not empirically supported, suggesting that, while technological

variables influence the social perception of ChatGPT use, this mechanism does not translate into a relevant indirect effect on concern for academic integrity. However, the analysis of component effects shows differentiated results. The relationships PU ⇒ SI, PE ⇒ SI, and SE ⇒ SI are positive and statistically significant, with the effect of perceived ease of use on social influence being particularly noteworthy (β = 0.4934; p < .001), followed by technological self-efficacy (β = 0.2082; p < .001) and perceived usefulness (β = 0.2186; p = 0.002). These findings demonstrate that perceptions of ChatGPT's technological use significantly increase normative pressure, social legitimacy, and expectations within the academic environment. However, the SI ⇒ AIC relationship is not significant (p = 0.886), which explains the absence of mediating effects and suggests that social influence, on its own, neither directly increases nor decreases concern for academic integrity.

Regarding the direct effects, the results reveal clearly differentiated patterns. Hypothesis H4 (PU ⇒ AIC) is empirically supported, showing a statistically significant adverse effect (β = −0.4529; p < .001), indicating that a greater perceived usefulness of ChatGPT is associated with less concern for academic integrity, possibly due to the instrumental normalization of its use in academic tasks. Conversely, hypothesis H5 (PE ⇒ AIC) receives strong empirical support, demonstrating a significant positive effect (β = 0.9789; p < .001), suggesting that the easier ChatGPT is to use, the greater the concern about its ethical and academic implications. Finally, hypothesis H6 (SE ⇒ AIC) is not confirmed, as the effect of technological self-efficacy on concern for academic integrity does not reach statistical significance (p = 0.126). The analysis of total effects confirms these patterns, with the overall effects of PU ⇒ AIC (negative) and PE ⇒ AIC (positive) remaining significant, while the overall effect of SE ⇒ AIC continues to be non-significant. Taken together, these results allow us to conclude that concern for academic integrity in the use of ChatGPT is mainly explained by direct technological effects, rather than by social mediation mechanisms. This suggests that individual assessments of the tool's usefulness and ease of use play a more decisive role than social pressures or influences in shaping university students' ethical concerns.

TABLE V
HYPOTHESIS TESTING FOR DIRECT AND MEDIATING EFFECTS

				95% C.I. (a)				
	Effect	**Estimate**	**SE**	**Lower**	**Upper**	**β**	**z**	**p**
Indirect	**H1:** PU ⇒ SI ⇒ AIC	0.00271	0.0189	-0.0344	0.0398	0.0029	0.143	0.886
	H2: PE ⇒ SI ⇒ AIC	0.00642	0.0447	-0.0812	0.0940	0.0065	0.144	0.886
	H3: SE ⇒ SI ⇒ AIC	0.00309	0.0215	-0.0391	0.0453	0.0028	0.143	0.886
Component	PU ⇒ SI	0.18937	0.0613	0.0693	0.3095	0.2186	3.091	0.002
	SI ⇒ AIC	0.01433	0.0998	-0.1813	0.2099	0.0132	0.144	0.886
	PE ⇒ SI	0.44772	0.0779	0.2950	0.6005	0.4934	5.745	<.001
	SE ⇒ SI	0.21573	0.0631	0.0920	0.3394	0.2082	3.419	<.001
Direct	**H4:** PU ⇒ AIC	-0.42452	0.1008	-0.6220	-0.2270	-0.4529	-4.21	<.001
	H5: PE ⇒ AIC	0.96087	0.1336	0.6990	12.227	0.9789	7.192	<.001
	H6: SE ⇒ AIC	0.15929	0.1042	-0.0449	0.3635	0.1421	1.529	0.126
Total	PU ⇒ AIC	-0.42181	0.0992	-0.6162	-0.2274	-0.4500	-4.25	<.001
	PE ⇒ AIC	0.96729	0.1261	0.7200	12.145	0.9855	7.668	<.001
	SE ⇒ AIC	0.16239	0.1021	-0.0378	0.3626	0.1448	1.590	0.112

IV. DISCUSSION AND CONCLUSIONS

The results of this study suggest that concern for academic integrity (AIC) in the use of ChatGPT by university students is primarily shaped by individual technological perceptions, rather than by mechanisms of social regulation. In particular, perceived utility (PU) had a direct, significant adverse effect on AI, suggesting that as students value ChatGPT as an effective tool for improving their academic performance, they tend to normalise its instrumental use, thereby reducing the ethical issues associated with authorship and plagiarism. This finding is consistent with studies that warn that the functional benefits of artificial intelligence can displace ethical reflection when not accompanied by clear normative and educational frameworks [3, 4, 6].

In contrast, perceived ease of use (PE) had a significant, direct positive effect on concerns about academic integrity, suggesting that ChatGPT's accessibility, immediacy, and operational simplicity increase awareness of the ethical risks associated with its academic use. This finding aligns closely with the literature, indicating that the automatic and rapid generation of content can intensify fears of unintentional plagiarism and excessive cognitive delegation, especially in environments where artificial intelligence is not yet fully integrated into formal pedagogical practices [5, 7, 8]. In this sense, ease of use not only facilitates technological adoption but also triggers ethical reflections on the limits of the legitimate use of AIC in academia.

For its part, technological self-efficacy (SE) did not show a significant direct effect on ethical concern, suggesting that confidence in one's technological skills is not, in itself, a determining factor in ethical concern. This result supports the idea that technical competence does not necessarily guarantee responsible use of artificial intelligence, as research underscores that high self-efficacy can even reduce risk perception when it is not accompanied by explicit training in academic integrity and critical thinking [10, 20, 21]. Thus, ethical commitment to the use of ChatGPT depends less on technological mastery and more on the internalisation of academic and normative principles.

Furthermore, the study concludes that social influence (SI), while significant in explaining the acceptance and normalisation of ChatGPT use, does not mediate the relationship between technological variables (PU, PE, and SE) and concern for academic integrity. This finding calls into question the regulatory capacity of social pressures in contexts of generative artificial intelligence adoption. It suggests that the social legitimisation of these tools' use does not necessarily translate into greater ethical awareness, especially when institutional norms for their responsible use are neither clearly defined nor pedagogically reinforced [1, 5, 7].

Taken together, the study's conclusions reinforce the need for universities to move beyond purely normative or punitive approaches and advance toward comprehensive educational strategies for academic integrity, aimed at developing ethical and digital competencies in AI-mediated contexts. The

development of clear user guides, the explicit incorporation of ChatGPT into teaching and learning processes, and faculty training in the ethical use of AI emerge as key actions for balancing technological innovation and academic responsibility [6, 10]. In this way, the integration of artificial intelligence into higher education can be consolidated as a legitimate pedagogical resource, without compromising the fundamental principles of academic integrity.

Among the main limitations of the study is its cross-sectional design, which prevents establishing definitive causal relationships and limits interpretation to a specific point in time. Although the private university where the research was conducted has approximately 18,000 face-to-face students, the analyzed sample represents only part of this population, so the findings should be interpreted with caution. Moreover, the study was conducted at a single private institution in Peru, limiting institutional diversity and the generalisability of the results to public universities, other regions, or different educational systems. Finally, the use of self-reported data may introduce biases related to social desirability and students' subjective perceptions of ChatGPT use and academic integrity..

Regarding future work, longitudinal studies are recommended to examine the evolution of concerns about academic integrity as the use of artificial intelligence tools becomes more established in higher education. It would also be pertinent to expand the model by incorporating moderating variables, such as institutional culture, academic integrity policies, and ethics training, and to replicate the study in public universities and international contexts. Finally, integrating mixed approaches, including qualitative methods, could enrich understanding of the social and ethical dynamics underlying the use of artificial intelligence in academia.

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