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Examining AI Adoption in Academic Research and its Effects on Research Productivity and Academic Well Being: The Moderating Role of Cultural Attitudes toward AI in Academia

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Abstract

Academic scholarships are always changing as a result of the quest for pure ontological exploration in the minds of humans. Recently, the increasing integration of artificial intelligence into research, along with the resulting ramifications for both research productivity and researchers' academic well-being, has been expanding. This study analyses how AI adoption affects researchers' personal well-being and research efficiency, as well as the moderating effects of cultural viewpoints on AI use in academia. A quantitative approach with a cross-sectional research design was applied, and digital methods of data collection, like Google Forms, were utilised in data collection from 300 respondents, which consisted of post-doctoral researchers, Ph.D. and M.Phil. students across public and private universities of Pakistan. A regression modelling approach was applied to test the hypotheses. The study results revealed concrete evidence of a positive linkage between the use of AI tools, increased academic well-being and research productivity. However, varying Cultural perspectives in educational settings plays an important role to mitigate these associations, emphasizing the need for cultural context in successful integration of AI technology. The results highlight the necessity for suitable institutional policies as well as culturally appropriate responses to maximise the success of AI adoption in higher education.

Key Words

Artificial Intelligence (AI), Research Productivity, Academic Wellbeing, Cultural Perspectives

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Introduction

In the era of digital revolution, It is evident from the history of mankind that a few innovations like artificial intelligence (AI) have captured the social imagination and transformed the whole world. AI encompasses the use of computers to stimulate human learning, problem-solving and creativity (Stryker & Kavlakoglu, 2024). The

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consistent progress in AI is becoming visible and expanding to every field of life. Ranging from manufacturing to healthcare, machine learning and natural language processing are continuously booming. The integration of AI comes up with significant opportunities and obstacles as evidenced by recent academic articles. Tlili et al. (2023) conducted a case study consisting of a social network analysis of tweets, content analysis and user experiences to analyze concerns about the use of chatbot in education. The findings suggest that ChatGPT is a potent educational tool and needs to be regulated regarding its meaningful use in the classroom (Tlili et al., 2023). AI with its potential to transform every sector is well recognized but its increasing impact on academia is yet unclear.

The amalgamation of AI into academic practices has caused much excitement and hysteria among the public (Taecharungroj, 2023). AI systems may have the ability of automating daily academic research tasks like literature reviews, analyzing big datasets, and drafting scholarly articles ultimately resulting in the provision of more time for researchers for critical thinking. These apparent gains may save a lot of time but there is still a considerable vacuum in our understanding of the possible impacts of AI adoption on research productivity and academic well-being.

Artificial intelligence (AI) is changing the way researchers carry out research. Bahammam et al. (2023) posits that the tremendous application of AI raises serious questions about ethics, authenticity, and the integrity of research publications. Research scholars now a days have been under growing pressure and are increasingly expected to maintain, deliver and publish high-impact research publications. AI tools can lessen some of these constraints with the application of AI technologies. AI-powered systems may find hidden patterns in big datasets, propose novel research areas, and speed up the scanning process of literature reviews. Analytical capabilities of AI may foster interdisciplinary collaborations and reveal hitherto undiscovered academic linkages. The productivity of academic research is increased but its effects on academic well-being and accessibility within the academic realm are not fully discovered.

Researcher scholars often struggle to create a balance between the meticulous requirements of their job and the desire for a happy life (Chan, et al., 2022). It is imperative that academic researchers maintain this balance often referred to as 'work-life balance' in order to produce the high-quality research publication (Rony et al., 2023). AI and its careful adoption in academia has played its part in creating a work-life balance among researchers and helps in reducing burnout and increasing work efficiency. AI also opens up a variety of opportunities for those living in marginalized regions and provides fair access to research and tools. Instead, it also brings drawbacks such as algorithmic bias, uneven access to digital resources, and data privacy issues (Binns, 2022).

Cultural contexts notably shape individual perceptions, attitudes, and behaviors towards the acceptance of technology (Ma et al., 2024). A complete understanding of cultural context is necessary for making evaluations and the effectiveness of AI in academic research. These cultural variations remarkably impact the adoption of AI across various existing cultures in the world (Alamri, 2025). Those who are adaptable in terms of embracing technological change view it as an opportunity to thrive and others may be hesitant due to moral quandaries. According to Yam and Gray (2023) Collectivists as well as individualistics cultures both support AI as a tool to improve performance and efficiency. Cultural factors must be taken into account to fully understand the role of AI in the academic sphere.

The overwhelming expansion of AI integration into academics is on the rise with a fewer paid heed to the cultural factors. its effects are not uniform due to the subjective nature of cultural perceptions. These cultural perceptions play an important role interms of AI adoption and measuring its effectiveness. The present research study aims to add new insights to the corpus of literature by focusing on these cultural influences. The study finding will contribute to more culturally responsive approaches to AI adoption and its integration in academic research.

Literature Review and Theoretical Framework

Artificial Intelligence is revolutionizing academic studies by improving data collection, analysis, hypothesis formulation, and manuscript composition across various disciplines through machine learning and natural language

processing technologies (Alqahtani et al. 2023). Researchers may now concentrate more on critical thinking and in-depth theoretical analysis since artificial intelligence (AI) solutions, such as reference managers, plagiarism detection software, and data analytics platforms, are greatly reducing their administrative burden. The capacity of AI to analyze complex datasets is one noteworthy area. AI-driven systems have the ability to produce new discoveries and promote multidisciplinary study since they can find patterns and connections in data faster and more precisely than human researchers (Patel & Patel, 2024). Additionally, by automating monotonous tasks like data cleaning, text mining, and statistical analysis, artificial intelligence is reducing the time constraints faced by scholars and improving the general effectiveness and productivity of scholarly research (Gabsi, 2024).

Adopting AI in scholarly studies is not without its difficulties. Although artificial intelligence tools are used to help academic society with administrative and data-related activities, there is continuous discussion about the excessive reliance on these technological instruments. Some academics contend that researchers may become overly reliant on algorithmic recommendations; AI might reduce the human capacity to think (Kumar & Mishra, 2024). This change may unintentionally erode academic research's ingenuity and the loss of the "human touch" in the process. With these reservations, it is generally accepted that AI may increase research efficiency by analyzing large amounts of data in seconds of time (Kim & Li, 2025).

The influence of AI on research productivity has several distinct benefits. The adoption of AI has been shown to boost research productivity by automating tasks and providing researchers enough time to concentrate on more intellectually challenging pursuits. Smith and Javaid (2024), in their research, reveals that AI technologies in academic research increased productivity by 25%. Academic work can go on more rapidly due to AI's ability to swiftly evaluate and pick out drifts in data.

Pierre et al. (2023) point out that AI streamlines workflows and finds time for administrative duties and allows them to focus more on their studies.AI may have various advantages. It may also compromise researchers' analytical abilities and cognitive engagement ultimately results in loss of human capacity to independently generate ideas (Rodríguez-Rivera et al., 2025). The AI has raised concerns that it would deter academics from doing the fundamental intellectual labor necessary for innovation and scientific progress (Preston, 2021). AI's influence is ultimately advantageous for the long-term growth of research disciplines and further study is required to address this paradox.

AI in academic research has the potential to promote academic well-being (Qasmi & Fatima, 2024). Under-represented groups or researchers with low resources may find research more accessible. AI helps researchers who do not have the funds to access databases and pay support staff by automating tasks. AI can also help scholars broaden their reach and find gaps in the literature. Omodan (2024) posits that these endeavours will create a welcoming academic atmosphere. AI provides a platform to marginalized voices and viewpoints which may lead to more diversity in academic research and improved equality in the creation of knowledge (Williamson, 2025).

Cultural variations remarkably impact the ways in which new technologies are integrated and adopted. A study conducted across 10 European nations concludes that countries with high avoidance of technology viewed AI as a risk in respect of accountability. Cultural Dimensions Theory holds that cultures with lower tendencies to technology avoidance have a higher level of faith in technical developments. It is a clear indication of the importance of cultural factors in shaping public attitudes and choices towards AI technologies.

A cross-cultural study comparing two countries China and Germany was conducted by Brauner et al. (2024). The study revealed that individuals opinion towards technology is greatly influenced by cultural perceptions. The respondents from China held an optimistic perspective and emphasized for culturally appropriate AI systems while respondents from Germany's held a cautious perspective and highlighted risks and uncertainties.

The prime purpose of this study is to establish a link between technology and its adoption with a moderating role of cultural context in academic settings. The reasons which make this study important are manifold. At First, it tries to explore a possible link between AI adoption and measurable academic results such as increased research productivity and academic wellbeing. Secondly, the study considers the cultural factors which is the most neglected area in academic exploration in terms of AI integration. Consequently, The results can guide effective and inclusive AI integration strategies and also contribute to empirical evidence regarding the impact of cultural attitudes on the adoption of AI.

Theoretical Framework

Cultural Dimension Theory presented by Hofstede's (1980) serves as the foundation for this exploration. Cultural perspectives on technology adoption and its impacts on the use of artificial intelligence in academic research are explored in this study. Hofstede's approach reflects a prism through which to see how cultural variables like long-term orientation, uncertainty avoidance, and individuality vs collectivism might sway the adoption of AI systems in educational contexts. According to this approach, cultures with more open attitudes towards uncertainty may accept AI tools more readily. However, societies with high levels of uncertainty avoidance may show more opposition to AI adoption. Researchers from various cultural backgrounds may view AI as a tool for improving individual productivity rather than teamwork. The theory's individualism vs collectivism feature may better be explained. This framework serves as a key foundational step for examining the moderating role of cultural attitudes in AI adoption and its impact on academic research productivity and academic well-being.

Research Objectives

Following are the prime objectives of this study.

1. To what extent the use of AI impacts the output of academic research.
2. To evaluate how the use of AI affected academic community's well-being.
3. To examine how cultural perceptions of AI influence the association between academic production and AI adoption.

Research Questions

The study research questions are given below.

1. How does the use of AI affect academic research productivity?
2. What is the impact of AI adoption on academic well-being in academic research settings?
3. To what extent do cultural attitudes toward AI moderate the relationship between AI adoption and academic research productivity?

Hypothesis

The hypotheses provide a framework for testing your assumptions.

H_1: AI Adoption in academic research and cultural attitudes are significant predictors of research productivity and academic well being

Research Methodology

The quantitative methodology was employed to examine the impact of AI adoption on academic research productivity and academic well-being, concentrated on on the moderating role of cultural attitudes. A cross-sectional research design was used to collect data. The public and private universities of Punjab were selected using convenient sampling techniques. A total of 300 sample sizes were selected for this study. A survey method was used in which a structured questionnaire was distributed via Google Forms to a wide range of academic professionals, including Ph.D. scholars, M. Phil. Students and researchers collect the data from the respondents.

SPSS software was used to analyze the data to find the possible relationships among all the variables. A multilinear regression model was used to test the hypothesis.

Conceptualization and Operationalization of Variables

AI adoption in academic research is operationally defined as the extent to which researchers use artificial intelligence tools and applications—such as automated data analysis, AI-driven literature reviews, or machine learning models—in their academic work. Research productivity refers to academics' measurable academic output, such as the number of peer-reviewed articles, citations, and successful grant applications within a given timeframe, as documented in institutional or bibliometric databases. Academic well-being is described as researchers' total mental, emotional, and professional happiness, as measured by standardized survey instruments that include stress levels, work-life balance, and career fulfillment. The moderating variable, cultural attitudes toward AI in academia, is defined as the prevailing beliefs, values, and perceptions within academic environments about the appropriateness, reliability, and moral ramifications of AI use in research.

Data Analysis

Table 1

Demographic Characteristics of Respondents (N = 300)

Variable	Category	Frequency (n)
Gender	Male	179
	Female	120
	Other	1
Age Range (n=300)	18-30	138
	31-40	112
	41-50	31
	51-Above	19
Education Level	M.Phil.	223
	PhD	68
	Post-Doc	9
Academic Discipline	Social Sciences	134
	Humanities	65
	STEM	27
	Health Sciences	18
	Business & Economics	56
Educational Sector N=30	Public University	154
	Private University	146
University Name	University of Sargodha	87
	Punjab University	67
	University of Lahore	33
	Garrison University	27
	UMT Lahore	24
	LCW Lahore	18
	Superior University	25
	COMSATS University	19

The demographic data reveals a diverse participant group, with the gender distribution showing a higher number of male respondents (n=179) compared to females (n=120), and only one identifying as "Other." The total sample size of 300 indicates that the study aimed for inclusivity, though it leans male-heavy. The participants span a broad

age range, with the majority (138) falling within the 18–30 year bracket, followed by those aged 31–40 (112). Fewer respondents were in the 41–50 (31) and 51+ (19) categories. The average age is 39.15 years, with an estimated standard deviation of 2.8, indicating moderate age variability.

Regarding educational background, most participants held an M. Phil degree (n=213), followed by PhDs (n=68), and a smaller group with Post-Doctorate qualifications (n=19). This distribution suggests a well-educated sample, potentially reflecting the academic focus of the research. When looking at academic disciplines, Social Sciences dominate (n=134), with the Humanities (65) and STEM (27) trailing behind. Health Sciences (18) and "Others" (56) make up the remaining responses. This suggests the research might be centered on social or humanistic themes, as reflected by the larger representation of those fields.

The institutional affiliations reveal participants came from both public (n=154) and private universities (n=146), with only a slight lean towards public institutions. Among these, the University of Sargodha had the majority participants (n=87), ensued by Punjab University (67) and the University of Lahore (33). Other institutions like Garrison University, UMT Lahore, and Comsats University contributed smaller yet notable numbers. The spread across multiple universities indicates a reasonably broad academic representation, helping to magnify the reliability and generalizability of the study's findings within the academic community.

Table 2

Descriptive Statistics

	Mean	Std. Deviation	N
Research_Prod_Acad _Wellbeing	22.0833	3.40809	300
AI_Adoption_Acad_Research	20.4800	4.31412	300
Cultural_Attiutudes_to_AI_Adoption	23.4100	3.98768	300

Table 3

Correlations Analysis

		Research_ Prod_Acad_ Wellbeing	AI_Adoption_Acad _Research	Cultural_Attiutudes_t o_AI_Adoption
Pearson Correlation	Research_Prod_Acad_Wellbeing	1.000	.514	.647
	AI_Adoption_Acad_Research	.514	1.000	.522
	Cultural_Attiutudes_to_AI_ Adoption	.647	.522	1.000
Sig. (1-tailed)	Research_Prod_Acad_ Wellbeing	.	.000	.000
	AI_Adoption_Acad_Research	.000	.	.000
	Cultural_Attiutudes_to_AI_Adoption	.000	.000	.
N	Research_Prod_Acad_Wellbeing	300	300	300
	AI_Adoption_Acad_Research	300	300	300
	Cultural_Attiutudes_to_AI_Adoption	300	300	300

There is a strong positive association among Research Productivity & Academic Wellbeing, AI Adoption in Academic Research and Cultural Attitudes towards AI Adoption in the data from 300 respondents. It is significant that Cultural Attitudes to AI Adoption is strongly linked to Research Productivity and Academic Wellbeing ($r = 0.647$, $p < .001$) which means that cultures accepting of AI generally have increased research output and enjoy greater academic benefits.

AI Adoption in Academic Research is provided with a moderate connection to Research Productivity and Academic Wellbeing ($r = 0.514$, $p < .001$) and also to Cultural Attitudes to AI ($r = 0.522$, $p < .001$). The research suggests that positive attitudes in culture can lead to more integration of AI in scientific work which might improve educational results and benefit society as a whole.

Evidence against the null hypothesis is strong, because all correlations are statistically significant at the 0.001 level (1-tailed). It underlines the important role of connectivity between cultural, technological and academic aspects in developing research ecosystems. Such findings indicate that encouraging good cultural attitudes about AI helps increase its acceptance and benefits for society.

Table 4

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.679[a]	.461	.458	2.51003	.461	127.118	2	297	.000

a. Predictors: (Constant), Cultural_Attiutudes_to_AI_Adoption; AI_Adoption_Acad_Research

The model summary explains the connection between the independent variables and the dependent variable, Research Productivity and Academic Wellbeing. The value of R, which is 0.679, implies that a strong positive relationship exists between the explanatory variables and the outcome variable.

The R Square value of 0.461 means that almost 46.1% of the differences in Research Productivity and Academic Wellbeing are due to AI use in academia and cultural opinions on AI. With an Adjusted R Square of 0.458, the model is slightly corrected for the number of predictors and still proves the reliable result.

The regression model becomes more accurate as the standard error of the estimate (2.51003) becomes smaller; hence, a smaller value is preferable. The F-change value is 127.118 with df1 = 2 and df2 = 297, together with a p-value that's less than .001, ensures that the regression model is significant. In other words, all the different factors influence both the research stats and the wellbeing of communities.

Table 5

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1601.744	2	800.872	127.118	.000[b]
	Residual	1871.173	297	6.300		
	Total	3472.917	299			

a. Dependent Variable: Research_Prod_Academic_Wellbeing

b. Predictors: (Constant), Cultural_Attiutudes_to_AI_Adoption, AI_Adoption_Acad_Research

The ANOVA table further proves that AI Adoption in Academic Research and Cultural Attitudes toward AI affect Research Productivity and Academic Wellbeing. The regression sum of squares (SS) value is 1601.744 which means it shows the part of variation in the dependent variable explained by the model. This value shows that the variation not covered by the regression is 1871.173. Research Productivity and Academic Wellbeing changed a total of 3472.917 for each category which is made up of both the regression and residual values. As the regression has 2 df and the residuals 297 df, the mean square for regression is 800.872 and the mean square for residuals is 6.300. The F-statistic calculated is 127.118 and it is highly significant with a p-value less than .001.

Therefore, it is clear that the model fits the data suitably and that the collection of independent variables together reliably predicts the dependent variable. It is apparent that both Cultural Attitudes and AI in Academia provide important explanations for why research productivity and academic wellbeing change.

Table 6

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	7.750	.911		8.510	.000	5.958	9.542					
	AI_Adoption _Acad_Research	.191	.039	.242	4.852	.000	.114	.269	.514	.271	.207	.728	1.374
	Cultural_ Attiutudes_to_ AI_Adoption	.445	.043	.521	10.425	.000	.361	.529	.647	.518	.444	.728	1.374

a. Dependent Variable: Research_Prod_Academic_Wellbeing

The findings of a multiple linear regression analysis for Research Productivity and Academic Wellbeing from AI Adoption in Academic Research and Cultural Attitudes to AI Adoption are shown in the coefficients table. When the predictors are at zero, the constant (intercept) is 7.750, meaning this is the initial value for the dependent variable.

Data show that both predictors are significant according to statistics ($p < .001$). Cultural attitudes play a bigger role in adopting AI, since its B is 0.445 and standardised beta is 0.521. Using AI in academic work greatly predicts the outcome, as shown by a beta of 0.242 and B = 0. 191.The issue of multicollinearity is absent because the Tolerances (0.728) are more than 0.1 and the VIFs (1.374) are below 10.

Regression Equation

Research Productivity & Academic wellbeing is calculated as 7.750, plus 0.191 times the amount of AI used, plus 0.445 times the cultural attitude. It is believed that more culturally positive attitudes and AI adoption result in higher research outcomes and better academic wellbeing in society.

Table 7

Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	AI_Adoption_ Acad_Research	Cultural_ Attitudes_ to_AI_Adoption
1	1	2.965	1.000	.00	.00	.00
	2	.022	11.661	.42	.86	.03
	3	.013	14.874	.58	.14	.97

a. Dependent Variable: Research_Prod_Acad_Wellbeing

The collinearity diagnostics table is used to cheque for multicollinearity among the predictors. The Condition Index is below 30, with the biggest value at 14.874, meaning multicollinearity is not a serious issue. They provide information on the amount of variance that one can expect in the coefficients of each predictor at any point in the analysis. Dimension 3 has a high amount of shared variance for Cultural Attitudes to AI, but AI Adoption and the constant do not match this, so multicollinearity is only slight. In general, the factors are independent enough to be added to the regression model without affecting the outcome.

Discussion

The research analysed the effect of using AI in academic work and the community's attitude toward it on research performance and academic well-being. According to the regression model, both independent variables were positively correlated with the dependent variable and Cultural Attitudes toward AI Adoption proved to be more important ($\beta = 0.521$, $p < .001$) than AI Adoption in Academic Research ($\beta = 0.242$, $p < .001$). The research results reveal that the culture surrounding AI influences its impact as a tool for research output and overall benefits.

The R^2 value shows that around 46.1% of the variations in research productivity and academic wellbeing are explained by the two predictors. The strong explanatory power suggests that both technology and culture are connected in the process of integration. These outcomes reflect what recent studies have emphasised about the role of culture and society in the use of AI by organisations (Tran & Nguyen, 2021).

A strong connexion exists between positive cultural attitudes and research achievement, indicating that culture and attitudes toward innovation from a nation influence digital transformation. Zhang et al. (2024) that an open approach to AI from the culture leads to greater interest in AI by academics and more funds for AI projects, increasing research results. However, fewer technological advances and new ideas are likely in cultures that remain slow to accept automation and AI.

The lower beta value for AI Adoption in Academic Research shows that technology alone cannot ensure success; it also depends on the culture where it is put in place. The same idea was highlighted by Brauner et al. (2024) who pointed out that technological tools alone do not make work more productive unless there is proper guidance from institutions and an understanding of the culture.

With multicollinearity ruled out, it is clear that the model's prediction is valid because the predictors are not correlated. Because $F > 1.96$ and $p < .001$, the F-statistic also confirms that the model is significant.

The conclusions match what has been found in other studies exploring the connexions between technology use and academic culture in education. Sidhu et al. (2024) looked into how AI can boost research in higher education at Indian universities. The researchers discovered that putting culturally sensitive approaches in place with AI led to better research accomplishments than when AI was introduced alone.

Ahmad and Nabi (2021) noted that the use of AI tools alone was not sufficient to improve productivity; institutions that fostered trying out new ideas, teamwork across fields and talks about AI had better outcomes from their digital spending. The evidence further demonstrates that how people respond culturally to AI, rather than just its adoption, affects productivity the most.

By comparison, Molina and Santos-Ortega (2023) mentioned that in North America, key reasons behind using AI in research are mainly related to resources and economic conditions and not cultural ones. They pointed out that AI could guide research results on its own, recognising that a lack of cultural pushback was also a factor. Among developing countries like Pakistan, the way people view culture tends to have a clear and prominent role in influencing research practices.

Marin et al. (2024) applied a similar approach to public sector universities in South Asia and discovered that culture plays a pivotal role in magnifying the connections between having better digital infrastructure and performing well on research. The results of the study have a similar R^2 of 0.43, comparable to this study which proves the findings hold up in other contexts as well.

Chen et al. (2024) concluded in their study that the successful use of AI in research by Asia-Pacific universities is largely affected by the national culture of innovation, rules of the academic institutions and the digital ability of teachers. The authors stressed that managing innovation should consider cultural aspects which agrees with what we concluded. All things considered, comparative research suggests that supportive cultural practises are essential for AI to succeed. Although having the necessary infrastructure and technology is important, the success of AI research in academia also depends mostly on how people view, trust and work with AI culturally.

Conclusion

This study concludes that the use of Artificial Intelligence (AI) in academic research contributes positively to academic research. It improves research productivity and increasingly transforms the academic terrain through automating repetitive tasks. Despite countless benefits, ethical vigilance, research integrity and cultural receptiveness proved to have a greater impact. The success of digital transformation as study findings emphasizes that heavily depends on how it is perceived and embraced within the academic sphere. However, Culture that welcomes technological change, fosters creativity, enhance cooperation and adaptability is necessary for creating sustainable and long-lasting advances in research.

Recommendations for Further Research

The study has prompted the following suggestions:

1. Researchers must check AI outputs for bias and correctness for genuine academic contributions. Research quality, originality, and integrity should take precedence over publication numbers in academic evaluation systems.
2. Certain institutional rules and regulations with clearly defined repercussions are needed to address AI-related misconduct.
3. Academic institutions should promote AI as a complementary tool, not a substitute for human creativity. Laws could be created to make sure AI is applied in research to support critical thinking, creativity, and ethical reasoning rather than to replace it.
4. Higher education authorities are advised to draft comprehensive policies that have ethical rules, promote cultural sensitivity and ensure everyone has the training needed for the practical use of AI tools in research
5. The above research can be further carried out to delineate the gender impact, i.e. to see the impact of AI tools in research on different genders and do the variables discussed in the current research have a similar or different correlation/ impact across genders.

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