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AI among Academicians of Pakistan: as Catalyst in Reducing Burden or Enhancing Accountability

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ABSTRACT

In the recent times Artificial Intelligence is the most emerging technology which played a transformative role in higher education department which not only offering the opportunities but also act as a challenging factor for academicians. This study basically explores the dual characteristics of AI that at the same time AI has the capacity of reducing burden of the academicians but in parallel environment it also enhancing the burden for academicians in Pakistan. By utilizing this intelligent system into daily routine task of academicians, AI not only contributing in aligning daily tasks, optimizing resource management and also paving a way for decision making. At the same time its utilization raises a concern regarding the ethical accountability, transparency and academician's accountability framework. For this purpose, researcher opted Technology Acceptance Model and Socio-Technical System Theory will be opted as a theoretical framework. Under the umbrella of Qualitative approach, focus group method will be applied to this study. Academicians of Punjab both from public & private sector will be selected, and the findings of this study will contribute in decision making guidelines or in policy making development for academician strategies that helps in bringing balance between the ethical consideration, efficiency and also fostering the integrity dimensions of academia.

Keywords: Artificial Intelligence, Academia.

INTRODUCTION

From the past few years academia industry also face a phase of transition and it especially happens after the pandemic of COVID, where for the sustainability of academia relies on the availability and affordance of different technology such as videoconferencing, sharing capacity which are embedded in platform such as LMS/VLE and other platforms such as MS team. Google meet which makes possible the continuity of work during pandemic. It is also the case that digital tools and platforms opened up academic practice and access to people who had been chronically under-served in universities, including racially minoritized people, people with disabilities, first generation students, the economically vulnerable, and people with caring responsibilities (McLay Paterson and Eva 2022). The Artificial Intelligence (AI) system allows their users to generate content, images and many others such such content on which basically they trained but the raising trend of AI also puts an impact on academia so, it raises concerns for academicians



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regarding their usage and their impact on integrity.

In many academic quarters, concerns on academic integrity have been raised (Stokel-Walker, 2022). As the AI tools emerges it played a quite crucial role in academia at the same time it contributing in playing different tasks for academicians such as text summarization, questioning answering, finding a relevant research topic, designing course outlines and many more. On the other hand, at the same time AI raises concerns regarding the accountability among the academicians that whether while utilizing this technology they meet or cope with the ethical standards. According to the International Centre for Academic Integrity (2021), academic integrity is defined as a commitment to six fundamental values: honesty, trust, fairness, respect, responsibility and courage. As when there is an open access of AI to all the users and their different apps such as Chat GPT, anyone can utilize it freely at their own flexibility for multiple purposes and for multiple interactions so, copying the work, relying only that source for research can raise question on the integrity of the academicians. So, we can say that AI at the same time bring a source of excitement or can generate an alarming situation for academicians that's why we can't label AI as a good or bad technology, but we must say that it changes the ontology and epistemology of academia.

Eventually at the end it is very crucial to encounter the dual role of AI that whether it helps academicians in reducing their responsibility or whether the academicians meet the credible ethical standards while utilizing this technology.

Literature Review

To briefly evaluate the picture that in current era how the Artificial Intelligence impact the domain of academia, for this purpose researcher go through the literature review and the findings of some studies are as:

In the article Chat GPT and rise of generative AI: Threat to academia Integrity, researcher first of all broadly explain the concept of Chat GPT and their earlier models, but in this article major focus of the study is that whether this system is creating an opportunity or posing threats. The article also highlighted that what are the basic principles of an academia and how this system or software can contribute in enhancing the strengths for academia but at the same time it also can pose threats so, balanced approach regarding opting this software can also be opted. The basic strength of this article is that it calls the policy makers that how a balance approach could be opted. But this article seems more like a commentary based and less focus on empirical evidences, and also when discusses about the threats in academia due to AI it over generalizes the concept of threat. Moreover, the concentration is more about the academic integrity due to usage of AI system but less focus is on that what the ethical standards should be while opting AI system in academia.

In the article of Generative AI and automation of Academia explores the most relevant current topic that how the different system of AI intervening in the domain of academia in UK scenario. For this purpose, researcher conducted quantitative research and collected data from 428 participants through survey regarding the usage of generative AI technology for the performing of their duties as an academician and for theoretical lens and for interpretations of findings researcher take a support from Bourdieu's *Homo Academicus*, audit culture (Shore & Wright). Researcher concluded from its findings that the adoption of AI technologies in academia enhances the instability and it also provided a path of escape to academicians and the researcher also claim that it could be beneficial if we being an academicians utilizes it with a balance approach.

Theoretical Framework

The study is guided by two theoretical frameworks:

The Technology Acceptance Model (TAM), developed by Fred Davis, explains how



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individuals accept and use new technologies. According to TAM, two major factors influence technology adoption:

- Perceived Usefulness
- Perceived Ease of Use

Socio-Technical System Theory

The Socio-Technical System Theory explains the interaction between technology, individuals, and organizational structures. This theory is relevant because AI integration in higher education affects institutional culture, accountability mechanisms, ethical standards, and professional relationships.

Theoretical Framework of the Study

Theory	Main Focus	Relevance to Study
Technology Acceptance Model (TAM)	Acceptance and adoption of technology	Explains how academicians perceive AI usefulness and ease of use
Socio-Technical System Theory	Interaction between social and technical systems	Explains impact of AI on institutional culture, accountability, and ethics

Research Methodology

This chapter explains the methodological framework adopted for the study titled “*Artificial Intelligence among Academicians of Pakistan: A Catalyst in Reducing Burden or Enhancing Accountability.*” The study investigates the perceptions, experiences, and attitudes of academicians regarding the integration of Artificial Intelligence (AI) in higher education institutions. Since the research aims to explore subjective experiences and interpretations, the study is grounded in the interpretivist paradigm, which focuses on understanding social realities through participants’ viewpoints and lived experiences.

A qualitative research approach was adopted because it provides an in-depth understanding of participants’ opinions, experiences, and perceptions regarding AI usage in academia. The study follows an exploratory research design, as the phenomenon of AI integration among academicians in Pakistan is relatively new and requires detailed exploration. Focus Group Discussions (FGDs) were selected as the primary data collection method because they allow interactive discussion and generate rich qualitative insights regarding the benefits and challenges associated with AI in higher education.

The population of the study consists of academicians working in public and private universities of Punjab, Pakistan. Participants include lecturers, assistant professors, associate professors, and professors involved in teaching, research, and administrative responsibilities. To ensure the relevance of responses, purposive sampling was used for participant selection. Participants were selected based on their experience with AI technologies and their active involvement in academic activities. The study also employed maximum variation sampling to include participants from different academic ranks and institutional backgrounds.

The research plans to conduct four to six focus group discussions, with each group comprising six to eight participants. Additional discussions may be conducted if required to achieve data saturation. A semi-structured discussion guide was developed based on the research objectives, literature review, and theoretical framework. The discussion areas include AI adoption in academia, reduction of academic workload, accountability and monitoring, ethical concerns, and institutional recommendations regarding AI usage.

The collected data will be analyzed through thematic analysis following the framework proposed by Virginia Braun and Victoria Clarke. The analysis process includes familiarization with the data, coding, theme generation, reviewing themes, defining



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themes, and report writing. This method is appropriate for identifying recurring patterns and interpreting participants' experiences in a systematic manner.

To ensure the trustworthiness of the study, the researcher will maintain credibility, transferability, dependability, and confirmability throughout the research process. Detailed focus group discussions, contextual descriptions, proper documentation, and efforts to minimize researcher bias will be employed to enhance the rigor of the study.

Ethical considerations will also be strictly observed. Participants will be informed about the purpose of the study before participation, and informed consent will be obtained. Participation will remain voluntary, and participants will have the right to withdraw at any stage of the research. Confidentiality and anonymity will be maintained, while all recordings and transcripts will be securely stored to protect participants' information.

Data Analysis and Interpretation

This chapter presents the analysis and interpretation of data collected through Focus Group Discussions (FGDs) conducted with academicians from public and private universities in Punjab, Pakistan. The purpose of the analysis is to explore the perceptions, experiences, and opinions of academicians regarding the role of Artificial Intelligence (AI) in reducing academic burden while simultaneously enhancing accountability within higher education institutions.

The collected qualitative data was analyzed using thematic analysis following the framework proposed by Virginia Braun and Victoria Clarke. During the analysis process, responses from participants were transcribed, coded, categorized, and interpreted into broader themes and sub-themes.

The findings indicate that academicians perceive AI as both a supportive technological assistant and a challenging accountability mechanism. While participants acknowledged AI's role in improving efficiency, productivity, and time management, they also expressed concerns regarding ethical issues, academic integrity, overdependence, transparency, and institutional pressure.

The study included academicians from both public and private universities in Punjab, Pakistan. Participants belonged to different academic ranks and disciplines to ensure diversity of perspectives.

Demographic Profile of Participants

Category	Description
Total Focus Groups	4
Total Participants	28
Sector Representation	Public and Private Universities
Academic Positions	Lecturer, Assistant Professor, Associate Professor, Professor
Gender Representation	Male and Female
Professional Areas	Teaching, Research, Administration

Major Themes Generated from Data

Thematic analysis generated six major themes:

Major Themes and Sub-Themes

Major Themes	Sub-Themes
AI as an Academic Assistant	Time saving, automation, efficiency
Reduction of Academic Burden	Research support, administrative facilitation
AI and Productivity Enhancement	Faster content generation, academic management
Accountability and Monitoring	Performance pressure, institutional expectations



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Major Themes	Sub-Themes
Ethical and Academic Integrity Concerns	Plagiarism, authenticity, dependency
Need for Institutional Policies	Training, ethical guidelines, AI regulation

Theme 1: AI as an Academic Assistant

One of the most dominant themes emerging from the discussions was the perception of AI as a supportive academic assistant. Most participants acknowledged that AI tools such as ChatGPT, Grammarly, and automated research applications significantly facilitated their academic responsibilities.

Participants explained that AI helps in:

- preparing lecture outlines,
- generating research ideas,
- improving language quality,
- organizing administrative work,
- saving time in routine academic tasks.

Many academicians viewed AI as a technological companion that improves academic efficiency.

“AI helps us prepare lecture materials within minutes which previously required several hours.”

“For research purposes, AI provides quick summaries and brainstorming ideas which reduce mental burden.”

“Administrative tasks such as email drafting and report formatting have become easier due to AI tools.”

The findings indicate that academicians generally perceive AI as a beneficial support system that assists them in managing increasing academic responsibilities.

Theme 2: Reduction of Academic Burden

Participants strongly emphasized that AI reduces professional workload and improves time management. Many academicians explained that universities demand multitasking, including teaching, research, publication, supervision, and administrative duties. In such circumstances, AI acts as a burden-reducing mechanism.

Areas Where AI Reduces Academic Burden

Academic Area AI Contribution	
Teaching	Lecture preparation and content organization
Research	Literature summaries and idea generation
Administration	Email writing and report drafting
Assessment	Rubric development and feedback assistance
Communication	Faster professional correspondence

Participants particularly highlighted AI’s usefulness in research writing and administrative communication.

“AI reduces repetitive work and allows us to focus more on creativity and student engagement.”

“Research workload has become manageable because AI helps organize ideas quickly.”

“It is almost impossible to manage multiple responsibilities without technological assistance nowadays.”

The findings reveal that AI is largely perceived as an efficiency-enhancing tool that minimizes routine workload pressures within academia.



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Theme 3: AI and Productivity Enhancement

Another important theme identified during analysis was productivity enhancement. Participants stated that AI accelerates academic tasks and improves work efficiency.

Academicians reported that AI contributes to:

- faster completion of tasks,
- improved academic planning,
- increased publication productivity,
- enhanced communication management,
- better academic organization.

Perceived Productivity Benefits of AI

Productivity Dimension	Participant Perception
Time Management	Improved
Research Productivity	Increased
Communication Speed	Faster
Task Completion	More Efficient
Academic Planning	Better Organized

Participants from private universities particularly emphasized that AI helps meet institutional performance expectations and deadlines.

“AI allows us to complete tasks in less time which increases overall productivity.”

“The pressure of publishing research papers becomes manageable with AI support.”

However, some participants warned that excessive reliance on AI might negatively impact critical thinking and originality.

Theme 4: Accountability and Monitoring

Despite acknowledging AI’s benefits, participants also expressed concerns regarding increasing accountability and monitoring mechanisms associated with AI integration.

Participants believed that institutions now expect:

- faster performance,
- immediate responses,
- increased productivity,
- continuous availability,
- higher publication output.

Many academicians argued that AI has indirectly increased institutional expectations and professional pressure.

Accountability Concerns Identified by Participants

Concern Area	Participant Concern
Institutional Pressure	Increased work expectations
Monitoring Systems	Greater performance tracking
Publication Pressure	Increased research demands
Response Time	Expectation of immediate work
Professional Competition	Higher productivity comparison

“Because AI makes work faster, universities expect us to produce more in less time.”

“Technology has increased accountability because institutions can now monitor productivity more closely.”



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“AI is reducing burden but simultaneously increasing pressure to perform continuously.”

The findings demonstrate that AI functions both as a facilitating tool and as an indirect accountability mechanism within higher education institutions.

Theme 5: Ethical and Academic Integrity Concerns

Ethical concerns emerged as one of the most critical themes in the discussions. Participants expressed concerns regarding:

- plagiarism,
- authenticity of academic work,
- overdependence on AI,
- reduced critical thinking,
- misuse of AI-generated content.

Many academicians feared that excessive reliance on AI could compromise academic integrity and originality.

Ethical Concerns Regarding AI Usage

Ethical Issue	Description
Plagiarism	AI-generated content misuse
Dependency	Overreliance on AI tools
Authenticity	Reduced originality in academic work
Transparency	Lack of disclosure of AI usage
Critical Thinking Decline	Decline in analytical abilities

“Students and even teachers may become overdependent on AI-generated material.”

“The line between assistance and plagiarism is becoming unclear.”

“AI should support human intelligence, not replace originality.”

The findings reveal that while AI improves efficiency, it simultaneously raises serious ethical and integrity-related concerns in higher education.

Theme 6: Need for Institutional Policies and Training

Participants emphasized the urgent need for institutional policies, ethical guidelines, and professional training regarding AI usage in academia.

Most participants believed that universities should:

- develop AI policies,
- provide faculty training,
- establish ethical frameworks,
- regulate AI integration,
- promote responsible AI usage.

Suggested Institutional Measures

Suggested Measure	Purpose
AI Usage Policies	Ethical regulation
Faculty Training Programs	Skill development
AI Guidelines	Responsible usage
Monitoring Mechanisms	Academic integrity protection
Awareness Sessions	Ethical understanding

“Universities should clearly define acceptable and unacceptable AI practices.”

“Faculty members need proper training regarding ethical AI use.”

“Without policies, AI misuse can become a serious issue in academia.”



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The findings suggest that institutional support and ethical governance are essential for balancing AI efficiency with academic integrity.

Findings

The findings of the study demonstrate that AI has transformed academic practices within higher education institutions in Pakistan. Participants largely perceived AI as an efficient academic assistant that reduces workload, enhances productivity, and facilitates academic management.

The findings align with the Technology Acceptance Model (TAM), which suggests that individuals adopt technology when they perceive it as useful and easy to use. Most academicians acknowledged AI's usefulness in improving efficiency and reducing workload.

At the same time, the findings also support the Socio-Technical System Theory by illustrating how AI influences organizational culture, accountability systems, ethical practices, and institutional expectations. AI not only affects technical work processes but also reshapes professional relationships and performance structures within academia.

The study further reveals a paradoxical relationship where AI simultaneously reduces burden while increasing accountability pressures and ethical concerns. This dual nature of AI represents one of the most significant findings of the study.

Conclusion and Recommendations

Artificial Intelligence (AI) has emerged as one of the most transformative technologies within the higher education sector across the world, including Pakistan. The present study titled "*Artificial Intelligence among Academicians of Pakistan: A Catalyst in Reducing Burden or Enhancing Accountability*" explored the perceptions, experiences, and concerns of academicians regarding AI integration in higher education institutions. The study specifically investigated whether AI functions as a supportive mechanism for reducing academic workload or whether it simultaneously increases accountability, ethical pressure, and institutional expectations among academicians.

Using a qualitative research approach and Focus Group Discussions (FGDs), the study generated in-depth insights from academicians working in public and private universities of Punjab, Pakistan. The findings revealed that AI has significantly reshaped academic practices by improving efficiency, productivity, and time management in teaching, research, and administrative tasks. Most participants perceived AI as a valuable academic assistant that facilitates lecture preparation, research support, communication management, and routine administrative work.

The findings further demonstrated that AI reduces professional burden by automating repetitive academic tasks and enabling academicians to manage multiple responsibilities more effectively. Participants acknowledged that AI contributes positively to faster content generation, improved organization of academic activities, and increased research productivity. In an environment where academicians are expected to perform teaching, research, supervision, and administrative duties simultaneously, AI was viewed as a supportive technological solution that helps manage increasing workload pressures.

However, despite these positive contributions, the study also revealed the complex and paradoxical nature of AI integration within higher education institutions. While AI reduces workload, it also enhances accountability and institutional expectations. Participants expressed concerns that universities increasingly expect higher productivity, faster responses, continuous availability, and improved performance because AI tools make work completion easier and quicker. Consequently, AI has indirectly intensified professional pressure and monitoring mechanisms within academia.

Another major finding of the study relates to ethical and academic integrity



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concerns. Participants highlighted issues such as plagiarism, overdependence on AI-generated content, reduced originality, and declining critical thinking abilities. Many academicians emphasized that although AI can assist academic work, excessive reliance on such technologies may compromise the authenticity and integrity of higher education practices. The findings suggest that the boundary between technological assistance and unethical academic behavior is becoming increasingly blurred.

The study also identified the urgent need for institutional policies, ethical guidelines, and professional training regarding AI usage in higher education. Participants strongly recommended that universities develop clear frameworks for responsible AI integration, provide faculty training programs, and establish ethical standards to regulate the use of AI technologies within academic environments.

The findings of the study support the assumptions of the Technology Acceptance Model (TAM), which explains that individuals adopt technologies they perceive as useful and easy to use. Similarly, the findings align with the Socio-Technical System Theory, which highlights the interaction between technology, individuals, and institutional systems. The study demonstrated that AI not only affects technical efficiency but also transforms organizational culture, accountability structures, and ethical dimensions within academia.

Overall, the study concludes that AI serves a dual role in higher education institutions of Pakistan. On one hand, it acts as a catalyst for reducing academic burden, improving efficiency, and enhancing productivity. On the other hand, it simultaneously increases accountability pressures, ethical concerns, and institutional expectations among academicians. Therefore, the future of AI integration in academia depends upon achieving a balanced approach that promotes technological innovation while safeguarding academic integrity, ethical values, and professional autonomy.

Based on the findings of the study, the following recommendations are proposed:

Recommendation Area	Suggested Action
Institutional AI Policies	Universities should develop clear AI usage policies and ethical frameworks.
Faculty Training Programs	Regular workshops and training sessions should be arranged for academicians regarding responsible AI usage.
Ethical Guidelines	Institutions should establish ethical boundaries for AI-assisted academic work.
Academic Integrity Measures	Universities should strengthen plagiarism and originality monitoring systems.
Balanced AI Integration	AI should be used as a supportive tool rather than a replacement for human intellectual effort.
Awareness Campaigns	Awareness programs should be conducted regarding ethical and productive AI practices.
Research Development	Further studies should explore AI impact on students, administration, and academic performance.

Future Research Directions

The present study focused specifically on academicians working in public and private universities of Punjab, Pakistan. Future researchers may:

- conduct comparative studies between provinces,
- examine students' perceptions regarding AI usage,



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- apply quantitative or mixed-method approaches,
- explore AI's impact on academic performance and learning outcomes,
- investigate policy implementation regarding AI governance in higher education institutions.

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