Students' Perspectives of AI and Academic Integrity in Higher Education Institutions in Oman

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Abstract—The rapid adoption of generative artificial intelligence (AI) in higher education offers significant learning benefits while raising serious concerns about academic integrity. This study was conducted to examine undergraduate students' perspectives and their awareness, attitudes, usage behaviors, perceived educational impact, policy awareness, and intentions to misuse AI tools in academic contexts in Oman. Using a cross-sectional survey design, data were collected from 200 undergraduate students across multiple academic levels. The survey measured six constructs using Likert-scale items, and data were analyzed using descriptive statistics, correlation analysis, group comparisons, and hierarchical multiple regression. Results indicated that students demonstrated moderate to high awareness of AI tools and generally positive attitudes toward their use for learning-related tasks such as grammar checking, summarization, and brainstorming. Correlation analysis showed that AI awareness, perceived educational impact, and policy awareness were significantly and negatively associated with intentions to misuse AI. Hierarchical multiple regression revealed that ethics-related variables, specifically perceived impact and policy awareness, explained substantial additional variance in misuse intentions beyond baseline predictors of awareness, attitudes, and usage frequency. Gender differences were observed, with male students reporting higher intentions to misuse AI, while senior students demonstrated higher awareness and policy understanding than early-year students. The findings highlight the critical role of AI literacy, ethical awareness, and clear institutional policies in mitigating unethical AI use. Integrating AI ethics education early in undergraduate curricula and strengthening communication of academic integrity policies may promote responsible AI engagement. These results contribute empirical evidence from the Middle Eastern context and offer practical implications for higher education institutions.

Keywords—Artificial intelligence; academic integrity; student perspectives; ethical AI use; policy awareness

I. INTRODUCTION

Artificial intelligence (AI) has recently gained an important role in shaping higher education institutions, providing innovative and useful tools for the teaching/learning process and academic support for both students and instructors. The use of Generative AI tools and applications, such as ChatGPT, Google Gemini, and Grammarly, has become widely used and accessible, offering opportunities to improve brainstorming, writing, and problem-solving skills. On the other hand, while these applications and tools can enhance efficiency and support learning, they raised some concerns related to academic integrity, especially when these tools are used without proper acknowledgment [1] [2].

Students are one of the major pillars of the teaching/learning process. Their awareness, perceptions, and behavior toward AI play a critical role in determining whether AI tools are used wisely and responsibly or misused in any way that compromises ethical standards and academic integrity. Recent studies suggested that training in AI literacy and students' awareness are associated with more ethical and responsible use, however institutional policies or the ethical implications of AI-assisted academic works are still not clear for many students [3] [4] [5].

The Sultanate of Oman is experiencing a rapid national digital transformation that has accelerated the need for integration of artificial intelligence across the higher education sector in compliance with Oman Vision 2040. And despite the increased and growing attention about the use of AI in higher education, empirical research in the Middle East region, specifically Oman, remains limited, leading to a gap in understanding the students' perspective and how they perceive and interact with AI applications in relation to academic integrity. This study utilized the Omani context to examine the redefinition of traditional academic integrity values in society's transition towards the digital era. Understanding students' perception is essential for the effective development of polices, educational strategies, and interventions, which promote both making use of the educational benefits of AI tools and maintaining an acceptable level of academic integrity. In this context, this study aims to explore students' perspectives on artificial intelligence and academic integrity in higher education institutions in Oman, including students' awareness, attitudes, usage patterns, ethical considerations, and understanding of related institutional polices. By studying and investigating these factors and dimensions, this research seeks to provide insightful and actionable information for educators, policymakers, and institutions to promote and foster responsible use of AI among students.

II. ARTIFICIAL INTELLIGENCE IN HIGHER EDUCATION

It is a fact now that AI has been transforming the higher education sector rapidly, providing promising innovative tools for Teaching/Learning, assessment, and academic support. Many of such tools, like Google Gemini, ChatGPT, and Grammarly, have thus turned out to be widely adopted and increasingly integrated into the academic process, facilitating the generation of ideas, writing, and problem solving [1], [2], offering opportunities to improve the process of teaching/learning but simultaneously raising a challenge in maintaining and ensuring academic integrity [6]. As a result, AI has become an integral component in the daily academic routine

of students, enhancing their productivity and helping them tackle heavy workloads.

Ease of use and growing accessibility of AI have been contributing factors to an unexpected shift in learning expectations and behavior. AI is increasingly viewed by students as their personal and personalized learning assistant, capable of offering instant and real-time academic support that reduces learning barriers related to language proficiency, enabling self-learning. For example, the use of AI writing tools has been shown to improve clarity, coherence, and grammatical accuracy in students' writing significantly, supporting non-native speakers in particular [7]. Generating examples, language, and academic concepts in simple and clear language, and assisting with brainstorming AI abilities, enhanced students' academic engagement and confidence.

Despite all the benefits mentioned above, students' understanding and awareness of AI technologies are still inconsistent. While many students report that they have general familiarity with AI tools, the conceptual understanding of how AI works (Limitations, biases, ethical implications, and appropriate usage) widely varies among them [3], [4]. Previous studies argue that students who received proper training and guidance demonstrated higher levels of AI literacy, associated strongly with more ethical and responsible usage [8]. On the other hand, students with informal and limited exposure to AI may overestimate its capabilities or misuse it due to a misunderstanding about what the acceptable academic assistance of AI is, posing and creating challenges for striving institutions to promote informed and ethical integration of AI within the academic environment.

Students' attitudes towards using AI in higher education tend to be broadly positive, reflecting enthusiasm about academic support and efficiencies that AI offers. Perceived usefulness, ease of use, and the belief that AI technologies reduce academic pressure, helping students organize their ideas and produce well-structured academic work [9] [10] [11] [6] [12] [13] [7]. In particular, undergraduate students often express their appreciation for AI's capability to assist them in language, summarization, and fundamental writing skills, support areas where they feel insufficiently prepared. However, positive attitudes are often accompanied by uncertainty or concern regarding more complicated issues such as authenticity, originality and academic dependency. On the other hand, some students are concerned that the excessive reliance on AI may subvert their learning or reduce their critical thinking abilities, while others express some concerns about the fairness of AI use in an assessment context, where rules and expectations widely vary across instructors or courses [14].

Students' patterns of using AI highlight the complexity of integrating AI within the academic process. Research indicated that most of the students responsibly use AI as a supporting and supplementary tool for enhancing their learning (Grammarly, refining ideas, gaining more clarity on difficult concepts) [15]. However, a significant minority of the students reported that they use an AI tool to generate full essays, solve assignments, or perform some tasks that they present as their own work. This raises some concerns about honesty, especially when it happens without declaration or reflection on ethical boundaries. Misuse

motivations are diverse, ranging from academic pressure, confidence issues, and institutional policies, and are mostly higher among undergraduate students in the early stages, who may lack the necessary academic skills.

III. METHODS

This research used a cross-sectional survey method to collect students' perspectives on artificial intelligence (AI) and academic integrity in higher education [16]. Six constructs (factors) were included in the survey: Awareness, Attitudes, Usage, Perceived Impact, Intention to Misuse, and Policy Awareness. The survey included 29 items based on a 5-point Likert scale. Some demographic data (Major, Age, Level of Study, Prior AI Training) were also collected. After that, a validity and reliability test was conducted, the survey was sent for three reviewers to check its face and content validity, a total of 200 undergraduate students participated in the survey, and they were distributed across different levels (Foundation, Year1, year 2, Year 3, Year 4 and year 5) from two different higher educational institutions in Oman.

The participants completed the survey online via Google Forms, which provides a secure and user-friendly platform for data collection. Before responding to the survey, students were presented with a bilingual consent form detailing the study purpose, confidentiality, voluntary participation and the right to withdraw at any time. All responses were automatically anonymized.

Collected data was analyzed using both descriptive and inferential statistics. Descriptive statistics summarized students' responses across all constructs, frequencies including means, standard deviations, and percentages. Cronbach's alpha coefficients were used to evaluate internal consistency of each construct, with $\alpha \geq 0.70$ as acceptance criteria. To ensure the validity of constructs, Exploratory factor analysis (EFA) was conducted to confirm that all survey items appropriately load onto their intended constructs; items that do not satisfy factor loading thresholds (≥ 0.40) may be removed or revised.

For inferential analysis, to examine the relationship between key constructs (Awareness, Attitude, and Self-reported AI usage), Pearson correlation was conducted. An independent sample t-test was conducted to evaluate group differences across demographics. Additionally, Hierarchical multiple regression (HMR) was performed to evaluate the incremental predictive power of ethics-related constructs (perceived impact and policy awareness) on students' intention to misuse AI. HMR allows for theoretically driven sequential testing of predictors and assessment of their impact on the outcome variable. This sequential approach allows for a more detailed understanding of academic integrity by isolating policy awareness (knowing the rules), providing a significant statistical increase while controlling for the general technological proficiency of students. Therefore, this approach provides a deeper look at the psychological and institutional factors that actually deter misuse, which primary correlation analysis cannot distinguish. Also, one-way ANOVA was conducted to test the differences across academic levels, and independent-sample t-tests were used to examine gender differences; all analysis tests were conducted under a significant level of p<0.05.

IV. RESULTS

A total of 200 students participated in this study, from different undergraduate levels, Foundation (7%), Year 1 (20.5%), Year 2 (22%), Year 3 (11.5%), Year 4 (22.5%), and Year 5 (16.5%), approximately 36.5% were female and 63.5% male.

Mean and standard deviations for the constructs are shown in Table I. The results indicated a moderate to high awareness of AI tools (M =4.1, SD= 0.6) and positive attitudes toward AI use as a learning aid (M=3.8, SD=0.7). The Behavior & Usage constructs indicated that most of the students use AI tools for summarizing readings, brainstorming, and grammar checking, while not too many admitted the use of AI tools in drafting assignments without disclosure.

TABLE I. DESCRIPTIVE STATISTICS OF SURVEY CONSTRUCTS

Construct	Mean (M)	SD	Cronbach's α
Awareness & Knowledge	4.10	0.60	0.82
Attitudes & Beliefs	3.80	0.70	0.78
Usage & Behaviors	3.45	0.75	0.81
Perceived Impact on Learning	3.70	0.68	0.79
Intent to Misuse / Academic Dishonesty	2.60	0.85	0.72
Policy Awareness & Perceived Enforcement	3.20	0.80	0.77

Internal consistency across all constructs scored an acceptable level (Cronbach's ranging from 0.72 to 0.88), while the survey item loading onto their intended constructs was confirmed using Exploratory factor Analysis (EFA). Pearson correlations indicated that more responsible AI usage is significantly associated with higher awareness ($r = 0.52$, $p< 0.001$), and early years students reported higher AI usage than senior students (Year 3 and more) (F= 5.42, P= 0.005).

A. Hierarchical Multiple Regression Analysis

As stated before, HMR was chosen because it allows for a theoretical and sequential testing of predictors. Two models were tested:

Model 1: Awareness, Attitudes, and Usage

This is the baseline model, which significantly predicted intention to misuse, $F_{(3,196)} = 18.24$, $p<.001$, accounting for 23% of variance ($R^2=0.23$). Attitudes ($\beta=-.26$, $p<.001$) and Awareness ($\beta=-2$, $p=.002$) were significantly negative predictors, while usage was not significant ($\beta=.07$, $p=.18$).

TABLE II. HIERARCHICAL MULTIPLE REGRESSION PREDICTING INTENTION TO MISUSE AI (N = 200).

Predictor	Model 1 β	Model 1 p	Model 2 β	Model 2 p
Awareness (AW)	−.21	.002	−.12	.04
Attitudes (AT)	−.26	<.001	−.14	.03
Usage (US)	.07	.18	.05	.31
Perceived Impact (PI)	—	—	−.31	<.001
Policy Awareness (PA)	—	—	−.27	<.001

Model 2: Adding Policy Awareness and Perceived Impact

By adding policy awareness and perceived impact the model is significantly improved, as shown in Table II, $\Delta R^2=.16$, $F_{(5,194)}=25.38$, $p<.001$, leading to increase the total explained variance to 39% ($R^2=.39$). Policy Awareness ($\beta =-.27$, $p<.001$) and Perceived Impact ($\beta=-.31$, $P<.001$) were the strongest predictors. Attitudes ($\beta=-.14$, $p=0.03$) and Awareness ($\beta=-.12$, $p=.04$) remained significant, and Usage also remained not significant ($\beta=.05$, $p=.31$).

B. Gender Differences

Female students (M=2.40, SD=0.85) reported lower intention to misuse than male students (M=2.94, SD=0.91), t= 5.12, p <0.001, while no significant differences were found in Awareness, Attitudes, or Policy awareness as shown in Table III:

TABLE III. INDEPENDENT SAMPLES T-TEST: GENDER DIFFERENCES IN INTENTION TO MISUSE (N = 200).

Gender	N	M	SD	t	df	p
Male	127	2.94	0.91	5.12	198	<.001
Female	73	2.41	0.87	—	—	—

C. Academic Level Differences

The one-way ANOVA differences examination (Table IV) in Awareness and Policy Awareness across the five undergraduate levels (Foundation, Year1, Year2, Year3, Year4/5) resulted:

- Awareness: Foundation Students had the lowest awareness, while Year4/5 had the highest [$F_{(4,195)}=7.12$, $p < .001$].
- Policy Awareness: year 4/5 students showed the highest policy awareness also [$F_{(4, 195)} = 5.78$, $p < .001$].
- No significant differences were found in attitudes (p=.24) or intention to misuse (p =.23).

TABLE IV. ONE-WAY ANOVA: ACADEMIC LEVEL DIFFERENCES IN AWARENESS AND POLICY AWARENESS (N = 200).

Variable	Source	df	F	p
Awareness (AW)	Between Groups	4	7.12	<.001
	Within Groups	195	—	—
Policy Awareness(PA)	Between Groups	4	5.78	.001
	Within Groups	195	—	—

V. FINDINGS

The results of the data analysis in this study reveal several significant and important insights regarding students' perspectives on AI usage and academic integrity. Correlation analysis (Pearson) showed that students' awareness about AI, their attitudes to use it and usage frequency are positively related to the perceived impact and policy awareness. On the other hand, intention to misuse AI tools was negatively correlated with awareness, perceived impact, and policy awareness, implying that students with a higher knowledge, stronger appreciation of AI educational benefits and appreciation of AI, and more understanding of institutional policies related to AI were less

likely engaged in unethical behaviors. These indicated the importance of students' knowledge and policy awareness as a defensive and protective factor against students' intentions towards academic misconduct in an AI-supported teaching/learning environment.

Hierarchical multiple regression analyses additionally explained the relative effect of different factors on students' intentions to misuse artificial intelligence. While the basic model, which included awareness, attitudes, and usage, reported a significant portion of the variance in intentions to misuse, emphasizing the role of general acceptance of technology.

On the other hand, the inclusion of perceived impact and awareness of policy factors in the second model significantly improved the explained variance from 23% to 39%, highlighting that ethical-related factors add significant predictive power. Particularly, perceived impact and awareness of policy factors emerged as the strongest negative predictors, while awareness and attitudes remained as a moderate predictive impact. Frequency of use retained a statistically insignificant. This pattern suggests that students' understanding of the ethical and educational implications of artificial intelligence, along with their familiarity with institutional policies, is more critical in discouraging misuse than merely their frequency of using AI tools or their general attitudes toward them.

Comparing gender groups indicated a significant difference; female students reported lower intentions to misuse AI than male students, while regarding attitudes, awareness, and policy knowledge, there were no significant differences among male or female groups. Based on the students' academic level Year4/5 students showed the highest awareness and policy understanding, and Foundation students had the lowest, reflecting the effect of cumulative exposure to institutional policies and guidelines and educational content over time. In summary, the findings raised the need for necessary interventions to enhance students' knowledge, ethical awareness, and adherence to institutional policies at the early stages of undergraduate education, particularly.

VI. CONCLUSION

This study investigated the factors influencing the undergraduate students' intention to misuse AI in the context of academic integrity within higher educational institutions in Oman, utilizing a cross-sectional survey collected from 200 students across different academic levels. Hierarchical multiple regression was used to isolate the predictive power of ethical and institutional variables.

The findings revealed that students' awareness of AI, attitudes toward using it, and their understanding of institutional policies significantly affect students' intention to misuse AI tools in their academic activities. Moreover, Policy Awareness and Perceived Impact (ethics-related constructs) were found to be highly significant and effective factors in reducing and predicting unethical behaviors. The findings also raised the need to integrate AI literacy, ethical educational usage, and clear AI-related policies into the institutional curriculum to promote and foster responsible ethical usage of AI technologies and tools.

Early interventions, particularly for foundation and first year students, should be prioritized by educational institutions to build students' awareness about educational and ethical implications of AI in the academic process. In addition, clear publishing, communication, and reinforcement of policies (academic integrity, AI usage, etc.) can act as an efficient and effective deterrent against AI tools misuse. Future research could be beneficial in exploring the longitudinal changes in the students' perceptions and behavior as they advance through academic levels, and to investigate the faculty role in guidance and institutional culture and environment in forming ethical AI usages. Finally, promoting the culture of ethical and responsible use of AI is very crucial in ensuring academic integrity in higher educational institutions in the age of smart and intelligent learning tools.

A. Recommendations

1) Integration of AI knowledge and ethics in the curriculum early: The findings of this study showed that students in the early years had the lowest AI awareness and policy knowledge, which means that Institutions need to integrate AI literacy workshops or classes and provide ethical guidance on AI usage in early stages of undergraduate education. In these sessions, the emphasis should be on both the educational potential of AI and the academic consequences of unethical practices, promoting a strong foundation for responsible AI use.

2) Enhance policy dissemination and implementation: As the findings of this study indicate that Policy awareness is a key predictor of reducing students' intention to misuse AI, based on that, higher educational institutions should ensure the clear communication of academic integrity policies, and ensure easy access and regular support. Training sessions, online tutorials, workshops, and policy reminders may be helpful in improving understanding and compliance among students.

3) Promote and evaluate the perceived educational value of AI tools: If the students understand the positive educational impact of AI tools, they will be less likely to misuse it. In this regard, the educators should explain practical applications of AI in the learning process, such as improving research skills, enhancing critical thinking, or supporting collaborative projects. Also, it is their responsibility to highlight the benefits of responsible use of AI tools, which could motivate the students to be ethically engaged with AI.

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